June 12, 2024

BLM Utah State Office
Attn; HQ GRSG RMPA
440 West 200 South #500
Salt Lake City, UT 84104

Comments submitted to: https://eplanning.blm.gov/eplanning-ui/project/2016719/510
Copy sent by email: BLM_HQ-GRSG_Planning@blm.gov

Paper copy with a thumb drive of all attachments and references sent by U.S. certified mail to address above.

Comments on the Greater sage grouse Draft Resource Management Plan Amendment/Draft Environmental Impact Statement (Draft RMPA/Draft EIS)

Dear Dr. Diebert and Mr. Bahr,

The following comments are being submitted by Advocates for the West, American Bird Conservancy, Center for Biological Diversity, Earthworks, Great Old Broads for Wilderness, Oregon Natural Desert Association, Prairie Hills Audubon Society, Public Employees for Environmental Responsibility, WildEarth Guardians, Western Shoshone Defense Project, Western Watersheds Project, and Western Wildlands Conservancy.

Many of our organizations have been engaged in this land use planning process since 2013 and have repeatedly, consistently, and clearly advocated for the Bureau of Land Management to follow the best available science and protect the greater sage grouse on the lands within the agency's purview.[1] The Bureau knows – and has known for decades now – what it needs to do to stop the declining trends of sage grouse populations and habitat on the acres it manages, but this Draft RMPA/EIS shows that, once again, the agency is willing to overlook meaningful change for the sake of political expediency. It is disappointing that, despite nearly another decade of

[1] BLM is proposing to retain and reaffirm many elements of the 2015 or 2019 RMPAs: "Management actions in the existing RMPAs that do not need to be changed to meet GRSG conservation goals will not be considered and will remain unaltered in the existing RMPs" (ES-2). We focus our comments here on plan elements BLM proposes to change. However, we hereby reiterate and incorporate by reference our prior comments concerning elements of the 2015 and 2019 plans that will remain unchanged (see Attachment A). We request that BLM consider a new or modified alternative that addresses these concerns. We also observe that BLM must adequately consider the environmental impacts of the unchanged plan elements in this DEIS, even if it is not proposing to alter them. We also reserve the right to raise any of the issues identified in earlier comments on any aspects of the plans that are retained in this planning process.

degradation in the Sagebrush Sea, the BLM's preferred alternative in the 2024 plan will not recover the sage grouse and its remaining habitat on 69 million acres of America's public lands.

The 2024 DEIS' purpose and need are not – as they were in 2015 – an effort to ensure adequate regulatory mechanisms and stave off listing under the Endangered Species Act. Because of interim legislation that prevents a listing determination for greater sage grouse, the Bureau is clearly operating in a different paradigm in 2024 than it was in 2015. Some of the undersigned groups litigated over the 2015 and 2019 plans as being insufficient, and the declining trends of sage grouse and the ongoing destruction of sagebrush habitat has demonstrated that we were correct in our assessment. However, even the 2015 plans are better than the 2019 plans and Alternatives 4, 5 and 6 that the Bureau has offered since, these all are successively weaker, with greater loopholes, exemptions, and waivers, limited enforceability, and fewer restrictions at each iteration. It is clear that the Bureau is no longer trying to prevent the listing of sage grouse under the Endangered Species Act through durable and meaningful protections; it's trying to merely do what it has to comply with court orders without wholesale abandoning grouse 'protection' of previous administrations. The current Preferred Alternative (Alternative 5) and Alternatives 1, 2, 4 and 6 do so little that they violate federal laws and policy designed to protect public lands resources.

The U.S. Geological Survey found that greater sage grouse populations have decreased significantly with an 80% rangewide decline since 1965, and 40% decline since 2002.[2] Greater sage grouse need large, unfragmented expanses of sagebrush. Yet the Sagebrush Sea continues to experience degradation, fragmentation and loss. Threats to sage grouse habitat – climate change, invasive species, and wildfires – are adding to the impacts of past and ongoing authorized uses such as oil and gas, livestock grazing, mining, habitat conversion as well as other development, that have already compromised the diversity and natural resilience of the sagebrush system. The USGS scientists recommend defendering the core and restoring the rest.[3] Yet that is the opposite of what Alternatives 1, 2, 4, 5 and 6 will do. Given the precipitous and ongoing population declines, management plans for sage grouse demand the most protective measures are required, not minimums. BLM has the responsibility and authorities to meet this demand.

Unfortunately, the new plans walk away from the Bureau's duty to save the species. The agency has changed the overarching goal of the RMPAs from,

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[2] Coates, P.S., Prochazka, B.G., Aldridge, C.L., O'Donnell, M.S., Edmunds, D.R., Monroe, A.P., Hanser, S.E., Wiechman, L.A., and Chenaille, M.P., 2023, Range-wide population trend analysis for greater sage-grouse (Centrocercus urophasianus)—Updated 1960–2022: U.S. Geological Survey Data Report 1175, 17 p., https://doi.org/ 10.3133/ dr1175. https://pubs.usgs.gov/dr/1175/dr1175.pdf

[3] Doherty, K., Theobald, D.M., Bradford, J.B., Wiechman, L.A., Bedrosian, G., Boyd, C.S., Cahill, M., Coates, P.S., Creutzburg, M.K., Crist, M.R., Finn, S.P., Kumar, A.V., Littlefield, C.E., Maestas, J.D., Prentice, K.L., Prochazka, B.G., Remington, T.E., Sparklin, W.D., Tull, J.C., Wurtzebach, Z., and Zeller, K.A., 2022, A sagebrush conservation design to proactively restore America's sagebrush biome: U.S. Geological Survey Open-File Report 2022–1081, 38 p., https://doi.org/ 10.3133/ ofr20221081. https://pubs.usgs.gov/of/2022/1081/ofr20221081.pdf

- "Maintain and *enhance populations and distribution of* GRSG by protecting and improving sagebrush habitats and ecosystems that sustain GRSG populations;
- Conserve, enhance, and restore the sagebrush ecosystem upon which GRSG populations depend in an effort to maintain and/*or increase their abundance* and distribution, in cooperation with other conservation partners;
- Maintain and enhance quality/suitable habitat to support the expansion of GRSG populations on federally-administered lands within the planning area;" (emphasis added).

to, "Conserve, enhance, restore and manage GRSG habitats to support persistent, healthy populations, consistent with BLM's Special Status Species Management Policy (BLM-M-6840) and in coordination and cooperation with state wildlife agencies. Habitat conservation and management should maintain existing connectivity between GRSG populations." (DEIS at 2-10.) Thus, it appears that the Bureau has dropped the goals of increasing abundance and distribution of GRSG populations, as well as the goal of expanding populations of GRSG within the planning area. The restatement of goals in 2024 takes the focus on the survival of the species and turns it instead to be specifically about conserving what is left of the birds' habitat, yet even that goal will not be achieved if Alternatives 1, 2, 4, 5 and 6 are adopted.

For PHMA, the Bureau's objective is to manage to minimize habitat loss and degradation. For IHMA, just to maintain habitat conditions. In GHMA, the objective is to maintain in accordance with the state agency designations. None of these objectives recognize that merely maintaining the highly fragmented, highly degraded, and largely destroyed sagebrush sea is not enough to recover sage grouse, and none of the analyses admit that use authorizations (such as oil and gas leases) are already underway that will undercut any goals of maintaining large expanses of functional habitat. The cumulative impacts of past, present, and reasonably foreseeable future actions will not meet even these modest goals of maintaining the status quo. Indeed, all alternatives with the exception perhaps of Alternative 3 will only slow the extinction of the species.

Given the ongoing declines of the species,[4] the compromises already in place, and the lack of protection on private land, the most protective alternative – Alternative 3 – is the only reasonable alternative that provides adequate regulatory mechanisms and meets the BLM's policy regarding special status species.

[4] https://www.usgs.gov/centers/werc/science/estimating-trends-greater-sage-grouse-populations-within-highly-stochastic

I. VIOLATIONS OF THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

A. The DEIS Contains Inadequate Information on Baseline Conditions and Trends

The Bureau has a NEPA duty to take a "hard look" at baseline conditions across the planning area. *See, e.g.*, *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1083-86 (9th Cir. 2011); *see also* 40 C.F.R. § 1502.15 (requiring an EIS to describe the "affected environment . . . including the reasonably foreseeable environmental trends and planned actions in the area(s)"). The DEIS fails to meaningfully evaluate or disclose baseline conditions and trends at a rangewide, statewide, population, or subpopulation scale. Although BLM has provided some superficial baseline information for greater sage grouse, *see* DEIS at 3-1 et seq., it consists mostly of background information on the species, summaries of research scientific research, generic statements (e.g., "Gene flow is greater") and a few isolated statistics that lack any context (e.g., current rangewide acres of current sagebrush cover without information on its geographic distribution or any historical data for comparison).

This is an immensely important planning effort that demands far greater baseline data collection and disclosure for the public to adequately understand the impact of the proposed alternatives, particularly on greater sage grouse, and context to assess how greater sage grouse and its habitat have fared under earlier plans, Alternatives 1 and 2. To facilitate informed public comment and agency decision making, we request that BLM disclose actual baseline data as to the following:

- Acres of habitat loss from both natural (e.g., fire, invasives) and human causes.
- Extent of habitat degradation and fragmentation
- Population and genetic connectivity
- Population numbers
- Lek counts
- Number of leks and their status
- Other seasonal habitat areas, including location/availability of winter habitat
- An evaluation of land health data from grazing allotments that includes whether the results reflect recent conditions or if the assessments are outdated

BLM must provide this information at every relevant geographic scale (rangewide, statewide, population level, and subpopulation) to allow meaningful analysis of sage grouse needs, conditions, and trends in specific regions. Absent such information, it is unclear how the public or decision makers can meaningfully analyze the effects of the proposed alternatives.

BLM must also provide this baseline data over the longest time horizon possible to provide context as to current conditions and allow the public and agency decision makers to identify trends and their causes.

Such information should be within BLM's possession. To the extent it is not, BLM has a duty to collect such information under 40 CFR 1502.21 (pertaining to "Incomplete or Unavailable Information"), because it is relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives, and the overall costs of obtaining it are not unreasonable.

The Bureau's own FLPMA regulations also require collection of this and other "resource, environmental, social, economic and institutional data and information." 43 CFR § 1610.4-3; *see also* 43 CFR § 1610.4-4 (requiring an "analysis of the management situation," including inventory data and information).

B. The DEIS's Analysis of Impacts to Sage Grouse is Vague and Cursory

The sections below describe problems particular to individual sections of the DEIS. As a general matter, however, the DEIS fails to take a hard look at the impacts of the various alternatives on greater sage grouse. Section 4.2 begins with a generic discussion of the types of impacts that could occur, which tells the reader nothing about how the proposed alternatives differ in their impacts. The subsequent sections purport to describe the impacts of each alternative but largely just summarize the management measures for each resource, concluding with a perfunctory statement about impacts, such as that a plan element would "protect GRSG," would "reduce disturbance," or would "decrease the potential for impacts" or vague relative statements such as one alternative "could allow more development" than another alternative. The reader is not told what these conclusions are based on; the nature of the impacts; or the degree of increase or decrease.

This is not the hard look NEPA demands. NEPA's hard look standard requires agencies to provide "quantified or detailed information" and "[g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.'" *See Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993–97 (9th Cir. 2004); *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 865 (9th Cir. 2004). BLM has not provided any justification here as to why the DEIS must be so vague. Accordingly, we request that BLM provide quantified or detailed information on the impacts of each alternative on greater sage grouse, including projections of the acres of habitat loss, degradation, and fragmentation; the ability of the species to tolerate this degree of habitat disturbance; the degree of sage grouse behavioral disturbance that may result; the impacts on bird survival or reproduction, nest success and chick survival; the impacts on lek and population persistence/viability; and the impacts on genetic connectivity. BLM must discuss the intensity of impacts using quantitative data wherever possible. BLM must also include a frank discussion of the likelihood of each alternative resulting in lek and population extirpation in particular regions; the resulting impacts on the "three r's" (resilience, redundancy and

representation); and the probability of continued rangewide population declines for the entire species. BLM must also provide far more context to its discussions, describing the area or location in which the impacts will occur, linking those discussions to baseline conditions in that area, and describing the ultimate effect on sage grouse habitat or populations in that area. Without that type of hard look, it is unclear how BLM or the public can meaningfully assess the alternatives under consideration or options to avoid them.

BLM has also improperly focused its analysis on the impacts of new implementing decisions, failing to meaningfully analyze the effects of the proposed alternatives on *existing* and ongoing projects that might be altered in ways that reduce sage grouse protections. BLM must consider and disclose how, for example, if and how the new lek definitions, HMA boundaries, lek buffers, waivers/modifications/exceptions, and other proposed plan changes might increase the impacts of projects that have been authorized but not yet completed. Anthropogenic disturbance is a strong predictor of lek extirpation (Wann et al 2023), but the DEIS fails to accurately account for the past, present, and reasonably foreseeable anthropogenic impacts of its existing management regimes.

C. The DEIS Lacks Clarity

The DEIS is exceedingly difficult to read and understand, hamstringing public participation and affecting meaningful analysis. As mentioned in the opening paragraphs of this letter, our organizations have participated in all of the sage grouse RMP amendment processes, and this iteration was by far the hardest to understand. Important information such as state compensatory mitigation programs were not even included (or at least we could not find them). This violates NEPA's letter and spirit of disclosure and public participation, along with BLM's obligation "provide for public involvement" in the land-use planning process. 43 C.F.R. § 1601.0-8; *see also* 43 CFR § 1610.2(a).

D. The DEIS fails to identify the need for change, or cite new science/information supporting the many of the proposed changes. Further, continued GRSG population declines strongly suggest that more, not less protection is needed.

BLM has failed to provide a reasoned explanation for decreasing sage grouse protections or for disregarding and contradicting factual findings which underlay its prior plans, in violation of the APA. *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009) (requiring agency to acknowledge and explain the change, and if the "new policy rests upon factual findings that contradict those which underlay its prior policy," agency must include "a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy."). Relatedly, BLM has failed to use and follow the best available science on greater sage grouse, violating its obligations under NEPA and FLPMA.

BLM seems to claim in an appendix to the DEIS that the NTT Report and COT Report no longer represent the best available science on sage grouse needs, or else that it did not need to apply the best available science of the NTT Report, only to consider it, and that the Plans comply with the COT Report. See DEIS at 6-1 to 6-4. These statements are incoherent and inaccurate; sage grouse habitat needs have not changed since 2011, nor has our scientific understanding of those needs, nor could the implementation of State plans alter sage grouse biology. BLM's failure to apply the science-based recommendations set forth in the NTT Report was an error in its 2015 Plans that carried over in the 2019 Plans and persists in the rationalizations set forth in the DEIS now.

It bears repeating that the purpose of undertaking the National Sage Grouse Planning strategy was not to impose a set of measures that everyone could live with. It was developed to address the US Fish and Wildlife Service's finding that the sage grouse was warranted (but precluded) for listing. The BLM and Forest Service's planning document stated, "Greater sage grouse conservation is urgent."[5] The purpose of the strategy was to ensure populations and habitats are maintained or improved and that habitat loss is minimized.. The NTT Report set forth science-based protections recommended to protect sage grouse from the effects of activities shown to be harmful to the species and its habitat. The reasons BLM gives for departing from NTT's recommendations seems to indicate that BLM's motivation in this planning effort is not to implement protections the sage grouse needs, but rather to loosen restrictions on activities known to harm the species.

Also demonstrating the political purpose of the Plan revision process, BLM seems to argue that its intention to align management of federal lands to state plans is required to comply with FLPMA. The DEIS quotes selectively (and incompletely) from FLPMA, claiming that FLPMA directs BLM to "resolve, 'to the extent practical, inconsistencies between Federal and non-Federal government plans.'" DEIS at 6-3 (quoting 43 U.S.C. § 1712(c)(9)). These partial quotes mischaracterize BLM's responsibilities under FLPMA, which directs:

> In implementing this directive, the Secretary shall, to the extent he finds practical , keep apprised of State, local, and tribal land use plans; assure that consideration is given to those State, local, and tribal plans that are germane in the development of land use plans for public lands; assist in resolving, to the extent practical, inconsistencies between Federal and non-Federal Government plans...Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act.

[5] National Greater Sage Grouse PlanningStrategy, January 2012. https://eplanning.blm.gov/public_projects/lup/31652/38560/40460/Scoping_Meeting_Conservation-508_Greater_SG_Conservation_Scoping_8.pdf

43 U.S.C. § 1712(c)(9). BLM must only develop its land use plans to be consistent with State plans "to the extent...consistent with Federal law and the purposes of [FLPMA]" and must only resolve inconsistencies between Federal and non-Federal Government plans "to the extent practical." *Id.* As we have explained, repeatedly, in previous comments and Court filings, aligning BLM's approach with the States' is not "practical" or "consistent with Federal Law and the purposes of" FLPMA because it departs drastically from what the best available science shows is necessary to protect sage grouse. In 2015, both BLM and FWS determined that the alternatives favored by certain States, "did not incorporate adequate regulatory mechanisms . . . to conserve, enhance, and restore [greater sage grouse] and its habitat." BLM has provided no rational explanation for why it now believes that these weaker, inadequate plans are suddenly adequate to conserve sage grouse populations, nor has it consulted with the USFWS on this point. If the purpose of the sage grouse plan amendments is to provide adequate habitat protections on Federal lands to prevent sage grouse from needing protection under the ESA, BLM must implement the measures that science shows are required.

BLM makes much of the assertion that the NTT prescribes conservation measures that are applicable rangewide, and are not tailored to local conditions or political preferences. DEIS at 6-1 to 6-2. This is because NTT recommendations are based on the best available science, whereas politics are bound to influence local decision-making more so than science. The habitat requirements of sage grouse do not differ substantially from state to state, or from county to county. Sage grouse require large tracts of undeveloped sagebrush habitat, everywhere throughout their range. Sage grouse are sensitive to industrial activity, and are disturbed and displaced by it, everywhere throughout their range. The large majority of sage grouse nest within 4 miles of the lek site, everywhere throughout their range (and this has been shown in habitats as disparate as the cold deserts of western Wyoming (Holloran et al. 2005), the mixed-grass prairies of the High Plains in the Dakotas (Kaczor et al. 2011), and the hot deserts of Nevada (Coates et al. 2013)). Sage grouse require at least 7 inches of grass height (10.2 inches in the far eastern end of their range) for hiding cover to maximize their nest success and ability to escape predation, and this has been demonstrated definitively from the shortgrass prairies in northeastern Wyoming (Doherty et al. 2014) to the arid deserts of the Great Basin in Oregon (Gregg et al. 1994). These minimum grass height objectives need to be an enforceable standard that is applied annually as a term of use for every livestock grazing lease.

The burden of proof is on the BLM if they wish to show a scientific basis for altering protection measures from region to region, but there is no such scientific basis. Instead, BLM seeks only to defer to the desires of certain state and local governments, and industry lobbyists, to minimize sage grouse protections to levels that would be more profitable for local, politically influential industries, but detrimental to sage grouse according to the best available science. The habitat requirements of sage grouse do not differ significantly, rangewide, and it is therefore inappropriate for sage grouse habitat protection thresholds to differ rangewide.

BLM's various arguments that NTT should not apply because it does not factor in other policy considerations or BLM guidance is nothing more than a list of excuses. For instance, the existence of other BLM authorities governing designation of areas as unsuitable for coal mining does not preclude BLM from adopting NTT's suggestion that PHMAs should be designated as unsuitable, it only provides a process for doing so. Id. at 6-2; See also 43 U.S.C. § 1712(a) ("Land use plans shall be developed for the public lands regardless of whether such lands previously have been classified, withdrawn, set aside, or otherwise designated for one or more uses."). And, BLM's emphasis on applying the "least restrictive constraints" on oil and gas leasing to achieve the resource protection objective ignores that constraints in State plans like Wyoming's and others are not achieving the resource protection objective of preserving sage grouse, which is why stronger protections are necessary to prevent further population declines. *Id.* BLM's suggestion in responding to the NTT Report that policy considerations should dictate which sage grouse protections are applied – not science – is the overarching reason why BLM's land-use plans are failing to adopt adequate protections for the sage grouse. *Id.*

In addition to arbitrarily downplaying the importance of the NTT Report, the DEIS contains a misleading analysis of why the 2015 and 2019 amendments are supposedly consistent with the COT Report. DEIS at 6-5. But the COT report was primarily focused on identifying threats to the sage grouse, not on undertaking a comprehensive review of the scientific literature (as NTT did) nor recommending measurable sage grouse protections based on that science to be applied in land-use plans (as NTT did). Simply complying with the COT Report (to the extent the Plans do) is not enough – the plans must also implement the protections identified by NTT.

BLM must reconcile the long history of the best available science demonstrating sage grouse's habitat needs with the inadequacies of the proposed plans (except for Alternative 3), and the BLM must consider all of the recent science that further delineates the species' needs.

E. The DEIS Fails to Take a Hard Look at Key Issues

The DEIS fails to consider important aspects of key issues, leading to faulty and incomplete analyses of the following topics.

1. Lek definitions

The Bureau has failed to take a hard look at the impacts of its new lek definitions. Appendix 4 of the DEIS compares the new definition of a "lek" as provided by WAWFA to the existing definitions in the earlier RMP amendments. But it does not provide any analysis of how many leks are affected by this change, i.e. whether leks are included or excluded by the new definition, or the impacts to leks which will lose or gain protections as a result. This is a direct effect of this change, and it must be analyzed and disclosed in the EIS.

2. Lek buffers

There is a need to provide lek buffer distances that are adequate based on the biological needs of sage grouse to protect not just breeding activities on the lek, but also nesting and brood rearing habitats surrounding the lek and buffers for seasonal habitats including winter habitat.

In most states, BLM is proposing to retain the lek buffer distances established under the 2019 ARMPAs, which are 3.1 miles for roads, energy infrastructure, and surface disturbance; 2 miles for towers and transmission lines, 1.2 miles for fences and low structures, and 0.25 mile for noise, per the lower end of Manier et al. (2014) interpreted range. However, it is entirely unclear what function those distances will serve in implementing decisions. The 2019 ARMPAs for states like Utah, Colorado, and Nevada and California replaced language from the 2015 ARMPAs that BLM "will apply" buffers with a commitment only to "evaluate" or "assess" impacts within those distances. Those 2019 ARMPAs also stated that Appendix B from the 2015 ARMPA, pertaining to buffers, would not be carried forward. Confusing matters, Appendix 2 of the DEIS here variously suggests that Appendix B from the 2015 ARMPA will be carried forward, will be changed, or will not be changed. *See* DEIS App. 2 at 2-UT-70; 2-BILLINGS-14; 2-HILINE-13; 2-LEWISTOWN-23; 2-ND-20; 2-NVCA-91.

It is thus entirely unclear to the undersigned commenters, and presumably other members of the public, if and how Appendix B from the 2015 ARMPAs will continue to apply and whether Alternatives 1-6 here would prohibit BLM from approving actions within the applicable lek buffers or simply require analysis of impacts within those buffers. The lek buffers are an incredibly important conservation tool for this species. We therefore ask BLM, to avoid any confusion, to clarify in this planning process that Appendix B of the 2015 ARMPA would be included under every alternative considered here and that BLM must actually prohibit development within the buffers, not just analyze impacts within them.

We also request that BLM provide a clear summary of the lek buffer requirements—the distances, their applicability to BLM decisions, and the exception criteria—that would apply in each state going forward. It is unreasonable to ask the public to do archive research of disjointed plan requirements and appendices spanning three iterations of plan amendments across nine states to determine how lek buffers would apply going forward. This lack of clarity hamstrings our ability to meaningfully comment on this important issue and violates NEPA.

We also ask BLM to reconsider the exception criteria for lek buffers adopted under the 2019 ARMPAs. For example, the 2019 ARMPAs state that "Justifiable departures to decrease or increase from these distances from the lek where impacts are anticipated, based on local information and data, best available science, landscape features (i.e., topography), and other

existing protections (e.g., land use allocations, state regulations), or factors reducing visibility and audibility may be appropriate." This gives the agency unlimited discretion to apply lesser lek buffers at a whim, with no limitations. E.g., NV-CA 2019 ARMPA at B-1. In Colorado, there are no mandatory lek buffers, but the application of lek buffers (and setting distances) would be "evaluate[d]" at the project stage, NW CO 2019 ARMPA at 2-3, and the Manier et al. (2014) lek buffers would come into play only in determining whether to count surface disturbance against disturbance caps. NW CO 2019 ARMPA at Appendix H-2. This provision is echoed in the Utah ARMPA, UT 2019 ROD and ARMPA at 48, along with "justifiable departures" loopholes, UT ARMPA at Appendix B-1. The Oregon and Wyoming 2019 ARMPAs did not amend lek buffers, and as there were no 2019 ARMPAs for Montana plans or the Dakotas, lek buffers from 2015 control for these plans except as amended here.

BLM states, "There is no single buffer distance that would be appropriate for all populations and habitats across the range of GRSG (Manier et al. 2014). Lek buffers are generally used to conserve breeding and nesting habitats and are developed and applied as a uniform tool used in the lack of more accurate local information." DEIS at I-8. Manier et al. (2014) present an "interpreted range" of 3.1 to 5 miles for surface disturbing activities; the Wyoming lek buffer distance of 0.6 mile falls well below this interpreted range, meaning that this buffer distance is clearly inappropriate based on the science and clearly inadequate for sage grouse conservation. This is a major problem that should be addressed fully in the 2024 ARMPAs, but this necessary correction does not appear to be implemented, or even represented in the range of alternatives.

BLM states, "Since the prior planning efforts there has been no publication that reviews research related to buffer sizes and provides broad recommendations for buffers to be applied throughout the range. In the absence of new literature, and because local conditions and strategies drive the role of lek buffers in avoiding and minimizing disturbance, there is no rationale to reconsider use of lek buffers across the range." DEIS at I-9. To the extent that the 2015 and 2019 ARMPAs contain lek buffers for some states that were not scientifically supportable in 2015 or 2019, they remain scientifically unsupportable today and must therefore be reformed. Where there is not new literature, existing literature remains relevant and a minimum interpreted range of 3.1 to 5 miles for surface disturbing activities should be applied.

The DEIS states Wyoming and Montana/Dakota ARMPAs apply a 0.6-mile buffer around leks, or less (e.g., 0.25 mile in GHMA, DEIS at 2-16). However, our review of some of the ARMPAs and continuing population decline and habitat fragmentation and loss indicate that a more protective lek buffer of 5 miles should apply. This is the higher end of the range recommended by Manier, needed to reverse GRSG trends. E.g., North Dakota RMP revision at Appendix B-1. In Colorado, lek buffers of 1 mile are applied in several alternatives including the agency's Preferred Alternative. DEIS at 2-130. In Idaho, GHMA lek buffers would be reduced from 2.0 Miles to 0.6 miles for surface disturbance in unspecified categories. DEIS at Appendix 19-2.

Males use shrubs <1 km (0.6 mi) from a lek for foraging, loafing, and shelter (Rothenmeier 1979, Autenreith 1981, Emmons and Braun 1984); this does not make 0.6 mile the appropriate NSO buffer for preventing impacts even to breeding birds, much less nesting birds; these researchers did not test the buffer distance required for loafing males to prevent their displacement from the lek environs. There is no scientific study that has ever demonstrated that a 0.6-mile NSO buffer prevents significant impacts to sage grouse at the breeding, nesting, or brood-rearing stage. Apa et al. (2008, emphasis added) reviews the best available science by a team of state sage grouse biologists, and states,

"Yearling female greater sage grouse avoid nesting in areas within 0.6 miles of wellpads, and brood-rearing females avoid areas within 0.6 miles of producing wells. This suggests a 0.6-mile buffer around all suitable nesting and brood-rearing habitat is required to minimize impacts to females during these seasonal period." This report further clarifies, "These suggest that all areas within at least 4-miles of a lek should be considered nesting and brood-rearing habitats in the absence of mapping."

Given that most nesting activity occurs within 8.5 km (5.3 miles) of the lek (Holloran and Anderson 2005), a 5.3-mile lek buffer restricting surface-disturbing activities would be most scientifically defensible for Wyoming and other states. Greater sage grouse can no longer afford protective mechanisms at the low end of the range. BLM acknowledges the 3.1-mile minimum buffer for surface disturbance, but then applies lesser buffers regionally, stating

> "in Nevada and California, 95% of all nests are within 3.1 miles of leks (Coates et al. 2013), and in Wyoming, 64% of nests within 3.1 miles of leks (Holloran and Anderson 2005). In some populations, hens may nest further from leks and a 3.1-mile buffer would protect fewer nesting birds from a given lek. In Idaho, less than 50% of GRSG hens nest within 1.9 miles and 80% within 6 miles from leks where they were captured (Connelly et al. 2013)."

DEIS at Appendix 19-9. According to Apa et al. (2008), "Buffer sizes of 0.25 mi., 0.5 mi., 0.6 mi., and 1.0 mi. result in estimated lek persistence of 5%, 11%, 14%, and 30%." In 2013, BLM itself concluded, "Studies have shown that greater distances, anywhere from two to four miles, are required for viable Greater sage grouse populations to persist." 2013 Wyoming Greater sage grouse RMP Amendment DEIS at 4-335. For these reasons, the application of a 0.6-mile lek buffer is arbitrary and capricious, violates BLM Sensitive Species Policy, and will drive further population declines in Core Areas that will contribute to the need to protect the greater sage grouse under the Endangered Species Act.

The changes in lek definitions and buffers creates an incomprehensible crazy-quilt of habitat protections, the impact of which BLM must analyze to facilitate meaningful public comment and

agency decision making. In Idaho, for example (see DEIS at Appendix 19-10), lek buffer changes would mean lands protected from new transmission lines would increase from 12% of IHMA to 19% of IHMA. Lands protected from communication towers and meteorological towers would decrease from 25% of IHMA to 19% of IHMA. Lands protected from minor linear features (e.g., gravel roads) would decrease from 72% of PHMA to 28% of PHMA. Lek buffer decreases for surface-disturbance other than energy, transmission, linear features, and communication/met towers would decrease from 5% of GHMA to 1% of GHMA. The overall trend in habitat protections appears to be downward, even in the face of continued major decreases in sage grouse populations under the 2015 ARMPAs. The Idaho results in Appendix 19 report almost identical numbers of active leks under the original definition (males strutting 2 of last 5 years) and the new definition (males strutting 2 of last 10 years). How is this possible, with a lower bar to qualify as an "active lek"? Further explanation is warranted. In addition, under the lek definition, how is an absence of lek survey effort treated? For any year where there is no effort to survey a lek, that lek should be treated as having strutting males that year, under the precautionary principle.

In Utah, MA-SSS-1 allows managers to identify areas of non-habitat (including pinyon-juniper woodland and cheatgrass monoculture) to prioritize exceptions for industrial project siting. DEIS at 2-19. This is a deeply problematic provision, because industrial sites and their access roads have impacts that can extend 1.9 miles into surrounding habitats (Holloran 2005), depopulating these adjacent habitats of sage grouse over a 2- to 10-year period (Walker et al. 2007, Harju et al. 2010). This provision should be explicitly eliminated from the ARMPA, and foregoing provisions allowing for development in nonhabitats within lek buffers should also be explicitly removed in this ARMPA.

3. Disturbance Caps

The BLM is changing the unit at which surface disturbance is measured from Biologically Significant Units (BSU) to the Habitat Assessment Framework Fine Scale (HAF) and project scale to avoid "diluting" the analysis due to large areas that also contain non-habitat. DEIS at 2-28.

The Bureau claims to have analyzed the relative impact of the change from the BSU- to the HAF-level scale when estimating disturbance, and that the outcomes of the percentage disturbance were essentially the same in Wyoming and Idaho. They do not disclose the analysis at the HAF scale. The DEIS proposes to relax implementation of disturbance caps relative to current management, but fails to analyze the effectiveness of current disturbance caps or consider whether greater restrictions on disturbance are warranted. *See* DEIS at 2-34 to 2-39. Although the DEIS attempts to minimize the importance of surface disturbance caps, the best available science indicates that disturbance caps provide vital protections for greater sage grouse. Knick et al. (2013) found that 99% of active leks across the western half of the sage grouse's range were

surrounded by lands with 3% or less human development; with the vast majority of birds selecting habitat with much less disturbance. Accordingly, the NTT Report provides clear guidance on the necessary limit of surface disturbance in priority sage grouse habitat:

> Manage priority sage‑grouse habitats **so that discrete anthropogenic disturbances cover less than 3% of the total sage‑grouse habitat regardless of ownership**. Anthropogenic features include but are not limited to paved highways, graded gravel roads, transmission lines, substations, wind turbines, oil and gas wells, geothermal wells and associated facilities, pipelines, landfills, homes, and mines. [emphasis added]

(NTT 2011:7-8).

In priority habitat exceeding the 3% disturbance cap, the NTT Report instructed that "no further anthropogenic disturbances will be permitted by BLM until enough habitat has been restored to maintain the area under this threshold (subject to valid existing rights)" (NTT 2011: 8). Monitoring reports indicate that disturbance has not yet reached 3% in most areas. Importantly, birds do not select habitat equally across varying disturbance levels within this <3% disturbance range. A closer look at the data shows that there are few populations in areas with greater than 1.5% disturbance. Given the concerning population declines and habitat loss by fire and cheatgrass invasion – and in light of improved understanding of how climate change is affecting and may affect sage grouse habitats – we believe the disturbance caps need to be reassessed and lowered.

Existing studies demonstrate that a lower disturbance cap is warranted. According to Knick et al. (2013), about 78% of leks were in the 0 to 0.5% developed category, while less than 10% of leks were in areas with greater than 1% development. The BLM and U.S. Forest Service recently implemented a 1.5% disturbance cap for the Pine-Nut Mountains population of bi-state sage grouse based on the best available science. *See* Greater sage grouse Bi-state DPS Forest Plan Amendment, Record of Decision (2022).[6]

Kirol at al 2020, looked at sage grouse response to energy development and found similar relationships with surface disturbance for nesting and brood rearing areas. This study found 91% of nests were in areas with <3% press disturbance. Press disturbance is defined as ongoing disturbance after the initial pulse disturbance (e.g. sagebrush removal). However, the preponderance of nests—70%—were located in habitats with 0-1% press disturbance Importantly, in areas with <1% press disturbance, the frequency of nest locations was greater than available habitat. But when press disturbance exposure reached 1-2%, the frequency of available habitat exceeded the frequency of nest locations. Brood rearing locations exhibited the same trend with the frequency of available habitat surpassing the frequency of brood-rearing

[6] https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd649478.pdf

locations when press disturbance exposure reached 1-2%. These figures bring to light that grouse exhibit significantly higher preferences for surface disturbance rates in the 0-1% range with far fewer grouse selecting areas with disturbance in the 2% to 3% range.

Importantly there may be a 10-year lag time between the disturbance and the effect on grouse (Harju et al. 2020). This could be the reason populations continue to decline. Maintaining 3% and even 5% surface disturbance rates without factoring in the lag time for full effects to manifest will lead to further population declines.

Alternatives 5 and 6 allow for 5% disturbance at the project level for Wyoming and Montana that includes wildfire and agricultural disturbance. DEIS at 2-29. A level of disturbance with known deleterious effects. Yet, the DEIS provides no scientific support for allowing this high level of disturbance or presents an analysis of effects from this level even if it does include wildfire and agricultural conversions. BLM was correct to recognize that wildfire and agricultural conversion should be included in a disturbance cap, but not by raising the cap to an arbitrarily high level that birds cannot tolerate and for which there is no scientific justification. Anthropogenic disturbance caps should be reduced to 1.0-1.5%. Wildfires, agricultural conversion and residential development should be included in the <3% cap, where anthropogenic disturbance is limited to 1.0-1.5%.

The DEIS failed to include an adequate range of alternatives that analyzed lower disturbance caps.

Reassessment should have started during this NEPA process by disclosing current levels, types, and spatial distribution of surface disturbances including disturbance measurements across land jurisdiction categories (e.g., BLM, Forest Service, state, private), as well as the methodologies used to calculate disturbance. Disturbance calculations should account for areas where cheatgrass invasion and wildfire have substantially reduced sagebrush habitat, as well as areas of concentrated disturbance due to livestock grazing, such as around water sources. These disturbances should be included in the calculation for the disturbance cap. Assessing the disturbance cap at the HAF fine scale rather than the larger BSU scale is a step in the right direction. Calculating disturbance also at the neighborhood cluster scale would provide a relevant scale to assess surface disturbance and population trends. Subdivisions and urban development in Montana should be included at the HAF Fine Scale given the high level of threat these developments represent. Alts 5 and 6 would not count subdivisions or urban development in MT at the HAF Fine Scale. DEIS at 2-30.

Further, the BLM is likely underestimating the disturbances for mining and future drilling from existing oil and gas leases. That is because the BLM only counts development towards the disturbance cap when a mine or oil and gas well is developed. They do not include estimates in

the disturbance cap monitoring reports authorizations for oil and gas leases sold or mining claims filed. Since BLM cannot say no to the development of a locatable mining claim they should assume a high end scenario that mining claims will be developed and count those future mines toward the disturbance cap. Further, the Bureau admits that mine disturbances are usually larger than the estimated disturbance buffer, which suggests that the disturbance cap might actually be exceeded if the agency were to use disturbance calculations of the mines' actual footprints rather than estimates. The EIS should analyze and disclose this potential miscalculation of impacts to sage grouse and their habitat.

Similarly, the reasonable foreseeable development (RFD) scenario for oil and gas leases likely understates potential surface disturbance that BLM has already authorized. The RFD scenario for oil and gas discounts the number of not yet developed federal leases by 75% (e.g. those not held by production) citing a GAO report 21-13844. However, this discounted number could significantly understate future disturbance if a higher percent of these leases are developed. The RFD also failed to calculate and disclose the resulting disturbance percent even using the low estimate of oil and gas development from the RFD. The BLM should assume that all leases with medium and high oil and gas potential, and a percentage of low oil and gas potential will be developed at some point and incorporate those estimates into their baseline disturbance estimates. Failing to do so could result in exceeding disturbance caps with limited recourse to avoid further degradation of greater sage grouse habitat because too many use authorizations would have been approved.

In an effort to assess the effectiveness of current management, the undersigned groups used GIS data to analyze the amount of surface disturbance permitted under current management. We attempted to recreate surface disturbance monitoring done by the BLM using the methodology described in the Rangewide GRSG Monitoring Report (2014) using publicly available data layers. We conducted the analysis for Wyoming PHMAs, using the HAF Fine Scale and Targeted Annual Warning System, neighborhood cluster data layers (Coates et. al 2024). This analysis includes wildfires burned since 2016 using wildfire perimeter data, but does not include developed mines as we were not able to access mine data, or mining claims. See Attachment D for data sources.

The maps below show that at the HAF fine scale (Figures 1 and 3) and neighborhood cluster scale (Figures 2 and 4), many acres of PHMA are between 3-4.99%. Some areas exceed 5%.

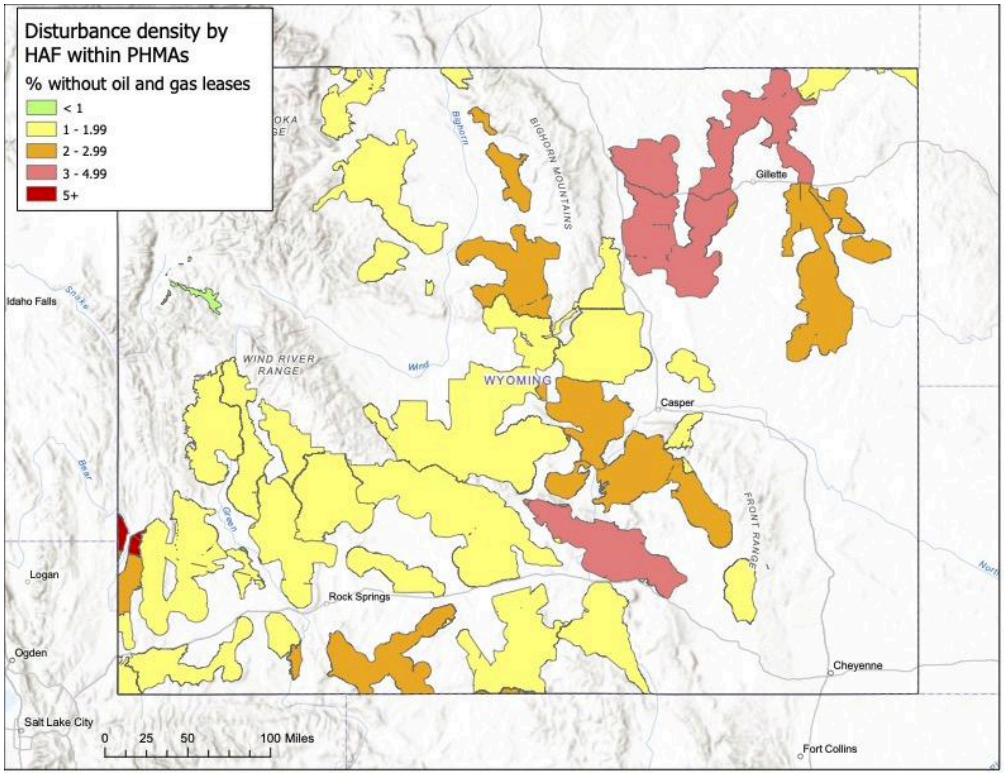

Figure 1. Disturbance density by HAF scale within Wyoming PHMAs without oil and gas leasing.

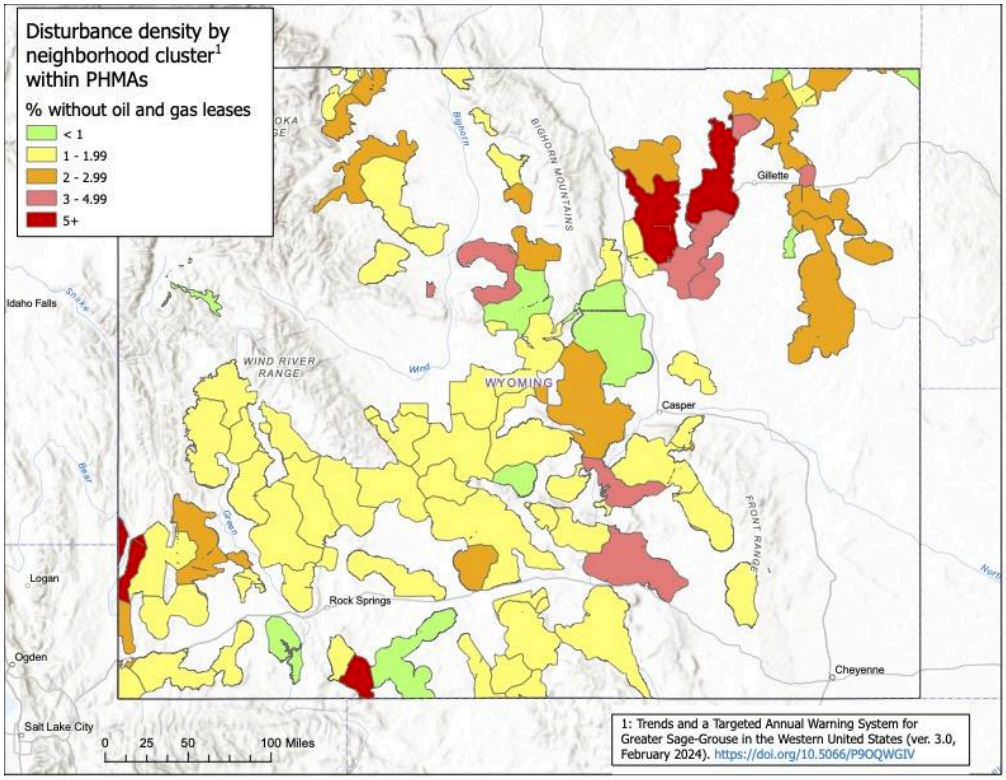

Figure 2. Disturbance density by neighborhood clusters in Wyoming PHMA without oil and gas leases.

Because we believe that disturbance cap monitoring is undercounting oil and gas leases as well as mining impacts, this analysis includes an estimate of future development for oil and gas leases sold. We assumed 25% of oil and gas leases sold since 2016 would be developed, the same percent BLM uses in the RFD. We assumed that half of the area of each lease would be developed. We did not have the data to parse out which leases sold have been developed/or have been partially developed, so we recognize that this estimate could overstate surface disturbance from oil and gas leases. We wanted to demonstrate that in addition to the need to lower the current disturbance caps, that the methodology BLM uses should be revised to include a high-end estimate (worse-case scenario) of potential disturbance from approved authorizations.

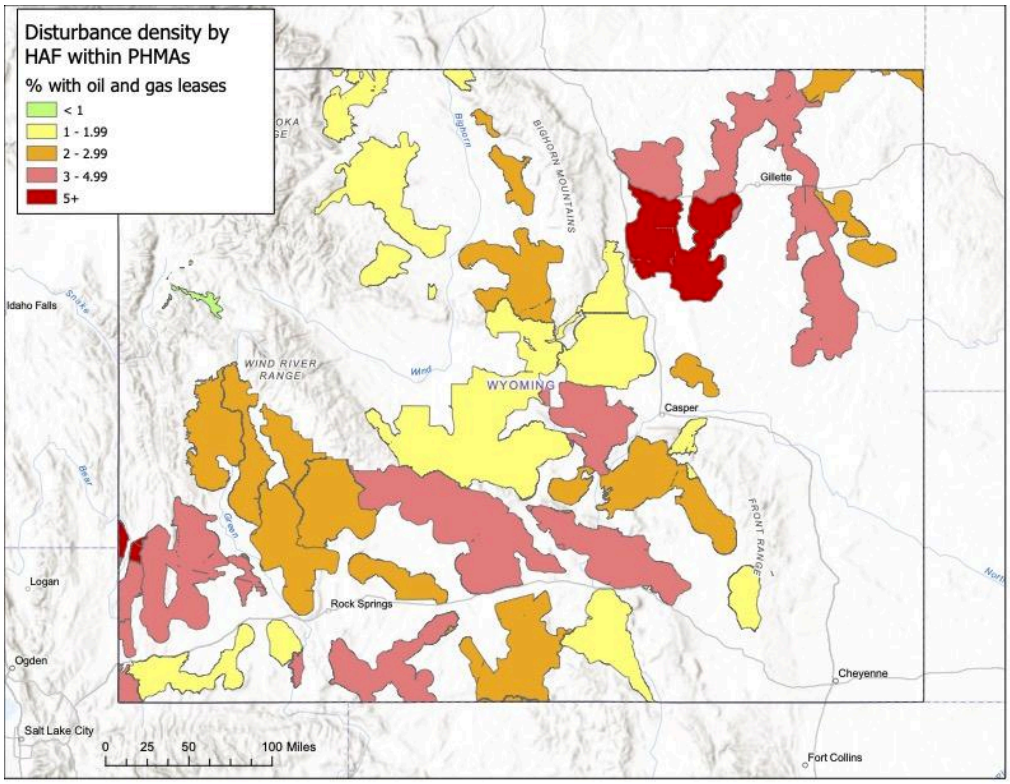

Figure 3. Disturbance density by HAF within Wyoming PHMA with oil and gas lease estimate

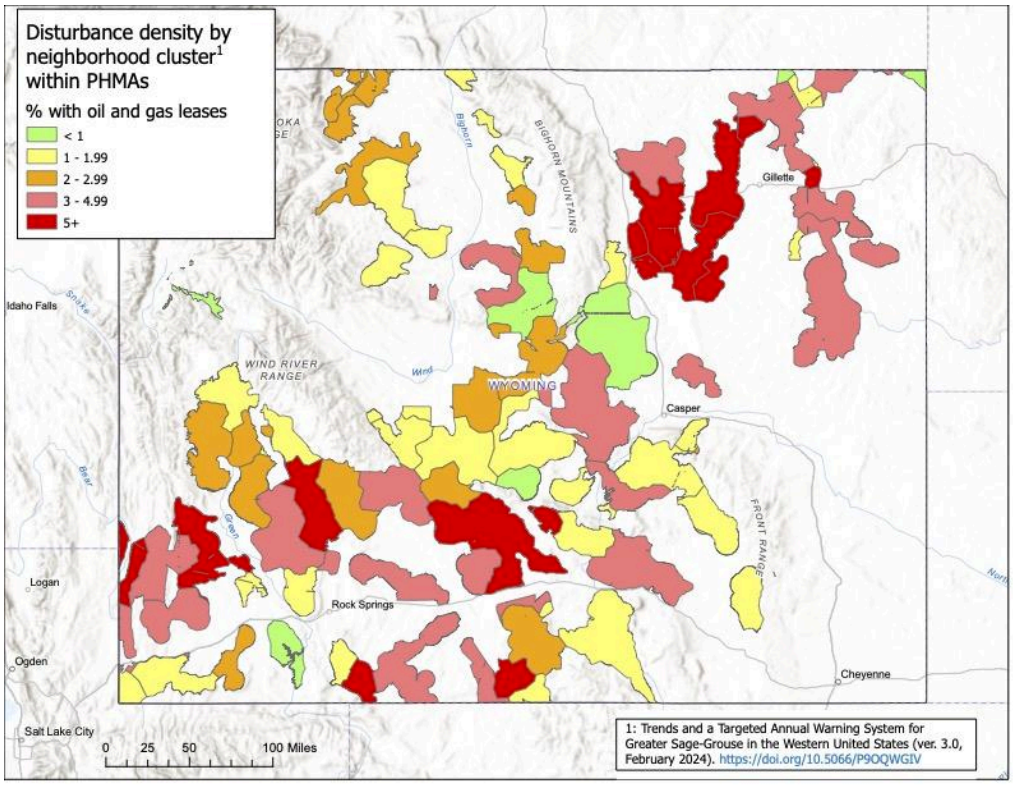

Figure 4. Disturbance density by neighborhood cluster in Wyoming PHMA with oil and gas lease estimate.

4. Grazing

The DEIS states that "well-managed public lands grazing done in accordance with the laws that guide livestock management… can be compatible with GRSG persistence." (DEIS at 2-103). Unfortunately, the Bureau has failed to demonstrate that it can manage grazing well in GRSG habitat, or that any of the current action alternatives would achieve this baseline. (We note too that "persistence" is an insufficient goal for a species that needs to be recovered.)

The DEIS has apparently jettisoned habitat objectives entirely as it pertains to livestock grazing and instead relies on Land Health Standards to evaluate the impacts of grazing on sage grouse habitat. Compare, *e.g.* Alt 1 with Alts 4-6 on pages 2-104, *et seq*. Whereas the 2015 plans required that permit terms and conditions include or be adjusted to include both land health standards and habitat objectives (2-105), the preferred alternative simply states that the Bureau should *consider adjustments to meet or make progress towards meeting Land Health Standards*. (Emphasis added.) The Land Health Standards for GRSG "would *generally* be met when vegetation conditions provide for suitable or marginal habitat for GRSG habitat at the HAF site scale based on existing ecological condition, ecological potential, and existing vegetation information." (DEIS at 2-106, emphasis added.)

This change then flips the habitat objectives – the goals for grazing management in GRSG habitat – on their head by using the state's current conditions to indicate habitat *suitability* rather than establishing management goals. Indeed, the quantitative limits in Appendix 8 are "Habitat *Indicators*" that are to be adjusted based on the site potential. These numbers are "derived from local and regional research on GRSG habitat selection," (i.e. habitat conditions where sage grouse are persisting) rather than the optimum conditions for sage grouse to thrive and recover (according to the science and biological needs of grouse). The indicators will be used to inform a part of the assessment which is a part of the LHS but will not include specific habitat objectives as a term or condition of the permit in conformance with the LUP. The Preferred Alternative (and Alts 2, 4, 5, and 6) have eliminated habitat objectives (which were included in the earlier plans) – that direct what grazing management should comply with. Instead, BLM has replaced clear science-based objectives with general indicators of what habitat that could be used by sage grouse might generally look like, whether or not those areas are, in fact, already degraded by the prevailing land uses and whether or not grouse populations are trending downward under those conditions.

The Bureau fails to explain the inconsistencies in the Habitat Indicators Tables (Appendix 8).

Stiver et al. (2015) recommended greater than 18cm (7-inches) grass height for all breeding and nesting habitats, and explicitly stated that this and other established measures should not be altered unless scientific evidence indicates that the 7-inch threshold is inappropriate. Despite the

widespread, long-standing, and consistent scientific support for standard metrics for grass height and other habitat objectives (e.g., Hagen et al. 2007, Doherty et al. 2014), the states' adjusted plans vary widely and often fall short of what has been scientifically demonstrated grouse need for nesting and brood-rearing.

The Bureau walks back from the scientific recommendations about grass height by relying instead on doubts around the methodology. DEIS at 3-2. But as we've pointed out to the Bureau multiple times in previous comments, though Smith et al. (2018) reanalyzed previous studies and found a limited effect of grass height on nest success, the study admits that concealment is important for nest success and that the height of grasses may be more important in context of surrounding vegetation communities. Where the authors attempt to diminish the significance of the grass height parameter in nest success, they also admit that vegetation structure might relate to other parameters of fitness such as insect abundance (Id.). Therefore, because grass height remains a determining factor or a proxy indicator of health, it seems premature for the BLM to dismiss the habitat objectives that require maintaining 18 cm in breeding habitat. Gibson et al. (2016) admits that conditions that are present at the time of nest failure are, in fact, important to the concealment strategies of ground-nesting birds, and while taller vegetation may be an artifact of seasonality with successful nests, the inverse relationship of shorter vegetation and failed nests cannot be dismissed.

However, rather than rely on the scientific consensus about the importance of grass height, the Bureau provides variable habitat objectives across the range of the species. For example, the DEIS fails to provide a quantitative benchmark for grass and forb height in nesting habitat in Utah, stating instead that it should simply "provide overhead and lateral concealment from predators." (DEIS at 8-18) The plan cites Stiver et al 2015 (which recommends a minimum of 7 inches), Connelly et al 2000 (which recommended a minimum of 18 cm), and Dahlgren et al 2019, which had significantly lower numbers than either of the other two studies. Dahlgren et al. (2019) recommends grass heights between 9 and 12 cm based on observations of breeding habitat in Utah but fails to discuss the success rate of the nests where this was monitored. Indeed, Dahlgren et al. admits that the most desirable process for developing habitat guidelines would "incorporate a relationship of habitat characteristics to population vital rates." The sage grouse population in Utah has been on a long-term decline. (*See* UDWR 2023) The recommendation of the DEIS is that specific height requirements will be set at the time of watershed assessments, which sounds a lot like the Bureau will be maintaining the status quo (and population declines) rather than seeking to adhere to the best science.

In the NV/CA habitat indicators, the agency cites Coates et al. (2017) to set the grass height as 12 cm (4.7 inches) in arid habitats and 18cm (7-inches) in mesic habitats in Nevada. (DEIS at 8-14). By the researchers' own admission, the findings of Coates et al. (2017) constituted a

preliminary assessment, inadequate to support grass height standard changes in the Nevada ARMPA:

> "Herein, we provide summary statistics regarding numerous microhabitat factors that influence site selection and success of nests and broods specifically to meet timely and best-available science needs for land managers and policy-makers. Current information in the literature is sparse and the summary statistics reported here are uniquely suited to fill this important information gap in a timely manner. The findings reported here are meant to provide land and resource managers with an initial understanding of the relative importance of habitat variability, and provide a foundational framework for deriving habitat quality categories. Future research will use a rigorous modeling approach to further investigate potential complex relationships between biotic and abiotic microhabitat characteristics and incorporate other environmental factors that function at larger spatial extents."

Importantly, these researchers never returned to the issue to perform the "rigorous modeling approach" necessary to underpin changes to sage grouse habitat objectives in an RMP amendment, and these interim "summary statistics" are inappropriate to rely upon to set standards for sage grouse habitat criteria. Importantly, Coates et al. (2017) measured grass heights in a manner inconsistent with the line-intercept protocol which is the basis for grass height calculations in the ARMPAs. This means that grass heights derived through the HAF are not comparable to grass heights calculated by Coates et al. (2017).

The more important problem with Coates et al. (2017) is that it focused on grass heights selected by sage grouse, NOT grass heights that optimize nest success. In those study sites in Nevada characterized as "xeric" in this study, selected habitats averaged 4.9 inches height while "available" habitats averaged 4 inches. There were apparently few to no habitats with grass heights greater than 7 inches for the grouse in these areas to select. However, Coates et al. (2017) did not examine the site potentials for grass heights by measuring vegetation in livestock grazing exclosures. In arid parts of Nevada (and other areas as well), grazing by cattle can reduce grass heights to levels detrimental to sage grouse survival and reproduction. In the absence of any available adequate nesting habitat (based on grass height criteria), sage grouse can be expected to select the best of what's left behind, which is what Coates et al. (2017) shows. That does NOT make the selected grass heights optimal—or even adequate—for long-term sage grouse population viability. BLM should be managing sage grouse habitats to a higher standard than today's usual and customary overgrazing by cattle and sheep, and apply the 7-inch grass height objective throughout Nevada (and the rest of sage grouse range).

Western Watersheds Project undertook its own analysis of sage grouse habitat's potential to support the vegetation objectives of the 2015 plans by gathering data in five western states to

determine if ungrazed sagebrush communities could meet the perennial grass and sagebrush habitat objectives for greater sage grouse nesting and brood-rearing requirements identified by the 2015 plans. See WWP 2019. Thirty-five exclosures in sage grouse PHMA were evaluated, and the majority of exclosures throughout the study area attained the 2015 objectives for perennial grass cover and height. This demonstrates that if grasses can achieve their full potential and set seed, the GRSG parameters for this functional group can be met in the absence of livestock grazing (most exclosures only excluded domestic animals, not wildlife). Despite this, the Bureau has consistently weakened the plans' requirements.

The Bureau's analysis of livestock grazing states, "Livestock have also been observed not to impact nest success of GRSG at current grazing levels (Bartholdt 2023)." (DEIS at 3-32) As cited, Bartholdt is linked to an internet website for the University of Idaho "feature story" about research that has not yet been published. *See* https://www.uidaho.edu/news/feature-stories/sage grouse-ten. The online article doesn't include information about what "current levels of cattle grazing" are, making the cite in the DEIS completely baseless nor is there evidence the study was peer-reviewed. Until there is a peer-reviewed paper with substantive data about the impacts of grazing, this alleged result cannot be credibly cited.

Figure 5. A sage grouse on the Pacific Creek allotment in Wyoming, demonstrating the importance of tall grass for hiding cover. Photo WWP, E. Molvar, 2023.

Table 3-6 (DEIS at 9-4) reports on the Land Health Standards of allotments with at least 15 percent PHMA and claims that 53.17 percent of the allotments are meeting or making significant progress towards meeting the Land Health Standards. Making significant progress towards meeting is not, in fact, any guarantee that the sage grouse habitat is in good shape, just that some aspect of the (usually entirely qualitative) monitoring is "trending upward." Without actual recent data, the Bureau should not be making claims about the rangeland health of sage grouse habitat. See Figure 6. The Bureau also cannot rely on outdated land health evaluations to determine whether grazing is a causal factor when triggers are tripped; the influence of grazing on population or habitat declines must be based on concurrent conditions, not years-old analysis of land health.

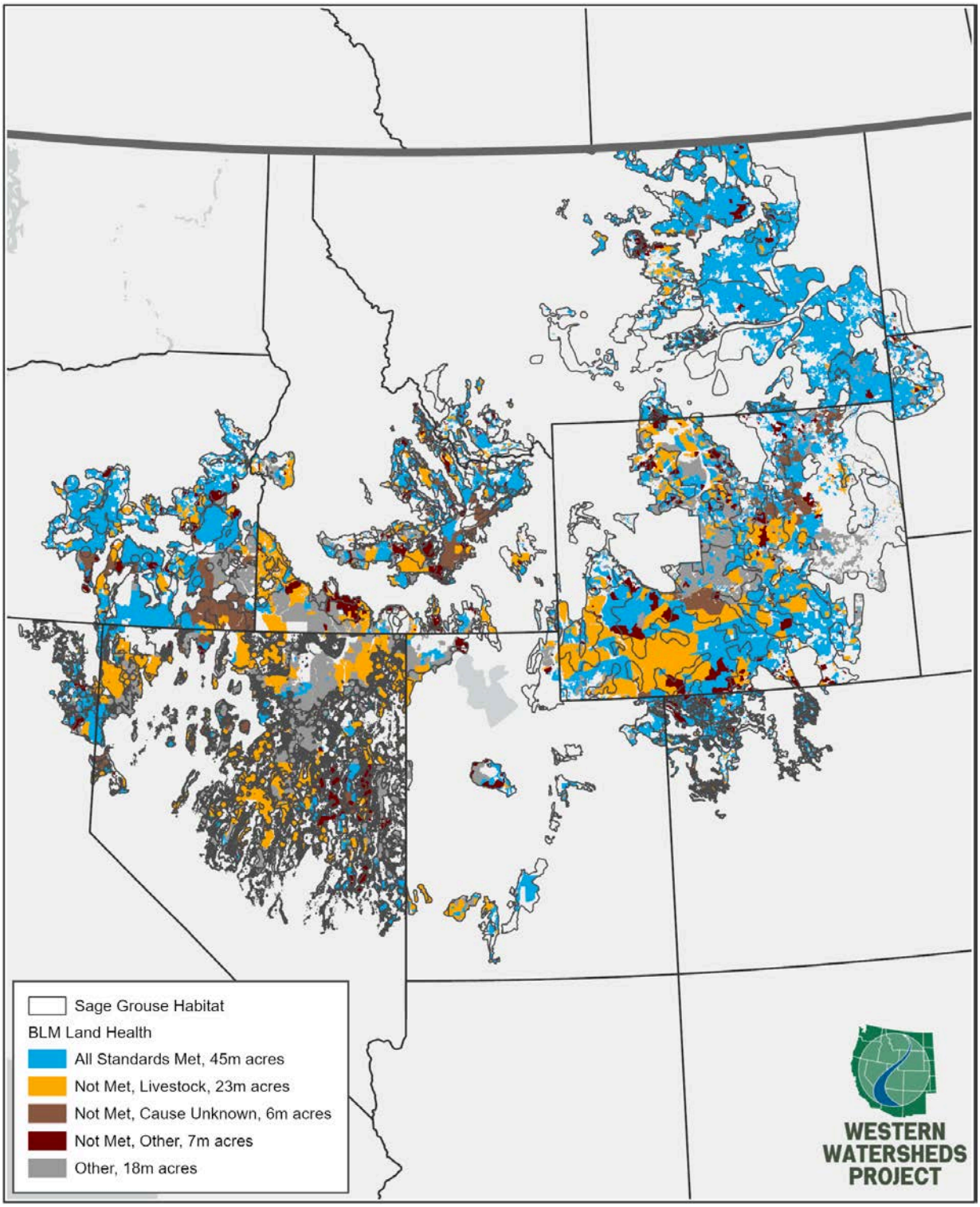

Figure 6. Map of grazing allotments by Land Health Status within sage grouse habitat. Note that this does not mean that the evaluations are current, or have even been completed in the last decade, but rather if they have *ever* been done.

The DEIS says "grazing management has been improved by a variety of actions." (DEIS at 3-31) "Improved" from when? What? This statement doesn't make any sense as it stands now. Is the Bureau claiming that the terms and conditions in grazing leases have been changed for the sake of sage grouse management, and that the habitat conditions have improved? Please provide examples. We know of very few grazing permit terms and conditions that have changed, and, in fact, most grazing permits are being renewed under FLPMA 402(c)(2) without changes to terms and conditions. Western Watersheds Project's recent analysis of grazing permit renewals suggests that 68 percent of active allotments in PHMA have been renewed using this "rubberstamp" – and without a site-specific NEPA analysis – through 2023. This is actually a 7 percent increase over the percentage being rubber-stamped in 2021. (In what was previously designated as SFA, the percentage of rubber-stamped non-NEPA permit renewals has reached 80 percent.) See Figure 7.

The analysis of the effects of Alternative 1 (and Alt 2) to livestock grazing operations (see DEIS 4-68 et seq.) fails to discuss that the prioritization scheme discussed in the 2015 RMPAs and adopted in 2016 was superseded by IM 2018-24. *See* Attachment C. It is unclear what the "No Action" alternative would be in this case, since it is unclear if the prioritization schemes identified in the 2015 RMPAs would be readopted. It is also worth evaluating whether the Coates et al (2024) models of extirpation for neighborhood clusters should be factored into new prioritization schemes (i.e. grazing should be addressed as soon as possible in places where leks are trending downward the fastest).

The Bureau's Management Action RM-1 under Alts 4-6 is premised on the completion of grazing authorization renewals, allotment management plan development, or other implementation level planning to adjust grazing regimes. The Bureau has been advised, time and time again, of this indefinitely deferred protection from unsustainable grazing in sage grouse habitat and yet, the current DEIS provides no backstop or timeline for addressing this problem.

The DEIS states that temporary adjustments to grazing use are permissible under the regulations (DEIS at 2-105), but does not mandate these adjustments pending completion of new permits.

The Bureau's preferred alternative weakens the accountability of the agency in providing a NEPA analysis that includes an alternative with a threshold and response for grazing when habitat conditions are not being met or in high priority allotments (DEIS at 2-107). Alternative 4 uses the imperative "shall include" but the preferred alternative weakens this requirement to "should consider including." By failing to require this in the range of alternatives, the Bureau is tying its own hands for a rapid response to deteriorating conditions or changed circumstances in the future.

The Bureau misrepresents the responsibility of fencing out federal range to livestock in its analysis of Alternative 3. (DEIS at 4-72). It is the responsibility of the livestock owner to ensure

against trespass on closed federal range. See, e.g., Shannon v. United States, 160 F. 870 (9th Cir. 1908), U.S. v. Shenise, 43 F.Supp.2d 1190 (D. Colorado 1999).

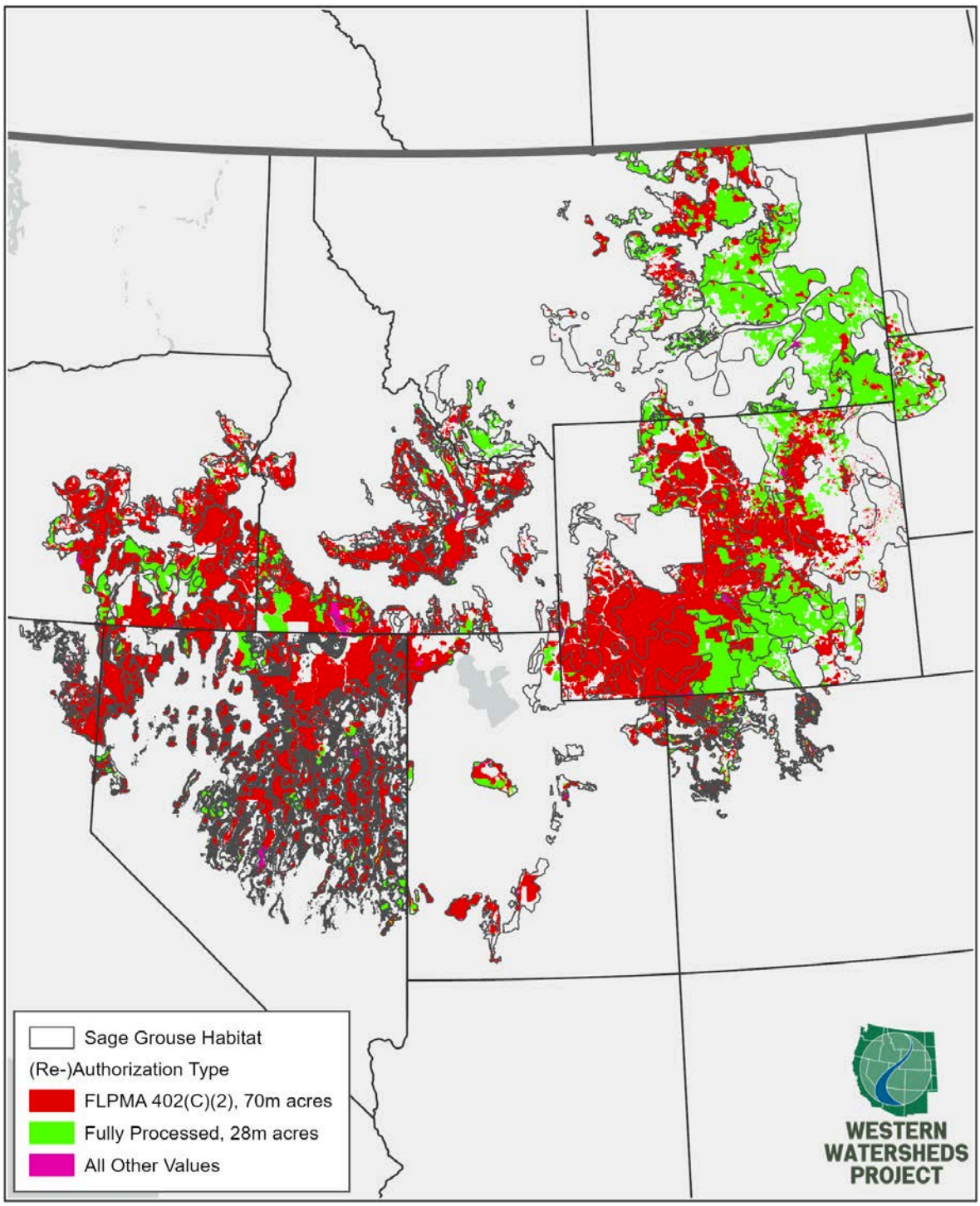

Figure 7. Map of grazing allotments in sage grouse habitat according to whether they have had NEPA done during permit renewals. Note that even DNAs count as completing NEPA, and that some of these allotments have been renewed using the renewal rider of the 402(c)(2) provisions more than once.

Finally, under all of the alternatives, the Bureau discusses using "targeted grazing" as a fuel reduction technique without a hard look at the reality of this method. See DEIS at 2-170. We offer our comments, attached as references, for the agency's consideration in evaluating this technique. *See* WWP et al 2020.[7]

5. Forbs/annual vegetation

Although sage grouse are a sagebrush-obligate species, forbs provide a greater nutritional benefit compared to sagebrush (Freese 2009; Rosentreter 2005; Barnett and Crawford 1994). In the DEIS, the Bureau states, "The availability of forbs is an essential component of a pre-laying hen's diet (Barnett and Crawford 1994; Connelly et al. 2000; Gregg et al. 2008). In Nevada, greater forb diversity and higher plant species richness were small-scale habitat factors associated with brood success (Casazza et al. 2011)." (DEIS at 4-8).

Despite the Bureau's acknowledgment of the importance of forbs, the Land Health Standards for percent forb cover are too low in some states. In North Dakota, for example (see DEIS at Appendix 8-5), the benchmark percentage forb cover for breeding and nesting habitat is greater than 5%, whereas Herman-Brunson et al. (2009) found that sage grouse nest sites in North Dakota had an average total forb cover of 15.4%. Similarly, in Utah (see DEIS at Appendix 8-18), the Bureau's benchmarks are 2-4% forb cover for breeding and nesting habitat and 2-6% for brooding-rearing habitat. These values are far below what Bunnell et al. (2004) found in Strawberry Valley, Utah, where sage grouse selected nesting sites with an average of 11% forb cover and brood-rearing habitats with 16% forb cover. The same is true in Idaho, where the DEIS forb cover benchmark for breeding and nesting habitat is only 3% and no benchmark is provided for brood-rearing (see DEIS at Appendix 8-7), while Wik (2002) found an average of 16% forb cover in these seasonal habitats in Owyhee County, Idaho.

Furthermore, in certain states the Bureau fails to provide separate benchmarks for forbs and annual grasses even though these vegetation types play distinct roles in the needs of sage grouse. For example, in Idaho (see DEIS at Appendix 8-4), the Bureau provides just one combined benchmark for "perennial grass and forb cover" at 15%. While perennial grasses and forbs both offer protective cover for chicks (Hagen et al. 2011), forbs have an additional dietary importance in their high protein contribution (Blomberg 2013), and should be managed separately.

[7] While these comments refer to a specific programmatic EA for targeted and prescribed grazing in Nevada, we believe that they provide generally relevant considerations for the Bureau here, including relevant scientific references that could inform the hard look this DEIS is lacking.

Brood success has been linked to habitat selection indices, including forbs, in brood-rearing sage grouse (Casazza et al. 2011). Forbs are an essential component of the pregravid diet due to their high levels of calcium, phosphorus, and protein, which aid in preparing hens for egg production (Innes 2016; Hagen et al. 2011; Gregg et al. 2006). sage grouse hens with access to better food resources exhibit superior body conditions, leading to significantly higher brood success rates compared to those in poorer condition (Blomberg et al. 2013). Additionally, early brood-rearing habitat selection is crucial since newly-hatched chicks have limited mobility, and chicks need a high-protein diet rich in forbs and invertebrates associated with forbs to mature rapidly (Smith et al. 2020; Blomberg 2013).

A significant contributor to sage grouse population declines has been decreased annual recruitment due to inadequate brood-rearing habitats (Smith et al., 2020; Wirth & Pyke, 2013; Atamian et al., 2010). In some landscapes, both historic and current livestock grazing have resulted in forb depletion, where grazing reduces seed production, eventually depleting the seedbank over time (Street, 2020; Gioria & Pysek, 2016; Rosentreter et al., 2004).

By providing forb cover benchmarks that are below what sage grouse have been shown to select for breeding and brood-rearing sites, and by grouping forbs and annual grasses under the same benchmark, the DEIS fails to adequately manage seasonal habitat factors that improve the success of both laying hens and chicks. The survival, breeding, and brood-rearing success of adult females are crucial for the population viability of sage grouse making the protection and restoration of their breeding and brood-rearing habitats a paramount part of halting and reversing population declines (Taylor et al. 2012; Johnson & Braun 1999). The Bureau's Land Health Standards should reflect a prioritization of the protection and restoration of breeding and brood-rearing habitats, with a particular emphasis on increasing the availability of forb and insect foods (Copeland et al. 2024; Aldridge & Boyce, 2007).

6. Cheatgrass/Fire/Livestock cycle

BLM provides an abbreviated and woefully incomplete assessment of the state of cheatgrass infestations in sage grouse habitats. DEIS at 3-4, 3-16. While the agency correctly summarizes some key impacts of cheatgrass invasion, its assessment omits the key role that chronic heavy livestock grazing – as authorized by BLM itself – has played and is still playing as a factor initiating and/or amplifying cheatgrass invasions. Heavy grazing by commercial livestock is the leading driver for cheatgrass establishment and expansion and the livestock-cheatgrass-fire cycle (Molvar et al. 2024) is driving sage grouse habitat losses through elimination of sagebrush and replacement of sagebrush-bunchgrass native ecosystems with cheatgrass-invaded shrublands or monocultures. Importantly, fire is NOT the direct cause of cheatgrass spread, as healthy sagebrush-bunchgrass communities that burn return to bunchgrasses, not cheatgrass (Wroblesky and Kauffman 2003, Chambers et al. 2007; photos in Molvar et al. 2024: 28, 31).

The Bureau also misrepresents the effect of the removal of grazing on fine fuels and offers only one side of the potential outcome. Where the DEIS says, "The elimination of livestock grazing *may* increase the potential for large and severe wildfires as fuel loads increase in the absence of managed grazing…" (emphasis added), it has forgotten to describe the reduced likelihood of cheatgrass infestations in the absence of livestock disturbance, thereby potentially reducing the threat of large and severe wildfires. DEIS at 4-73.

BLM asserts that targeted livestock grazing can reduce fine fuels, citing Diamond et al. (2009)(DEIS at 4-8), but neglects to point out that the treatment applied by these researchers was 80-90% removal of aboveground biomass. Unfortunately, due to the abundance of cheatgrass seed production, acknowledged elsewhere by the agency (and see Meyer and Leger 2010), and the buildup of cheatgrass seeds in the soil bank (Humphrey and Schupp 2001, Smith et al. 2008), grazing at this heavy level also would remove native bunchgrasses (preferentially), destroy biological soil crusts, and therefore lay the groundwork for even greater cheatgrass infestations the following year. BLM grazing permits do not authorize 80-90 forage utilization in the intermountain West, because this level of overgrazing causes severe damage to soils and vegetation (not to mention sage grouse habitat). The idea of targeted grazing for cheatgrass reduction should therefore be rejected in the EIS, a scheme with potential to reduce fire risk while eliminating native bunchgrasses and destroying sage grouse habitat effectiveness in the near term, at the expense of increased fire risk and invasive weed dominance (and therefore lowered sage grouse habitat effectiveness) in succeeding years. To its credit, BLM acknowledges the value of native bunchgrasses in preventing cheatgrass establishment, citing Reisner et al. (2013). DEIS at 4-8.

BLM concedes that sagebrush habitats with low resistance and resilience to invasion are at special risk (DEIS at 3-9), but fails to identify livestock grazing as a principal factor in causing this depression of resilience and resistance. Karl and Chambers (2019, Figure 7.2) identify livestock as an ecological switch in Wyoming big sagebrush habitats, triggering the transition between a grazing-resistant state and an eroded state primed for cheatgrass invasion as follows: "Perennial grasses and forbs are eliminated and sagebrush increases with high density/frequency grazing by cattle, resulting in altered biotic, hydrologic, and soil function. This state is at-risk to invasion by annuals such as cheatgrass, especially after a stand-replacing, sagebrush killing event." The agency correctly identifies that the number and size of annual grass infestations is increasing at present (DEIS at 3-17), an indicator that present livestock grazing stocking rates are continuing to contribute to the spread of invasive annuals.

BLM acknowledges that livestock grazing can have major impacts to biological soil crust (DEIS at 3-61), but omits the fact that biological soil crust has a preventative effect on cheatgrass germination (see Reisner et al. 2013, cited in DEIS). A large body of science demonstrates that chronic and heavy livestock grazing degrades biological soil crusts and eliminates native

perennial bunchgrasses, providing ideal conditions for cheatgrass invasion (Molvar et al. 2024). Rigge et al. (2024) document the steady increase of annual herbaceous cover (led by cheatgrass, but also including *Ventenata* and medusahead wildrye) over the past 30 years, concomitant with the steady decline of sagebrush. See Figure 8. The expansion of invasive annual grasses over recent decades demonstrates conclusively that current land-use decisions continue to drive cheatgrass expansion, rather than this expansion being an artifact of overgrazing that occurred decades ago.

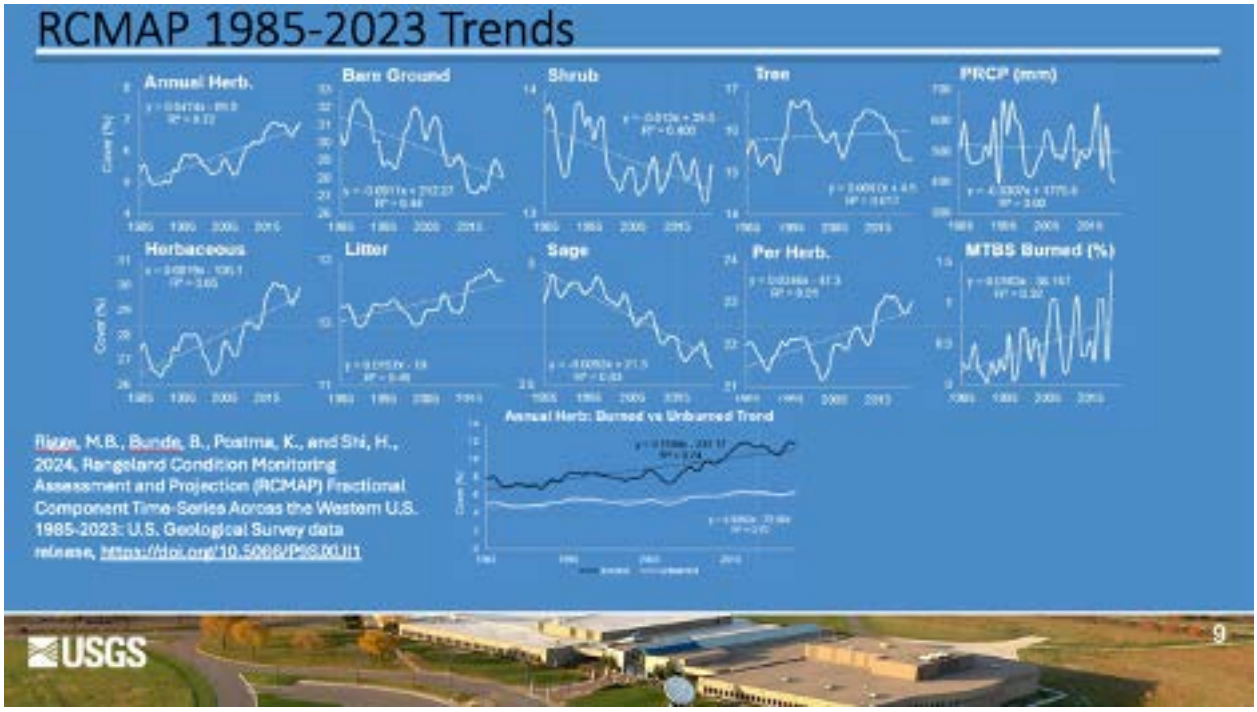

Figure 8. RCMAP results illustrating increase in cheatgrass and decline in sagebrush over recent decades (Rigge et al. 2024).

BLM mischaracterizes natural fire return intervals in sagebrush habitats as 32-70 years while characterizing cheatgrass-mediated fire as having a fire-return interval of 5 years per Pellant (1996)(DEIS at 4-200). This is far too short a fire-return interval for sagebrush steppe. Fire was an uncommon occurrence in sagebrush habitats in pre-settlement times, with natural fire return intervals in Wyoming big sagebrush average 100-240 years (Baker 2007). Indeed, the agency's earlier sage grouse 2013 ARMPA DEIS pointed out, "In the absence of cheatgrass, Wyoming big sagebrush sites can take 150 years to recover." 2013 ARMPA DEIS at 608.

7. Wild Horses and Burros

The DEIS analysis of the impacts of wild horses on sage grouse is deeply flawed. While the DEIS mentions wild horses and burros, we are unaware of any wild burro HMAs within greater sage grouse range.

BLM asserts that wild horses increase cheatgrass abundance. DEIS at 2-113. BLM cited Beever et al. (2008), which examined the effect or removing wild horses from habitats with little or no cattle grazing, and found that at high elevations, horse removal resulted in a consistent decrease in cheatgrass abundance over two years, versus an inconsistent response at low elevations, and overall the result was statistically insignificant (and therefore no valid conclusions can be drawn for this variable, although other variables yielded statistically significant results in this study).

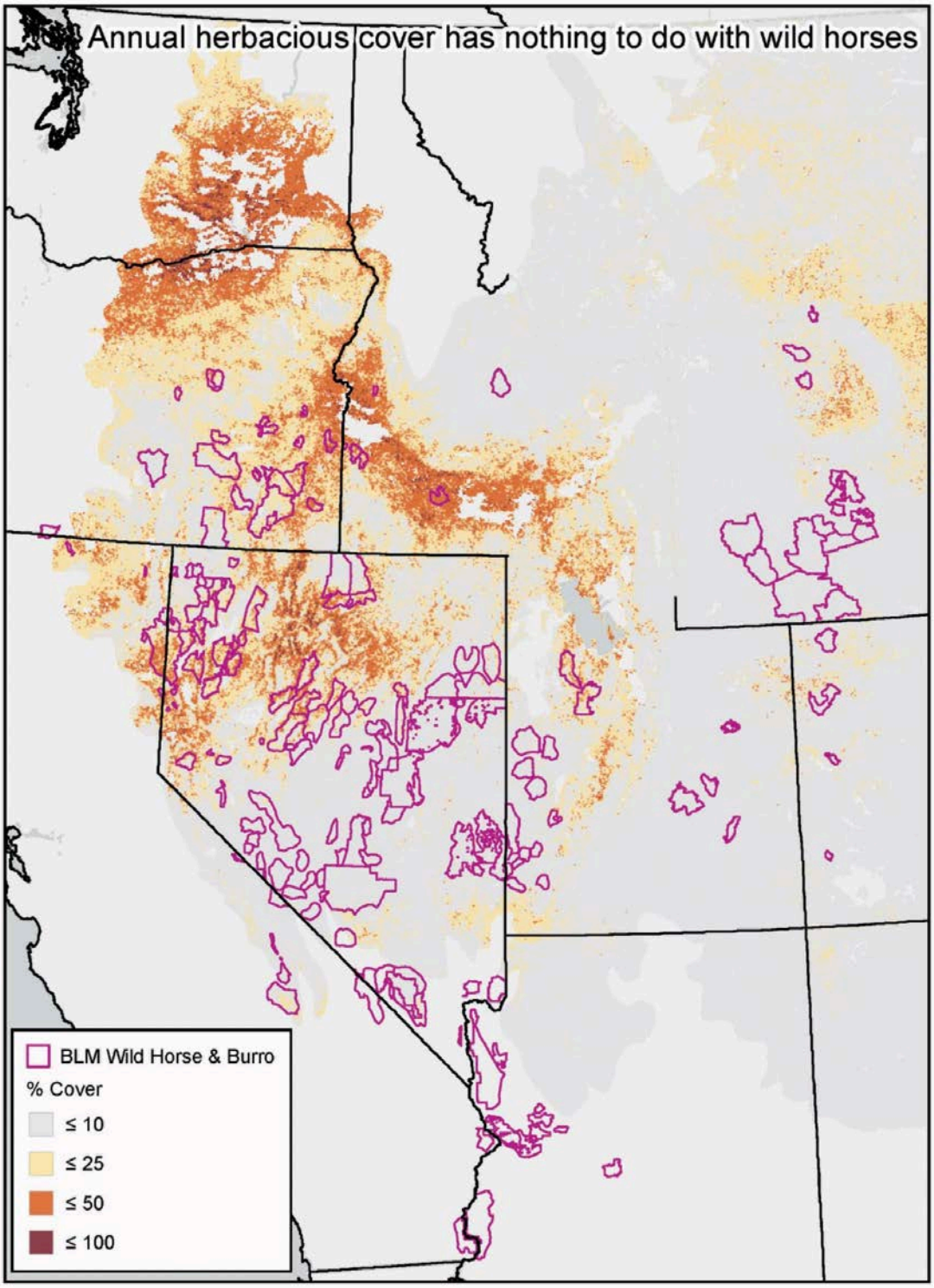

Figure 9. Map showing analysis of BLM Wild Horse and Burro areas mapped against areas of high annual herbaceous cover. WWP 2024.

Our own analysis of cheatgrass cover based on the GIS data of the Western Invasive Species Council of the Western Governors Association shows no correlation between active wild horse HMAs and increased cheatgrass prevalence. *See* Figure 9, above.

The data breaks down as follows:

Annual Herbaceous Cover	**Inside HMAs**	**Outside HMAs**
<2%	40%	21%
2 - 10%	39%	47%
10 - 25%	15%	22%
25 - 50%	6%	9%
50 - 100%	1%	1%

As shown here, only the less-than-2% category had a higher percentage of lands inside wild horse HMAs than outside wild horse HMAs. Across all annual grass cover classes, cheatgrass cover averaged 8.1% inside HMAs versus 9% outside HMAs. This is clearly indicative of a higher proportion of cheatgrass cover in areas lacking wild horses, a direct contradiction to the BLM's DEIS contention.

While Beever and Brussard (2000) address impacts of wild horses and cattle on vegetation near water sources (also known as 'piospheres') do not address cheatgrass, this study does have interesting results with regard to impacts of wild horses only versus impacts of wild horses with cattle added. Unsurprisingly, vegetation was taller under both treatments, but vegetation with wild horses was almost twice as tall as the treatment of wild horses plus cattle; species diversity in exclosures was significantly greater in the wild horses + cattle treatment, but not in the wild horses only treatment. Vegetation in the wild horse only treatment was almost twice as tall as vegetation in the wild horses + cattle treatment. These findings strongly argue for closure of wild horse HMAs to cattle.

BLM cites Coates et al. (2021) in support of the proposition that wild horses, when exceeding Appropriate Management Level (AML), have a negative correlation with sage grouse populations (DEIS at 2-113), but this study suffers from the fatal flaw of excluding domestic livestock grazing (which typically is additive to and synergistic with wild horse herbivory, and which typically is allocated – and consumes – 50-65% of the yearlong forage production) from their model.

The BLM DEIS alternatives prescribe a range of alternative management regimes for wild horses, ranging from prioritizing roundups in PHMA/SFA (and GHMA in some states) to

achieve AMLs, to complete removal of wild horses from PHMA. Table 2-13, DEIS at 2-114. No alternative considers the removal of livestock grazing pursuant to 43 CFR § 4710.5, which authorizes BLM to close wild horse Herd Management Areas (HMAs) to all or a particular class of livestock as a first measure to achieve thriving sage grouse habitats. BLM must consider this reasonable alternative, and we urge the agency to adopt this measure in its Preferred Alternative; cattle and sheep Animal Unit Months typically exceed wild horse AUMs on lands designated as HMAs, and domestic livestock are typically allocated 50-65% of the annual forage utilization for the entire year (or even more, see Kauffman et al. 2022), making domestic livestock the overwhelming grazing impact, and consigning wild herbivores, including but not limited to wild horses, elk, mule deer, pronghorns, jackrabbits and other leporids, rodents, and insects (grasshoppers and Mormon crickets can be major forage consumers during population peaks) to survive on the remaining 35-50%. This heavy allocation to domestic livestock also stresses the native perennial bunchgrasses important as sage grouse hiding cover and buffer against cheatgrass invasion (see Molvar et al. 2024), encouraging bunchgrass elimination and degrading habitat for sage grouse and other wildlife.

8. Mining

The DEIS (Vol. 3, 12-1) states that the purpose of the Reasonably Foreseeable Development (RFD) scenario in Appendix 12 is "to provide a reasonable projection of future activity associated with mineral exploration and development in the planning area under each of the proposed alternatives." However, the DEIS fails to include locatable minerals in the 20-year RFD.

In the economic analysis appendix, the DEIS (Vol. 3, p. 13-3-14) states that regions in Idaho, Oregon, and Nevada have had sharp increases in the average number of annual mining claims since 2016. Projections by federal agencies (DOE and USGS) predict that the heightened demand for certain minerals is likely to continue for many years.[8] A 20-year RFD for locatable minerals is necessary to determine the potential direct, indirect and cumulative effects of locatable mineral exploration and development on GRSG and GRSG habitat over the planning term, to analyze the various management alternatives, and to help determine whether the BLM's goals and objectives can be met.

The range of alternatives includes alternatives that recommend mineral withdrawals in a portion of the planning area. Although the DEIS states that recommending a mineral withdrawal does not itself restrict any surface use, the EIS must include an RFD for locatable minerals to provide the information necessary to compare alternatives with and without withdrawal

[8] U.S. Department of Energy, Critical Minerals Assessment, July 2023. https://www.energy.gov/sites/default/files/2023-07/doe-critical-material-assessment_07312023.pdf

recommendations. Further, an active mineral withdrawal process is underway by BLM, offering a parallel process to implement proposed and necessary withdrawals, if authorized.[9]

The RFD should include descriptions and map locations for high, medium and low mineral potential in the planning area to inform the potential range of direct, indirect and cumulative effects of mineral development to PHMAs in the next 20-years, whether there are regions/populations/leks that are particularly at risk, the potential cumulative effects of locatable mineral development in combination with other mineral development (fluid, solid, etc.), and their location with respect to proposed ACECs, and other considerations essential to this analysis. The RFD should also include the number, location and size of existing locatable mining claims, notices and plans of operations (POOs) within the planning area, along with estimates of projected new claims, notice-level and POOs for exploration and operations, and expansions.

This is comparable to the BLM's recent DEIS for the Central Yukon Resource Management Plan (CYRMP) in Alaska covering 13.1 million acres of BLM-managed lands, where the BLM considered alternatives to retain or lift mineral withdrawals in the planning area. The CYRMP included an RFD for locatable minerals, including mineral potential, current and estimated number of new locatable mining claims, current and estimated number of proposed, existing and projected exploration and mine plans.[10]

The General Mining Law of 1872, more commonly known as the 1872 Mining Law, is the fundamental statute governing hardrock mineral development on federal public lands. Under the 1872 Mining Law, individuals can stake an unlimited number of mining claims on federal lands and hold those claims for an indefinite period of time unless such land has been withdrawn from mineral entry.[11] A valid claim affords the claimant a right to mine, subject to all applicable laws. Under the General Mining Law of 1872 and related case law, the United States Forest Service and Bureau of Land Management prioritize mining over other public land uses, irrespective of its conservation value. The Nevada 2014 Sage Grouse Conservation Plan states that "Locatable mineral development and exploration is governed under the General Mining Law of 1872 and is a *nondiscretionary* activity on federal lands."[12] (emphasis added)

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[9] Federal Register, Notice to Re-Initiate Proposed Withdrawal; Sagebrush Focal Areas, August 13, 2021. https://minerals.nv.gov/uploadedFiles/mineralsnvgov/content/home/features/NWISFA_Fed_Notice_and_map_Aug_13_2021.pdf

[10] U.S. Department of Interior, Bureau of Land Management, Central Yukon Resource Management Plan Environmental Impact Statement, December 20202. Appendix N. https://eplanning.blm.gov/public_projects/35315/200040776/20031041/250037240/Volume%202_Appendices%20A-T.pdf

[11] 30 U.S.C. § 22

[12] Sagebrush Ecosystem Technical Team, 2014 Nevada Greater Sage Grouse Conservation Plan, October 1, 2014, p. 61. https://sagebrusheco.nv.gov/uploadedFiles/sagebrusheconvgov/content/home/features/2014_ConsolidatedStatePlan.pdf

The consequence of these statutory constraints for protecting GHG and GHG habitat are described in the purpose and need section of the 2015 proposed Sagebrush Focal Area (SFA) Mineral Withdrawal: "The BLM and the Forest Service may not, through their surface management regulations at 43 CFR part 3715, 43 CFR part 3809, or 36 CFR part 228, prohibit use under the mining laws that is otherwise compliant with the regulations, *which could result in loss of greater sage grouse habitat important for the persistence of the species*."[13] (emphasis added) Consequently, it states that, "only a withdrawal from location and entry under the Mining Law can prevent the establishment of new mining claims and provide certainty that lands not encumbered by mining claims will not be developed."[14] Therefore, "because certain mining operations are viewed by USFWS as a threat to the persistence of greater sage grouse and the agencies have less discretion with respect to when and where mineral exploration and mining under the Mining Law is conducted, as compared to other agency authorizations (e.g., oil and gas leasing), the collective LUP amendments and associated RODs from 2015 recommended that the agency seek to have the Secretary withdraw the SFAs from location and entry under the Mining Law under section 204 of FLPMA."[15]

Since the original purpose and need for mineral withdrawals was articulated by BLM in 2015, the need to establish mineral withdrawals to protect sage grouse habitat is even more acute. GRSG population and habitat trends are still declining[16] and mining threats to sage grouse habitat have dramatically increased.[17] Mineral withdrawals are an essential management tool to protect federal public lands, 1) *from* mineral entry (i.e., claim staking); and 2) *for* conservation ("to maintain other public values in the area or reserving the area for a particular public purpose or program").

Absent mineral withdrawals, the DEIS fails to demonstrate how the alternatives, including the preferred alternative, will meet the stated goals and objectives, including those to a) uphold disturbance caps, b) maintain and enhance habitat conditions in PHMAs, and maintain existing connectivity between sage grouse populations, and c) achieve no net habitat loss. Further, absent a withdrawal recommendation, BLM cannot preclude the likelihood of listing as required by the special status species policy or provide sufficient regulatory mechanisms to preclude a warranted finding.

a. Disturbance Caps

[13] US BLM, Sagebrush Focal Area Withdrawal Environmental Impact Statement, Idaho, Montana, Wyoming, Nevada, Oregon, Utah, Wyoming, December 2016., p. iv.
[14] Id.
[15] Id. p. v.
[16] Herren et al., 2021.
[17] Regions in Idaho, Oregon, and Nevada have had sharp increases in the average number of annual claims since 2016. Within PHMAs in Nevada and California combined, about 147,160 existing open claims exist across 21,167,000 acres of BLM-administered locatable minerals.

According to the DEIS (p. 2-28), the BLM will apply disturbance caps to PHMA "to conserve seasonal habitat requirements associated with a local GRSG population…" The DEIS (p. 2-28) states that "disturbance caps act as a "backstop" to ensure that total disturbance does not exceed the level of GRSG tolerance for anthropogenic activities." Despite this, the DEIS (Table 2-7, p. 2-34 to 2-39) includes a disturbance cap exception for locatable mineral development for every alternative. The DEIS (p. 4-107) further explains that "Where disturbance caps are applied, surface disturbance from locatable operations would be counted towards the disturbance cap, *but BLM may not prevent, unduly restrict, or require operations to perform compensatory mitigation in areas where the disturbance cap was exceeded*." (emphasis added) The DEIS (p. 4-30) states that impacts from exceeding the 3% disturbance cap for Alternative 5 (the preferred alternative) would be similar to Alternative 4, but worse because projects could move forward before compensatory mitigation is in place leaving open the question of whether the mitigation has had any offsetting effect. Therefore, the DEIS (p. 4-30) concludes that habitat and population trends *may continue to decline to a greater extent* compared to Alternative 4. The DEIS fails to analyze how the BLM will ensure that the disturbance cap will be met and total disturbance will not exceed the sage grouse tolerance levels, absent mineral withdrawals, particularly given the already declining trends in sage grouse habitat and populations.

b. Maintain and enhance habitat conditions in PHMAs and existing connectivity between GRSG populations

According to the DEIS (p. 2-11), "Priority Habitat Management Areas (PHMA) have the highest value to maintaining sustainable GRSG populations and can include breeding, late brood-rearing, winter concentration areas, and migration or connectivity corridors." The BLM objective (DEIS, p. 2-10) for these areas is to *maintain and enhance habitat conditions* that will support persistent and healthy GRSG populations through management to minimize habitat loss and degradation. It further states that "Habitat conservation and management should *maintain existing connectivity* between GRSG populations."

As noted in DEIS (Vol. 3, p. 13-3-14), regions in Idaho, Oregon, and Nevada have had sharp increases in the average number of annual claims since 2016. Within PHMAs in Nevada and California combined, about 147,160 existing open claims exist across 21,167,000 acres of BLM-administered locatable minerals. Assuming these are primarily lode claims (20 acres in size), approximately 14% of the PHMA in Nevada and California are currently covered by existing open mining claims. The DEIS failed to analyze or disclose this.

The DEIS fails to provide maps and locations of mining claims relative to GRSG populations to identify the habitat that provides essential connectivity between populations. This information is necessary to compare RMP alternatives and analyze the cumulative effects of locatable mineral

development on GRSG and GRSG habitat. More importantly, the DEIS fails to demonstrate how the BLM will achieve these objectives absent mineral withdrawals.

c. No net habitat loss

According to the DEIS (p. 2-22), the objective for Alternatives 3 through 6 is to "achieve a minimum no net habitat loss (full restoration of functional habitats or enhancement of habitats such that it offsets the loss of capacity in impacted areas)." The BLM (DEIS, p. 2-22) intends to reduce impacts to GRSG habitat via a three-pronged mitigation hierarchy (avoidance first, then mitigation, compensation last). The DEIS states that impact avoidance in GRSG habitats is the priority since restoration of most sagebrush systems can take decades. Yet, the DEIS fails to explain how BLM will avoid impacts to GRSG habitat under the 1872 Mining Law.

According to the DEIS, the BLM could use its authority under FLPMA to mitigate impacts to prevent unnecessary or undue degradation (UUD). However, we are not aware of any mining operations in which the BLM has applied UUD to protect GRSG and GRSG habitat. The DEIS should provide an example of where it has applied UUD to protect GRSG and GRSG habitat from proposed mineral development, and specify the level of direct, indirect or cumulative impact to GRSG and GRSG habitat that would trigger BLM to apply its authority under UUD.

The DEIS also fails to demonstrate how avoidance or mitigation will be achieved for notice level mining operations because NEPA analysis is not required.[18] Finally, the DEIS states that compensatory mitigation, the third mitigation strategy, is not required for Alternatives 3-6: "for alternatives 3-6 compensatory mitigation is not required by the BLM for operations conducted under the Mining Law of 1872, but operators may always voluntarily engage in compensatory mitigation." DEIS at 2-23, 2-24.

Given the BLM's inability and unwillingness to require mitigation strategies to avoid, mitigate or compensate for locatable mineral development within the planning area, the DEIS fails to demonstrate how the RMPs will achieve goals and objectives, absent mineral withdrawals, nor does it take a hard look at the consequences.

d. The direct, indirect and cumulative mining impacts are not adequately analyzed.

Chapter 4 of the DEIS (Environmental Consequences) fails to take a hard look at the potential direct, indirect and cumulative effects of mineral exploration and development within the planning area, which is necessary to compare the alternatives (with and without recommended

[18] U.S. Department of Interior, et al., "Recommendations to Improve Mining on Public Lands, Final Report, September 2023, p. 44. https://www.doi.gov/media/document/mriwg-report-final-508-pdf

mineral withdrawals), and understand the viability of the various alternatives to achieve the stated sage grouse conservation goals and objectives.

The number of active mining claims for locatable minerals on federal lands has escalated. According to the Interagency Working Group on Mining, "over 489,000 active claims were recorded at the end of Fiscal Year 2022 - *the highest number of active mining claims this century*, an indication of significantly increased interest in exploring for and developing minerals on federal lands."[19] (emphasis added) The DEIS (p. 13-3-14) states that "Regions in Idaho, Oregon, and Nevada have had sharp increases in the average number of annual claims since 2016. According to the DEIS, (p. 13-3-14) "Within GRSG priority habitat management areas (PHMAs), Nevada and California, combined, have about 147,160 existing open claims across 21,167,000 acres of BLM-administered locatable minerals." Assuming these are primarily lode claims (20 acres in size), upwards of 14% of the PHMA in Nevada and California could currently be covered by locatable mining claims.

It is reasonably foreseeable that mineral exploration and/or development may occur on a portion of these claims and new claim staking may occur within the 20-year planning period, resulting in direct, indirect and cumulative impacts that must be analyzed in order to understand the potential impacts of locatable mineral development, with and without withdrawals, on already declining population and habitat trends.

The Western Watershed Project (WWP) has mapped open locatable mining claims[20] from the BLM database with predicted sage grouse population extirpation trends by Coates et. al., (Ver. 3, 2024), which estimated estimated 2.8 percent average annual decline in sage grouse populations across their geographical range, which varied among subpopulations at the largest scale of analysis, termed climate clusters (2.1-3.1), and predicted cumulative declines of 41.1, 64.5, and 78.4 percent range-wide during Period 5 (19 years), Period 3 (35 years), and Period 1 (55 years), respectively. The WWP map of Nevada (see Figure 10) highlights the potential significant direct, indirect and cumulative effects of locatable mineral exploration and development over the next 20 years on populations that are already suffering unacceptable population declines, the need for a rigorous cumulative effects analysis, and adequate regulatory tools (i.e., proposed mineral withdrawals) to achieve conservation goals and objectives. According to WWP's analysis of the data, there are 34,172 locatable mining claims in 101 sage grouse neighborhood clusters that have an extirpation probability of more than 50% over six cycles (~55 years).[21] This is an example of a huge future risk that must be analyzed for each of the states.

[19] Id., p. 19.

[20] https://westernwater.maps.arcgis.com/apps/mapviewer/index.html?webmap=3cd0d6a14a114b27a88a4273e8049c59

[21] Id.

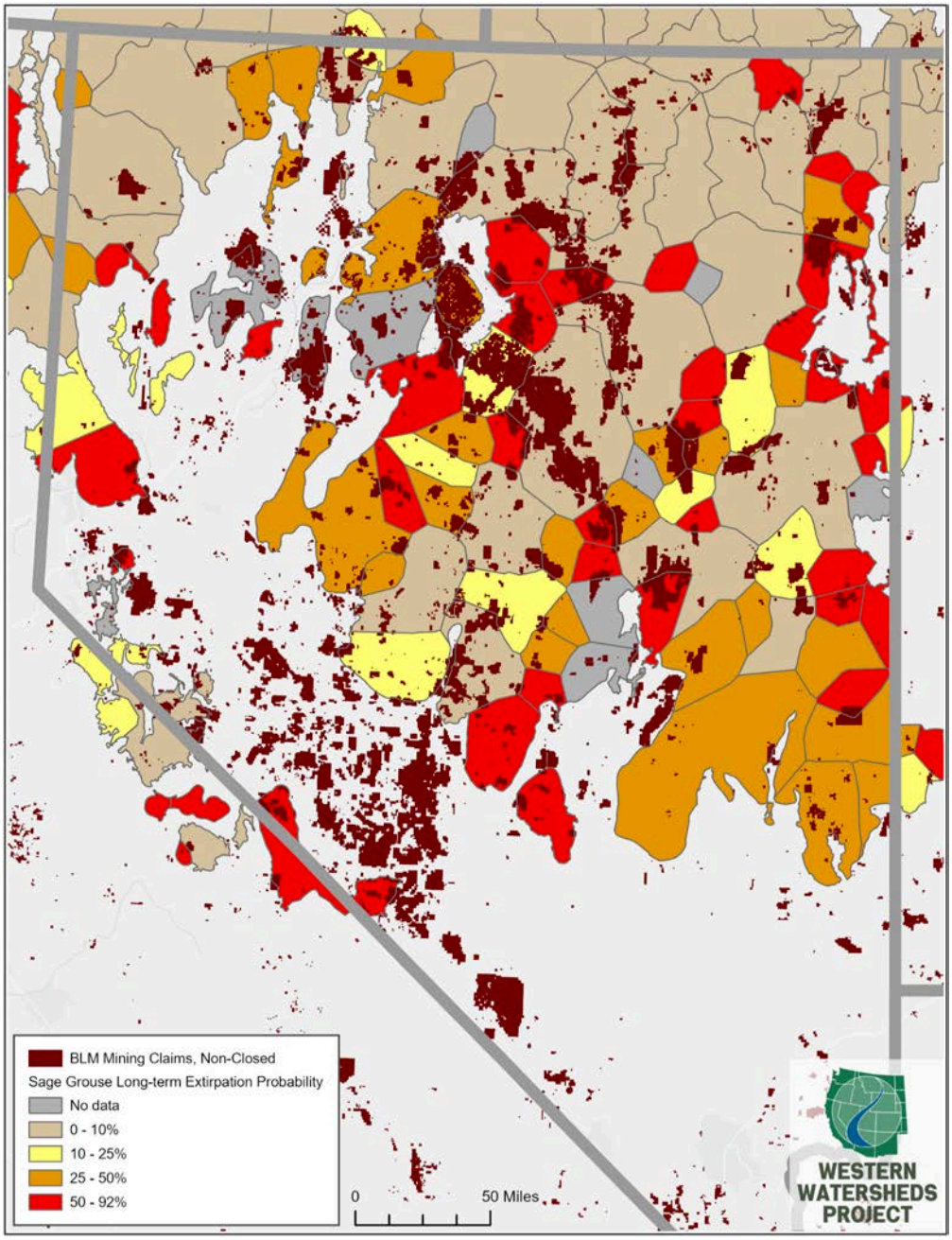

Figure 10. Map of mining claims in Nevada overlaid on extirpation risk among neighborhood clusters.

The "No Action" alternative for the 2016 Sage Grouse Focal Area Mineral Withdrawal DEIS analyzed the potential effects of locatable mineral development over a 20-year period on roughly 10 million acres of federal lands (Sagebrush Focal Areas), subject to compliance with all applicable laws.[22] It estimated direct impacts to 108 leks and 961 males and indirect impacts to

[22] U.S. BLM, SFA DEIS, Table 4-49, p. 4-90.
https://eplanning.blm.gov/public_projects/nepa/70697/94514/114120/SFA_DEIS_Main_Text_508.pdf

386 leks and 8,331 males.[23] That analysis likely underestimated the impacts of locatable mineral development within that area, given the sharp increase in claim-staking since 2016. However, this is an example of the type of quantitative analysis that is necessary to analyze impacts and compare alternatives (with and without recommended withdrawals) in this DEIS.

Section 4 (DEIS, p. 4-108) includes some information on the plans of operations, exploration projects and notices in the planning area and within SFAs, but it is incomplete. In Idaho, it states that there are 56 plans of operations and notices currently authorized within the decision area - 7 of those are within the SFA that were previously recommended for withdrawal. It also provides information for Oregon (117 mining claims, 1 plan of operation and 9 exploration notices in SFA), but it fails to provide the same information for California and Nevada.

The Cumulative Effects Supporting Information (DEIS, Table 14-1, p. 14-1) outlines some past, present and reasonably foreseeable actions, but fails to provide a complete list of major existing, proposed or recently approved mining operations, or describe the potential cumulative effects to GRSG and GRSG habitat and disturbance caps. Even when a major operation (e.g., Gold Rush, Thacker Pass, Robertson) is listed, the DEIS omits essential information, including whether it's located in PHMA, on or adjacent to leks, or its cumulative effects. For example, the DEIS fails to include the estimated direct, indirect and cumulative effects that are readily accessible from the Robertson Mine DEIS:[24]

> The Proposed Action would remove a total of 2,642 acres of the mapped GRSG habitat, as per the BLM 2015 ARMPA maintenance mapping that was released in 2022 (BLM 2022d); including 506 acres of GHMA and 2,136 acres of OHMA habitat. Approximately 597 acres of habitat (GHMA and OHMA) would be unreclaimed. In addition, approximately 300 acres of exploration disturbance, 290 acres on public land and 10 acres on private land, may occur in any GRSG habitat category within the Project Plan boundary. The Proposed Action would add to the vegetation removal and construction of mine infrastructure that has already occurred within the area of analysis from other past and present activities including mineral development and exploration activities and would result in habitat fragmentation. The Proposed Action would likely result in increased predation and decreased nesting success. Human presence and noise also occur within the area of analysis which may further stress GRSG. The construction, maintenance, and operation of mine infrastructure under the Proposed Action would add additional human presence and disturbance around the leks during the life of the mine and reclamation activities.[25]

[23] Id.
[24] U.S. BLM, Robertson Mine Project Draft Environmental Impact Statement, March 2024.
[25] Id.

Similar information about the impacts to GRSG and GRSG habitat are omitted from the DEIS for other new operations, such as the Gold Rush,[26] Thacker Pass,[27] and other proposed plans of operations, which should be aggregated and incorporated in the cumulative effects analysis, including the Baltazar Geothermal Project,[28] Jindalee Hi-Tech Lithium Project in Oregon,[29] the Hog Ranch Mineral Exploration Project,[30] and other proposed POOs. The DEIS should also specify whether and how any of the management regimes in the alternatives would apply to existing and recently approved operations.

Sage grouse habitat is also affected by ongoing pollution and habitat fragmentation as a result of abandoned mine sites. These sites, and remediation actions should be included in the analysis. Nevada alone contains approximately 200,000 abandoned mine features.[31] Some of these sites have been classified as superfund sites under CERCLA and should require specific attention and analysis in terms of cumulative impacts, such as the Abandoned Cordero/McDermitt Superfund Site and the Abandoned Rio Tinto Superfund site.[32]

The DEIS dismisses project level impacts as too detailed for the RMP planning process, yet the agency must take a hard look at the potential cumulative effects, which must include quantitative analysis of the projected loss, degradation and fragmentation of GHG habitat within the planning area from locatable mineral development, in addition to other cumulative effects.

The BLM also dismisses these project level impacts by pointing to the Conservation Credit System (CCS) to fulfill mitigation requirements for disturbances to GRSG habitat on public lands, through the CCS. However, the Nevada-led CCS does not adequately address extraction impacts to GRSG and GRSG habitat as outlined below.

The Cumulative Effects Appendix also includes tables (Table 14-3, 14-6, 14-9, 14-12, 14-15, 14-18, 14-21, 14-24), that describe the acreage of proposed withdrawals per HAF unit per alternative, but fail to include the acreage of existing mining claims within the proposed withdrawal area that may now be subject to mineral exploration and development under the 1872 Mining Law. Without that information, it is impossible to determine the amount of land (GRSG habitat), potentially subject to valid existing rights, in the various alternatives that would actually be withdrawn from mineral entry and location under the 1872 Mining Law if the proposed

[26] US BLM, Gold Rush Final Environmental Impact Statement, October 2023.
[27] US BLM and USFWS, Thacker Pass Lithium Mine Project, Final Environmental Impact Statement, December 24, 2020.
[28] https://eplanning.blm.gov/eplanning-ui/project/2000508/510
[29] https://eplanning.blm.gov/eplanning-ui/project/2025844/510
[30] https://www.blm.gov/announcement/blm-approves-mineral-exploration-project-nevada
[31] https://minerals.nv.gov/uploadedFiles/mineralsnvgov/content/Programs/AML/2017_NDOM_AML_Report_Final.pdf
[32] https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0903872; https://response.epa.gov/site/site_profile.aspx?site_id=7029

mineral withdrawals were authorized. For example, as noted above, (DEIS, p. 4-108) there are 56 plans of operations and notices currently authorized within the decision area in Idaho; 7 of those are within the SFA that were previously recommended for withdrawal. What is the size of the 7 POOs that are within the SFAs previously recommended for withdrawal, and how might the development of those POOs alter the proposed withdrawals within the two alternatives. The DEIS should also disclose and analyze the impacts from these 56 plans of operations in Idaho and all other POOs within the analysis area.

The DEIS fails to take a hard look at these impacts, and fails to provide data or analysis to support its decision to forego any recommendations for mineral withdrawals in the preferred alternative, given the BLM's stated purpose and need to meet conservation goals and objectives, the ongoing declining trends in GRSG habitat and populations, and the sharp increase in active mining claims and associated development since 2016.

BLM should recommend the lek buffer zones– 5.3 miles– across the range for mineral withdrawal; out of all the potential uses, BLM has very little ability to control mining operations and exploration once claims are established.

9. Oil and Gas Leasing and Development

With the exception of Alternative 3, the proposed plan amendments fail to follow the best available science with respect to oil and gas development. Because BLM's Preferred Alternative and Alternatives 4 and 6, would either: (1) reduce protections with respect to oil and gas leasing and development in sage grouse habitat, or (2) continue management approaches that have proven insufficient or ineffective, it fails to meet the purpose and need to "improve efficiency and effectiveness of GRSG management" in light of ongoing habitat and population losses under the 2015 plans. For similar reasons, the oil and gas components of the proposed plan amendments (with the exception of Alternative 3), are inconsistent with BLM's special status species policy (BLM Manual § 6480) and would not provide a sufficient regulatory mechanism to protect the sage grouse from extinction.

To address the myriads of known detrimental harms by allowing new fluid mineral leasing (including geothermal), in GRSG HMAs, the BLM will employ stipulations, including:

> "NSO, CSU/disturbance caps, and TL stipulations on new leases. These stipulations are intended to reduce or avoid direct disturbance, protect HMAs from surface-disturbing activities, and conserve habitat and population connectivity contributing to genetic diversity. NSO stipulations on new leases would limit impacts to HMAs from surface-disturbance, ensure connectivity between leks, and minimize habitat fragmentation." DEIS 2.5.7

NSO for Alternatives 4, 5 and 6 appear to be a 1-mile lek buffer; it is not readily discernible in the DEIS. The BLM should clarify what the NSO buffer is for these alternatives. This size buffer and other stipulations have been shown to be completely inadequate to protect leks or nesting and brood rearing areas as discussed below.

Oil and gas development has long been recognized as one of the leading threats to sage grouse, due to its pervasiveness in the sagebrush biome as well as the severity of its impacts.

The BLM recognizes the abundance of science that clearly demonstrates this activity causes significant direct harm at multiple scales to sage grouse populations through habitat loss and fragmentation, and behavioral avoidance of human activity and infrastructure. Oil and gas drilling also results in indirect impacts and cumulative impacts. In recognition of these impacts.

The DEIS states:

> Mineral development requires construction of roads, well pads, wells, and other infrastructure, and associated noise, traffic, and lights that alter, degrade, and/or entirely displace native ecosystems (Manier et al. 2013). Surface disturbance associated with mineral development often removes vegetation, reduces the condition of native vegetation communities and the connectivity of habitat, and encourages the spread of invasive species (NTT 2011). Vegetation removal results in conversion of areas to an earlier seral stage, which could change vegetation community succession and reduce desired plant communities. The remaining vegetation could have reduced vigor or productivity due to mechanical damage, soil compaction, and dust. Impacts would not occur in areas closed to mineral leasing or development. DEIS 4-35
>
> Research indicates fluid mineral development can negatively affect GRSG at multiple scales through direct impacts (habitat loss and fragmentation; Connelly et al. 2004, Lyon and Anderson 2003, Walker et al. 2007, Holloran et al. 2010, Knick et al. 2011, Green et al. 2017) and indirect impacts (increased noise and behavioral avoidance of human activity and infrastructure, including roads; Aldridge and Boyce 2007, Holloran et al. 2010, Kirol et al. 2015, Rice et al. 2016, Coates et al. 2023). Development can also contribute to cumulative impacts if it results in an increased distribution of invasive annual grasses or predator abundance. DEIS 2.5.6 Page 40

The NTT Report recognized that impacts to sage grouse from oil and gas development "are universally negative and typically severe." (NTT 2011: 19). It explained:

> There is strong evidence from the literature to support that surface-disturbing energy or mineral development within priority sage grouse habitats is not consistent with a goal to maintain or increase populations or distribution. None of the published science reports a positive influence of development on sage grouse populations or habitats. Breeding populations are severely reduced at well pad densities commonly permitted (Holloran 2005, Walker et al. 2007a). Magnitude of losses varies from one field to another, but findings suggest that impacts are universally negative and typically severe.

(NTT 2011:19). The Report took particular issue with BLM's conservation measures (some of which would be continued in the Preferred Alternative and Alternative 6):

> Impacts as measured by the number of males attending leks are most severe near the lek, *remain discernible out to >4 miles* (Holloran 2005, Walker et al. 2007, Tack 2009, Johnson et al. 2011), *and often result in lek extirpations* (Holloran 2005, Walker et al. 2007).
> . . .
> Past BLM conservation measures have focused on 0.25 mile No Surface Occupancy (NSO) buffers around leks, and timing stipulations applied to 0.6 mile buffers around leks to protect both breeding and nesting activities. Given impacts of large scale disturbances described above that occur across seasons and impact all demographic rates*, applying NSO or other buffers around leks at any distance is unlikely to be effective*.

(NTT 2011: 20) (emphasis added).

In general, the NTT Report recommended closing priority sage grouse habitats to energy development: "the conservation strategy most likely to meet the objective of maintaining or increasing sage‑grouse distribution and abundance is to **exclude energy development and other large scale disturbances from priority habitats**" (NTT 2011: 20) (emphasis added).

With respect to already issued leases, it recommended imposing certain conservation measures as terms and conditions of the approved resource management plan. These included (1) prohibiting new surface occupancy on federal leases within priority habitats during any time of the year, with limited exceptions; (2) applying a seasonal restriction on exploratory drilling that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all priority sage grouse habitat during this period; (3) not applying a Categorical Exclusion (CX) in priority sage grouse habitats; (4) completing Master Development Plans in lieu of Application for Permit to Drill (APD) by APD processing for all but wildcat wells; (4) when permitting APDs on

undeveloped areas, imposing a 3% surface disturbance cap, with limited exceptions (NTT 2011: 23).

For similar reasons, the NTT Report also recommended withdrawing priority sage grouse habitats from locatable mineral entry, and recommended closing priority habitats to non-energy leasable mineral development and mineral material sales (NTT 2011: 25).

The COT Report also recognized oil and gas development as a leading threat, and one of the main drivers of the loss and fragmentation of sagebrush habitat (COT 2013: 10). For renewable and nonrenewable energy development, the COT report recommended the following:

- "**Avoid energy development in PACs** (Doherty et al. 2010). Identify areas where leasing is not acceptable, or not acceptable without stipulations for surface occupancy that maintains sage grouse habitats";
- "If avoidance is not possible within PACs due to pre-existing valid rights, adjacent development, or split estate issues, development should only occur in non-habitat areas, including all appurtenant structures, with an adequate buffer that is sufficient to preclude impacts to sage grouse habitat from noise, and other human activities";
- "If development must occur in sage grouse habitats due to existing rights and lack of reasonable alternative avoidance measures, the development should occur in the least suitable habitat for sage grouse and be designed to ensure at a minimum that there are no detectable declines in sage grouse population trends (and seek increases if possible) by implementing the following:
    - Reduce and maintain the density of energy structures below which there are no impacts to the function of the sage grouse habitats (*as measured by no declines in sage grouse use*), or do not result in declines in sage grouse populations within PACs. (emphasis added).
    - Design development outside PACs to maintain populations within adjacent PACs and allow for connectivity among PACs.
    - Consolidate structures and infrastructure associated with energy development.
    - Reclamation of disturbance resulting from a proposed project should only be considered as mitigation for those impacts, not portrayed as minimization.
    - Design development to minimize tall structures (turbines, powerlines), or other features associated with the development (e.g., noise from drilling or ongoing operations; Blickley et al. 2012)."

(COT 2013: 43-44). The COT Report also suggested avoiding new mining activities or associated facilities in sage grouse habitats, and avoiding any new energy infrastructure in sage grouse habitat (COT 2013: 49, 51)

More recent science has only confirmed that energy development is incompatible with sage grouse conservation. Green et al. (2017) examined greater sage grouse lek attendance, oil and gas well, and habitat and precipitation data from Wyoming over the period 1984 to 2008, and, consistent with numerous prior studies, found that lek attendance declines are closely associated with the density of oil and gas development, regardless of sagebrush cover and participation:

> Oil and gas development correlates well with sage grouse population declines from 1984 to 2008 in Wyoming, which is supported by other findings (Doherty et al. 2010b, Harju et al. 2010, Hess and Beck 2012, Taylor et al. 2013, Gregory and Beck 2014). As with other studies, we also found support for 4-year lag effects of oil and gas development on lek attendance (Walker et al. 2007, Doherty et al. 010a, Harju et al. 2010, Gregory and Beck 2014). This result suggests that development likely affects recruitment into the breeding population rather than avoidance of wells by adult males or adult survival. Adult sage grouse are highly philopatric to lek sites (Dalke et al. 1963, Wallestad and Schladweiler 1974, Emmons and Braun 1984, Dunn and Braun 1985, Connelly et al. 2011a), and males typically recruit to the breeding population in 2–3 years. We would expect a delayed response in lek attendance if development affects recruitment, either by reducing fecundity or avoidance of disturbance by nesting females, as adult males die and are not replaced by young males. On average, lek attendance was stable when no oil and gas development was present within 6,400m (Fig. 4). However, attendance declined as development increased.

A study analyzing sage grouse persistence under mitigation measures in Wyoming similar to those in the BLM sage grouse plans, Gamo and Beck (2017: 190), stated:

> Energy development has been shown to specifically impact male sage grouse lek attendance, lek persistence, recruitment of yearling male and female grouse to leks, nest initiation and site selection, nest survival, chick survival, brood survival, summer survival of adult females, early brood-rearing habitat selection, adult female summer habitat selection, and adult female winter habitat selection (citing literature).

Importantly, Green et al. (2017) confirmed that declines in sage grouse populations may continue even within Wyoming's core areas, where density of wells is limited to approximately one pad per square mile, indicating the need for protections beyond those provided by the 2015 plan

amendments. The USGS likewise recognized in 2018 that "[a]llowable well densities that average one well pad per 640 acres within Core Areas may only be sufficient for limiting population declines to current rates but not for reversing the trend." (Hanser et al. 2018:46).

Similarly, a recent study of greater sage grouse in Wyoming from 2008 to 2014, Kirol et al. (2020), measured the impacts to grouse from both fossil fuel energy and renewable energy and found that ongoing surface disturbance from energy development within 8 km (4.97 miles) of a greater sage grouse nest decreased the likelihood of nest success. Sage grouse broods within 1 km (0.62 miles) of ongoing surface disturbance from energy development were less likely to survive than those further away. As ongoing disturbance increased, sage grouse nests had an increasing rate of failure. Furthermore, female sage grouse avoided habitat with higher levels of disturbance in favor of habitat with lower levels of disturbance. The study demonstrates then that current BLM nest buffers are too small to conserve grouse and implementing disturbance caps of 3-5% does not eliminate the negative impacts of ongoing disturbance on nest survival.

Fedy and others (2014) found a significant negative relation between well density and probability of sage grouse habitat selection during nesting (3.2-km [2-mile radius) and winter (6.44-km [4-mile radius) seasons, depopulating these adjacent habitats of sage grouse over a 2- to 10-year period (Walker et al. 2007, Harju et al. 2010). Naugle and others found indirect influences such as habitat degradation or utilization displacement, estimated to extend out to 11.8 miles from leks.

Recent science also casts further doubt on the efficacy of seasonal timing restrictions. Smith et al. (2016: 585) found "use of winter habitats occurred over a longer period than current Core Area winter timing stipulations and a substantial amount of winter habitat outside of Core Areas was used by individuals that bred in Core Areas, particularly in smaller Core Areas." Sage grouse moved from their fall to winter habitat earlier and moved from their winter to breeding habitat later than current seasonal restrictions on disturbance.

Furthermore, while timing restrictions may avert habitat fragmentation and loss for that one season, if development is allowed to go forward, the full impacts will be realized the following season. In other words, timing limitations for oil and gas (or other proposed development) is meaningless if development will be allowed following the temporary seasonal limitation only to fragment and destroy the habitat the following year. NTT came to similar conclusions:

> We do not include timing restrictions on construction and drilling during the breeding season because they do not prevent impacts of infrastructure (e.g., avoidance, mortality) at other times of the year, during the production phase, or in other seasonal habitats that are crucial for population persistence (e.g., winter; Walker et al. 2007).

BLM should also examine the efficacy of mitigation measures. Fedy et al. (2015: 14-15), found mitigation measures related to oil and gas development to be insufficient: "mitigation efforts within the study resulted in less avoidance of wells overall. However, sage grouse still avoided areas of high-density wells. No nests were found in areas with greater than 4 wells per km^2 and most nests (62.82%) were located in areas with ≤ 1 well per km^2."

These recent studies indicate a pressing need to re-evaluate the adequacy of protections from fluid mineral development to reverse sage grouse population declines. As many of the undersigned groups have previously explained in comments, the 2015 plans fell short of the agencies' own science in several respects. The plans failed to close priority habitats to future fluid mineral extraction, instead focusing on a "no surface occupancy" (NSO) stipulation that may be modified or jettisoned in all priority habitats except for SFAs. They claimed oil and gas leasing would be "prioritized" outside of sage grouse habitats and that use restrictions like timing limitations and controlled surface use would be applied where leasing was allowed to compensate for this failure. Wyoming's plans did not even apply the NSO stipulation in priority habitats, and instead focused on the 0.6 mile lek buffer that the NTT Report specifically found to be inadequate. In addition, with the new plans in place, leases previously deferred to protect sage grouse were made available for sale. And, like the Wyoming plans, which created a loophole to allow oil and gas development to continue as usual in lands in Wyoming, the Nevada/California plan carved out an exception to the rules to allow geothermal leasing to proceed unfettered on lands with geothermal potential—with disastrous results for sage grouse. Coates et al. (2023) found that sage grouse abundance declined approximately 24% within 5 km of geothermal sites in central Nevada, while lek absence rates (e.g., local extirpation) increased by about 730% within 2 km of geothermal development. Priority sage grouse habitat should be closed to geothermal leasing, as well as all occupied leks in GHMA, including those outside of HMAs and winter habitat.

The "prioritization" component of the 2015 plans largely failed to discourage leasing in priority habitats. In 2019, a report by Gardner, et al. (2019) analyzed oil and gas development on federal lands and sage grouse habitats from the implementation of the 2015 plans through March 2019. This research demonstrated that drilling in designated sage grouse habitat increased by 2.98 times between February 2017 and March 2019 compared with the October 2015 to January 2017 time frame. This was a rate higher than drilling on all public lands across all states during the same periods. This demonstrates that oil and gas development has shifted towards PHMA in all states since January 2017, following the removal of SFA restrictions and prioritizations due to BLM's abrupt cancellation of SFA designations. From 2016 through 1st quarter 2024, BLM has approved and sold oil and gas leases on 6.8 million acres of PHMA, 4.7 million of those acres

are in Wyoming. In GHMA, 8.7 million acres of leases have been approved and sold, with 6.3 million acres of leases in Wyoming.[33]

Further, the 2015 lease stipulations on PHMA and GHMA are subject to exceptions, modifications, and waivers, which are granted frequently and with little documentation. A recent GAO study of BLM field offices found that of the 54 recorded exception decisions, from four offices that could provide data, 49 exception requests were approved and 5 were denied—that is, **exception requests were granted 90% of the time**. *See* US GAO 2017:16n.24.[34] That same study found that BLM's decisions to grant such exceptions, modifications, and waivers often takes place in the dark, without written justification, oversight, documentation of the request or field office's decision, or additional NEPA analysis. *Id.* at 11–21. The report concluded, "BLM may be unable to provide reasonable assurance that it is meeting its environmental responsibilities." *Id.* at Intro. BLM's willingness to grant modifications, waivers, and exceptions—and without transparency or public participation—creates large loopholes that render the lease stipulations ineffective and afford the sage grouse insufficient protection.

Yet in this DEIS, BLM suggests an even more permissive approach. Apart from Alternative 3, which follows the science-based recommendation to close all priority habitats to leasing, the proposed plan amendments would once again leave even PHMA open to oil and gas leasing. DEIS at 2-49, 2-58, 2-62.

Alternatives 2, 4, 5, and 6 would essentially retain the current lease stipulations, subject to various waivers, exemptions, and modifications. *Id.* at 2-17, 2-73, 2-77, 2-78, 2-88. And all alternatives except 3 would include arbitrary state-by-state variations in the application of important protection tools like lek buffers/NSO and seasonal timing restrictions. *Id.* at 2-17, 2-73, 2-77, 2-78, 2-88. Alternatives 2, 5, and 6, would completely eliminate the prioritization of leasing outside of PHMA, *id.* at 2-41, while Alternative 4 includes an ad-hoc "evaluation" process that does not ultimately require BLM to prioritize leasing outside of the highest-priority habitats, *id.* at 2-42—2-43. Such changes cannot be justified in light of the well-documented impacts from oil and gas leasing, discussed above, or the rangewide sage grouse population data showing that current management has failed to reverse, or even appreciably slow, the species' decline.

Alternatives 4, 5 and 6 would require potential exceptions to undergo public review for at least a 30-day period. While that is an improvement over current practice, granting WEMs (on top of already inadequate safeguards) will further habitat fragmentation, loss and degradation and impact sage grouse populations. In contradiction to extensive science documenting the harm to

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33 https://peer.org/wp-content/uploads/2023/03/3_7_23_Spreadsheet-Wyoming-Sage-Grouse-Consultations-2.17.23.pdf

34 https://www.gao.gov/products/gao-17-307

grouse and grouse habitat from oil and gas development, BLM offers no explanation for why it would allow reducing NSO lek buffers to within 0.6 miles and beyond 0.6 miles of an occupied lek, the same deficient buffer as Wyoming's core strategy**.** This is a marked departure from Alternative 2 that uses a (still inadequate) 3.1-mile lek buffer for oil and gas leasing.

BLM has acknowledged the deficiency of a 0.6-mile lek buffer. In 2013, BLM concluded, "Studies have shown that greater distances, anywhere from two to four miles, are required for viable Greater sage grouse populations to persist." See 2013 Wyoming Greater sage grouse RMP Amendment DEIS at 4-335.

The DEIS additionally cites the inadequacy of this buffer stating:

> "In WY, applying an NSO within 0.6 miles of occupied GRSG leks in PHMA would protect fewer areas than in other states. Buffer distances from 0.5 to two miles from oil and gas infrastructure have been shown to be inadequate to prevent declines of birds from leks (Walker et al. 2007a). Studies have shown that greater distances, anywhere from two to four miles, are required for viable GRSG populations to persist (Connelly et al. 2000b, Holloran and Anderson 2005, Walker et al. 2007a)." DEIS 4-13.
>
> "According to Apa et al. (2008), "Buffer sizes of 0.25 mi., 0.5 mi., 0.6 mi., and 1.0 mi. result in estimated lek persistence of 5%, 11%, 14%, and 30%." DEIS at Appendix 19-9.

Said another way, allowing disturbance within 0.6 miles of a lek has been shown to reduce lek persistence by 70%.

Other science studies have shown the complete inadequacies of a 0.6 miles lek buffer. Hess and Beck (2012) found that the number of oil and gas wells within 0.6 miles of a lek increased the likelihood of lek abandonment. Holloran and Anderson (2005) found that a 1-mile buffer (in Wyoming) contained only 25% of the nest sites. And Holloran et al (2010) found yearling males avoided leks near infrastructure of natural gas fields when establishing breeding territories; yearling females avoided nesting within .59 miles of natural gas infrastructure. Yearling males and females reared in areas where infrastructure was present had lower annual survival.

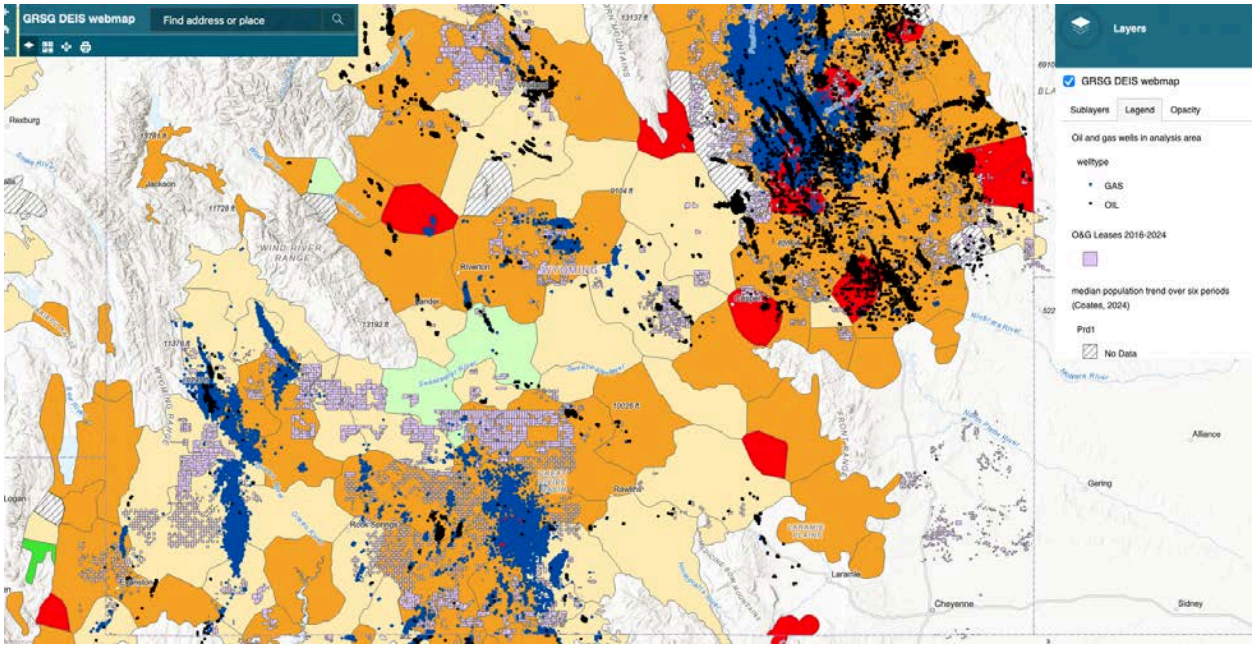


Figure 11. PHMA in Wyoming, oil and gas wells, oil and gas leases overlayed with Coates population trend data. There are 13,698 oil and gas wells (blue and black color represents individual oil or gas wells) and related infrastructure and roads have industrialized greater sage grouse habitat in Wyoming.

One of the exceptions BLM would allow is if the location of the proposed authorization is determined to be non-habitat. DEIS 2-49. Regardless of the specific rationale for allowing oil and gas development and associated infrastructure within 0.6 miles of a lek, doing so will result in further habitat fragmentation, degradation and loss, reduced nest and brood rearing success because energy development has been demonstrated to have impacts not only to breeding habitat (leks) but also impacts that can extend far into surrounding habitats, including nest sites and brood rearing areas. Habitat fragmentation and loss is one of the main threats to GRSG that is directly related to population level impacts.

We again call on BLM to impose, as terms of all the resource management plans, limitations on fluid mineral leasing and development consistent with the recommendations of the NTT Report. Specifically, all priority sage grouse habitat should be closed to fluid mineral leasing. For existing leases, BLM should impose seasonal restrictions on drilling and prohibit new surface occupancy (with exceptions for occupancy of no more than 3% outside a 5-mile lek buffer, if the entire leasehold is within such habitat) (NTT 2011: 23). No waivers, exceptions of modifications allowed except in very limited circumstances and only where benefit to grouse and its habitats can be clearly demonstrated. More generally, BLM should strive to eliminate the threats of oil and gas development by canceling leases found to be unlawfully issued and consider buying out leases in priority habitat accompanied with a broad-based mineral withdrawal (to prevent re-leasing of the same lands in the future) as discussed elsewhere in these comments. No extensions of existing leases should be allowed.

Only Alternative 3, which closes PHMA/IHMA to new oil and gas (and geothermal) leasing, provides an adequate regulatory mechanism. BLM acknowledges the benefits of closing PHMA to fluid mineral leasing.

> Closing PHMA to mineral leasing and development would protect GRSG habitat from surface-disturbing activities and associated habitat fragmentation, and maintain connectivity between leks. GRSG would not be exposed to disturbance associated with noise and human activity that accompanies construction, development, or production activities. DEIS 4-23.

BLM also states that restrictions to development on BLM lands might push development onto private land, which could result in indirect impacts as described under Nature and Types of Effects. DEIS 4-23. This line of argument, that HMA on federal lands should be developed to avoid development in important priority habitats on adjacent private lands can be misleading. That is because there is no mechanism to permanently prohibit development for fluid minerals or other surface disturbing activities on those private lands at some time in the future. Although disturbance caps are rightly calculated across all land ownerships, the caps only apply to federal lands.

The objective for fluid mineral leasing for Alternatives 4, 5 and 6 is to "manage areas to avoid, minimize, and compensate for adverse impacts to grouse habitat to the extent practical under the law and BLM jurisdiction. DEIS 2-41. It should be noted that BLM has regulatory authority to close areas to new leasing in resource management planning processes.

The objectives would give "preference to lands upon which a prudent operator would seek to expand existing operations (e.g., existing leases, leases held by production, designated units, etc.)" and would give preference to "any nominated parcel subject to immediate drainage or within five miles of existing development." Additional objectives direct BLM field officers to merely "consider" various aspects of sage grouse habitat (e.g. presence of nesting, etc.) providing significant discretion to field staff. DEIS at 2-42. Even parcels given a low preference value due to recognized impacts to important grouse habitat, could still be offered for sale after high preference parcels were offered.

These objectives and proposed stipulation measures are inadequate to protect sage grouse habitat and avert the need to protect GRSG under the ESA by stemming and reversing the decline of greater sage grouse as required under the BLM's Special Status Species policy.
The DEIS directs the application of the mitigation hierarchy, to "avoid, minimize and compensate." The problem with this hierarchy as a purported protective measure is that the BLM rarely if ever, says no to a project. The BLM should provide documentation of how often the

BLM has denied oil and gas leases to demonstrate the effectiveness of this hierarchy in protecting grouse and their habitat.

10. Failure to analyze direct, indirect cumulative effects of WEM's.

The DEIS fails to disclose and analyze the rate of and the subsequent effects of allowing waivers, modifications and exemptions. Generally, issuance of WEMs is at the discretion of BLM field staff. Documentation obtained through the Freedom of Information Act (FOIA) shows approximately **90% of 127 applicants** were granted approvals by the BLM WY Field Offices from 2020 through 2023 for their requested protection exceptions for oil and gas drilling in grouse priority habitat. The BLM did not disclose the full extent of WEMs being granted in all field offices since implementation of the 2015 plans began. This is knowable information that should have been used to analyze the impacts of allowing WEMs. PEER provided this analysis for Wyoming between 2018 and 2023, available online.[35]

11. BLM Has Failed to Consider or Disclose the Prevalence of Fee/Fee/Fed Wells

BLM has failed to meaningfully consider or disclose the prevalence of Fee/Fee/Fed oil and gas wells and how they undermine the presumed effectiveness of plan requirements like lek buffers, timing stipulations, disturbance and density caps, and compensatory mitigation. BLM Permanent Instruction Memorandum claims that BLM lacks authority to regulate the surface operations for Fee/Fee/Fed wells. This position is wrong as a matter of plain statutory interpretation, for reasons we explain below. However, the prevalence of Fee/Fee/Fed wells is also a serious issue BLM must analyze and disclose in the NEPA process. Our calculations suggest that Fee/Fee/Fed wells now account for at least 25 percent of all oil and gas wells BLM approves nationwide, and well over half of wells approved in states like Wyoming and Colorado. Given the prevalence of oil and gas development in sage grouse habitat, BLM must take a hard look at how development of Fee/Fee/Fed wells–which lack the same protections as BLM applies to split-estate and federal surface–will impact sage grouse.

12. The DEIS fails to take a hard look at drought and climate change in the planning area.

A. Drought

While drought is acknowledged as a threat to sagebrush habitat, the analysis of the severity and extent of drought in the DEIS is outdated and inadequate. The DEIS at 3-9 identifies sources from 2014 and 2015 to indicate severe and prolonged drought in California, Nevada and Utah. However, in the intervening years, severe and prolonged drought conditions have also been

35 https://peer.org/wp-content/uploads/2023/03/3_7_23_Spreadsheet-Wyoming-Sage-Grouse-Consultations-2.17.23.pdf

present in large portions of Eastern Oregon, Southern Idaho, Eastern Montana, portions of Wyoming and Colorado. For example, in August 2021, nearly 100% of the planning area experienced severe or greater drought.[36] Conditions were similar in both 2020 and 2022.[37] Even during the relatively wet year of 2023 where drought pressures eased in some of the planning area, severe drought persisted in Eastern Oregon and the Hi Line of Montana.[38]

The DEIS acknowledges that drought has significant impacts on vegetation conditions, "including lower sagebrush canopy cover, reduced perennial grass and forb production, and changes to food resource availability" and that there are feedback loops in terms of invasive species and climate change. "Sagebrush habitats with low resistance and resilience to invasion by exotic annual grasses are also more likely to be negatively affected by climate changes (Adler et al. 2018). Climate change may worsen the spread of invasive species, such as cheatgrass, medusahead, and ventenata, by increasing the severity of droughts, reducing precipitation, or altering wildfire cycles (BLM 2013a; USGCRP 2018)." (DEIS at 3-9)

However, in the discussion of livestock grazing, mention of the combined impacts of drought and commercial livestock grazing are fully omitted. The BLM currently has no national policy about how to manage grazing during drought. Decisions about reductions or suspensions of grazing to protect drought-stressed vegetation are made by local land managers and the BLM does not have a database to track such decisions nor a standard protocol for determining when grazing is appropriate during or after drought conditions are present.

Further, throughout the Cumulative Effects section there is no mention of drought in the context of livestock grazing. It is reasonably foreseeable that prolonged severe drought in a large portion of the planning area will have myriad cumulative impacts. Less forage will inevitably be available for livestock and drought reduces production of palatable species and increases the expansion of invasive species. Continued current levels of grazing during drought will lead to less resilient native plant communities and thus lead to negative impacts for greater sage grouse.

The BLM's persistent lack of analysis of grazing conditions and grazing permit decisions indicates that current grazing levels are expected to continue for the foreseeable future. The DEIS fails to acknowledge this reality and maintains a fallacy that grazing is managed responsive to conditions even when there is no evidence to suggest that this occurs on a rangewide basis.

Absent significant reductions in actual grazing use, both intensity and duration, native plant populations will suffer permanent declines, in some cases causing state changes from higher to

[36] https://www.ncei.noaa.gov/access/monitoring/monthly-report/drought/202108
[37] https://www.ncei.noaa.gov/access/monitoring/monthly-report/drought/202008 ; https://www.ncei.noaa.gov/access/monitoring/monthly-report/drought/202208
[38] https://www.ncei.noaa.gov/access/monitoring/monthly-report/drought/202308

lower value and more simplified habitat types. The loss of native plant productivity and the subsequent decline of soil health and carbon sequestration potential will also cause cascading negative impacts for greater sage=grouse and sagebrush habitat in general.

Grazing during drought creates feedback loops that tend to worsen the impacts of drought both in intensity and duration.

- Drought is stressful on native plants, decreasing vigor, and increasing mortality. This makes individual surviving plants less able to respond to increases in moisture and reduces seed source availability. Grazing defoliates plants adding to the physiological stresses already incurred due to drought.
- Drought increases the amount of bare ground, reduces canopy cover and decreases shading. This exposes more soil to direct sunlight, increasing soil temperature and decreasing soil moisture, raising near ground air temperature, thus intensifying drought conditions and retarding drought recovery. Reduced vegetation canopy cover and windbreaks make the site less able to retain snow due to both increased melting and sublimation.
- Increased bare ground is subject to greater rainfall impact, increased runoff and soil erosion by water, decreasing water retention on site, lessening soil moisture recharge. The exposed soil with reduced shading and windbreak provided by plants is more exposed to wind erosion. Disturbing the soil through hoof action adds to the wind erosion hazard. Fugitive dust from bare ground can cover great distances and deposit on snow in faraway mountains. The dust decreases the snow's albedo resulting in warming of the snowpack, premature melting and runoff and decreased stream flows.

Because grazing acts as a drought intensifier, often with effects that extend well beyond allotment boundaries, careful consideration and justification is required before authorizing grazing during drought conditions. Unfortunately, BLM policy does not currently address grazing during drought and impacts are widespread throughout the planning area. The failure of the DEIS to fully acknowledge and analyze the cumulative impacts of permitted grazing at current levels and drought on all aspects of greater sage grouse habitat must be remedied.

B. Climate Change

The DEIS fails to adequately account for the role that climate change plays in adversely impacting sage grouse habitat and specifically in terms of the cumulative impacts of authorized activities within the planning area both in terms of how they contribute to greenhouse gas emissions that drive climate change and exacerbate the impacts of climate change.
Specific to the issue of livestock grazing, numerous studies have been conducted to describe these impacts yet the DEIS only includes analysis from 2014 or earlier. Two particularly

important recent papers include Kauffman et al., 2022a and 2023. The following chart from Kauffman et al. 2022a exemplifies the impacts of livestock grazing that exacerbate climate change and associated feedback loops.

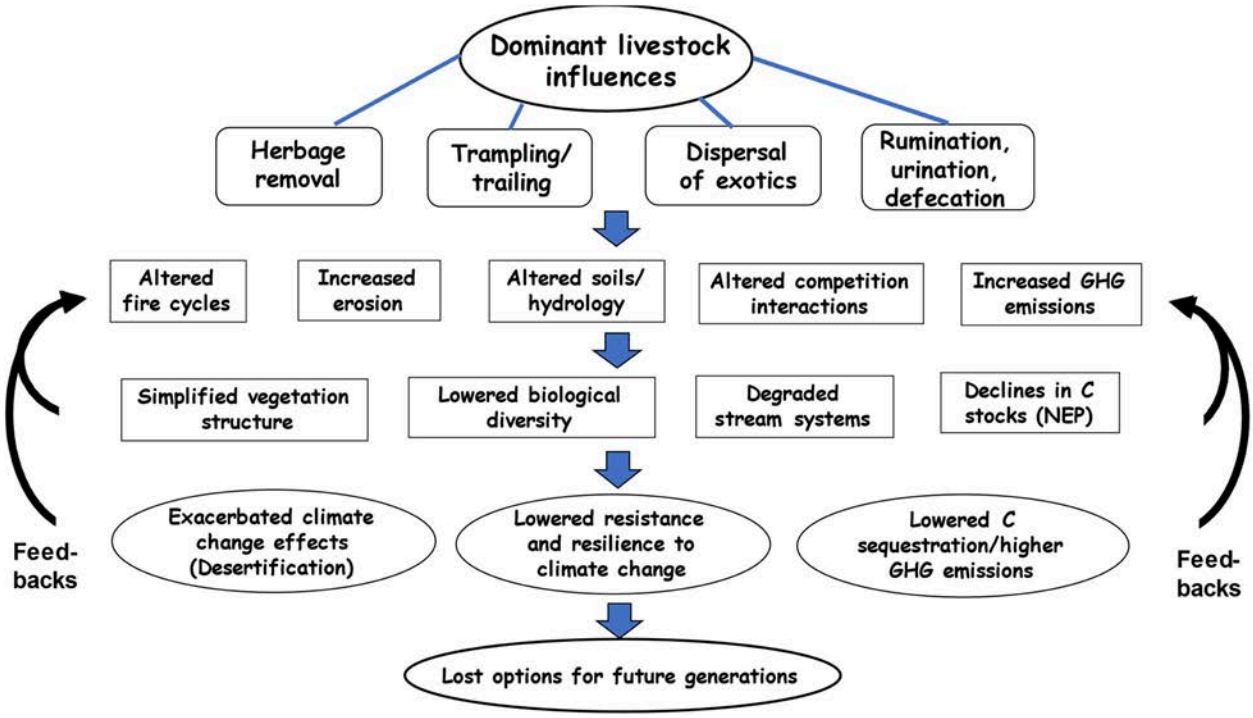


Fig. [2, Kaufmann et al.] The interacting effects of livestock grazing and climate change on western rangelands. There are four primary immediate effects of livestock: herbage removal, trailing trampling effects, dispersal of exotics, and creation of metabolic and non-metabolic waste products. Through time, these effects on native rangelands affect fire regimes, increase erosion, compact soils affecting ecosystem hydrology, and alter competitive relationships between plant species. These actions decrease the net ecosystem productivity (NEP) such that the range- lands shift from carbon sinks to net sources of greenhouse gasses. Products of animal metabolism are significant additional sources of greenhouse gasses, especially CH_4 and N_2O. Ultimately the results of grazing have led to a simplification of vegetation structure typified by increases in exotic, ruderal, and less palatable species, that are more adapted to the drier conditions created by lower water holding capacities of compacted soils. The shifts in species composition further decrease the capacity of rangeland ecosystems to function as carbon sinks. Other impacts of grazing include a decline in riparian vegetation structure, shifts to drier species dominance, and degraded stream channels which increase stream temperatures, ground surface temperatures and alter stream flows. The consequent shifts in the net ecosystem productivity of the landscape, coupled with GHG additions from livestock, results in additional contributions to the greenhouse gasses causing climate change. The effects of livestock accentuate the effects of climate change such as increased stream and air temperatures, loss in biological diversity, and an overall decline in the productivity of rangelands (desertification). There are also strong feedbacks associated with climate change. The warmer and drier temperatures, and reduced snowpack associated with climate change interacts with livestock grazing to negatively affect stream flows, water quality and biological diversity. These factors result in further degradation and a lower capacity for carbon storage, hence higher green- house gas emissions.[39]

[39] Kauffman JB, Beschta RL, Lacy PM, Liverman M (2022a) Livestock on public lands of the western USA accentuate effects of climate change: Implications for mitigation and adaptation. Environ Manag https://doi.org/10.1007/s00267-022-01633-8

Furthermore, the DEIS fails to include the latest information about the greenhouse gas emissions from livestock grazing on public lands expressed in terms of the social cost of carbon which total between $72-$166/per animal unit month and far exceed the economic value of grazing to the permittees and the economy in general.[40]

13. Renewable Energy Infrastructure

We support Alternative 3's intention to make PHMA unavailable for renewable energy development (DEIS at 2-93). Analysis should be considered for all General Habitat Management Areas, Priority Habitat Management Areas, and core intact sagebrush landscapes in the range of the sage grouse to be avoided and excluded from renewable energy development and associated transmission infrastructure.

Though it is true that there have been few studies specific to greater sage grouse (DEIS at 2-92), a recent literature review of the impacts to grouse species from wind energy facilities (Coppes et al, 2020) found nearly universally negative impacts to grouse species in 39 separate studies around the world. Thus, "avoidance" as proposed under Alts5 & 6 is not enough, and reflects a serious downgrade from the 2015 plans in most states.

In 2020, a new push by BLM started, accepting applications to build utility-scale solar projects in the Great Basin sagebrush habitats of Nevada, attracted by flat lands, sunny skies, fueled by the many long, remote, high-voltage transmission line project applications such as the proposed Greenlink North Transmission Project.

The Pantheon Solar Project was proposed to be built on 8,086 acres of public lands managed by the Bureau of Land Management about 15 miles southwest of Ely, Nevada[41]. The project has since been reduced to 2,700 acres.

We have seen applications for utility-scale solar projects that are partly in Priority Habitat Management Areas PHMAs for greater sage grouse, namely, Eagle Butte I and II, and Wildcat Solar Project near Austin, Nevada on land managed by the BLM currently zoned as Variance lands (inspection of solar project applications at the Tonopah NV Field Office of BLM). This is unacceptable.

Utility-scale solar projects typically take 2,000 to 10,000 acres and more, with associated industrial construction activities taking 1-3 years, with new roads, pylons or racks pounded or set

[40] Kauffman, J.B., Beschta, R.L., Lacy, P.M. *et al.* Forum: Climate, Ecological, and Social Costs of Livestock Grazing on Western Public Lands. *Environmental Management* **72**, 699–704 (2023). https://doi.org/10.1007/s00267-023-01853-6

[41] http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2020_THRU_PRESENT/2020-9/4649.pdf?fbclid=IwAR1XZaV634w2TtuTks-UQigtWX8lyp8j8xIZS7VNw4uj8normoYjCccRPFY

into the ground to hold solar panels, construction lay-down areas, operation and maintenance buildings, substations, tall gen-tie lines which can be as large as 500 kiloVolt powerlines connecting the solar project to the main grid transmission line, often Lithium-ion battery banks in cooled container buildings for energy storage, 8-foot tall chain link security fences surrounding the project, night lighting, local new water wells and water truck delivery, and stormwater drainage basins, berm-walls, and channels to divert flooding away from the solar fields. During construction, solar projects require large numbers of trucks to deliver solar panels on palettes and other equipment, heavy construction machinery such as bulldozers, scraper-graders, blades, and water trucks for dust suppression, as well buses and cars for project workers commuting to the sites, which are often in remote wildlands far from towns and cities. Solar projects typically develop Traffic and Transportation Plans, and these should include impacts to sage grouse. Noise levels can be high, and 24-hour night-lighting during months of construction can impact wildlife.

Photovoltaic solar project construction methods typically include drive-and-crush methods where heavy machinery drives over native shrubs and plant communities, and allows some vegetation to grow in the solar field. Portions of the solar project are bladed flat with total soil removal, for operation and maintenance areas. Grading with 100% vegetation removal is also a method still used on solar projects, with much higher impacts to resources. Lower impact designs have been attempted, but are more costly to the solar developer. With all construction methods soils are disturbed, biological soil crusts are reduced and degraded, vegetation is broken and crushed, and invasive plants often increase at the expense of native forbs. Some solar projects in Nevada have had to apply herbicides in order to deal with invasive plants spreading across solar fields on disturbed soils, which can cause a fire hazard to electrical equipment.

Gerringer et al. (2022) during bat and bird carcass surveys in a Wyoming solar project opportunistically observed sage grouse using a solar project. Observations occurred between early June and mid-January, with 74% of observations occurring between mid-August and mid-November. Observations did not provide evidence that sage grouse necessarily selected for areas within the facility. The authors recommended that additional research on resource selection and demographic responses by sage grouse would provide more inference on how the species responds to utility-scale photovoltaic solar project development.

We do not recommend considering solar projects as functional habitat for sage grouse, however. Because of the collision hazards, disturbed vegetation, noise, and predator attractions and raven perches, these construction and operation zones degrade healthy functioning undisturbed sagebrush and meadow habitats.

The 2012 Western Solar Plan approved mitigation for solar projects proposed in sage grouse habitat outside of Solar Energy Zones and Exclusion Areas, in Variance Lands[42]:

> Variance Protocol for Greater Sage Grouse:
>
> The BLM has adopted the following protocol for variance applications in greater sage grouse habitat.
>
> Greater sage grouse habitat (i.e., currently occupied, brooding, and winter habitat) as identified by the BLM in California, Nevada, and Utah is excluded from BLM's Solar Energy Program (see Section 2.2.2.1 of the 2012 Solar PEIS).
>
> Developers that propose utility-scale solar energy projects in variance areas that overlap the range of the greater sage grouse will be required to provide documentation of the following, unless a project is otherwise determined by the BLM and U.S. Fish and Wildlife Service (USFWS) and appropriate State wildlife agencies to have acceptable impacts on greater sage grouse:
>
> - Project is at least 4 mi (6 km) from the nearest lek;
> - Project will not adversely affect Preliminary Priority Habitat; and
> - Project will be mitigated through land acquisition or habitat enhancement at a ratio of at least 1:1 for any impact on Preliminary General Habitat as determined by accepted standards of habitat analysis (e.g., habitat equivalency analysis [HEA]) and in coordination with the USFWS and the appropriate State wildlife agencies.

How will BLM coordinate the 2024 Greater Sage Grouse Planning revision with the 2024 Western Solar Plan revision which is undergoing a separate but simultaneous review? The current Western Solar Plan revision proposes to eliminate Variance Areas and Variance Protocols, in favor of designating large Exclusion Areas and large solar open areas for development. The Preferred Alternative (3) of the Solar Programmatic Environmental Impact Statement would allow at a minimum 700,000 acres of lands to be developed for utility-scale solar projects across 11 western states.

There is a push to develop sage grouse habitat for long, remote, high-voltage transmission lines and connected solar projects that would have a significant cumulative impact in the future if build-out is achieved. The current sage grouse planning revision seeks to weaken the plans in order to reduce lek buffers to new utility corridors and transmission infrastructure, and allow PHMA and GHMA to be degraded.

[42] https://blmsolar.anl.gov/non-competitive/specific/variance/factors/sage-grouse/

In the Solar Programmatic EIS at Appendix B-44, helicopter activity is proposed to be allowed at solar projects, apparently for construction purposes. No helicopter activity should be allowed near leks within at least a 4 mile buffer at all seasons and at all times of day.

> **ER-O-7sss** There shall be no helicopter installation activities within 4 miles of GRSG leks in the spring time prior to 10 am**.** (Western Solar Plan revision, Solar PEIS at Appendix B-44)

F. The DEIS lacks an analysis of previous actions, adaptive management implementation and outcomes, and the outcomes of prior mitigation efforts.

BLM has nearly a decade of experience implementing the 2015 plans yet fails to explain how (in)effective they have proven in reversing sage grouse declines. BLM has also failed to consider or disclose the number of plan elements it has failed to implement or enforce, or examine the likelihood of similar implementation failures in the future. Instead, BLM bases its analysis on unsupported and unreasonable assumptions about future implementation, such as that "[s]ufficient funding and personnel would be available for implementing the final decision" or that "[i]f monitoring reveals that mitigation is unsuccessful in reducing or eliminating impacts, measures to prevent further impacts would be implemented as appropriate to the species affected." *See* DEIS Appendix 10. Real world experience belies these assumptions.

To meet its hard look duties under NEPA, BLM must provide detail regarding the enforcement and implementation, or lack thereof, of the existing plans. This is necessary to assess how birds will be impacted by the alternatives going forward. As just one example, BLM now has a robust set of data about compensatory mitigation spending to test its assumption that off-site compensatory mitigation can achieve a net conservation gain to the species.

Although BLM must perform its own analysis, we offer the following examples of plan requirements that are not being implemented or enforced:

1. Required Design Features: RDFs are routinely overlooked and not attached to applicable agency decisions, without justification. As just one example, we submitted a FOIA request to BLM Wyoming's Casper Field Office requesting "All plans to reduce the frequency of vehicle use" submitted to that office since September 2015. Such plans are a Required Design Feature for projects in sage grouse habitat under the 2015 Sage Grouse RMP Amendments. Despite the huge numbers of oil and gas projects approved in this field office since 2015, BLM responded that it had no responsive document, confirming this plan requirement is not being implemented or enforced.
2. Compensatory Mitigation: this plan requirement is routinely overlooked, and in our experience, never required at a dollar value sufficient to address the indirect impacts to sage grouse.

3. Oil and Gas: BLM did not prioritize oil and gas leasing outside of sage grouse habitat, as promised; has never implemented the requirement to prioritize lease *development* outside sage grouse habitat; and continues to undermine the effectiveness of its lease stipulations by readily granting exceptions, modifications, and waivers.
4. Causal Factor Analyses: The RMPA's focus on Causal Factor Analysis should be tempered by the track record of inconsistency and uncertain level of success experienced under the 2015 ARMPAs and their hard- and soft-trigger process. Our examination of Causal Factor Analyses released to date indicates a spotty record of performance. Approaches seemed to vary state by state, and were subject to agency biases at the local level. For instance, the Causal Factor Analyses for the Sheeprocks PAC (UT) and Crowley PAC (OR) demonstrated that in the absence of industrial projects, managers preferred to find wild horses to be a disproportionately powerful causal factor of sage grouse declines, and domestic livestock a more minor factor or non-issue, respectively, even though in each case wild horses overlapped a very small proportion of each sage grouse PAC, while domestic livestock grazed over a large majority of the occupied sage grouse habitat. In Idaho's Mountain Valley PHMA, the Lemhi River population declines could "not identif[y] specific issues related to the decline;" although livestock grazing is the dominant human (and BLM-permitted) use in this PHMA, it apparently was given no consideration as a potential causal factor (Ellsworth et al. 2020). Wyoming Strike Team causal factor analyses (Binfet et al. 2022), by contrast, consistently considered the possibility of livestock grazing as a detrimental factor in sage grouse declines, and identified this as a principal factor in several areas with struggling sage grouse populations that tripped hard or soft triggers. Finally, it is necessary for the agency to provide a comprehensive accounting of Causal Factor Analysis and adaptive management that followed, and the extent to which it did (or did not) solve the problem identified by the trigger violation. This should be provided in the FEIS by means of taking a hard look at environmental effects of the actions proposed under various alternatives. (See also Adaptive Management, Section I, below.)

G. Inadequate Cumulative Effects Analysis

NEPA requires adequate disclosure of the cumulative impacts of the proposed action "when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions." 40 C.F.R. § 1508.7. Proper consideration of cumulative impacts requires "some quantified or detailed information," and general statements about possible effects "do not constitute a hard look absent a justification regarding why more definitive information could not be provided." *Klamath-Siskiyou Wildlands Ctr. v. U.S. Bureau of Land Mgmt.*, 387 F.3d 989, 993–94 (9th Cir. 2004); *see also Neighbors of Cuddy Mountain*, 137 F.3d 1372, 1379 (9th Cir. 1998).

The DEIS's cumulative effects discussion lacks any quantified or detailed information, resting instead on vague and cursory statements that effects would "increase" or "decrease" as compared to current management, or that impacts across alternative would be increased, decreased, or "similar." These perfunctory statements violate BLM's NEPA duty to provide quantified or detailed information. To allow for meaningful public comment and decisionmaking, the cumulative effects discussion must provide far more detail on the nature and degree of cumulative effects using quantitative data, such as: total acres of habitat loss, degradation, and fragmentation; cumulative impacts on bird fitness, survival, and reproduction; and cumulative impacts on genetic and habitat connectivity. BLM must also include a frank discussion about these cumulative impacts resulting in lek or population extirpation; the resulting effects on the "three r's" (resilience, redundancy and representation); and the probability of continued rangewide population declines for the entire species.

The cumulative effects discussion also improperly excludes other past, present, ongoing, and foreseeable future actions. As one notable example, BLM fails to consider the cumulative effects of past, present, and foreseeable future projects on lands administered by the U.S. Forest Service. The 2015 ARMPAs included lands administered by the U.S. Forest Service. The current draft plans do not. This means that any effects analysis from the early NEPA documents that included the management on Forest Service lands needs reconsideration, and any differences arising between the 2015, 2020, and 2024 alternatives needs to be evaluated alongside the management of adjacent federal lands. For example, if the Bureau is changing habitat indicators for grazing management, how does it reconcile the habitat needs of the species on adjacent FS lands where the habitat objectives were set in 2015? While Appendix 2 is helpful in comparing the Bureau's amendments, the NEPA analysis here lacks any assessment of how management/populations are trending on the Forests or how the new alternatives will correspond to the forest plans.

Appendix 14 is also incomplete as to other past, present, and foreseeable future projects approved by BLM itself. For both oil and gas development, for example, BLM only considers lease acreage and fails to include any information on oil and gas *permitting* or project approvals (e.g., number of wells; associated pads, roads, powerlines, pipelines, and facilities; total disturbed acres, etc.). Simply disclosing the number or acres of leases is inadequate to assess the actual habitat impacts of past, present, and proposed oil and gas development.

Appendix 14 also improperly generalizes projects, failing to include any details on their nature, size, or impacts. For example, BLM simply states that it has approved a certain number of mines or ROWs without naming or describing the nature of those projects, much less describing their impacts on greater sage grouse.

The analysis of PHMA, GRSG, IMHA, RHMA, SHMA, and OMHA throughout the DEIS is skewed by the fact that there are exceptions built into each of these habitat designations through the identification of "non-habitat." (DEIS at 2-19). This means that the protective designations included in the plan – and the acreages proposed under each alternative – are actually overstating the level of protection grouse habitat might actually achieve. The DEIS says, "Excepting a site-specific project from conformance with GRSG management in an area of non-habitat… would not change the GRSG habitat management boundaries as identified in the RMP." (DEIS at 2-20) But it does mean that the acreage within the habitat management area boundaries might not be protected, which leaves the true impacts of the Alternatives 4, 5 and 6 unknowable and at the discretion of the Bureau's State Directors. (We note this bad idea was limited previously to just GHMA in Utah, but would now extend to all habitat types in every state. We also note that the Bureau should have disclosed the effects of this provision in Utah, *i.e.* how many acres of HMA were chipped away at through non-habitat designations under the 2015 plans?)

It is also not clear how the RMPA will comport with the recent Conservation and Landscape Health Rule (89 FR 40308). Because the sage grouse RMPAs will be approved after the new CLHR goes into effect, the management of sage grouse habitat will be affected by changes not yet fully disclosed through guidance and manuals. For example, will mitigation leases be a piece of the compensatory mitigation scheme of this plan?

The cumulative effects analysis also improperly excludes the cumulative impact of projects approved or built prior to the year 2018.

Finally, BLM has improperly excluded the cumulative impact of adopting or withholding the SFA mineral withdrawal.

H. Improper Segmentation of SFA Mineral Withdrawal Analysis

The analysis of alternatives is hampered by a significant uncertainty: the mineral withdrawal proposed by the 2015 ARMPAs that is apparently being reviewed under a separate NEPA process with a timeline of fall 2024. But if the Sagebrush Focal Areas are to be recommended for withdrawal from mineral exploration, that is highly relevant to the decisions about HMA management in the RMPs and therefore must be analyzed as part of this RMP amendment process. The withdrawal also matters to the management of the ACECs that are proposed under several of the alternatives. It is unclear why the agency has failed to analyze the impacts of the proposed mineral withdrawal as part of this EIS, particularly where certain DEIS alternatives would retain BLM's recommendation for the SFA mineral withdrawal, and we believe doing so improperly segments analysis of connected actions. *See* 40 C.F.R. § 1501.9(e)(1) (pertaining to "connected actions").

The SFA Mineral Withdrawal and ARMPAs are connected actions for several reasons. First, it appears BLM will decide in this RMP amendment process whether to maintain or cancel its application for withdrawal. That decision, in turn, will "[a]utomatically trigger other actions that may require environmental impact statements," because the withdrawal application triggers the withdrawal evaluation process and related EIS process. Likewise, the SFA mineral withdrawal is connected because it "[c]annot or will not proceed unless," BLM retains its application for withdrawal. Finally, both the RMP amendments and the SFA mineral withdrawal are "interdependent parts of a larger action"--namely, the rangewide sage grouse conservation effort.

I. Recommendations for Adaptive Management

The Bureau relies upon its adaptive management to address down-the-road problems, but the DEIS does not include any information about how such management has worked so far.

According to the DEIS, "Implementing adaptive management can address unanticipated negative impacts to GRSG and its habitat before consequences become severe or irreversible. Adaptive management was identified by the U.S. Fish and Wildlife Service (FWS) as a key component of BLM land use plans …to help ensure that implementation of allocative decisions and limitations on disturbance are effective at conserving sage grouse and their habitats, and mitigation provisions where disturbance cannot be avoided. Like monitoring, adaptive management is a key element of complex long-term conservation strategies, particularly where there is uncertainty" (FWS, 2015). " DEIS 2-120.

1. <u>Need for Consistent Methodology and Metrics</u>

"To accurately assess any anomalies or thresholds being met, and any necessary responses, monitoring of habitat and population trend should be conducted at the same scale. The BLM will use neighborhood clusters identified by USGS (Coates et al., 2021) to track habitat conditions, the same spatial scale used by USGS for population trend analyses."

We are relieved to see that BLM is finally recognizing that arbitrary, inconsistent state-by-state monitoring metrics and adaptive management methodologies that were approved in the 2015 and 2019 plans are inappropriate. Allowing such inconsistencies calls into question the efficacy of the adaptive management strategy that has been allowed to persist for nearly a decade. This has likely been a contributing factor, along with the many other deficient management standards, to continued habitat loss, fragmentation and degradation and grouse decline. We also support the BLM's revised approach to allow for methods to separate habitat concerns from climatic conditions contributing to trends and using a consistent spatial scale of analysis, that should be of a scale fine enough to allow for effective analysis and corrective management actions.

We request the BLM clarify the following parenthetical statement: (Note: Monitoring habitat for adaptive management purposes does not preclude the need to track habitat losses for conformance with the anthropogenic disturbance caps). DEIS 2-120. It is hard for the reader to understand what the above note means. Does it mean that anthropogenic disturbance from authorized uses (as well as wildfire and agriculture conversion and residential development) is not tracked as habitat loss for adaptive management? Whatever the meaning of this note is, it is essential that disturbance under all caps be included in adaptive management tracking and management response.

2. Identifying Causal Factors

The 2023 Oregon analysis[43] finds that for most units there are multiple causal factors. There are also causal factors that appear to be consistent threats across the range such as weeds and fence collisions. In both cases we recommend broadscale management responses that can address multiple causal factors and require fence collision reduction across the range to reduce a significant and preventable source of mortality.

The five-year monitoring report notes that 16 habitat triggers and 42 population triggers were tripped across the range (Herren et al. 2021), but provides little assurance monitoring has captured the full picture of habitat loss or population declines. A review of the monitoring reports attached here (Attachment E) shows an array of different monitoring protocols and triggers, meaning population or habitat declines may trigger adaptive management thresholds in one state but not another.

The monitoring report also frequently fails to provide meaningful context that would allow the public or BLM to evaluate the efficacy of the 2015 amendments and their adaptive management plans. Specifically, the reports should disclose how many total triggers exist, the spatial distribution of units that were triggered, the causes of the triggers, a causal analysis, and importantly, disclose how land managers have implemented adaptive management under the 2015 plans. Specifically, what management changes occurred because of these triggers being met and any follow up monitoring.

Every plan should provide for specific desired outcomes, enforceable triggers, consistent monitoring, accurate reporting, and outcomes from responsive management actions. BLM should post on its website annual updates for monitoring and disturbance cap analysis.

Habitat and population triggers should operate independently, and should not be set at the low end of what science supports. Setting triggers too low–ensures harm to the species will occur before land managers can take corrective actions.

[43] https://www.blm.gov/sites/default/files/docs/2024-02/OR-IB-2024-027-att2.pdf

Plans should also be transparent and enforceable. And while adaptive management is flexible by nature, plans should follow the precautionary principle: planners and land managers need to make every effort to err on the side of caution, and incorporate wide margins of safety to guard against loss of sage grouse and their habitats, especially given the pressures exerted on sage grouse and its habitat from climate change.

3. Adaptive management triggers should also apply to GHMA.

Under the current DEIS, adaptive management is not required for GHMA. "Local responses to thresholds reached in GHMA can be considered if deemed necessary by the BLM and the appropriate state agency." DEIS 2-120. Adaptive management triggers must also apply to GHMA. The DEIS states that GHMA is "BLM-administered lands where some special management will apply to sustain GRSG populations; areas of occupied seasonal or year-round habitat outside of PHMA or IHMA." DEIS 3-4. Habitat protections for GHMA are not sufficient for grouse to persist in GHMA. Alternatives 4, 5 and 6 would weaken protections even further. GHMA cannot sustain GRSG populations when management direction for GHMA will result in local extirpation of the grouse. The BLM cannot write off greater sage grouse in GHMA. Protections need to be more restrictive.

4. No new authorizations should be considered when triggers are tripped.

Alternative 5 and 6 are the "Same as Alternatives 3 and 4 except new authorizations can be considered during the rapid assessment period. Project level NEPA will specifically evaluate if any new permitted activity could contribute to any cause identified during the rapid assessment." DEIS 2-123. It is unacceptable and contrary to any logic that new authorizations would continue to be allowed under Alternatives 5 and 6 while a rapid assessment is occurring. Further,

> Existing permitted activities can continue unless those activities are causing mortality to GRSG or direct loss or degradation of occupied GRSG habitat. DEIS 2-125.

The above management direction should include indirect and cumulative effects as well. Even if a specific authorized use may not appear to cause grouse mortality or direct loss or degradation of habitat, those uses can still be detrimental through indirect effects. For example, if the authorized use contributes to spread of invasive species, or creates noise levels harmful to grouse, or an increase in predators, then those uses should not be allowed. Additionally, if a use is categorized as "uncertain", that authorized use should be paused as well. As the DEIS notes, there can be multiple stressors at play when hard or soft triggers are met. Further, stressors can act in synergistic ways. The best course of action is to eliminate stressors that are in the control of land management agencies.

> If the neighborhood cluster cannot be restored to original sagebrush conditions and/or habitat function due to ecological or disturbance limitations (e.g., intense fire killed soil microfauna, ***dense anthropogenic activities***) restoration and/or habitat enhancement in adjacent neighborhood clusters can be considered to increase the number of GRSG supported in those areas. This will be done in coordination with appropriate state agencies. If enhancing habitats in adjacent areas does not reverse the threshold, and further assessment may be necessary to determine if the area in which the habitat threshold was met should still be considered GRSG habitat. DEIS 2-122.

We want to point out the irony that as an example of why a neighborhood cluster cannot be restored to functionality could be because of "dense anthropogenic activities." This is why Alternative 3 is the only management alternative that will meet the purpose and need. Alternatives 1, 2, 4, 5 and 6 allow all manner of discretionary activities that will allow habitat fragmentation, loss and population harm. Even mining can be addressed through mineral withdrawals.

> There are sufficient numbers of GRSG (abundance) to allow for recovery of population numbers to those present at or before the threshold was met, based on local growth rates determined by the state wildlife management agency, and BLM has the concurrence of the state wildlife management agency. DEIS 2-122.

This should apply only if the habitat can support abundant grouse and all of their life cycle needs.

5. <u>Exceptions to limitations should be eliminated</u>

In the current DEIS, Alternatives 4-6 would allow exceptions to limitations imposed for exceeding thresholds including:

> "Renewal of existing activities that require a permit if:
- The activity is scheduled within 60 days of when a threshold is met and identified, and
- The project proponent can show significant negative economic impacts (i.e., documented loss of income equivalent to the income potential of the event), and The renewal can only be considered if it does not result in known impacts to habitats or populations."

We recommend these exceptions be eliminated. If the activity is a contributing factor or labeled as "uncertain" to causing the threshold exceedance or trigger, whether an activity is scheduled within a certain time should not matter, it is the harmful activity that matters. Also, economic impacts should also not be a factor. The example provided is a break even analysis (loss of income equal to income potential), hardly a reason to risk extirpation of a grouse population. We

are also confused by the last clause. The very fact a use is being considered for a limitation (in this case an exception from a limitation) is because it is a contributing factor to the triggers. As noted above, there should also be no exceptions for causal analysis that indicate a contribution from a specific use is "unclear."

6. BLM should clarify the timing of the full adaptive management strategy.

It would be helpful for BLM to include a specific timeline for each step of the monitoring implementation strategy in a chart. The DEIS provides some timelines, but not for every step. For example, monitoring is at least biennial, but the soft trigger is for an *annual* decline in habitat. If monitoring is every two years, that means the first year of decline will not be noticed.

> The analysis shall be detailed in a written report that includes descriptions of existing land uses, land ownership patterns, history of population and habitat trends in the area, condition of the habitat, cause(s) of habitat and/or population decline, recommendations of management actions to address the potential causes of decline, and the data and expertise used to reach conclusions presented in the report.

We recommend that the above written analysis also include disturbance percentages and that these reports are made available to the public for example, the BLM can create a page on the sage grouse page.

> An annual review of habitat and population information between the BLM and associated state wildlife agency is *encouraged* even if no thresholds are identified. DEIS 2-122

Annual reviews should be required. The Bureau cannot manage sage grouse habitat without an accurate and contemporaneous understanding of the state of the population.

J. Failure to use consistent Habitat Management Area designation definitions

Page 2-12 shows the variation by alternative of PHMA and GHMA acreage allocations. Appendix 3 describes the differences by state in the allocations and mapping approaches. Most states include all occupied habitat with PHMA and GHMA while others (e.g., UT) leave some occupied habitat unprotected. Just as BLM attempted to make lek definitions consistent, BLM should strive to make habitat management area allocations consistent. Absent this consistency, it is difficult to understand the relative value of PHMA and GHMA across the range and evaluate effects. For example, it is difficult to evaluate how each alternative treats occupied habitat and suitable (unoccupied) given the variance in definitions.See Table 1.

Table 1. Summary of PHMA GHMA and other habitat management areas for each state under Alternative 5, per Appendix 3, DEIS.

State	PHMA definition -preferred alt.	GHMA definition – preferred alt.	Other habitat types
CO	PHMAs have been identified as having the highest conservation value to maintaining sustainable GRSG populations. They include breeding, late brood-rearing, and winter concentration areas.	GHMAs are areas of seasonal or year-round GRSG habitat outside of priority habitat.	
ID	In general, PHMA encompassed high and medium-high BBD (25-50%), large areas of intact, habitat (medium and high HSI, high sagebrush cover (>8%), low tree canopy cover (<30%), and low annual herbaceous cover (<20%)), important connectivity and seasonal habitat, especially winter, as evidenced by telemetry locations, and a lack of disturbance (e.g., fire, anthropogenic features).	GHMA encompassed the lowest quality habitat and BBD (100% or outside the 10km occupied lek buffers) and mesic habitats used in summer (e.g., wet meadows, alfalfa fields).	IHMA serves to connect and buffer PHMA and encompassed slightly lower quality and/or more fragmented habitat, with lower BBD (50-100%).
MT/Dakotas	Areas with limited impacts containing substantial and high quality GRSG habitat that have been identified as having the highest conservation value to maintaining both sustainable sage-grouse populations and the range of GRSG.	Areas with or without ongoing or imminent impacts containing seasonal or year-round habitat outside other habitat management areas, including for the purpose of promoting movement and genetic diversity.	CHMA: Areas that provide regions of connectivity important to facilitate the movement of GRSG and maintain ecological processes, including between priority populations, adjacent states, and across international borders.
NV/CA	Areas that have been identified as having the highest conservation value to maintaining sustainable Greater Sage Grouse populations. These areas are occupied seasonally or year-round and	An area that is likely to be occupied seasonally or year-round outside of a Priority Habitat Management Area and where management will apply to sustain	

	include breeding, late brood-rearing, and winter concentration areas.	the Greater Sage Grouse populations.	
OR	BLM-administered lands identified as having the highest value to maintaining sustainable GRSG populations. Areas of PHMA largely coincide with areas identified as Priority Areas for Conservation in the USFWS's COT report.	BLM-administered lands where some special management will apply to sustain GRSG populations; areas of occupied seasonal or year-round habitat outside of PHMA.	
UT	Hard to tell exactly. Alt. 5 is a modification of the 2015 definition: BLM-administered lands identified as having the highest value to maintaining sustainable GRSG populations. Areas of PHMA largely coincide with areas identified as Priority Areas for Conservation in the USFWS's COT Report. These areas include breeding, late brood-rearing, winter concentration areas, and migration or connectivity corridors.	Hard to tell exactly. Alt. 5 is a modification of the 2015 definition: BLM-administered lands where some special management will apply to sustain GRSG populations. Areas of occupied seasonal or year-round habitat outside of PHMA.	25 occupied leks are outside of HMAs
WY	GRSG habitats that have the highest conservation value for maintaining or increasing GRSG populations.	all occupied and potential GRSG habitats not designated as PHMA or SHMA.	SHMA: GRSG habitats that are generally characterized by large percentages of private land, existing disturbance and prior and existing rights, and fragmented landscapes but that continue to support substantial populations of GRSG, provide important connections between populations, and are important for maintaining GRSG populations. Management in SHMA is consistent with GHMA restrictions.

The DEIS shows how each alternative allocates PHMA and GHMA. Table 2, below, shows these allocations. Confusingly, the total acreages (PHMA+GHMA) vary by alternative.
Amongst the alternatives that differentiate between PHMA and GHMA, Alternative 4 appears to allocate the most acres to PHMA; the DEIS explains that this allocation reflects the most up-to-date modeling and mapping. It is good to see the BLM has identified additional PHMA in Alternative 4. Reducing PHMA acres in Alternatives 5 and 6 (compared to Alternative 4) Reducing PHMA acres in Alternatives 5 and 6 (compared to Alternative 4) will cause further habitat loss and population declines and will not meet the purpose and need of these plan amendments.

Alternative 3 has 6.5 million more acres of HMA than Alternative 4. The BLM should explain what the differences are between these alternatives.

Table 2. Habitat management area allocations under the alternatives.

	Alt 1	**Alt 2**	**Alt 3**	**Alt 4**	**Alt 5 (Preferred) & Alt 6**
Acres PHMA	32,465,000	32,535,000	69,199,000	36,701,000	34,803,000
Acres GHMA	26,383,000	25,878,000	N/A	25,946,000	23,718,000
TOTAL	58,848,000	58,413,000	69,199,000	62,647,000	58,521,000

Given the historical and anticipated declines of greater sage grouse, BLM should allocate the most acres of suitable and potential habitat to PHMA to protect habitat and reverse declining population trends.

As described at DEIS 2-11, GHMA generally are "lands that are or have the potential to become occupied seasonal or year-round habitat outside of PHMA or IHMA, managed to sustain GRSG populations." Despite this definition, GHMA are provided scant protections that are desperately inadequate for sustaining greater sage grouse populations based on the scientific studies cited in the DEIS. For instance, oil and gas leasing with few restrictions on operations is permitted throughout GHMA (with a few state by state exceptions for areas proximal to leks, see discussion on lek buffer zones above) even though it is well accepted that fluid mineral energy development has a profound negative impact on greater sage grouse persistence and the impacts are such that they are not adequately mitigated by timing restrictions and other minor surface use modifications.[44] For CO and WY, controlled surface use (CSU) stipulations are in place within 2

[44] See DEIS discussion at 4-3 to 4-4 stating that sage grouse declines in lek persistence and bird abundance resulting from energy development occur at all scales and are in part due to habitat fragmentation. ("Direct, indirect, and residual impacts from energy development accrue both locally and cumulatively at the landscape scale. GRSG populations typically decline following oil and gas development (Holloran 2005; Walker et al. 2007a; Doherty et al.

miles of a lek and otherwise open without restriction; in Idaho, MT, Dakotas, NV, CA, CSU stipulations are required; and Utah's approach differs by field office. Allowing surface disturbance from energy development without sufficient disturbance caps, density restrictions, etc. in GHMA is not a management scheme that will "sustain GRSG populations."

Similarly, GHMA is open to all other types of uses and activities (although a few states provide minimal lek buffer zone protections within GHMA). As such, it exposes greater sage grouse to disturbance that is known to reduce greater sage grouse populations.

BLM must strengthen GHMA management to meet its stated intention of sustaining GHMA populations. BLM must more aggressively limit discretionary surface disturbances within the lek buffer zone and across the GHMA minimize unnecessary fragmentation and disturbance.
We support BLM identifying and including areas of connectivity. All connectivity areas should be managed as PHMA given the importance of these areas. Further all winter habitat should be protected as PHMA with the strongest protections proposed in Alternative 3 given the crucial role winter habitat plays in grouse life cycles and the limited availability of winter habitat. It is not clear from the DEIS if all winter habitat is included in PHMA.

Alternative 3 would best meet the purpose and need and BLM's obligations under its sensitive species policy by providing strong protections for all sage grouse habitat and the bird's life cycle needs.

II. VIOLATIONS OF THE FEDERAL LANDS POLICY AND MANAGEMENT ACT (FLPMA)

A. Special-Status Species Policy

BLM's failure to revise the plan amendments toward true conservation does not follow BLM's internal policies that mandate species protection. BLM Manual 6840, also known as the "special-status species" policy, "provide[s] policy and guidance for the conservation of BLM special status species and the ecosystems upon which they depend on BLM-administered lands." Its objective for "sensitive" species that are not currently listed under the Endangered Species Act (ESA), including the sage grouse, is 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." *Id.* In addition, "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. *Id.* § 6840.2.B.

2008). Indirect effects are habitat degradation or utilization displacement and are estimated to occur out to 11.8 miles from leks (Naugle et al. 2011).")

For sage grouse, complying with the special status species policy means ensuring that existing regulatory mechanisms are adequate to protect the species. In 2010, the U.S. Fish and Wildlife Service (USFWS) found that the greater sage grouse was "warranted" for ESA listing, in part because existing regulatory mechanisms, including BLM land-use plans, did not "adequately address the conservation needs" of the species, and were "exacerbating the effects of threats to the species" from habitat loss and degradation." USFWS 2010, 75 Fed. Reg. 13979. For instance, USFWS identified significant regulatory shortcomings with respect to energy development on BLM lands:

> Stipulations commonly applied by BLM to oil and gas leases and permits do not adequately address the scope of negative influences of development on sage grouse. . . . In addition, BLM's ability to waive, modify, and allow exceptions to those stipulations without regard to sage grouse persistence further limits the adequacy of those regulatory mechanisms in alleviating the negative impacts to the species associated with energy development.

(USFWS 2010, 75 Fed. Reg. 13979) The 2015 plans promised a "paradigm shift" in sage grouse conservation, and as a result in 2015 USFWS found that listing the species was no longer warranted (USFWS 2015, 80 Fed. Reg. 59858). As described in this letter, BLM's implementation of the 2015 plans has reduced their effectiveness and called into question the ongoing validity of the 2015 "not warranted" finding. For example, BLM did not prioritize oil and gas leasing outside of sage grouse habitat, as promised, and BLM continued to undermine the effectiveness of its lease stipulations by readily granting exceptions, modifications, and waivers. Meanwhile, sage grouse populations have continued to decline, indicating that the conservation measures adopted in 2015, and as implemented by BLM, are inadequate. Nevertheless, in the 2024 DEIS for the Proposed Plan amendments, BLM includes several alternatives, including its preferred alternative, that would weaken protections compared with the 2015 plans, and thereby exacerbate threats to greater sage grouse across the West.

Adopting the Preferred Alternative or any other alternative that weakens protections in comparison to the status quo would be contrary to the special status species policy, which requires BLM to minimize the likelihood of ESA listing and thus ensure that adequate regulatory mechanisms are maintained on BLM lands. It does not matter whether the policy contains requirements or only guidelines – either way, the BLM violates FLPMA by completely disregarding its own policies on the drafting of RMPs. *See Atchinson v. Wichita Board of Trade*, 412 U.S. 800, 808 (1973) (where agency modifies or overrides its longstanding precedents or policies, it "has the duty to explain its departure from prior norms"); *W. Watersheds Project v. Salazar*, No. 4:08-CV-516-BLW, 2011 U.S. Dist. LEXIS 111728, at *48 (D. Idaho Sep. 28, 2011).

For example, rather than adopt meaningful conservation strategies for sage grouse by limiting grazing use in accordance with the best available science, the Bureau is doing exactly the opposite of what the SSP says: "Land Health Standards should be used for managing Bureau sensitive species habitats until range-wide or site-specific management plans or conservation strategies are developed." *Emphasis added.* This planning process – these RMPAs – are the plans in which conservation strategies should be developed. Punting to subsequent future land health assessments is inadequate and will lead to uneven application of the science due to local manager's discretion.

The DEIS frequently suggests that BLM is seeking to "balance" sage grouse conservation objectives with its "multiple use" mission under FLPMA. But providing for "multiple-use, sustained yield" management does not require BLM to maximize development opportunities by leaving priority habitats open to fluid mineral leasing and other harmful land uses. FLPMA defines "multiple use" as:

> [T]he management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; *the use of some land for less than all of the resources*; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment *with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output*. Emphasis added.

43 U.S.C. § 1702. "It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses." N.M. ex rel. Richardson v. BLM, 565 F.3d 683, 710 (10th Cir. 2009). Further, BLM's "multiple use" mandate does not prevent BLM from closing areas to development to further conservation objectives. *Id.* Here, BLM should follow the best available science by closing priority habitats to fluid mineral leasing and restricting development on existing leases, as discussed above. Alternative 3 would accomplish these conservation closures for livestock grazing.

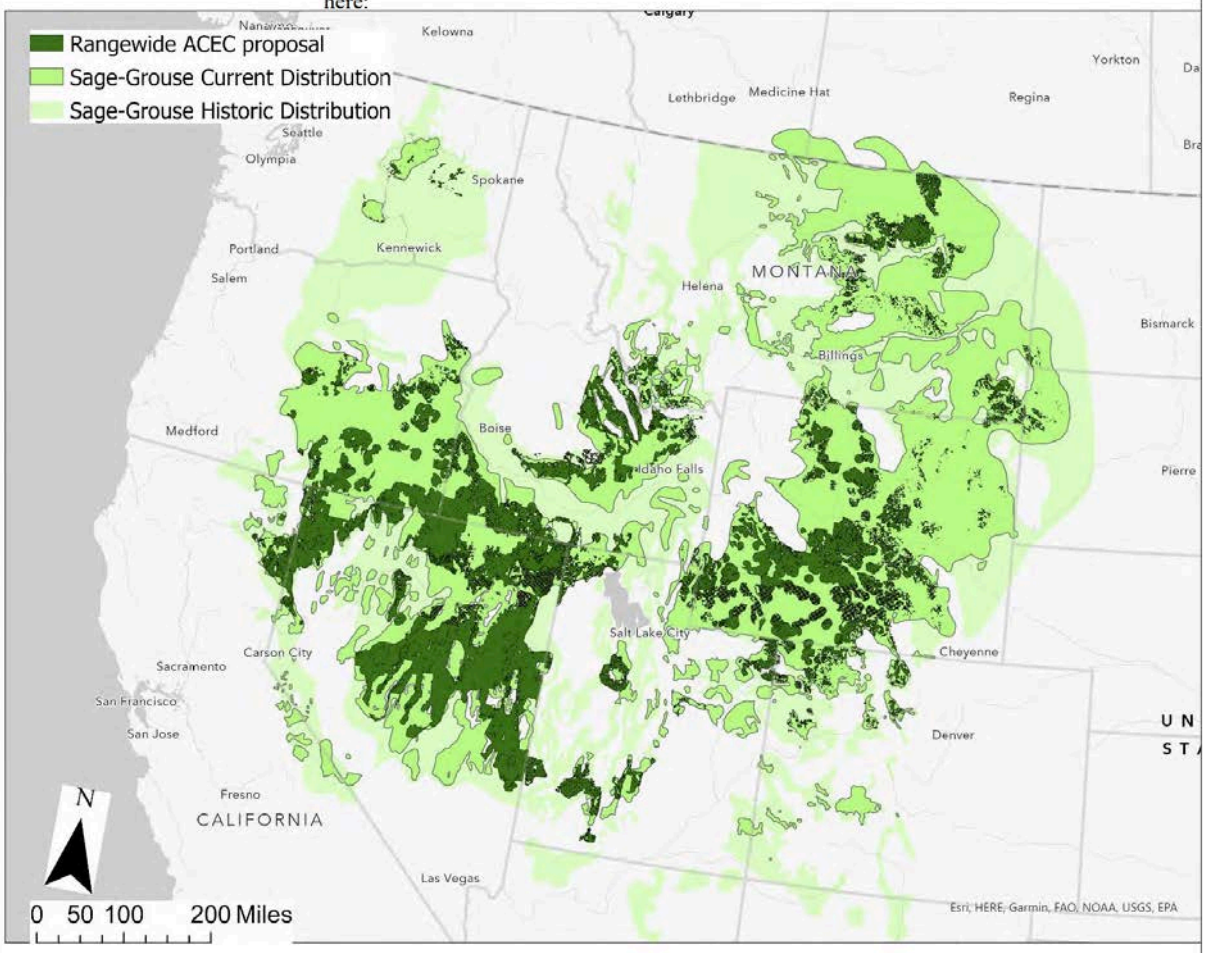
B. Sage Grouse Area of Critical Environmental Concern

Conservation groups have advanced a proposed Sagebrush Sea Reserve Area of Critical Environmental Concern (ACEC) network pursuant to the new sage grouse RMPA planning process (See Attachment B.). The ACEC nomination was submitted to Patricia Deibert, Acting National Sage Grouse Coordinator for the Bureau of Land Management in Salt Lake City, Utah, by numerous conservation organizations on February 8, 2022.

This nomination exceeds the necessary criteria for establishing an ACEC. The areas in question are both relevant and important, identified by agencies as sagebrush habitat that is necessary to sustain the imperiled sage grouse. The nomination is largely informed by the US Fish and Wildlife Service's Conservation Objectives Team Report (2013), the BLM National Technical Team Report (NTT 2011), and recent best available science. As climate change continues to take a toll on greater sage grouse habitat, it is imperative that we reduce human-induced stressors on the sage grouse's habitat.

Describe the Area to be Nominated

General location description: The Sagebrush Sea Reserve ACEC network includes much of the currently occupied priority habitats of the Greater sage-grouse (GrSG) in 10 western states. Map included here:



Acreage: 48,202,418 acres

Values considered: Biological; Ecological; Wildlife Habitat, especially for the Greater Sage-grouse (GrSG); Imperiled, Sensitive and Migratory Species Habitat; Resilient Sagebrush Habitat.

The nominated network of Sagebrush Sea Reserves ACECs contains the most important habitat for greater sage grouse across its range and includes habitat for other sensitive and threatened native species that rely on healthy sagebrush systems. The current proposed network of ACECs has already been identified by USFWS in coordination with state wildlife agencies to contain habitat that is valuable and necessary for all greater sage grouse life stages, including lekking, brood-rearing, and winter range (USFWS 2013).

More specifically, we based this map on the sage grouse Priority Areas for Conservation (PACs, *Id*.). The PACs were delineated in a joint effort of the US Fish and Wildlife Service and state fish and wildlife agencies, based on the 75% sage grouse breeding density analysis performed by

Doherty et al. (2010) which captured all the area (within a 4-mile radius) around 75% of the leks across the range. In addition, to ensure connectivity within and between the PACs, the PACs also reflect important winter and/or brood rearing habitats that were known at the time. Moreover, because the proposed network of Sagebrush Sea Reserve ACECs include, by design, a mixture of the most important breeding habitat and winter and/or brood rearing habitat, the network incorporates a diverse assemblage of different sagebrush species and associated herbaceous species, elevations, aspects and soil types.

Currently high-functioning and properly conserved sagebrush communities with adequate resiliency, redundancy, and representation critical to support GrSG and other sagebrush dependent at-risk species are rare and declining (Remington et al. 2021). As discussed in the attached Nomination Report in the section on long-term resilience of sagebrush systems in the West (and also discussed in Remington et al. 2021), many models currently indicate that sagebrush cover is vulnerable to a drying and warming climate.

ACECs should be included for consideration in every action alternative. FLPMA directs BLM to "give priority to the designation and protection of [ACECs]" during planning processes such as this.[45] The recent Conservation and Land Health Planning Rule, which should be taking effect in June of 2024, underscores the importance of ACECs as "the principal designation for public lands where special management attention is required to protect important natural, cultural, and scenic resources," and "emphasize[s] the requirement that the BLM give priority to the identification, evaluation, and designation of ACECs" as part of planning processes.[46]

ACECs provide a mechanism to protect current intact habitat, and also to restore degraded habitat as well.

The Bureau of Land Management promulgated a final rule,[47] pursuant to the Federal Land Policy and Management Act of 1976 (FLPMA), as amended, and other relevant authorities, to advance the BLM's multiple use and sustained yield mission by prioritizing the health and resilience of ecosystems across public lands. To support ecosystem health and resilience, the rule provides that the BLM will protect intact landscapes, restore degraded habitat, and make informed management decisions based on science and data. To support these activities, the rule applies land health standards to all BLM-managed public lands and uses, codifies conservation tools to be used within FLPMA's multiple-use framework, and revises existing regulations to better meet FLPMA's requirement that the BLM prioritize designating and protecting areas of critical environmental concern (ACECs).

[45] 43 U.S.C. § 1712(c)(3).
[46] 88 Fed. Reg. at 19,593 (April 3, 2023).
[47] 43 CFR Part 6000 and 1600

The rule also provides that the BLM may, at the agency's discretion, implement temporary management for potential ACECs identified outside of an ongoing planning process until the potential ACEC can be evaluated for designation through a land use planning process[48]. Agencies should use this direction to analyze impacts to the nominated ACEC.

C. The Bureau Should Retain or Expand Ungrazed Research Natural Areas

An indispensable part of the Bureau's science-based response to help reverse the sage grouse's decline in Oregon is new research to be conducted in 15 specially identified "key" Research Natural Areas ("RNA") which the 2015 ARMPA closed to livestock grazing. 2015 Oregon Approved Resource Management Plan Amendment (hereafter "2015 Oregon ARMPA") at 2-18. The Bureau determined these areas to be critical for sage grouse conservation both because of their high habitat value for the bird and their high scientific and management value as reference areas to gauge the plan's effectiveness. 2015 Oregon Greater Sage Grouse Proposed RMPA/Final EIS (hereafter "2015 Oregon FEIS") at 2-44 to -45.

RNAs are a "special type of ACEC" whose "primary purpose" is "research and education" and are "designated . . . to protect special intact representative native plant communities." 43 C.F.R. § 8223.0-5(a); 2015 Oregon ARMPA at 5-11. Through the recently approved Public Lands Rule, the Bureau has now codified RNAs "as a type of ACEC designated for the primary purpose of research and education on public lands, consistent with existing regulations (43 CFR subpart 8223) and policy." Conservation and Landscape Health, 89 Fed. Reg. 40,313 (May 9, 2024) (to be codified at 43 C.F.R. § 1610.7–2(e)).

The Bureau needs ungrazed reference areas to compare to grazed areas, evaluate how curtailing livestock grazing might benefit sage grouse, and adjust future management of the vast areas in Oregon (and beyond) where it allows grazing. *See* 2015 Oregon FEIS at 8-21 (describing reasons for identification of key RNAs). Ungrazed Key RNAs provide essential information because, as the Bureau has explained, "the lack of large representative tracks of ungrazed habitat makes it nearly impossible to determine and monitor the actual consequences of livestock grazing." 2018 Oregon Greater Sage Grouse Proposed RMPA/Final EIS (hereafter "2018 Oregon FEIS") at 4-7. These reference sites will allow the agency to understand how to better manage the 12,083,622 acres of public land that remain available for grazing in sage grouse habitat in eastern Oregon. 2015 Oregon FEIS at 2-18.

The Bureau dragged its feet on implementing the 2015 closures. The agency is currently under court order to comply with the 2015 RMPA direction. *Or. Nat. Desert Ass'n v. Bushue* ("*Bushue I*"), 644 F. Supp. 3d 813, 844 (D. Or. 2022) (holding that BLM had unlawfully withheld implementation of the closures and ordering that "BLM must make unavailable to grazing the

[48] 43 CFR Part 6000 and 1600 at 22.

portions of the key RNAs specified in the 2015 ARMPA without further delay"); *Or. Nat. Desert Ass'n v. Bushue* ("*Bushue II*"), 672 F. Supp. 3d 1101, 1107 (D. Or. 2023) (adopting stipulated remedy in which BLM agreed to "a detailed plan for immediate, intermediate, and permanent actions to carry out the key RNA closures").

Under Alternatives 5 and 6, however, the Bureau would reverse course, abandon this science-based management strategy, and partially or entirely return livestock grazing to all but one (East Fork Trout Creek) of the 13 newly closed Key RNAs.[49] The Bureau does not provide a cogent explanation for why making livestock grazing available within key RNAs is appropriate—that is, scientifically justified—in 2024 when it was not in 2015, particularly given the fact that Oregon's sage grouse population continues to decline and has plummeted by more than 20% just since the agency adopted (but has still failed to fully implement) the 2015 plan. The Bureau's Preferred Alternative also is inconsistent with the *Bushue* court's finding that "the need for scientific management of grazed lands to promote the survival of sage grouse" is "a significant public good." *Bushue I*, 644 F. Supp. 3d at 842 (internal quotation marks omitted).

As explained in more detail in the Oregon Natural Desert Association's ("ONDA") comment letter on this DEIS, we are concerned with (1) the Bureau's failure to conduct required "conservation benefit" analyses with regard to implementation of fenced-off research areas, (2) the fact that abandoning scientific research and re-allocating areas to livestock grazing is inconsistent with the Bureau's ACEC and RNA regulations, (3) and the fact that allocating portions of Wilderness Study Areas as available to livestock grazing is inconsistent with FLPMA and binding Bureau policy on the FLPMA non-impairment mandate. ONDA also persuasively explains, for each key RNA, why most of the Bureau's proposals to reduce or eliminate ungrazed research areas are objectionable and unsupported by the record before the agency. Finally, ONDA explains why, if the Bureau does elect to reduce or eliminate any of the key RNA ungrazed reference areas, the agency should identify other ACECs or RNAs to substitute for any abandoned areas—given the Bureau's finding that the 15 key RNAs identified in 2015 represent the "minimum" number of research areas needed to produce meaningful, statistically significant information. We incorporate ONDA's comments by reference.

D. Compensatory Mitigation

Alternatives 4, 5, and 6 would likely increase the use of compensatory mitigation relative to current management, with Alternatives 5 and 6 specifically formulated to provide more opportunities for considering compensatory mitigation, because these alternatives provide less protection and more development and extraction than Alternative 4 and much less than

[49] Two of the Key RNAs, Foster Flat and Guano Creek-Sink Lakes, were already closed to grazing prior to the 2015 ARMPA.

Alternative 3. However, compensatory mitigation is already conducted in some states (including Idaho and Nevada) under current management, and BLM provides no information regarding the effectiveness of these current efforts. BLM also provides no data or analysis showing that compensatory mitigation under the proposed plan amendments would be effective. This makes the DEIS legally inadequate. BLM must consider the effectiveness of any proposed compensatory mitigation measures before authorizing their use.

The "hard look" required under NEPA entails a "sufficientl[y] detail[ed]" examination of any proposed mitigation measures to "ensure that environmental consequences have been fairly evaluated." *City of Carmel-by-the-Sea v. U.S. DOT,* 123 F.3d 1142, 1154 (9th Cir. 1997) (*quoting Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 353 (1989)). An agency's NEPA analysis should focus on the effectiveness of any proposed mitigation measures. *Western Watersheds Project v. Salazar*, 993 F. Supp. 2d 1126, 1139 (C.D. Cal. 2012), aff'd, 601 Fed. Appx. 586 (9th Cir. 2015). Vague agency assurances that certain adverse environmental consequences will not occur because the agency or a third party will take unspecified future actions to avoid such results does not satisfy NEPA's requirements. *See e.g., Oregon Natural Res. Council v. Marsh*, 832 F.2d 1489, 1493 (9th Cir. 1987), *rev'd on other grounds*, 490 U.S. 360 (1989) (rejecting EIS that relied on assurances that mitigation measures "will be developed"); *High Country Conservation Advocates v. United States Forest Service*, 52 F. Supp. 3d 1174, 1197 (D. Colo. 2014) ("The agency cannot rely on unsupported assumptions that future mitigation technologies will be adopted."); *High Sierra Hikers Ass'n v. U.S. Dept. of Interior*, 848 F. Supp. 2d 1036, 1049-1051 (N.D. Cal. 2012) (stating that "the EIS cannot merely assert a perfunctory description of mitigating measures").

Here, BLM must consider whether compensatory mitigation under the 2015 plans has been effective in achieving the "net conservation gain" requirement, or whether various state-based compensatory mitigation programs would achieve "no net loss" under the proposed plan amendments. The DEIS fails to even disclose or discuss different state mitigation strategies.

Available data indicates that compensatory mitigation has failed to live up to BLM's promises thus far. For example, the State of Nevada's "Conservation Credit System" purports to achieve a "net conservation gain; however, there are numerous, documented ways in which the CCS fails to provide an adequate conservation benefit to compensate for the loss of high-quality occupied sage grouse habitat. Most notably, the effectiveness of CCS "credit" programs in conserving and restoring sage grouse habitats and populations has never been analyzed, meaning their actual conservation benefit is currently unknown. *See* Recording of Nov. 2, 2023 Meeting of the Sagebrush Ecosystem Council, available at: https://sagebrusheco.nv.gov/Meetings/2023/2023/. Critically, the CCS has entirely failed to document how participating projects apply the "mitigation hierarchy," even though this is ostensibly a mandatory component of the CCS program. CCS and BLM records do not document whether or how disturbances from

BLM-authorized projects are avoided or minimized, and neither BLM nor the State of Nevada has developed measurable criteria or guidelines for avoidance and minimization. BLM and the State often assume that the costs of mitigation (e.g., the market-based price for "credits" under the CCS system) result in avoidance and minimization; however, no evidence exists for this proposition, and BLM's permitting for specific projects suggests project proponents often select offsite compensatory mitigation in lieu of avoidance or minimization. For example, BLM authorized the use of compensatory off-site mitigation for the Goldrush mining project in central Nevada, even though the Nevada Department of Wildlife predicted that the project would likely extirpate several demographically important leks (BLM 2023).

In addition, the CCS relies almost exclusively on "stewardship" actions to protect existing areas of habitat on privately owned lands and essentially maintain the "status quo" in those locations. *See* State of Nevada, Conservation Credit System Manual, Version 1.6.21 (Jan. 2021), p. 14. While proper land stewardship can maintain areas of existing functional habitat, it cannot adequately compensate for the complete loss of habitat elsewhere, or the connectivity and population impacts that result from such losses. Over-reliance on stewardship of existing habitat on private lands (with varying degrees of functionality) to compensate for loss or degradation of functional habitat on public lands results in a net loss of functional habitat and populations over time. Further, there is evidence that certain stewardship projects have not been successful. *See* Recording of Nov. 2, 2023 Meeting of the Sagebrush Ecosystem Council, *supra*.

Restoration or "uplift" actions under the CCS likewise fail to fully compensate for the loss of functional sage grouse habitat. As discussed elsewhere in this letter, sagebrush restoration can be extremely difficult in practice, and many techniques do not consistently produce the intended results. It is also a long-term process, meaning success can only be ascertained after a considerable amount of time has passed—often decades. As such, the conservation outcomes of restoration actions taken pursuant to CCS mitigation transactions cannot be objectively measured at the time of the transaction. And, at this early stage, it is unclear whether the system is equipped to compensate for restoration failures or restoration actions that do not prove durable over time. In any case, decades-long restoration efforts cannot effectively compensate for the present loss of habitat from energy development, mining, livestock grazing or other uses—such losses are by nature sudden and severe.

The inadequacies of the CCS are most apparent when one considers the actual population-level impacts of anthropogenic disturbance on greater sage grouse in Nevada. By the State of Nevada's own admission, the CCS does not adequately account for the population impacts of anthropogenic disturbance, and cannot compensate for the permanent loss of leks. Nevada Sagebrush Ecosystem Council, Meeting Minutes, March 2, 2023. sage grouse populations across the State have continued to decline, despite the BLM's "net conservation gain" requirement, and new science has shown that anthropogenic disturbances are driving population declines. Nevada

Sagebrush Ecosystem Technical Team, Staff Report Incorporation Of Greater sage grouse Population Space Use Into CCS Version 1.8, March 2, 2023. By the State's own admission, the CCS does not currently account for or mitigate many of these impacts.

Although the State's Sagebrush Ecosystem Council recently adopted minor changes in the ways it calculates "credits" and "debits" for CCS transactions, these changes do not adequately compensate for all of the demographic or population-level impacts of anthropogenic development. *See* Recording of Nov. 2, 2023 Meeting of the Sagebrush Ecosystem Council, supra. Moreover, there is no effective mitigation under the CCS for the loss of leks, particularly the loss of critical "source leks." *See id.*; *see also* Nevada Sagebrush Ecosystem Council, Meeting Minutes, March 2, 2023.

Given that population impacts and lek loss are currently not accounted for in CCS mitigation transactions, it is difficult to envision how this system can achieve a "net conservation gain." And, because sage grouse populations and lek attendance continue to decline, it is likely that the system is failing to achieve even "no net loss." Some impacts simply cannot be mitigated through a market-based transaction, and the loss of some important habitats—such as "source leks" in the case of sage grouse—is simply not mitigable.

The 2024 sage grouse EIS has abandoned the "net conservation gain" standard for a minimum standard of "no net loss" for Alternative 4, 5 and 6. The science is clear that Greater sage grouse population declines will not reverse, much less stabilize, if widespread sagebrush habitat loss continues across the range. The BLM's current proposed minimum standard of no net habitat loss in its Preferred Alternative is insufficient to reverse trends of sagebrush loss and fragmentation and greater sage grouse population decline. Strictly adhering to the principle of "no net loss" in both PHMA's and GHMA's is a critical component for greater sage grouse management.

While Nevada appears to have the most well-developed and formalized compensatory mitigation system in place, the problems described above are by no means limited to Nevada, and would likely be exacerbated if the proposed compensatory mitigation requirements were implemented in an ad-hoc, project-by-project manner.
BLM must also consider that many State compensatory mitigation programs, including Nevada's, tend to over-rely on vegetation treatment programs of limited or questionable effectiveness. There is no scientific support for most vegetation treatment methods currently employed by BLM as a means of improving grouse habitats, and to the contrary, numerous studies highlight negative impacts to sage grouse of these practices.

Heath et al. (1997:50) stated: "Based on our results, we recommend no reduction or control of sagebrush in areas containing between 18-30% live sagebrush canopy coverage within 4.5 km of

leks." Connelly et al. (2000) recommended against habitat manipulation in sagebrush stands of 10-30% canopy cover heights of at least 25 cm to protect winter habitats. Beck and Mitchell (1997) recommended against sagebrush control projects when canopy cover is less than 20 percent, and recommended against any sagebrush control within 2 miles of leks. The Conservation Objectives Team report (COT 2013: 44) recommended the following: "Avoid sagebrush removal or manipulation in sage grouse breeding or wintering habitats." In BLM's own 2006 paper titled Review of Livestock Grazing Management of Sage Grouse Habitat BLM determined from its review of the literature that "No treatment should be considered where sagebrush cover is less than 20 percent or within 2 miles of breeding, nesting, or brood areas."

Even in areas with less than 3.5% habitat disturbance through vegetation treatments, these vegetation treatments have been found to have a significant negative effect on sage grouse populations (Holloran and Belinda 2009). According to Beck et al. (2012:444), "The preponderance of literature indicates that habitat management programs that emphasize treating Wyoming big sagebrush are not supported with respect to positive responses by sage grouse habitats or populations."

Arkle et al. (2014) made a comprehensive study of the effectiveness of restoration activities in burned sagebrush. They found that restoration actions did not increase the probability of burned areas meeting most guideline criteria. Of 313 plots seeded after fire, none met all sagebrush guidelines for breeding habitats. Less than 2% of treated plots met winter habitat guidelines. They concluded that sage grouse are relatively unlikely to use many burned areas within 20 years of fire, regardless of treatment, and that reestablishing sagebrush cover will require more than 20 years using conventional restoration methods (Arkle et al., 2014). Their findings reiterate the importance of reducing threats to sage grouse in their remaining occupied habitats and underline the need to avoid any use of prescribed fire in sage grouse habitat.

Hess and Beck (2014) also looked at the effectiveness of sage grouse habitat restoration actions. They found that neither mowing nor prescribed burning promoted statistically significant increases in sage grouse nesting or early brood-rearing habitat attributes such as cover or nutritional quality of food forbs, or counts of ants, beetles, or grasshoppers compared with reference sites.

Juniper-removal projects in sage grouse habitat may result in expansion of cheatgrass (Evans and Young 1985, Bates et al. 2005). This is particularly concerning where such projects involve mature juniper woodlands with little sagebrush understory. BLM has failed to adequately analyze the differences in impacts of invasive species resulting from juniper removal in stands of different densities and ages. Based on our review of the science, juniper removal (using hand-cutting and jackpot burning) in areas where junipers are sparse and young and sagebrush-grass understory is healthy (without a large component of cheatgrass) does not result

in severe cheatgrass expansion when the area is protected from livestock grazing for two-plus years post-treatment, whereas projects that do not meet these criteria pose major cheatgrass risks and are likely to result in the further degradation, rather than restoration, of sage grouse habitats.

Sagebrush recovery times following disturbance can be quite long. BLM's own past NEPA analysis concedes, "In the absence of cheatgrass, Wyoming big sagebrush sites can take 150 years to recover." Nevada/Northeast California Greater Sage Grouse RMP Amendment DEIS (2014) at 608. Where cheatgrass is present, it can become dominant following disturbance, forming a monoculture characterized by unnaturally frequent fire return intervals that can effectively prevent the recovery of sagebrush and perennial grasses on a long-term if not permanent basis. For Oregon, BLM states, "In Wyoming big sagebrush sites, full recovery to pre-burn sagebrush canopy cover conditions will take over 100 years (Cooper 2007); . . . ." Oregon Greater Sage Grouse RMP Amendment DEIS (2014) at 3-70. More generally, BLM states, "Sagebrush recovers slowly from fire; most species do not resprout but must be replenished by wind-dispersed seed from adjacent unburned stands or seeds in the soil. Depending on the species and the size of a burn, sagebrush can reestablish itself within five years, but a return to a full pre-burn community cover can take 50 to over 100 years (Baker 2011)." Oregon Greater Sage Grouse RMP Amendment DEIS (2014) at 4-10.

Dr. Jack Connelly provided this assessment of sagebrush and vegetation manipulation efforts in 2019:

> (1) [S]agebrush and vegetation manipulation efforts – including mechanized methods using aerator with seeding, harrow or chain with seeding, drill seeding, hand planting plugs, and aerial seeding – are generally harmful to sage grouse populations, with only weak evidence (at best) suggesting some treatments might be helpful.
>
> (2) Despite this scientific information, the 2019 Idaho and Wyoming Plan Amendments permit prescribed burns and other sagebrush treatments as acceptable vegetation management practices in sage grouse habitat. The 2019 Idaho Plan Amendments specifically allow[] these sagebrush manipulation and eradication methods, noting "[w]here desirable perennial bunchgrasses or forbs are deficient in existing sagebrush stands, use appropriate mechanical, aerial, or other techniques to reestablish them (e.g., a Lawson aerator with seeding, harrow or chain with seeding, drill seeding, hand planting plugs, aerial seeding, or other appropriate techniques)."
>
> (3) The adverse impacts flowing from BLM's vegetation treatment projects will be further exacerbated by BLM's plans for fuels management activities. According to the 2019 Idaho and Wyoming Plan Amendments, fuels management activities – including construction of firebreaks; prescribed fire; and mechanical, chemical and biological fuels management – are specifically exempted from any

> disturbance limitations in sage grouse habitat. In fact, these fuels management treatments may occur within the lek buffers in key sage grouse habitat.
>
> (4) BLM's fuels treatment activities are inconsistent with the best available scientific information on sage grouse habitat and populations, and BLM provides no sound scientific support for its actions. Instead, BLM outright misrepresents leading research on this topic . . . in an apparent effort to manufacture a scintilla of scientific evidence supporting its activities. For example, in the 2019 Wyoming Plan Amendments, BLM justifies a robust vegetation treatment regime by claiming that a desired condition for sage grouse breeding and nesting habitat includes 5-25% sagebrush canopy cover . . .
>
> (5) Absent these gross mischaracterizations, BLM lacks any scientific evidence supporting its decision allowing 5% sagebrush cover as a "desired condition," and compelling evidence indicates 5% canopy coverage is far too low for sage grouse nesting habitat. In my judgment, managing sagebrush landscapes for a 5% sagebrush cover will harm sage grouse populations and habitat, under the guise of restoring or improving both.
>
> (6) Finally, in the 2019 Idaho Plan Amendments BLM reasonably limited mechanized anthropogenic disturbance in nesting habitat during the nesting season and in wintering habitat during the winter season. But BLM then emasculates the importance of this reasonable and necessary conservation measure by exempting fuels and vegetation treatments "specifically designed to improve or protect Greater sage grouse habitat." BLM cites no scientific authority supporting this exemption, and in my experience any activity that disturbs nesting hens is likely to result in nest abandonment and/or increased nest predation. Thus, BLM must prohibit all mechanized anthropogenic disturbance in breeding and winter habitat during the breeding and winter season.

Declaration of John W. Connelly, *Western Watersheds Project v. Bernhardt*, No. 1:16-CV-83-BLW, ECF 124-5 (April 19, 2019)(Attached in references). BLM should be particularly skeptical of mitigation or restoration actions that utilize prescribed fire. Prescribed fire can result in a loss of sagebrush dominance for 25-45 years, and may also result in increased erosion (Sedgwick 2004). Cooper et al. (2007) projected the full recovery of Wyoming big sagebrush canopy cover would take 625 years based on their observed recovery rates following prescribed fire (a biologically improbable outcome), and no recovery at all was recorded following prescribed fire on 17 of 24 sites. Close proximity to seed sources and more moist conditions did not accelerate recovery in this study. These researchers concluded, "Wyoming big sagebrush recovery takes so long that managers considering prescriptive burns need to have a long-term view of the landscape before eliminating a sagebrush habitat that will not return for at least a century" (Cooper et al. 2007:12). Rhodes et al. (2010) found that fires resulted in loss of sagebrush cover and increases in perennial grasses and invasive forbs, while native forbs did not

increase in yield or nutritional quality, and ants (a significant part of the diet of sage grouse chicks) also decreased. Beck et al. (2011) stated, "In particular, prescribed burning leads to pronounced negative response in sagebrush cover that lasts for at least a few decades," and recommended against burning in Wyoming big sagebrush.

Baker (2006) and Bukowski and Baker (2013) have shown that natural fire return intervals (without livestock) are far less frequent than current fire return intervals in sagebrush systems (with livestock grazing everywhere), particularly in lowland systems dominated by Wyoming big sagebrush. Hess and Beck (2012) found that neither burned nor mowed areas produced suitable sage grouse habitats. Wamboldt et al. (2001:24) stated:

> "Natural or prescribed burning of sagebrush is seldom good for sage grouse. This assessment recommends that fires within sage grouse habitat be avoided in most cases, and should be allowed only after careful study of each local situation. The evidence also indicates that habitat loss due to fire may well be the most serious of all the factors contributing to the decline of sage grouse."

Finally, the DEIS's statements on compensatory mitigation in the hardrock mining context misconstrues the applicable laws and contradict recently issued guidance which reaffirms BLM's authority to require compensatory mitigation for hardrock mining operations. See 43 C.F.R. § 3809.420(a)(4). According to current BLM policy, "[m]itigation measures fall squarely within the actions [BLM] can direct to prevent unnecessary or undue degradation of the public lands. An impact that can be mitigated, but is not, is clearly unnecessary." 65 Fed. Reg. 69998, 70052 (Nov. 21, 2000) (preamble to rule section that remains in force); *see also* Exh. 14 (M-37039, *The Bureau of Land Management's Authority to Address Impacts of its Land Use Authorizations through Mitigation*, (Dec. 21, 2016)) at 19-20. In detailing part of BLM's duty to prevent UUD under FLPMA, the Interior Solicitor has reaffirmed that:

> [I]t is well established that the UUD provision under FLPMA provides another basis for requiring mitigation in those circumstances where impacts in the absence of mitigation would be unnecessary or undue. Although mitigation may contribute in some instances to the avoidance of UUD, in other cases, the impacts to resources may be of a nature or magnitude such that they cannot be mitigated sufficiently to prevent UUD. For example, the destruction of unique habitat in a particular place might not be adequately compensated by post-use restoration or protection of lesser habitat elsewhere. In such a case, where mitigation cannot prevent UUD, the BLM has authority to reject the application for approval of the public land use based on the proponent's inability to prevent UUD. The obligation to avoid UUD is a complementary but distinct source of authority for requiring mitigation under FLPMA.

M-37039 at 20 (reinstated by M-37075) (April 15, 2022). The DEIS fails to explain why, in light of this opinion, the proposed plan amendments would not require compensatory mitigation for hardrock mining.

For all of these reasons, BLM has failed to take a "hard look" at the proposed compensatory mitigation measures. BLM must include such an analysis in a future NEPA document before it authorizes the use of compensatory mitigation as means of preventing sage grouse habitat loss. As the discussion above illustrates, there are significant, unanswered questions regarding the efficacy of current compensatory mitigation methods in protecting and restoring sage grouse habitat. Current programs continue to result in cumulative losses of habitat and may actually harm sage grouse by encouraging scientifically unsound "restoration" projects.

We recommend that BLM restrict the use of compensatory mitigation unless all options for avoidance and minimization have been exhausted, and the proposed compensatory mitigation can be shown through reliable data and methods to be durable, timely, and in addition to that which would have resulted without the compensatory mitigation. BLM should also retain the "net conservation gain" standard for projects that utilize compensatory mitigation. Further, and as discussed throughout this letter, the plan amendments should require avoidance and minimization through restrictions on anthropogenic disturbances, livestock grazing, and vegetation removal treatments in important sage grouse habitats.

E. The Planning and Decision Area Must be Expanded.

1. The Plans Must Encompass All Leks and Other Documented Habitat on BLM-Administered Surface or Split-Estate

BLM should include a provision requiring the protection of documented sage grouse habitat on BLM surface or split-estate that is excluded from HMA designations. This should include both leks and other documented seasonal use areas located outside of designated HMAs. We suggest that the provision mirror the terms under which non-habitat may be eliminated from HMA protections. It would be arbitrary to impose a one-way ratchet on HMA boundaries that allows reductions but no expansions of boundaries based on field investigation. Protections for documented leks outside HMA should be automatically required to ensure immediate protection of breeding and nesting activities.

2. The Plans Must Cover Federal Mineral Development Activities on Private Lands, Including Fee/Fee/Fed Wells

FLPMA requires BLM to establish a land use plan to govern all federal lands and land interests, such as mineral rights. Accordingly, these plans must set the terms and conditions for development of federal minerals under BLM management in the planning area. BLM cannot, consistent with FLPMA, exclude from its land use plans any planning requirements for federal mineral development activities on private lands. We are particularly concerned with BLM's wholesale omission of requirements for Fee/Fee/Fed wells that develop federal minerals from well pads on non-federal surface overlying non-federal minerals.

We understand that BLM has taken the position that it lacks authority to regulate the surface operations for Fee/Fee/Fed wells. However, that position fails as a matter of plain statutory interpretation.

The key MLA provision is 30 U.S.C. § 226(g), which requires BLM to "*regulate all surface-disturbing activities conducted pursuant to any lease* issued under this chapter, and shall *determine reclamation and other actions as required in the interest of conservation of surface resources*." (Emphasis added). The plain text of both clauses of § 226(g) extends to Fee/fee/fed wells. The "regulate all surface-disturbing activities conducted pursuant to the lease" clause applies because surface operations on Fee/fee/fed wells are conducted "pursuant to" the federal lease. *See Pursuant To, Black's Law Dictionary* (11th ed. 2019) (defining "pursuant to" as, inter alia, "[as] authorized by" or "[i]n carrying out"). The surface operations for Fee/fee/fed wells are "authorized by" the lease because an operator cannot develop federal minerals, even from private or state lands, absent the lease. The surface operations for Fee/fee/fed wells are also conducted in "carrying out" the lease, as they discharge any contractual obligation the leaseholder may have to develop the leased minerals. *See* U.S. Dep't of Interior, Form 3100-11 § 4 (requiring lessee to "exercise reasonable diligence in developing . . . leased resources").

The only argument BLM has ever given for distinguishing the split estate and Fee/Fee/Fed contexts turns on the phrase "pursuant to" in § 226(g). BLM claims that surface operations for Fee/Fee/Fed wells are not conducted "pursuant to" the lease because the lease does not authorize use of surface lands beyond the lease boundaries. The obvious problem with this argument is that the federal lease is still what authorizes the extraction of federal minerals from those surface facilities. Although a surface use agreement is also required in the case of a Fee/Fee/Fed well, the federal lease is still a necessary authorization.

BLM's argument also ignores the "reclamation and other actions" clause of 30 U.S.C. § 226(g), which applies even if the "surface-disturbing activities" clause does not. This provision authorizes BLM to impose "reclamation" and other environmental mitigation measures "in the interest of conservation of surface resources," without regard for where the operations or surface resources are located. *See Hoyl v. Babbitt*, 129 F.3d 1377, 1380 (10th Cir. 1997); *Copper Valley Mach. Works, Inc. v. Andrus*, 653 F.2d 595, 601 & n.7 (D.C. Cir. 1981) (both confirming that the

term "conservation" under the MLA encompasses environmental protection). There is no textual basis for limiting this clause to surface resources on federal land or the lease surface, and BLM has never explained why this clause does not apply to Fee/Fee/Fed surface operations.

MLA implementing regulations further require that the developer "conduct operations in a manner which protects . . . other natural resources, and environmental quality," 43 C.F.R. § 3162.5-1(a), and "exercise due care and diligence to assure that leasehold operations do not result in undue damage to surface or subsurface resources. . . . Upon the conclusion of operations, the operator shall reclaim the disturbed surface in a manner approved or reasonably prescribed by the authorized officer." 43 C.F.R. § 3162.5-1(b) (emphasis added). These regulations are not limited to damage or disturbance to the federal surface.

FLPMA also broadly authorizes BLM to regulate the manner in which federal minerals are developed. 43 U.S.C. § 1732(b). It provides that the Secretary shall regulate the "use" and " "development" of the "public lands." 43 U.S.C. § 1732(b). The term "public lands" includes federal mineral interests. 43 U.S.C. § 1702(e). FLPMA further requires the Secretary to "take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. § 1732(b). In other words, BLM has authority to regulate the manner in which federal minerals are "developed," and at a minimum, must regulate development of federal minerals to avoid "unnecessary and undue degradation." There is nothing in the plain text restricting either authorization to activities on the federal surface. Thus, read naturally, these provisions also require BLM to regulate surface disturbance associated with Fee/Fee/Fed wells.

Fee/Fee/Fed wells potentially also fall under the provision allowing BLM to regulate the "use" of federal lands, as they may constructively "use" federal lands by impairing their viewsheds, air quality, water quality, and other resources. *See, e.g.*, *Allison v. Department of Transp*., 908 F.2d 1024, 1028 (D.C. Cir. 1990) (opining that the term "use" of national park lands under a similar statute includes significant adverse indirect impacts); *Adler v. Lewis*, 675 F.2d 1085, 1092 (9th Cir. 1982) (opining that even off-site activities can be 'use' if they could create serious impacts that would impair the value of the site).

Finally, in addition to these specific authorizations, both the MLA and FLPMA grant BLM sweeping authority to take any action and promulgate rules necessary to carry out their purposes. *See* 30 U.S.C. § 189 (authorizing the Secretary to "prescribe necessary and proper rules" and to "do any and all things necessary to carry out and accomplish the purposes of this chapter"); 43 U.S.C. §1740 ("The Secretary . . . shall promulgate rules and regulations to carry out the purposes of this Act and of other laws applicable to the public lands").

Our interpretation finds further support in the "general rule" that the Department of Interior's "plenary authority" over the public lands should not be impliedly constrained unless there is

"some specific provision to the contrary." *Silver State Land, LLC v. Schneider*, 843 F.3d 982, 986 (D.C. Cir. 2016) (quoting *Corp. of the Catholic Bishop of Nesqually v. Gibbon*, 158 U.S. 155, 167 (1895); *see also Best v. Humboldt Placer Min. Co.*, 371 U.S. 334, 336 (1963) (noting that Congress has delegated to the Secretary of Interior "plenary authority over the administration of public lands, including mineral lands."). The Supreme Court has thus declined to imply restrictions on the Department of Interior's "general managerial power" over public lands and minerals "unless such authority [is specifically] withdrawn." *Boesche v. Udall*, 373 U.S. 472, 476 (1963) ("True, the mineral land law does not in itself confer such authority . . . [b]ut this does not mean that the authority does not exist anywhere, for, in the absence of some direction to the contrary, the general statutory provisions before mentioned vest it in the Land Department."). Applying this general rule here, because neither the MLA nor FLPMA specifically confine BLM's authority to controlling activities or impacts on federal lands, such a restriction should not be implied.

Accordingly, we request that BLM clarify that the land use plans provisions apply equally to surface operations for Fee/Fee/Fed wells. The failure to regulate these wells the same fashion as split-estate would constitute a violation of BLM's FLPMA duty to prevent unnecessary or undue degradation.

III. VIOLATIONS OF THE ADMINISTRATIVE POLICY ACT (APA)

A. The State-by-State Variations in Sage Grouse Protections Are Arbitrary and Capricious.

BLM has failed to provide a reasoned explanation for retaining and expanding the state-by-state variations in the 2015 ARMPAs. With few exceptions, BLM has not justified these inconsistencies in any state-specific sage grouse science or ecological or topographical conditions. Neither are they justified by BLM's obligations under FLPMA to achieve consistency with state land use plans. Under Section 202(c)(9) of FLPMA, BLM land use plans may be inconsistent with state, local, and Tribal plans where it is necessary to meet the purposes, policies, and programs associated with implementing FLPMA and other Federal laws and regulations applicable to public lands (43 CFR. 1610.3-2(a)).

When adopting the 2015 Plans, BLM rejected similar or identical requests by state and local governments to weaken plan requirements in the name of consistency, finding that all remaining inconsistencies were "necessary to meet the purposes, policies, and programs associated with implementing FLPMA and other Federal laws and regulations applicable to public lands (43 CFR. 1610.3-2(a))." *See, e.g.*, BLM Director Protest Resolution Report for 2015 Idaho-Southwestern Montana ARMPA at 22; *see also* 2015 ROD and ARMPAs for Great Basin

Region at 2-15 to 2-16; 2015 ROD and ARMPAs for Rocky Mountain Region at 2-26 to 2-27. BLM has reversed course now without the reasoned justification the APA demands. The same "purposes, policies, and programs" apply today and sage grouse habitat and population losses have only worsened since 2015. It is thus entirely unclear why BLM proposes to weaken federal land management protections for sage grouse in the name of "consistency" or "alignment" with state and local plans when it concluded otherwise in 2015. Weakening the protections deemed necessary in 2015 to avoid an ESA listing for greater sage grouse—particularly when those protections have proven inadequate to arrest the species' continued decline—would violate the purposes and policies underlying FLPMA, the ESA, BLM's Special Status Species Management Policy, and other applicable federal laws and regulations. Put simply, FLPMA Section 202(c)(9) is not a reasonable justification for the arbitrary state-by-state discrepancies in federal sage grouse protections.

We object to all state-by-state inconsistencies, including but not limited to these plan elements:

- Density and disturbance caps
- Lek buffers, including but not limited to drastic differences in buffer distances, exceptions, and inconsistent applications of buffers to pending leks
- Vegetation treatments
- Fluid mineral restrictions
- Waivers, exemptions and modifications for fluid mineral restrictions
- Other mining restrictions
- Infrastructure restrictions
- Renewable energy restrictions
- Livestock grazing management
- Habitat indicators
- ROW restrictions
- Adaptive management
- RDFs for grazing management/infrastructure

B. BLM Has Failed to Consider Important Reliance Interests on the 2015 Plans, Including the ESA "Not Warranted" Decision

Under the APA, an agency must provide "a more detailed explanation" when reversing a prior policy, decision, or position that "has engendered serious reliance interests." *Perez v. Mortgage Bankers Ass'n*, 575 U.S. 92, 106 (2015) (internal quotation marks omitted); *see also Encino Motorcars, LLC v. Navarro*, 136 S.Ct. 2117, 2126 (2016).

BLM here has failed to account for the "serious reliance interests," *Perez*, 575 U.S. at 106, the U.S. Fish and Wildlife Service placed on the 2015 Plans when declining to list the sage grouse on the ESA. In 2015, USFWS concluded that greater sage grouse no longer required protection

under the ESA because the BLM and Forest Service plan amendments "reduce and minimize threats to the species in the most important habitat." *See* 80 Fed. Reg. 59,858, 59,936 (Oct. 2, 2015) (SFA_10006–91). USFWS expressly relied on the components of the 2015 plans—including the SFA designation, the proposed mineral withdrawal, the lek buffers, and the net conservation gain standard, among other requirements—as adequately reducing various threats to the species. Where a listing is avoided based on promised conservation efforts that are not implemented, a USFWS policy requires it to "reevaluate the status of the species and consider whether initiating the listing process is necessary." *See* 68 Fed. Reg. 15,100–02 (Mar. 28, 2003). USFWS's "Not Warranted" finding was expressly dependent upon the "continued implementation of the regulatory mechanisms" in the 2015 Plans. *See id.* at 59,941. BLM's failure to acknowledge this serious reliance interest, or consider how the proposed amendments would affect the sage grouse's ESA listing status, is arbitrary and capricious.

IV CONCLUSION

For the aforementioned reasons, and for all the reasons given in prior comments, protests, and litigation up until now, we urge the Bureau to adopt Alternative 3, the most protective of the alternatives, plus our additional recommendations to further minimize impacts and to designate a robust range-wide network of Areas of Critical Environmental Concern. It is obvious that greater sage grouse don't have time for additional window-dressing to the status quo: they need real durable protection across all of their remaining habitat.

This planning process is an opportunity for the Bureau to actually save the species. Please do.

Sincerely,

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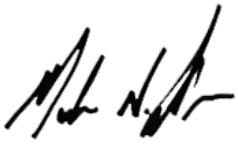

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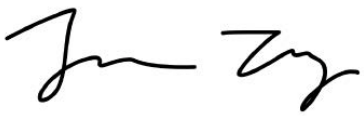

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ATTACHMENTS (These will be provided on a thumb drive sent by FedEx, as they are too large to upload to eplanning. We request they be added to the record for this DEIS.)

Attachment A. All prior comments, protests, attachments, and references provided on GRSG plans by our organizations.
Attachment B. Comments on the ACEC designation, submitted May 14, 2024.
Attachment C. Prioritization schemes for analyzing grazing, by state.
Attachment D. Source data for Oil and Gas analysis
Attachment E. Monitoring reports

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