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Via electronic mail at https://eplanning.blm.gov/epl-front-office/eplanning/comments/commentSubmission.do?commentPeriodId=70852

September 12, 2018

Comments on the Fourth Quarter Competitive Oil and Natural Gas Lease Sale Environmental Assessment of the BLM Wyoming State Office

Ms. Merry Gamper:

Please accept these comments on the above oil and natural gas lease sale environmental assessment that are submitted by The Wilderness Society, Wyoming Outdoor Council, Wyoming Wilderness Association, and the National Audubon Society. In this lease sale, the Bureau of Land Management (BLM) is proposing to make 584 parcels covering approximately 790,462 acres of federal minerals available for leasing.

The Environmental Assessment (EA) prepared for this lease sale is numbered DOI-BLM-WY-0000-2018-0004-EA.

According to the EA 302 parcels covering 365,902 acres are located in Greater sage-grouse Priority Habitat Management Areas (PHMA) and 277 parcels containing 424,434 acres are located in sage-grouse General Habitat Management Areas (GHMA). EA at 3-23 to -24. Fifty-four parcels have Lands with Wilderness Characteristics (LWC). EA at 3-4. And there are 15 parcels that have been nominated as wilderness by citizens, Citizens Proposed Wilderness (CWP). *Id.* Seventeen parcels covering approximately 31,470 acres that are proposed to be offered are in the Hoback to Red Desert mule deer migration corridor. EA at 3-25 to -26. A number of other parcels are in big game crucial winter ranges. Thirteen parcels are on or in the viewshed of the National Historic Trails corridor. Importantly, the BLM proposes to defer 74 whole and 13 partial parcels located in the Little Mountain area due to unresolved environmental conflicts in this area. EA at 2-1 to -2 and 3-19.

I. ISSUES OF CONCERN

We have a number of concerns with the proposed action including the potential for significant cumulative impacts to sage-grouse and other sagebrush-obligate species, and undisclosed yet potentially widespread and significant impacts to groundwater resources. In addition, the environmental analysis fails to satisfy the basic requirements of the National

Environmental Policy Act (NEPA) by failing to analyze a reasonable range of alternatives to the lease nearly everything – lease nothing approach described in the EA, and by failing to take a hard look at the full range of direct, indirect and cumulative environmental impacts that will result from reasonably foreseeable development on the parcels. Finally, the proposed lease sale is fundamentally contrary to the multiple use–sustained yield principles embodied in the Federal Land Policy and Management Act (FLPMA).

In addition, the proposed lease parcels raise concerns regarding impacts to wilderness resources, impacts to the National Historic Trails corridor, and impacts to big game migration corridors and crucial winter ranges. These issues will be discussed below.

II. INTERESTS OF THE PARTIES

The Wilderness Society, Wyoming Outdoor Council, Wyoming Wilderness Association, and National Audubon Society have a long-standing interest in the management of BLM lands in Wyoming and we engage frequently in the decision-making processes for land use planning and project proposals that could potentially affect our public lands and mineral estate, including the oil and natural gas leasing process and lease sales. Our members and staff enjoy a myriad of recreational, scientific and other opportunities on BLM-managed public lands, including hiking, biking, nature-viewing, photography, and quiet contemplation in the solitude offered by wild places. Our missions are to work for the protection and enjoyment of the public lands for and by our members and the public.

The National Audubon Society's mission is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity.

The mission of the Wilderness Society is to protect wilderness and inspire Americans to care for our wild places.

Founded in 1967, the Wyoming Outdoor Council is the state's oldest and largest independent conservation organization. Its mission is to protect Wyoming's environment and quality of life for present and future generations.

The Wyoming Wilderness Association is a non-profit organization created in 1979 by a group of wilderness advocates and outdoors people who envisioned the Wyoming Wilderness Act. Our mission is to defend Wyoming's magnificent wild landscapes from the pressures of development, mismanagement, and commodification. We represent the values and interest of nearly 2,000 Wyoming members.

Although our organizations generally support the judicious leasing and responsible development of the public's oil and gas resources when done in the right place and after full disclosure of the environmental impacts that will result from development, we have concluded that with respect to this proposal, none of those basic guiding tenets have been achieved.

III. STATEMENT OF CONCERNS

A. BLM Has Not Complied with the National Environmental Policy Act.

1. The EA fails to analyze a reasonable range of alternatives.

NEPA generally requires the BLM to conduct an alternatives analysis for "any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E). The regulations further obligate BLM to "rigorously explore and objectively evaluation all reasonable alternatives" including those "reasonable alternatives not within the jurisdiction of the lead agency," so as to "provid[e] a clear basis for choice among options." 40 C.F.R. § 1502.14. The range of alternatives is the heart of a NEPA document because "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of [a NEPA analysis] to inform agency deliberation and facilitate public involvement would be greatly degraded." *New Mexico ex rel. Richardson v. BLM*, 565 F.3d 683, 708 (10th Cir. 2009). That analysis must cover a reasonable range of alternatives so that an agency can make an informed choice from the spectrum of reasonable options.

By contrast, in evaluating lease sales, BLM frequently analyzes only two alternatives: a no action alternative, which would exclude all lease parcels from the sale; and a lease everything alternative, which would offer for lease nearly all proposed parcels. An EA offering a choice between leasing every proposed parcel, and leasing nothing at all, does not present a reasonable range of alternatives. *See TWS v. Wisely*, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007) (BLM violated NEPA by failing to consider "middleground compromise between the absolutism of the outright leasing and no action alternatives"); *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 813 (9th Cir. 1999) (NEPA analysis failed to consider reasonable range of alternatives where it "considered only a no action alternative along with two virtually identical alternatives").

While in this lease sale BLM is proposing to defer the sale of 79 whole and 27 partial parcels, EA at 2-1, it is still proposing to sell the vast majority of the 674 parcels considered, with 584 parcels being offered for sale. EA at 2-1. BLM is still not considering several reasonable middle-ground alternatives. For example, the EA fails to evaluate an alternative that would defer leasing in PHMA and/or GHMA for sage-grouse, despite a legal obligation to do so under the Approved RMP Amendments (September 2015) (ARMPA) and associated policy guidance. *See* Wyoming BLM ARMPA at 24, Management Objective No. 14 ("Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs."); s*ee also* Record of Decision (ROD) and Approved RMP Amendments for the Rocky Mountain Region at 1-25 ("the ARMPs . . . prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs. . . . This objective is intended to guide development to lower conflict areas and as such protect important habitat. . . ."). The BLM has also failed to fully consider deferring parcels in LWCs and big game migration corridors. Because BLM has not evaluated these or any other "middle-ground" alternatives, it has violated NEPA.

BLM's statements in the EA that deferring parcels in PHMA and GHMA was not considered as an alternative because such deferrals would not conform with the applicable RMPs

is simply wrong. EA at 2-3. Designating lands as open to leasing in an RMP makes them *available* to lease but does not *require* that they be leased. Moreover, the prioritization requirement of the RMPs applies here, and clearly requires deferring at least some leasing in sage-grouse habitat.

Even if lands at issue here are open for leasing under the RMPs, it would be entirely reasonable for BLM to consider deferring parcels with important sage-grouse habitat. In the December 2018 lease sale, virtually all of the 584 parcels proposed for sale are in sage-grouse habitat. Given the importance of these areas to the conservation of this imperiled species, the EA should have analyzed an alternative that deferred leasing in PHMA and GHMA.

In addition, in light of ongoing and significant resource conflicts regarding proper management of big game migration corridors, and the significant threats posed by oil and gas development within these corridors, the BLM should have analyzed an alternative that deferred leasing in the Red Desert to Hoback migration corridor. The BLM has decided to offer 17 parcels in this corridor with a few parcels being deferred or deleted. EA at 3-25 to -27. BLM would attach a Special Lease Notice to the 17 parcels. However, in electing this approach, the BLM failed to disclose the substantive limitations of the lease notice, failed to consider applying a much stronger lease stipulation, and failed to develop an alternative that would have deferred leasing within the corridor. This needlessly narrow approach to a pressing resource management concern fails to satisfy NEPA's requirement to analyze alternatives to "any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E). Quite clearly, the BLM should have considered an alternative that deferred leasing inside the migration corridor. Similarly, BLM should have considered an alternative that deferred leasing in crucial winter range. New and significant peer reviewed science from Wyoming, discussed in detail below, suggests the adverse impacts to ungulates from oil and gas leasing are more far reaching and longer term than BLM's scant NEPA analysis presumes. BLM should have evaluated an alternative that defers leasing in this habitat, at least until the best available science can be incorporated into NEPA review.

Finally, the BLM should have considered an alternative that deferred the leasing of parcels within the RSFO in order to preserve decision space for the upcoming RMP revision.

2. BLM has failed to take the necessary "hard look" at potential environmental impacts.

BLM has not taken the required "hard look" at potential environmental impacts, as required by NEPA. Under NEPA, BLM must evaluate the "reasonably foreseeable" site-specific impacts of oil and gas leasing, prior to making an "irretrievable commitment of resources." *New Mexico ex rel. Richardson*, 565 F.3d at 718; *see also Sierra Club v. Hodel*, 848 F.2d 1068, 1093 (10th Cir. 1988) (agencies are to perform hard look NEPA analysis "before committing themselves irretrievably to a given course of action so that the action can be shaped to account for environmental values"); *Sierra Club v. Peterson*, 717 F.2d 1409, 1411 (D.C. Cir. 1983). Courts have held that BLM makes such a commitment when it issues an oil and gas lease without reserving the right to later prohibit all development. *New Mexico ex rel. Richardson*, 565 F.3d at 718.

Here, BLM is in fact proposing to make an "irretrievable commitment of resources" by offering leases without reserving the right to prevent all future development; the site-specific impacts are "reasonably foreseeable" and should be analyzed in this EA, rather than waiting until a leaseholder submits an application for permit to drill (APD). Unfortunately, the EA takes exactly the wrong approach and does not adequately evaluate impacts. The EA claims that leasing is merely an administrative action and entails no environmental impacts or consequences. EA at 1-3, 3-11, and 4-1. Yet, BLM expressly defers a site-specific analysis on key resource values, including wildlife, recreation, visual resources, and useable water resources. The BLM fails to consider reasonably foreseeable impacts in this EA despite acknowledging a responsibility to do so. *See* EA at 1-3 (citing *New Mexico ex rel. Richardson v. BLM*). This approach violates NEPA, and BLM must take the site-specific impacts of leasing into account at this stage.

With these comments we are submitting a report by Mr. Ken Kreckel (attached as Exhibit 1). Mr. Kreckel analyzes the development potential on the leases being considered and shows that such development is reasonably foreseeable and can be analyzed at this stage.

NEPA requires that BLM analyze and disclose all reasonably foreseeable impacts from development before it issues the leases. The environmental effects of reasonably foreseeable future actions analyzed in the 2015 ARMPA were premised on the implementation of the conservation measures contained in the plan amendments, including, importantly, prioritizing oil and gas leasing and development outside of PHMAs and GHMAs, implementing the net conservation gain requirement, requiring compensatory mitigation, requiring effective noise controls in GHMA as wells as PHMA, mineral withdrawals in sagebrush focal areas, compliance with required design features, etc. For the analysis of impacts to be accurate, it must examine the direct, indirect and cumulative effects of habitat-disturbing actions in sage-grouse habitat without the implementation of those conservation measures, which have recently been abandoned by BLM or may be abandoned in the near future. *See, e.g.,* Instruction Memorandum (IM) 2018-093 (eliminating the compensatory mitigation requirement). *See also* EA at 4-17 (mentioning the sage-grouse land use plan amendments BLM has initiated that may eliminate protections in the 2015 plans). BLM's EA does not consider these reasonably foreseeable impacts.

Moreover, BLM cannot rely for this sale on the plan-level analysis conducted for the ARMPA. Tiering is only appropriate when a subsequent NEPA document incorporates by reference earlier general matters into a subsequent narrower statement; but it does not allow a subsequent analysis to ignore the *specific* environmental issues that are presented in the later analysis. 40 C.F.R. § 1508.28. The ARMPA does not address the site-specific impacts associated with issuing these particular lease parcels. On the contrary, by requiring a prioritization analysis the ARMPA contemplates that such an analysis will occur at the leasing stage. *See S. Fork Band Council of W. Shoshone of Nevada v. U.S. Dep't of the Interior*, 588 F.3d 718, 726 (9th Cir. 2009) (holding that while tiering is sometimes permissible, "the previous document must actually discuss the impacts of the project at issue").

3. BLM has failed to consider the cumulative impacts of leasing.

NEPA also requires BLM to evaluate the cumulative impacts of this lease sale "resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." 40 C.F.R. § 1508.27(b)(7); *Kern v. Bureau of Land Management*, 282 F.3d 1062, 1075-77 (9th Cir. 2002). To satisfy this requirement, BLM's NEPA analysis must consider the cumulative impact of all the recent and currently-planned oil and gas auctions in which BLM has offered hundreds of leases affecting sage grouse habitat protected under the RMPs. These sales include, but are not limited to:

1. The first, second, and third quarter 2018 lease sales in Wyoming,
2. The first, second, third, and fourth quarter 2018 leases sales in Montana, and
3. Recently proposed lease sales in Utah, Colorado, and Nevada.

These lease sales have proposed to sell hundreds of parcels and hundreds of thousands of acres in sage-grouse habitats. Yet none of these sales are considered in the EA, which violates the obligation to consider cumulative impacts.

In addition, the cumulative impacts from the following oil and gas projects have not been considered in the EA:

- Continental Divide-Creston Oil and Gas Project (8,950 new wells proposed),
- Normally Pressured Lance Oil and Gas Project (3,500 new wells proposed),
- Converse County Oil and Gas Project (5,000 new wells proposed),
- Moneta Divide Natural Gas and Oil Development Project (4,250 new wells proposed), and
- Greater Crossbow Oil and Gas Project (1,500 new wells proposed).

These massive projects – which together will involve drilling over 23,000 new oil and gas wells and constructing thousands of miles of new roads and pipelines in Wyoming, will have significant impacts on sage-grouse and sage-grouse habitats. *See, e.g.,* Converse County Oil and Gas Project Draft EIS at 3.18-57 (estimating that 54 leks will be abandoned due to project activities; "[d]espite the recent upward trend in peak male attendance, all greater sage-grouse leks in the analysis area are at risk of being abandoned as development continues to increase."). These projects need to be considered as part of a cumulative impacts analysis.

BLM must analyze and disclose the cumulative impacts of this wave of leasing and oil and gas projects on the Greater sage-grouse and its habitat. BLM (in the Rocky Mountain Region Record of Decision and the Wyoming "Nine Plan" Amendments and Revisions) and numerous authorities, have recognized the importance of addressing sage-grouse conservation on a comprehensive range-wide basis, and accounting for connectivity between state and regional populations and habitats, habitat fragmentation, and other impacts. As stated in the Rocky Mountain ROD, for the grouse plans collectively: "The cumulative effect of these measures is to conserve, enhance, and restore GRSG habitat across the species' remaining range in the Rocky Mountain Region and to provide greater certainty that BLM resource management plan decisions

in GRSG habitat in the Rocky Mountain Region can lead to conservation of the GRSG and other sagebrush-steppe-associated species in the region." Rocky Mountain ROD at S-2.

Under NEPA, BLM cannot lease hundreds of parcels covering many thousands of acres in Montana, Wyoming and other states without considering the cumulative and trans-boundary impacts to the greater sage-grouse and other resources. It also cannot ignore the cumulative impacts of 23,000 new oil and gas wells that are proposed to be drilled in Wyoming.

Moreover, the cumulative (as well as direct and indirect) impacts from issuing these leases and permitting these wells may result in significant impacts to the environment. It is not plausible for BLM to assert that leasing 790,462 acres (over 1700 square miles), in addition to BLM's numerous other recent and planned large lease sales, will not have any significant impact. Thousands of new oil and gas wells will also have significant impacts. Properly analyzing those impacts will require a full environmental impact statement (EIS), not just an EA. Issuing a finding of no significant impact (FONSI) for this lease sale would be arbitrary and capricious and violate NEPA.

BLM claims "[c]umulative impacts are addressed in the underlying RMP FEIS'." EA at 4-22. But the RMPs did not consider the impacts of these specific leases—no leasing was even proposed in these areas when the RMPs were developed. The RMPs only considered leasing in a general sense, not at a site or lease-specific level. The EA claims relative to both sage-grouse and big game crucial winter range cumulative impacts that "[i]mpacts (direct and/or indirect) beyond those analyzed in the underlying RMP FEIS' and the ARMPA FEIS, are not expected due to the continual expiration of existing federal leases whether because they lack production in paying quantities or are never explored." *Id.* But even if this is true at some level, this contention ignores the millions of acres of new leases that BLM is proposing to issue, and the potential for impacts from those leases.

4. The EAs underestimate impacts to groundwater resources by incorrectly assuming that useable water sources will be protected.

The EA has a limited discussion of impacts to groundwater resources. It claims "[t]he act of offering, selling, and issuing federal oil and gas leases does not produce impacts to water resources" with any impacts only occurring at the drilling stage. EA at 4-13. Impacts to groundwater from hydraulic fracturing are said to be "not likely." *Id.* "Authorization of the proposed projects would require full compliance with local, state, and federal directives and stipulations that relate to surface and groundwater protection and the BLM would deny any APD who proposed [sic] drilling and/or completion process was deemed to not be protective of usable water zones as required by 43 CFR 3162.5-2(d)." *Id.*

Unfortunately, the reality is that useable water zones are typically not protected. Since 1988, BLM's Onshore Order No. 2 has required operators to construct wells to isolate and protect aquifers containing "usable water," defined as having up to 10,000 ppm total dissolved solids (TDS). 53 Fed. Reg. 46,798, 46,801, 46,805 (Nov. 18, 1988). BLM adopted the 10,000-ppm standard because it matched the definition of "underground source of drinking water" used

by the Environmental Protection Agency (EPA) in administering the Safe Drinking Water Act (SDWA). *See id.* at 46,798 (citing 40 C.F.R. § 144.3). When BLM issued its 2015 hydraulic fracturing rule, it made a housekeeping change amending the applicable provision in the Code of Federal Regulations to conform with the Onshore Order No. 2 usable water requirement. 80 Fed. Reg. 16,128, 16,141–42 (Mar. 26, 2015). But in opposing the hydraulic fracturing rule, several industry trade associations and states informed the court that there has been widespread non-compliance with the 10,000-ppm standard, despite the fact that Onshore Order No. 2 is a legally-binding regulation promulgated by notice-and comment rulemaking. *See* 53 Fed. Reg. at 46,798; 43 C.F.R. § 3164.1(b). Based in part on concern that the hydraulic fracturing rule would require companies to change their practices, the U.S. District Court for Wyoming enjoined the rule in 2015. Order on Motions for Preliminary Injunction at 30-33, 53-54, ECF No. 130, *Wyoming v. Jewell,* 2:15-cv-00043-SWS (D. Wyo. Sept. 30, 2015) (*Wyoming v. Jewell*).

Since then, industry trade associations have continued to highlight that there is a widespread industry practice of failing to protect underground sources of drinking water. For example, in their September 25, 2017 comments supporting BLM's proposed rescission of the hydraulic fracturing rule, Western Energy Alliance and the Independent Petroleum Association of America (collectively, WEA), told the agency that the 10,000-ppm standard is inconsistent with "existing practice for locating and protecting usable water." Sept. 25, 2017 WEA comments at 59 (WEA comments).[1] Instead, companies in Wyoming typically set well casing to a depth of only "100 feet below the deepest water well within a one mile radius of [the] oil or gas well"—usually 1,000 feet below ground or less. *Id.* at 84. And in Montana and North Dakota, WEA states that companies only install protective casing for the Pierre Shale formation, regardless of whether underground sources of drinking water may exist below that formation. *Id.*

WEA has explained that requiring companies to protect all underground sources of drinking water would result in substantial additional costs for "casing and cementing associated with isolating formations that meet the numerical definition of usable water under the [Onshore Order No. 2 standard], but which are located at depths deeper than the zones that state agencies and BLM field offices have previously designated as requiring isolation." WEA comments at 84. WEA predicted that complying with the 10,000-ppm standard would cost industry nearly $174 million per year in additional well casing expenses. *Id.* at 84-85.

Industry's admissions raise a significant environmental concern that BLM must address before issuing new leases. Accepting WEA's statements as true, BLM and energy companies have been putting numerous underground sources of drinking water at risk. In its 2016 hydraulic fracturing study, the EPA noted that, "the depth of the surface casing relative to the base of the drinking water resource to be protected is an important factor in protecting the drinking water resource."[2]

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[1] A complete copy of WEA's comments is available at: https://www.regulations.gov/document?D=BLM-2017-0001-0412.

[2] EPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States at 6-19 (2016) (EPA Study), available at: https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990 .

While water with salinity approaching 10,000 ppm TDS is considered "brackish," such aquifers are increasingly being used for drinking water. In fact, EPA adopted the 10,000-ppm standard based on the 1974 legislative history of the SDWA, which explained that Congress intended the SDWA to "protect not only currently-used sources of drinking water, but also potential drinking water sources for the future." H.R. Rep. No. 93-1185 (1974), 1974 U.S.C.C.A.N. 6454, 6484.

Similarly, BLM explained in 2015 that "[g]iven the increasing water scarcity [in much of the United States] and technological improvements in water treatment equipment, it is not unreasonable to assume [these] aquifers . . . are usable now or will be usable in the future." 80 Fed. Reg. at 1,142. The agency noted that even "if we're not using that water today we may be using it ten years [or] a hundred years from now. So we don't want to contaminate it now so it's unusable in the future." *Wyoming v. Jewell* admin. record at DOIAR0009703.[3] Comments from EPA and the Association of Metropolitan Water Agencies (AMWA) supported this conclusion. *Id.* at DOIAR0038117. AMWA reported that brackish groundwater is *already* being used for drinking in some parts of the country. *See id.* at DOIAR0038118 (pumping 8,000 ppm TDS groundwater in Florida); *id.* at DOIAR0068337 (desalination already being used for municipal water treatment in some areas). AMWA explained that because of "challenges resulting from climactic changes, population growth and land development, many utilities are turning to more challenging groundwater sources such as those that are very deep or have high salinity concentrations . . . given the lack of sufficient water elsewhere." *Id.* at DOIAR0038118. Higher salinity water is also being used today for some industrial purposes. *See, e.g., id.* at DOIAR0075763 (power plant cooling).

Our concerns are underscored by recent research showing that it is very common in this region for hydraulic fracturing and oil and gas production to occur in shallow formations that have only limited vertical separation from underground sources of drinking water. Fracturing and production also sometimes occur *within* an aquifer that represents an underground source of drinking water. For example, EPA's 2016 report found that "hydraulic fracturing within a drinking water resource" is "concentrated in some areas in the western United States" that include "the Wind River Basin near Pavillion, Wyoming, and the Powder River Basin of Montana and Wyoming."[4] Where that occurs, EPA explained that:

> . . . hydraulic fracturing within drinking water resources introduces hydraulic fracturing fluid into formations that may currently serve, or in the future could serve, as a drinking water source for public or private use. This is of concern in the short-term if people are currently using these formations as a drinking water supply. It is also of concern in the longterm because drought or other conditions may necessitate the future use of these formations for drinking water.

Id.

[3] Copies of this and other documents referenced on pp. 9-10 of this letter have previously been submitted to your office as exhibits to our December 29, 2017, May 11, 2018, and August 11, 2018 protests on the 2018 first, second, and third quarter lease sales, which we incorporate by reference.

[4] EPA Study at ES-27; see also *id.* at 6-44 to 6-50.

Other recent studies have made similar findings. Researchers investigating the oil and gas-related contamination in Pavillion, Wyoming reported that shallow fracturing also occurs in New Mexico, Colorado, Utah and Montana. Gayathri Vaidyanathan, *Fracking Can Contaminate Drinking Water* at 8, Sci. Am. (Apr. 4, 2016) (Sci. Am. Article).[5] The researchers concluded that "it is unlikely that impact to [underground sources of drinking water] is limited to the Pavillion Field . . . ." Dominic C. DiGiulio & Robert A. Jackson, *Impact to Underground Sources of Drinking Water and Domestic Wells from Production Well Stimulation and Completion Practices in the Pavillion, Wyoming Field,* 50 Am. Chem. Society, Envtl. Sci. & Tech. 4524, 4532 (Mar. 29, 2016). Another study found that approximately three quarters of all hydraulic fracturing in California occurs in shallow wells less than 2,000 feet deep.[6] *See also* previously submitted memorandum from Gregory Oberly and Dominic DiGiulio that is incorporated by reference.

WEA's description of widespread non-compliance with Onshore Order No. 2, and the evidence of shallow production and fracturing, raise a significant environmental issue that must be addressed as a reasonably foreseeable effect of the lease sale. *See Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983) (an agency must "consider every significant aspect of the environmental impact of a proposed action"); *see also Davis v. Mineta*, 302 F.3d 1104, 1123 (10th Cir. 2002). Moreover, BLM's analysis must "state how alternatives considered in it and decisions based on it will or will not achieve the requirements of [NEPA] and other environmental laws and policies." 40 C.F.R. § 1502.2(d); *League of Wilderness Defenders v. USFS,* 585 Fed. Appx. 613, 614 (9th Cir. 2014); *Montana Wilderness Association v. McAllister,* 658 F. Supp. 2d 1249, 1255-56 (D. Mont. 2009). The Council on Environmental Quality regulations also require a discussion of possible conflicts with the objectives of state, local and federal land use plans, policies and controls for the area concerned. 40 C.F.R. § 1502.16(c).

Ignoring evidence of widespread noncompliance with BLM's standards for protecting underground sources of drinking water would violate NEPA. To make an informed decision on whether to lease these lands BLM needs to know whether doing so will put underground sources of drinking water at risk, and what additional stipulations or other steps are needed to prevent such contamination.

The information necessary to make such an assessment is readily available in BLM's own permitting files for existing oil and gas wells, from produced water records on existing wells, and from other sources such as U.S. Geological Survey reports. 80 Fed. Reg. at 16,151–52. Moreover, to the extent any information gaps exist, it is incumbent on BLM to obtain that additional information before making an irreversible commitment of resources by issuing the leases. Additional data on, for example, aquifer quality or well construction practices, is "essential to a reasoned choice among alternatives" and can be collected at a cost that is not "exorbitant." *See* 40 C.F.R. § 1502.22.

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[5]See n. 3 above.

[6] California Council on Science and Technology, An Independent Scientific Assessment of Well Stimulation in California at Executive Summary 10 (2015), http://ccst.us/publications/2015/2015SB4-v2ES.pdf ; see also Sci. Am. Article at 8 (similar finding about California).

BLM cannot simply defer this issue until the application for permit to drill (APD) stage and assume that all laws will be met. The record provides substantial evidence of widespread noncompliance, which BLM cannot ignore if it is to make an informed decision. Moreover, the information we are seeking to be presented in the EA is readily available; BLM cannot make an irreversible and irretrievable commitment of resources at the leasing stage when there are clearly outstanding issues, and the information we request is "essential to a reasoned choice among alternatives" and can be collected at non-exorbitant costs. Under these conditions, the BLM clearly must take steps to better protect groundwater resources at the leasing stage.

B. The BLM is Violating the Federal Land Policy and Management Act.

1. *The EA is not consistent with the Wyoming BLM Approved Resource Management Plan Amendments (September 2015), as required by FLPMA.*

BLM has not prioritized leasing outside of PHMAs and GHMAs, as required by the Rocky Mountain Region ROD and the Wyoming BLM ARMPA. Under FLPMA, BLM must manage public lands "in accordance with the [applicable] land use plans . . . ." 43 U.S.C. § 1732(a); *see also* 43 C.F.R. § 1610.5-3(a) ("All future resource management authorizations and actions…shall conform to the approved plan."). Commenting on these provisions, the Supreme Court said,

> The statutory directive that BLM manage "in accordance with" land use plans, and the regulatory requirement that authorizations and actions "conform to" those plans, prevent BLM from taking actions inconsistent with the provisions of a land use plan.

Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 68 (2004).

Here, the leasing EA is not consistent with provisions of the Rocky Mountain ROD and Wyoming BLM ARMPA, which require the "prioritization" of oil and gas leasing outside of PHMAs and GHMAs. Under the Rocky Mountain Region ROD, BLM must:

> prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs . . . to further limit future surface disturbance and to encourage new development in areas that would not conflict with GRSG. This objective is intended to guide development to lower conflict areas and, as such, protect important habitat and reduce the time and cost associated with oil and gas leasing development. It would do this by avoiding sensitive areas, reducing the complexity of environmental review and analysis of potential impacts on sensitive species, and decreasing the need for compensatory mitigation.

Rocky Mountain Region ROD at 1-25. The Wyoming BLM ARMPA echoes this directive and includes the following objective: "Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs." ARMPA Management Objective No. 14, at 24.

As noted above, the prioritization mandate applies even when lands are designated as open for leasing under the applicable RMP. Thus, the fact that these lands are open to leasing does not excuse compliance with the prioritization requirement, as BLM asserts in the EA. EA at 2-3, 3-23, and 4-17. In addition, BLM cannot rely on stipulations as a substitute for compliance with the RMP prioritization mandate. *Id.* The RMP requirement is to apply certain stipulations *in addition to* prioritization, not instead of it. They are separate RMP provisions that both must be satisfied.

BLM's now-replaced Instruction Memorandum (IM) 2016-143 also put in place many provisions to ensure prioritization of leasing outside of sage-grouse habitats. While IM 2016-143 has been replaced with IM 2018-026, which states, "[i]n effect, the BLM does not need to lease and develop outside of GRSG habitat management areas before considering any leasing and development within GRSG habitat," this mere IM cannot supersede the statutory obligation for BLM to manage public lands "in accordance with the [applicable] land use plans . . . ." And the RMPs are clear, BLM must "prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs" and "[p]riority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs." The prioritization requirement applies to leasing. BLM's claims that IM 2018-026 allows it to ignore the prioritization requirement at this leasing stage are misplaced. EA at 3-23.

To the extent IM 2018-026 can be read as purporting to remove any requirement to limit leasing in sage-grouse habitat management areas, and the requirement to prioritize leasing outside those areas, it is inconsistent with the Rocky Mountain ROD and the ARMPA. The entire point of the prioritization objective is to limit development and surface disturbance in important sage-grouse habitat—not simply to order BLM's administrative paperwork. Nor is the prioritization requirement satisfied by "encourag[ing] lessees to voluntarily prioritize leasing" outside habitat management areas. IM 2018-026 at 3. The prioritization objective applies to BLM's decisions about where to offer leases—not the business choices of companies with no stewardship obligations—and it is binding on the agency.

As we noted above, BLM is essentially planning to lease all sage-grouse habitats where industry has expressed an interest. It is willing to sell nearly 600 lease parcels covering nearly 800,000 acres in PHMA and GHMA. This is an affront to sage-grouse conservation and will help ensure that the Fish and Wildlife Service (FWS) is forced to change its "not warranted" decision and be forced to move to list the sage-grouse under the Endangered Species Act. BLM is showing that in Wyoming at least there are not "adequate regulatory mechanisms" to protect the sage-grouse, as the FWS relied on for its not warranted finding. Leasing nearly 600 parcels that cover the better part of a million acres is not in compliance with the prioritization requirement in BLM's RMPs. The BLM's failure to prioritize leasing outside of sage-grouse habitats is a violation of FLPMA.

According to the EA, there are currently approximately 1,341,256 acres of PHMA (8.4 percent of the total PHMAs in Wyoming) under federal lease. EA at 3-24 (Table) and 4-22. This represents a 73 percent reduction in the acreage under lease in PHMAs since implementation of the core area strategy began in 2008. *Id.* Yet now BLM is proposing to lease an additional

365,902 acres in PHMA, which would represent a 27 percent increase in PHMA leased acreage. In addition, pursuant to the lease sale proposals for the first, second, and third quarter 2018 lease sales in Wyoming, BLM proposed to offer an additional 303 parcels in PHMA, representing about an additional 397,365 acres in PHMA.[7] Coupled with the acreage in the current lease sale this would increase the acreage leased in PHMA by a total of nearly 57 percent. Moreover, while lek sizes are fluctuating, there was an 11 percent decline lek sizes in 2017. EA at 3-24. Clearly this level of leasing in PHMAs is not meeting the prioritization requirement, or the conservation objectives of the 2015 sage-grouse plans.

Additionally, BLM's EA fails to consider impacts to winter concentration areas, and as such is inconsistent with the Governor's executive order on Greater Sage-Grouse Core Area Protection. EO 2015-4 (2015). The EO notes that Wyoming has the greatest population of greater sage-grouse across the range, and that a "robust and scientifically rigorous system of monitoring" is necessary to conserve the species. *Id.* at 1, 2. To that end, the state supports research of activities in winter concentration areas, and is committed to developing "appropriate local, science-based standards to manage disturbance in identified and mapped winter concentration areas." EO at 5. The EO stresses the importance of collaborating with federal agencies including BLM to "ensure a uniform and consistent application of this Executive Order to maintain and enhance Greater sage-grouse habitats and populations." *Id.* at 5, 6. The Wyoming BLM ARMPA also addresses winter concentration areas. ARMPA Management Decision SSS10 at 36. MD SSS10 states the following:

> *Surface disturbing and/or disruptive activities in sage-grouse winter concentration areas would be prohibited from December 1-March 14.*
>
> *Activities in unsuitable habitats within PHMAs would be evaluated under the exception and modification criteria and could be allowed on a case-by-case basis.*
>
> *Protection of additional mapped winter concentration areas in GHMAs would be implemented where winter concentration areas are identified as supporting populations of sage-grouse that attend leks within PHMAs (core only). Appropriate seasonal timing restrictions and habitat protection measures would be considered and evaluated in consultation with the WGFD in all identified winter concentration areas.*

Id. at 36.

Appropriately, BLM has acknowledged that some parcels (310, 315, 316, 317, 326-329, and 331) are within winter concentration areas and has attached a TLS to those leases. EA at 3-24. However, the EA does not include an analysis of reasonably foreseeable impacts to this important habitat and the sage-grouse that rely upon it. BLM's analysis of the proposed action alternative says only that "Parcels offered in PHMAs, GHMAs, Connectivity areas, and/or Winter Concentration Areas will be offered subject to appropriate Greater sage-grouse stipulations" in accordance with the BLM Wyoming ARMPA. In failing to analyze potential impacts to sage-grouse from leasing in Winter Concentration Areas, the BLM ignores the

[7] The exact acreage in PHMAs is not clearly indicated in all of the multiple EAs for the first three quarter lease sales, so this is an estimate that may be completely accurate.

Governor's EO and the agency's own management decision. The EA makes no mention whatsoever of the additional "habitat protection measures" to be "considered and evaluated... in all identified winter concentration areas," nor of any consultation between BLM and WGFD regarding winter concentration areas as required by the ARMPA. As such, BLM should defer all leases in Greater sage-grouse winter concentration areas until potential adverse impacts have been adequately evaluated, consultation with WGFD occurs, and appropriate habitat protection measures are designed in collaboration with WGFD.

2. The BLM is not complying with FLPMA's multiple-use mandate.

Under FLPMA, BLM is required to manage the public lands on the basis of multiple use and sustained yield. 43 U.S.C. §§ 1712(c)(1); 1732(a). As the Supreme Court has noted, "[m]ultiple use management is a deceptively simple term that describes the enormously complicated task of striking a balance among the many competing uses to which land can be put, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and [uses serving] natural scenic, scientific and historical values." *Norton v. S. Utah Wilderness Alliance*, 542 U.S. at 58 (internal quotations omitted).

In recognition of the environmental components of the multiple use mandate, courts have repeatedly held that under FLPMA's multiple use mandate, development of public lands is not required, but must instead be weighed against other possible uses, including conservation to protect environmental values. *See*, *e.g., New Mexico ex rel. Richardson*, 565 F.3d at 710 ("BLM's obligation to manage for multiple use does not mean that development *must* be allowed. . . . Development is a possible use, which BLM must weigh against other possible uses — including conservation to protect environmental values, which are best assessed through the NEPA process."); *Rocky Mtn. Oil & Gas Ass'n v. Watt*, 696 F.2d 734, 738 n.4 (10th Cir. 1982) ("BLM need not permit all resource uses on a given parcel of land."). And, just as BLM can deny a project outright in order to protect the environmental uses of public lands, it can also condition a project's approval on the commitment to mitigation measures that lessen environmental impacts. *See*, *e.g.*, *Pub. Lands Council v. Babbitt*, 167 F.3d 1287, 1300-01 (10th Cir. 1999) ("FLPMA unambiguously authorizes the Secretary to specify terms and conditions in livestock grazing permits in accordance with land use plans"); *Grynberg Petro*, 152 IBLA 300, 306-07 (2000) (describing how appellants challenging conditions of approval bear the burden of establishing that they are "unreasonable or not supported by the data").

The multiple use framework's emphasis both on environmental resources and on the need to balance between present and future generations are highly relevant to consideration of impacts to wildlife and recreation. For example, multiple use includes "the 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; . . . a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources . . . ; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment. . . ." 43 U.S.C. § 1702(c).

The mere fact an RMP makes lands *available* for leasing does not mean that actually leasing the lands meets BLMs' multiple use obligations. Given BLM's acknowledged discretion to engage in leasing, or not leasing, under the Mineral Leasing Act, it is clear the leasing stage, as much as the planning stage, is when multiple use decisions should be made. Since land use plan decisions only set a basic framework for land management, and do not make project-specific decisions, it is clear the leasing stage is when decisions should be made about whether issuing a lease parcel would meet BLM's multiple use responsibilities, and this must be reflected in the NEPA analysis at the leasing stage, which has not occurred here.

None of the overarching legal mandates under which BLM operates – be it multiple-use or non-impairment – authorizes the Department of the Interior (DOI) to establish energy development as the dominant use of public lands. On our public lands, energy development is an allowable use that must be carefully balanced with other uses. Thus, any action that attempts to enshrine energy development as the dominant use of public lands is invalid on its face and inconsistent with the foundational statutes that govern the management of public lands.

Federal courts have consistently rejected efforts to affirmatively elevate energy development over other uses of public lands. In the seminal case, *New Mexico ex rel. Richardson v. BLM*, the Tenth Circuit put to rest the notion that BLM can manage chiefly for energy development, declaring that "[i]t is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses." 565 F.3d 683, 710 (10th Cir. 2009); *see also S. Utah Wilderness Alliance v. Norton*, 542 U.S. 52, 58 (2004) (defining "multiple use management" as "striking a balance among the many competing uses to which land can be put"). Other federal courts have agreed. *See, e.g., Colo. Envtl. Coalition v. Salazar*, 875 F. Supp. 2d 1233, 1249 (D. Colo. 2012) (rejecting oil and gas leasing plan that failed to adequately consider other uses of public lands). Thus, any action by BLM that seeks to prioritize oil and gas leasing and development as the dominant use of public lands would violate FLPMA. BLM must therefore consider a reasonable range of alternatives for this lease sale that considers and balances the multiple uses of our public lands, consistent with NEPA and FLPMA.

BLM's energy dominance thrust removes the public from decision making. Moreover, it fails to recognize that natural resources protection, particularly to support hunting opportunities, is a multi-billion dollar industry in Wyoming. Elevating energy development to the level that BLM is engaging in ignores past agreements to avoid leasing in sensitive areas and ignores current research regarding the impacts of oil and gas activities on wildlife and wildlife habitats. Across the West oil and gas companies hold leases that they are not developing. About 50 percent of currently approved federal oil and gas leases are not producing energy. Yet this push by industry, which is being accommodated by BLM, locks up our public lands and prevents them from being managed for multiple use. If BLM listened to the public, it would scale back this massive leasing rush so that multiple use values could be more fully recognized and accommodated.

3. *Parcels located in the Rock Springs Field Office should be deferred to preserve "decision space" in the RMP revision process.*

Oil and gas leasing, per the Mineral Leasing Act, is a discretionary activity and the Secretary of the Interior and the BLM retain significant discretion regarding leasing or not leasing specific lands. In the past, at the RSFO Manager's request, the BLM Wyoming State Director has judiciously applied this discretion and decided not to offer parcels for lease in that field office. This decision was made one year ago, in the November 2017 sale, when 74 parcels were deferred. Choosing not to lease in a field office currently seeking the input of cooperating agencies and the public on a land-use plan revision about where to lease or not lease, and how to lease, among other decisions, is a proactive decision that retains the integrity of the draft plan and the public's trust. It reduces conflict down the road and ensures that leasing does not happen under an outdated plan from 1997. We applauded the State Director's decision, and the Field Office Manager's request, for that sale and ask that the agency maintain consistency with that decision here.

We ask that all lease parcels currently offered in the RSFO be deferred. New data and public input is being weighed in connection with evaluating current leasing decisions in that field office through the plan revision and until it is complete, leasing now will be disruptive to the landscapes, will apply outdated stipulations, be out of touch with current scientific information and community attitudes, and will undermine the decision space of the field office manager.

While the BLM plans to defer leasing 72 parcels in the RSFO, EA at 2-1 to -2, dozens of additional parcels would remain eligible for leasing. It appears that over 150 parcels would still be offered in the RSFO. EA at Section 5.1 (Lease Sale Parcel List). This will only create problems for the RMP revision in the RSFO, and this should be avoided by deferring the sale of these parcels at this time.

C. The EA Has Not Adequately Addressed Lands with Wilderness Characteristics, in Violation of NEPA and FLPMA.

The EA does not adequately address Lands with Wilderness Characteristics (LWCs). First, the EA incorrectly identifies parcels that overlap LWCs. Second, the EA does not analyze impacts to LWCs or the Wilderness resource. Third, several parcels in the Rawlins FO and one parcel in the Rock Springs FO are in areas that have ongoing plan amendments and should be deferred until completion of RMP revisions. Finally, 29 parcels are within Special Management Areas (SMAs), but the EA fails to analyze impacts to leasing in these areas.

1. The EA Incorrectly identifies parcels that overlap lands with wilderness characteristics.

The EA identifies 54 parcels (87-95, 105-113, 232-235, 245-247, 287, 288, 309, 310, 312, 313, 315-318, 320, 321, 326-331, 650, 679 and 686) as possessing Lands with Wilderness Characteristics (LWCs). EA at page 17. We identified three additional parcels that overlap BLM identified LWCs: parcels 79, 85, and 118. (Please reference table one and the BLM's LWC

inventories for these areas - attached as Exhibit 2). Parcels 79 and 85 are located in the Rawlins Field Office and are within the Rock Springs BLM identified LWC unit. Parcel 118 is located in the Rawlins Field Office and the Rock Springs Field Office and is with in the North Crow Creek BLM identified LWC unit. We request that the BLM update this information in the Final EA.

The BLM is required to accurately identify the presence of LWCs prior to deciding to make the proposed leases available for sale. FLPMA requires the BLM to inventory and consider public lands resources during the land use planning process. 43 U.S.C. § 1711(a). The U.S. Court of Appeals for the Ninth Circuit has held: "wilderness characteristics are among the 'resource and other values' of the public lands to be inventoried under § 1711. The BLM's land use plans, which provide for the management of these resources and values, are to 'rely, to the extent it is available, on the inventory of the public lands, their resources, and other values.' 43 U.S.C. § 1712(c)(4)." *Ore. Natural Desert Ass'n v. Bureau of Land Management*, 531 F.3d at 1119.

In order to evaluate impacts under NEPA, the BLM must analyze those impacts from an accurate understanding of conditions on the ground. 40 C.F.R. § 1502.15 (agencies must "describe the environment of the areas to be affected or created by the alternatives under consideration."); *see also Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988) ("without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.").

2. The EA does not analyze the impacts to LWCs or the Wilderness Resource.

The EA does not analyze the impacts to Wilderness resources. Of the parcels not deferred in the EA, there are 37 parcels that overlap BLM identified LWCs. (See table 1.) Nowhere in the EA does the BLM analyze the impacts to these LWCs. Additionally, there are 47 parcels that fall within the Citizens Wilderness Proposal (CWP). Please see maps 1 and 2, and the CWP that conflicts with the parcels outlined in table 2 - attached as Exhibits 3 and 4. We request that the BLM defer or delete these parcels until the BLM adequately analyzes the impacts to the Wilderness resource.

Table 1: 37 Parcels overlapping LWCs

Parcel #	LWC Inventory Name	Incorrectly Identified in EA	Field Office
79	Rotten Springs	⊗	RFO
85	Rotten Springs	⊗	RFO
87	Adobe Town Fringe Area D		RFO

88	Adobe Town Fringe Area D		RFO
89	Adobe Town Fringe Area D		RFO
90	Adobe Town Fringe Area D		RFO
91	Adobe Town Fringe Area D & E		RFO
92	Adobe Town Fringe Area E		RFO
93	Adobe Town Fringe Area E		RFO
94	Adobe Town Fringe Area E		RFO
95	Adobe Town Fringe Area E		RFO
106	Adobe Town Fringe Area E		RFO
107	Adobe Town Fringe Area E		RFO
108	Adobe Town Fringe Area E		RFO
109	Adobe Town Fringe Area E		RFO
110	Adobe Town Fringe Area E		RFO
111	Adobe Town Fringe Area F		RFO
112	North Crow Creek		RFO
113	North Crow Creek & Adobe Town Fringe Area F		RFO
118	North Crow Creek	⊗	RFO & RSFO
310	Alkali Draw		PFO
312	Alkali Draw		PFO
313	Alkali Draw		PFO
315	Alkali Draw & Alkali Creek		PFO
316	Alkali Creek		PFO
317	Alkali Creek		PFO
318	Alkali Creek		PFO
320	Alkali Creek		PFO
321	Alkali Draw		PFO
326	Upper West Buckhorn Draw		PFO
327	North Chapel Canyon & Millson Draw		PFO
328	Upper West Buckhorn Draw		PFO

329	Upper West Buckhorn Draw		PFO
330	Upper West Buckhorn Draw		PFO
331	Millson Draw		PFO
679	North Pacific Creek		RSFO
686	Alkali Draw		PFO

Table 2: Parcels in Citizens Wilderness Proposal

Parcels in CWP	Incorrectly Identified in EA
87-95	⊗
106-112	
115-118	⊗
123-128	⊗
132-135	⊗
149-155	⊗
157-162	⊗
638	⊗
640	⊗
650-651	

NEPA requires the BLM to analyze any potential impacts to LWCs and the Wilderness resource. The purpose of an EA is to evaluate and minimize adverse environmental effects before they occur. *See*, 40 C.F.R. §§ 1508.8, 1508.9. An EA should provide "sufficient evidence and analysis" to justify this determination, in part by taking a "hard look" at potential direct, indirect and cumulative impacts of the proposed action. *See, e.g. Wilderness Soc. v. Forest Serv.*, 850 F. Supp. 2d 1144, 1155 (D. Idaho 2012). The BLM must fully evaluate the impacts of leasing on LWCs in the EA. Simply listing the LWC units that overlap with the proposed lease parcels, as the BLM has done in the EA, does not constitute environmental impact analysis under NEPA. NEPA requires federal agencies to consider "any adverse environmental effects which cannot be avoided." 42 U.S.C. § 4332(C)(ii). Effects that must be considered include "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected

ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. § 1508.8.

By completely ignoring the significant new information submitted by the public, the BLM is failing to take the requisite "hard look" at how the sale of the parcels listed in tables 1 & 2 would affect the Wilderness resources in the RSFO and RFO as required by NEPA. The BLM should therefore defer leasing these parcels until the agency has updated its inventory for these areas in response to the significant new information submitted to the agency.

3. Parcels are within areas that have ongoing plan amendments.

Several parcels in the Rawlins Field Office and one parcel in the Rock Springs Field Office conflict with decisions pending the completion of plan amendments. These parcels lie on the boundary of the Adobe Town WSA: 87-95, 106-113, and 118. All of these lease parcels occur in LWCs, and the ongoing Rawlins VRM targeted RMP Amendment is seeking to address LWCs management at this time.

The BLM has deferred leasing in areas where the VRM RMP Amendment is occurring. The State Director deferred lease 2 parcels in the 2018 second quarter lease sale[8]. FONSI, p. 1. *See also* EA at Appendix A (stating parcel 116 is partially deferred and parcel 117 is fully deferred). The State Director also deferred parcel 13 in the RFO in the November 2015 sale because of the ongoing Rawlins VRM amendment[9]. Appendix B of the EA for this lease sale states that parcel 13 is deferred because of … "pending completion of the Rawlins Visual Resource Management RMP Amendment". We request the that BLM also defer lease parcels 87-95, 106-113, and 118, because the VRM RMP amendments has not yet been finalized.

Parcel 118 is also located within the Monument Valley management area and overlaps the Rawlins and the Rock Springs Field Office. The Rock Springs Field Office does not have management direction for the LWCs. The field office is undergoing a management revision process that will decide their future management. We respectfully ask that the BLM not take away the opportunity for the public to decide how these lands should be managed in the next plan. The Green River RMP is over 20 years old and does not contain management direction for LWCs. The LWCs inventories are new information that should be considered during this lease sale and incorporated in the next plan. We request that the BLM defer leasing in LWCs in the RSFO until completion of the RMP.

[8] FONSI for the June 26th, 2018 Competitive Lease Sale, available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/85072/149040/183061/Finding_of_No_Significant_Impact_V3.pdf

[9] EA for the High Desert District November 2015 Oil and Gas Lease Sale, available at: https://eplanning.blm.gov/epl-front-office/eplanning/legacyProjectSite.do?methodName=renderLegacyProjectSite&projectId=69058

4. *Parcels are within Special Management Areas (SMAs) and are not adequately analyzed in the EA.*

The RFO has 29 parcels, whole or in part, containing approximately 38,893 acres, located within the Adobe Town Dispersed Recreation Use Area (DRUA) (79, 85, 86-95, 105-111, 115-118, 124-127, 638 and 640). EA at page 18. However, the EA does not mention the impacts that leasing will have on the DRUA, nor does the EA mention the stipulation for leasing in this area. We ask that the BLM defer leasing in the DRUA until adequately analyses of this resource occurs.

D. BLM Has Not Adequately Considered Impacts to Big Game Crucial Winter Range and Migration Corridors.

The EA prepared for the December 2018 lease sale fails to analyze the impacts of leasing in big game crucial winter range and migration corridors. Wyoming is home to ungulate species such as deer, elk, and antelope that are an essential part of the state's culture and economy, and boasts the longest mule deer migration on earth. BLM acknowledges that "big game populations statewide are generally below objective as determined by the WGFD" and that ongoing energy development contributes to that problem. EA at 3-28. Nonetheless, the proposed lease sale includes parcels in the known and mapped Sublette mule deer migration corridor (better known as the Red Desert to Hoback, or RD2H, corridor) and would be particularly impactful on crucial winter range for deer, elk, and pronghorn antelope. *Id.* at 4-17, 3-28. Seventeen parcels, covering approximately 31,470 acres, are located within the Sublette corridor. *Id.* at 3-25. Nine parcels in the HPD and 237 parcels in the HDD are within crucial winter range for ungulates. *Id.* at 3-28. Several parcels are located in areas undergoing active vegetation treatment to improve big game habitat in the Baggs herd unit area, within the Atlantic Rim migration corridor pending WGFD designation. *Id.* Despite the acknowledged impacts of oil and gas development on big game populations and the proposed leasing of tens of thousands of acres within this crucial habitat, the EA lacks any analysis whatsoever of the impacts from leasing in crucial winter range and migration corridors.

Instead, the BLM's EA merely states that "oil and gas activities may adversely affect use of the migration corridors by mule deer" and that "BLM may require... additional measures at the time operations are authorized to mitigate impacts to mule deer migration corridors." EA at 4-17. The EA makes no mention whatsoever of the nature and extent of reasonably foreseeable impacts to big game. In fact, BLM suggests, with no analysis or supporting documentation, that there will be no impacts from the lease sale beyond those discussed in the underlying RMPs, because many existing federal leases eventually expire. However, the underlying RMPs offer no analysis of impacts to migration corridors, because they were issued before those corridors were identified, and afford no protection to migration corridors. If the BLM intends to rely on analyses in the underlying RMPs to protect big game, it must at the very least cite and summarize the analyses it allegedly relies upon, yet the EA is silent on this issue. Furthermore, the EA skirts the issue of impacts to crucial winter range entirely, saying only that "between the Third Quarter and 4th Quarter sales, the vast majority of the mule deer corridor remains unleased and closed to oil

and gas development." *Id.* at 4-22. If BLM intends to rely on RMP analyses of impacts to crucial winter range, it has not said so in the EA. Even if BLM intends to rely on underlying RMPs, those documents are considerably outdated and fail to incorporate a decade of substantial research on impacts to big game from oil and gas development, discussed in detail below.

This dearth of analysis is woefully inadequate and violates NEPA's mandate to take a "hard look" at potential environmental impacts. NEPA's procedural requirements are intended to prevent uniformed agency action. *Robertson v. Methow Valley*, 490 U.S. 332 (1989). To that end, EAs must consider environmental impacts of the proposed action and alternatives. 40 CFR 1508.9. Here, BLM has ignored potential impacts to big game despite widespread public concern and readily available data on impacts to game.

BLM has also failed to identify effective mitigation measures. Mitigation measures must be developed in light of a thorough analysis of potential impacts. Thorough analysis of potential impacts to migration corridors and crucial winter range is particularly important because the mitigation measures historically relied upon by BLM to "protect" big game have been proven ineffective. A recent, peer reviewed, BLM-funded study of mule deer in the Pinedale area demonstrated that despite the application of on-site mitigation required by BLM, population effects to the herd were "considerable" and "not fully offset through mitigation or best management practices." *See Mule deer and energy development – Long-term trends of habituation and abundance,* at 4527. The study found that "[f]ollowing fifteen years of natural gas development in western Wyoming, mule deer did not habituate to disturbance and continued to avoid energy infrastructure. Even during the last 3 years of development when most wells were in production and well pads were in various states of reclamation, we found no evidence of habituation. Instead, mule deer used areas that averaged nearly 1 km further from well pads compared with animals before development occurred." *Id.* at 4526. Among other things, the EA fails to consider that:

> Long-term avoidance behavior is problematic because indirect habitat loss reduces the size of winter range available for mule deer—habitat that would otherwise be used is functionally unavailable to the animals that occupy the range (Korfanta, Mobley, & Burke, 2015; Northrup et al., 2015; Sawyer et al., 2006). Winter range for temperate ungulates is often geographically restricted, particularly in migratory herds, so that habitat loss cannot be offset by simple range expansion. Thus, when habitat is lost directly through conversion to infrastructure and additionally through behavioral avoidance, carrying capacity is also reduced. *Id.*

The information presented in the mule deer study is not disclosed in the EA, nor is the fact that the study specifically questions the validity of NEPA documents that suggest adverse impacts to big game are temporary:

> Our findings contradict many NEPA documents (e.g. Environmental Impact Statements, Environmental Assessments) that guide federal land use on millions of acres in the western USA and consider natural gas development a short-term impact to which animals can readily habituate once drilling activities are complete

> (e.g. BLM, 2005, 2006, 2012). We understand that a paucity of data on the long-term impacts of development likely led to this type of conclusion in the NEPA process. However, our long-term dataset comprising multiple generations of animals indicates that avoidance of energy infrastructure is a long-term effect that can be associated with significant population declines.

Id. at 4527.

While not specifically referencing the leasing EA, the researcher's findings nonetheless highlight fundamental flaws in both the BLM's impacts analysis as well as its misinformed and inadequate approach to management of important big game habitats.

The researchers continued:

> Our work has important implications for applying the mitigation hierarchy (Council on Environmental Quality, 2000), which seeks to reduce negative effects of development by sequentially avoiding, minimizing, and offsetting impacts. First, effective mitigation seeks to match the mitigation activity with the duration of the impact (Council on Environmental Quality, 2000). Our study indicates that impacts of energy development in sagebrush steppe can be long term, if not permanent, and mitigation measures should be accordingly long term. Second, minimizing impacts through onsite mitigation, although desirable for species that exhibit high site fidelity, may not be possible. Onsite mitigation was insufficient to abate behavioral and demographic consequences to mule deer during our study. Third, given the limitations of onsite mitigation, avoidance of impacts by strategically foregoing leasing or reducing intensity of development of critical habitats is likely the most effective approach to averting population-level impacts. And finally, where avoidance and minimization are not possible or effective, offsite mitigation approaches such as biodiversity offsets or conservation banks that aim to compensate for biological impacts in one area with protected or improved habitat elsewhere (Bull, Suttle, Gordon, Singh, & Milner-Gulland, 2013; Carroll, Fox, & Bayon, 2008) are untested but warrant consideration.

Id. at 4527.

> Our long-term study refutes the prevailing notion that mule deer habituate to human disturbance, and instead, demonstrates that energy development can have long-term consequences for deer populations simply through avoidance behavior and the indirect habitat loss that ensues. Furthermore, as the NEPA process is based on full disclosure of the potential impacts from a proposed action, our work indicates that future impact assessments should disclose that the impacts to ungulate habitat in the shrub-steppe environment of the West may well be long-term and perhaps an irretrievable commitment of resources.

Id. at 4528.

With no analysis of these new and significant scientific findings, BLM has proposed including a "Lease Notice for Big Game Migration Corridor" for parcels within the Sublette Migration Corridor. The proposed notice is wholly inadequate and cedes agency authority to manage the corridor appropriately. A lease notice does not carry the legal weight of a lease stipulation, nor does it alter the terms or conditions of the BLM's standard oil and gas lease. BLM regulations are clear on this point:

> *An information notice has no legal consequences, except to give notice of existing requirements*, and may be attached to a lease by the authorized officer at the time of lease issuance to convey certain operational, procedural or administrative requirements relative to lease management within the terms and conditions of the standard lease form. *Information notices shall not be a basis for denial of lease operations*. See 43 C.F.R. § 3101.1-3 (emphasis added).

Even if the Lease Notice were binding, it would be insufficient. The Special Lease Notice for parcels in migration corridors states that BLM will "consider recommendations received by the Wyoming Game and Fish Department, such as those contained within the document entitled 'Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats'." EA at 4-17. The referenced WGFD document contains only two bullet points on migration corridors, suggesting "well field developments should not exceed 4 well pad locations or 60 acres of disturbance per square mile" to "maintain options for animal movement along the corridor." "Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats," WGFD at 40. More recent studies, referenced above, clarify that mule deer use areas a full kilometer further from well pads than before surface disturbance occurred, indicating that WGFD's 2010 recommendations are arbitrary and would be ineffective to mitigate adverse impacts. Moreover, the Notice is only attached to parcels that overlap the corridor by 90% or more, but the EA offers no scientific basis for this 90% figure. BLM must analyze the best science on impacts to ungulates from oil and gas leasing, rather than relying upon a non-binding lease notice predicated on outdated science.

Despite the EA's assertions, it is unlikely that BLM could mitigate impacts at the APD stage, because the agency would have to justify "reasonable measures" taken at that stage based on the underlying RMPs. Industry has litigated mitigation measures applied at the APD stage on the grounds that they were not reasonably justified by underlying NEPA documents. See *Yates Petroleum Corporation*, 176 IBLA 144 (2008). If BLM relies on RMPs that fail to consider current science, the agency cannot justify mitigation measures based on that science. BLM's own regulations limit mitigation measures to stipulations, nondiscretionary statutes, and "reasonable measures." Notice of Competitive Oil and Gas Sale September 18-20, 2018 at §3101.1-2. "Reasonable measures" are explicitly limited and may not require relocation of proposed operations by more than 200 meters. *Id.* Because ungulates avoid well pads by up to a kilometer more than before the site was developed, this limitation on "reasonable measures" would likely render any attempts at mitigation at the APD stage ineffective.

At the state level, the Wyoming Governor’s office has formally stated that OSLI and WGFD are working to develop appropriate lease stipulations for parcels in migration corridors

that may come up in future sales. To preserve the functionality of migration corridor and avoid a double standard, BLM must withdraw the parcels within corridors from the pending lease sale, at least until science-based *stipulations* have been designed and included in lease terms. Appropriate stipulations would give BLM leeway to prohibit operations on the lease if necessary to prevent damaging impacts to the corridor. Options include a No Surface Occupancy (NSO) stipulation or controlled surface use (CSU) stipulation that permits BLM to deny operations if site-specific environmental analysis suggests unacceptable impacts. A mere lease notice strips BLM of that authority. Science-based stipulations are particularly crucial because the standard wildlife stipulations contained in WY BLM's RMPs for oil and gas leases do not address big game migration corridors. Unless and until effective stipulations are developed, leasing within the corridor should not be permitted.

Likewise, effective lease stipulations must be developed for parcels within crucial winter range. Though a Timing Limitation Stipulation has been attached to parcels within this habitat type, that stipulation does not afford the BLM the authority it needs to effectively mitigate impacts to big game. BLM must retain authority to deny operations if they threaten unacceptable impacts. Of course, developing appropriate stipulations requires a thorough and informed analysis of potential impacts, which must consider the best available science. Until BLM analyzes potential impacts and develops stipulations accordingly, leasing in crucial winter range should be deferred.

Additionally, BLM's lack of attention to impacts on migration corridors and crucial winter range fails to comply with Secretarial Order 3362. Sec. Ord. No. 3362 (February 9, 2018). That order directs DOI agencies to take a leadership role in conserving big-game winter range and migration corridors. *Id.* at 2. The order specifically directs BLM and other agencies to consider "avoiding development in the most crucial winter range or migration corridors during sensitive seasons... minimizing development that would fragment winter range and primary migration corridors ... limiting disturbance of big game on winter range; and ... utilizing other proven actions necessary to conserve and/or restore the vital big-game winter range and migration corridors across the West." *Id.* at 5. As evidenced above, BLM has not adequately considered these options.

The Order also prioritizes close cooperation with States and emphasizes the importance of big game to local economies. *Id.* at 2. Nonetheless, BLM has failed to consider local concerns regarding big game habitat. On September 4, 2018 the Sweetwater County Board of County Commissioners wrote to BLM urging the agency to defer all lease sales within the Red Desert Mule Deer Migration Corridor until the issuance of the ROD for the Rock Springs RMP. Sweetwater County comments on the Fourth Quarter BLM Oil and Gas Lease Sale Environmental Assessment, 1 (September 4, 2018*).* Sweetwater County, located at the southern terminus of the Red Desert to Hoback migration corridor, stressed the importance of the corridor for recreational and economic opportunities. *Id.* at 1. Teton County, at the northern terminus of the corridor, also supports deferral of lease sales in migration corridors. In an August 27, 2018 letter to Governor Matt Mead and WGFD Director Scott Talbott regarding 3rd quarter lease sales in the corridor, the Teton County Board of Commissioners requested State officials urge BLM to

defer sales until issuance of the Rock Springs RMP ROD because "protection and conservation of natural resources such as this are critical to both the recreational economy and natural character of our region." Teton County comments on the Third Quarter BLM Oil and Gas Lease Sale (August 27, 2018). The two counties most affected by leasing in migration corridors and crucial winter habitat recognize that uninformed and unmitigated lease sales recklessly jeopardize their residents' way of life and economic opportunities. In light of the Secretary's order, BLM should carefully consider this risk, and defer leasing in migration corridors and crucial winter range.

E. BLM Has Failed to Consider Reasonable Alternatives to Leasing in Big Game Crucial Winter Range and Migration Corridors, and Failed to Consider Relevant Information Critical to Informed Decision-Making.

BLM must consider a range of reasonable alternatives in its EA, including alternatives to leasing in crucial winter range and migration corridors. As addressed above, NEPA requires a rigorous investigation and evaluation of all reasonable alternatives. Deferring lease sales in big game habitat is undoubtedly reasonable. Crucial winter range is a key requirement for the health and survival of big game herds. The availability of good winter range where big game can find shelter and adequate food means all the difference between strong populations or a herd weakened by starvation and at increased risk for disease and predation. Studies have demonstrated that oil and gas development—even development that is subject to protective stipulations and conditions of approval—has a negative impact on ungulates such as mule deer. These impacts, undisclosed in the EA, support the need to consider alternatives that would defer leasing parcels that contain these resources. Damage to these habitats may be difficult or impossible to avoid or fully mitigate with lease stipulations or efforts at the APD stage. A mere lease notice, the sole mitigation measure proffered by BLM, in no way satisfies BLM's obligations under NEPA to consider alternatives to its proposal to offer oil and gas leases within these important habitats.

Big game is essential to Wyoming residents' way of life and to the local economy. According to a 2017 study by leading economic research firm Southwick Associates, big game hunting in Wyoming contributes over $224 to the state's economy annually and provides 3,100 jobs. "Big Money: Big Game Hunting and Outfitting Economic Contributions in Wyoming," Southwick Associates (2017).[10] Much of this revenue comes from nonresidents who travel to Wyoming specifically to hunt big game. As the study explains, " While helping to support an entire industry built around outfitting and guiding, the revenues generated transcend hunt-centric business and benefit all state residents through funds spent on lodging, food, gas, other travel-related expenses, retail goods and services, land access and state and local taxes." *Id.* at 7. The top three preferred big game species among residents and non-resident hunters alike are antelope,

[10] Full report available online at https://www.wyoga.org/pdf/2017/southwick-study/Wyoming-Big-Game-Hunting-Economics-Southwick-Associates-Final.pdf

deer, and elk. Leasing in crucial winter range and migration corridors puts these species at risk, threatening both our natural heritage and our economic opportunities.

Yet despite the clear need for an analysis of alternatives to leasing in crucial wildlife habitats, BLM simply chose not to address the issue at all. BLM intends to lease 31,469.8 acres within the Sublette corridor, 107,983 acres in antelope crucial winter range, 86,363 within mule deer crucial winter range, and 53,574 within elk crucial winter range this quarter. EA at 3-25, 3-28. Given the scope of leasing in big game habitat, BLM should have at least considered deferral of the relevant leases, yet no alternative, even among those considered and eliminated, so much as mentions the possibility of deferring leases in migration corridors and crucial winter range. The BLM's refusal to consider reasonable alternatives is not permissible under NEPA, and EAs that fail to contain an analysis of reasonable alternatives to leasing in crucial wildlife habitats should not be approved by the Wyoming BLM State Office.

Had BLM analyzed the available data on big game populations, the agency would have been aware of potential impacts to these invaluable resources and might have conducted an appropriate alternatives analysis. But despite widespread knowledge of its existence by resource and wildlife professionals, BLM failed to consider the Wyoming Migration Initiative's Red Desert to Hoback Migration Assessment. *See* http://migrationinitiative.org/content/red-desert-hoback-migration-assessment. The assessment was published in March 2014, over four years before the release of the BLM leasing EAs. WMI's website provides the following project overview:

> Western Wyoming supports some of the largest and most diverse ungulate populations in North America. The performance of these herds is largely dependent on their ability to seasonally migrate from low-elevation winter ranges to high-elevation summer ranges, where they gain fat needed to survive the long Wyoming winters. Recently, the longest mule deer migration ever recorded (and 2nd longest land migration in North America) was discovered where deer travel a one-way distance of 150 miles from the low-elevation winter ranges in the Red Desert to the high mountain slopes surrounding the Hoback Basin. The deer that complete this journey spend 4 months of each year migrating and encounter a variety of natural and anthropogenic obstacles, including sand dunes, lake and river crossings, multiple highways, and more than 100 fences.
>
> Migrations like this are unique to Wyoming and are an important part of our cultural, hunting, and conservation heritage. However, given the increasing levels of energy development and recreation on public lands, sprawling housing development on private lands, and increasing traffic volumes on our roadways, the persistence of this migration route (and others) is uncertain. Additionally, the biological and political complexities involved with managing or conserving long-distance migrations outside of national parks is daunting. There is a pressing need to better connect the science of migration with conservation, education, and policy so that these management challenges can be met.

> In an effort to better convey the science to migration stakeholders, the Wyoming Migration Initiative conducted a "migration assessment" of this newly discovered mule deer migration. The assessment identified specific locales of potential risks (e.g., fences, road crossings, bottlenecks, energy development) and considered the complex land-use patterns and associated policies through detailed mapping and analysis. By identifying potential risks to migrating deer, the assessment provides a roadmap for agencies, non-government organizations, landowners, industry, and other stakeholders to improve management and conservation efforts directed at the Red Desert to Hoback migration.
>
> To complement our scientific assessment, we also built an outreach and educational program to generate interest and allow the broader public to learn about the migration. Specifically, we worked with National Geographic photographer Joe Riis to compile a traveling photo exhibit (12 photos and 2 maps) and short film that convey the story of this spectacular migration and the challenges mule deer must overcome to complete their 300-mile round-trip journey.

The Migration Assessment contains detailed information about the RD2H migration corridor and current science on ungulate migrations. The BLM's failure to consider the assessment defeats its fundamental purpose: "By identifying potential risks to migrating deer, the assessment provides a roadmap for agencies, non-governmental organizations, landowners, industry, and other stakeholders to improve management and conservation efforts directed at the Red Desert to Hoback migration. Unfortunately, instead of following the "roadmap" to improve management and conservation efforts, the BLM simply plowed ahead with incomplete information and a firm reluctance to consider any option other than to lease in the RD2H corridor.

Even more concerning, new data indicate that interference with migration corridors can have intergenerational impacts on ungulates. In a recent article featured on the front page of Science magazine, Wyoming researchers offered new evidence of social learning in migratory ungulates. Jesmer et. al. "Is ungulate migration culturally transmitted? Evidence of social learning from translocated animals," (September 7, 2018).[11] The study provides empirical evidence that learning and cultural transmission are necessary to establish and maintain migration routes. *Id.* This research has profound implications for big game conservation. The researchers describe the risks and consider appropriate conservation strategies:

> Because ungulate migrations stem from decades of social learning about spatial patterns of plant phenology, loss of migration will result in a marked decrease in the knowledge ungulates possess about how to optimally exploit their habitats. Hence, restoring migratory populations after extirpation or the removal of barriers to movement will be hindered by poor foraging efficiency, suppressed fitness, and reduced population performance. Thus, conservation of existing migration corridors, stopover sites, and

[11] Article available online at http://science.sciencemag.org/content/361/6406/1023.

seasonal ranges not only protects the landscapes that ungulates depend on; such efforts also maintain the traditional knowledge and culture that migratory animals use to bolster fitness and sustain abundant populations. *Id.*

Once migrations are disrupted, they may never be restored. It could take centuries to rebuild a migratory culture in a herd, and herds may not be able to adapt to changing land use patterns. Thus, it is imperative to conserve existing corridors.

For the same reasons, BLM should also defer all leases in the Atlantic Rim corridor near Baggs, which is pending designation by WGFD. BLM's preferred alternative proposes leasing 21,758 acres in the Atlantic Rim corridor. WGFD, in response to Secretarial Order 3362 and a request from USFWS for migration and research priorities in Wyoming, has identified the Baggs mule deer herd, located in the Green River region, as a Wyoming Migration Corridor Priority. "Wyoming Migration Corridors and Research Priorities," WGFD (2018) (attached as Exhibit 5).[12] This herd is growing in popularity amongst hunters. The migration in the Atlantic Rim corridor is approximately 50 miles long, narrow, and confined to transitional and winter ranges. WGFD notes that energy development is the main industrial land use in the corridor and is a long-term threat to the herd. To offset this threat, WGFD stresses that "continued coordination with energy developers will remain a priority to minimize disturbance in migration corridor habitats." *Id* at 18. Efforts to protect this herd are nascent, and WGFD is working with local, state, and federal agencies and private stakeholders to provide geospatial data and develop a plan to reduce or avoid impacts and restore habitat. BLM should defer all leases in the Atlantic Rim corridor until such a plan is developed, in order to conserve this valuable resource, instead of undermining ongoing multilateral efforts to protect the corridor.

Recognizing importance of the state's big game migration corridors, WGFD has developed a wildlife mitigation policy and an ungulate migration corridor strategy to address the needs of wildlife in the face of multiple threats. We discussed the relevance and application of these policies to BLM's oil and gas leasing decisions in a recent letter to Wyoming BLM State Director Mary Jo Rugwell (April 13, 2018) (attached as Exhibit 6). Our letter to Director Rugwell included a *Statement of Reasons in Support of Deferral of Lease Parcels* offered in the upcoming December 2018 Wyoming BLM oil and gas lease sale. The arguments made in our April 13th letter in support of a deferral of leases within the Sublette mule deer migration corridor are directly relevant to the December 2018 lease sale, and are therefore incorporated by reference herein as if fully set forth below. For the reasons set forth above, and in the April 13th statement of reasons provided to Director Rugwell, we request that BLM defer all parcels offered at the December 2018 lease sale that overlap the Sublette (RD2H) and Atlantic Rim mule deer migration corridors and all parcels that intersect crucial winter range for big game.

[12] This document was prepared in response to SO 3362 and a request from USFWS for priorities in Wyoming. WGFD identified five migration priorities including the Sublette and Baggs mule deer herds.

F. The BLM Should Defer Leases that Implicate the Viewshed or the Trails in the National Historic Trails corridor.

The BLM is offering parcels within the Big Sandy Foothills and in the Jack Morrow Hills that would allow oil and gas development on or alongside the Oregon-California-Mormon and Pony Express Trail systems—collectively the National Historic Trails corridor. Leasing these parcels precludes the decision-space, being considered in the Rock Springs RMP revision, to establish no-surface occupancy zones as buffers to the trails. The adjacent Lander Field Office has a National Historic Trails corridor viewshed protection that does not allow surface disturbance of these important historic resources. It only makes sense to allow the Rock Springs Field Office to enact consistent management with the adjacent office as the trail systems exist the Lander Field Office and enter Rock Springs.

The South Pass and westward segments of these trails are among the most valuable for the setting they still maintain and the integrity of the trail systems. The EA is negligent in its analysis of impacts to the National Historic Trails by neglecting to analyze them as a part of the National Conservation Lands and by severing the connection between leasing and development. The EA briefly mentions the risk to trails and their viewsheds, stating that "development within the viewshed of contributing segments of NHTs could impact the trail setting; however, the extent of potential impacts cannot be determined absent a site-specific proposal for operations." EA at 4-18. The EA also notes that parcels are subject to Special Lease Notice No. 2, which addresses National Historic Trails. *Id.* However, for the same reasons discussed above in relation to migration corridors, a lease notice is insufficient to protect these resources. Lease notices are unenforceable and are not effective substitutes for binding stipulations based on a thorough evaluation of the best available science.

Leasing transfers the rights for development, thereby, leasing these parcels will have impacts on the National Historic Trails. As part of the Rock Springs RMP revision, we ask that the BLM defer leasing parcels 668, 669, 670, 671, 672, 673, 677, 678, 679, and 680 until the plan can ensure consistent management for these important resources and establish management that will protect the integrity of the ruts and their historic settings. Importantly, leasing these parcels on these sections of the National Conservation Lands system means the BLM is not in accordance with Manual 6280—Management of National Scenic and Historic Trails. This Manual, published in 2012, directs the agency to consider alternatives in land-use plans that would consider closing areas to mineral development on the trails, or restricting surface occupancy. The existing Green River RMP and the Jack Morrow Hills CAP were published before Manual 6280. It will not be until the Rock Springs RMP revision that the agency will be able to implement Manual 6280 and consider how to restrict mineral development and protect the trails. The EA does not reference guidance to Manual 6280 and the existing land-use plan does not either. To ensure the BLM is making the most current decisions about how to manage the National Historic Trails corridor—as part of the National Conservation Lands—it should defer leasing parcels in this corridor in the Rock Springs Field Office. Additionally, the affected environment and impacts analysis of the EA should be updated to acknowledge the most recent

agency guidance for managing the National Historic Trails and National Conservation Lands. For these reasons, we ask that the aforementioned parcels be deferred.

C. CONCLUSION

Thank you for considering these comments on the December 2018 oil and gas lease sale environmental assessment. As indicated, we have strong concerns that many of the lease parcels are located in crucial sage-grouse habitats. There is a need to provide for better protection for this species by prioritizing leasing outside of GHMA and PHMA, as BLM's land use plans, and FLPMA, require. In addition, the proposed leasing is not based on a reasonable range of alternatives, the EA does not provide a "hard look" at environmental impacts or consider the cumulative impacts of leasing, it underestimates the impacts to groundwater resources and needed mitigation, and the leasing would not comply with the FLPMA multiple use mandate. Parcels in the Rock Springs Field Office should also be deferred to allow for an adequate decision space during the RMP revision in that office. There is also a need for better analysis of Lands with Wilderness Characteristics and big game migration corridors and crucial winter ranges.

Sincerely,

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Attachments:
1. Ken Kreckel Report on the Development Potential of the Wyoming Federal Lease Sale 4th Qtr
2. BLM Leasing in LWCs
3. Maps 1 and 2: Lease Parcels impacting the CWP and WSAs
4. Citizens Wilderness Proposal re: BLM "crown jewel" areas that meet Wilderness Act criteria
5. WGFD's Wyoming Migration Corridors and Research Priorities
6. WOC's letter to Mary Jo Rugwell re: leasing in migration corridors