December 29, 2017

Via facsimile 307-775-6203

Wyoming State Office
U.S. Bureau of Land Management
5353 Yellowpole Road
Cheyenne, WY 82009


Dear Mr. Murphy:

The Center for Biological Diversity ("Center"), Upper Green River Network ("UGRN") and Western Watersheds Project ("WWP") hereby file this Protest of the Bureau of Land Management’s ("BLM") proposed March 21-22, 2018 oil and gas lease sale and its accompanying Environmental Assessments No. DOI BLM WY P0000 2017 002 EA and DOI-BLM-WY-R000-2017-0002-EA.

The Center, UGRN, and WWP hereby protest the inclusion of the following parcels in the proposed lease sale:

WY-181Q-032; WY-181Q-033; WY-181Q-034; WY-181Q-037; WY-181Q-042; WY-181Q-043; WY-181Q-044; WY-181Q-073; WY-181Q-074; WY-181Q-075; WY-181Q-076; WY-181Q-077; WY-181Q-078; WY-181Q-079; WY-181Q-080; WY-181Q-081; WY-181Q-085; WY-181Q-086; WY-181Q-087; WY-181Q-088; WY-181Q-089; WY-181Q-090; WY-181Q-091; WY-181Q-092; WY-181Q-093; WY-181Q-094; WY-181Q-095; WY-181Q-096; WY-181Q-097; WY-181Q-098; WY-181Q-099; WY-181Q-100; WY-181Q-101; WY-181Q-102; WY-181Q-103; WY-181Q-104; WY-181Q-105; WY-181Q-106; WY-181Q-107; WY-181Q-108; WY-181Q-109; WY-181Q-110; WY-181Q-111; WY-181Q-112; WY-181Q-113; WY-181Q-114; WY-181Q-115; WY-181Q-116; WY-181Q-117; WY-181Q-118; WY-181Q-119; WY-181Q-120; WY-181Q-121; WY-181Q-124; WY-181Q-125; WY-181Q-126; WY-181Q-127; WY-181Q-128; WY-181Q-129; WY-181Q-130; WY-181Q-131; WY-181Q-132; WY-181Q-133; WY-181Q-134; WY-181Q-135; WY-181Q-136; WY-181Q-137; WY-181Q-138; WY-181Q-139; WY-181Q-140; WY-181Q-141; WY-181Q-142; WY-181Q-143; WY-181Q-144; WY-181Q-145; WY-181Q-146; WY-181Q-147; WY-181Q-150; WY-181Q-153.
I. Protesting Parties: Contact Information and Statement of Interests

This Protest is filed on behalf of the Center and WWP by their authorized representatives:

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The Center for Biological Diversity is a national, nonprofit conservation organization with over 1.6 million members and online activists dedicated to the protection of endangered species and wild places. The Center has members and employees living in Wyoming who have visited BLM public lands for recreational, scientific, educational, and other pursuits and continue to do so in the future. The Center, its members, directors, and staff have worked and advocated for the conservation of greater sage-grouse and their habitat.

The Upper Green River Network is a Waterkeeper Alliance Affiliate Program of the Colorado Riverkeeper and Living Rivers based in Laramie, Wyoming. The Upper Green Network is a member of the Colorado River Waterkeeper Network and provides a presence in Wyoming as the headwaters of the Green River. The program is dedicated to research, education, mobilization, and public involvement in Wyoming with the goal of protecting the naturally diverse values within the Green River Basin.
Western Watersheds Project is a non-profit organization headquartered in Idaho with more than 5,000 members and supporters. WWP’s mission is to protect and restore western watersheds and wildlife through education, public policy initiatives and legal advocacy. Western Watersheds Project and its staff and members use and enjoy America’s lands and their wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic and other purposes. Western Watersheds Project also has a direct interest in mineral development that occurs in areas with sensitive wildlife populations and important wildlife habitat.

II. Statement of Reasons Why the Proposed Lease Sale is Unlawful

A. The EA Improperly Limits its Analysis of Reasonably Foreseeable Environmental Impacts.

NEPA demands that a federal agency prepare an EIS before taking a “major [f]ederal action[] significantly affecting the quality of the environment.” Kern v. U.S. Bureau of Land Mgmt., 284 F.3d 1062, 1067 (9th Cir. 2002). In order to determine whether a project’s impacts may be “significant,” an agency may first prepare an EA. 40 C.F.R. §§ 1501.4, 1508.9. If the EA reveals that “the agency’s action may have a significant effect upon the... environment, an EIS must be prepared.” Nat’l Parks & Conservation Ass’n v. Babbitt, 241 F.3d 722, 730 (9th Cir. 2001) (internal quotations omitted). If the agency determines that no significant impacts are possible, it must still adequately explain its decision by supplying a “convincing statement of reasons” why the action’s effects are insignificant. Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1212 (9th Cir. 1998). Further, an agency must prepare all environmental analyses required by NEPA at “the earliest possible time.” 40 C.F.R. § 1501.2. “NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment,” but is “designed to require such analysis as soon as it can reasonably be done.” Kern, 284 F.3d at 1072.

BLM has unlawfully restricted its NEPA analysis by arbitrarily limiting the scope of its analysis of oil and gas activity that may result from the lease sale and by failing to analyze sufficiently site-specific impacts. NEPA regulations and caselaw require that BLM evaluate all “reasonably foreseeable” direct and indirect effects of its leasing. 40 C.F.R. § 1508.8; Davis v. Coleman, 521 F.2d 661, 676 (9th Cir. 1975); Center for Biological Diversity v. Bureau of Land Mgmt., 937 F. Supp. 2d 1140 (N.D. Cal. 2013) (holding that oil and gas leases were issued in violation of NEPA where BLM failed to prepare an EIS and unreasonably concluded that the leases would have no significant environmental impact because the agency failed to take into account all reasonably foreseeable development under the leases).

BLM, in its High Plains and Wind River/Bighorn Basin March 2018 lease sale EAs, arbitrarily refuses to consider sufficiently site-specific impacts. BLM alleges it does not have to
consider some, or perhaps all, site-specific impacts because the exact extent of those impacts is unknown at this stage and subject to regulation at a later date. The Tenth Circuit has repeatedly clarified in numerous cases that site-specific impacts can and should be analyzed at the leasing stage. See Pennaco Energy, Inc. v. U.S. Dep't of Interior, 377 F.3d 1147, 1160 (10th Cir. 2004) (requiring analysis of coalbed methane development impacts at the oil and gas leasing stage). The Tenth Circuit in New Mexico ex rel. Richardson v. BLM, 565 F.3d 683 (10th Cir. 2009), explained in detail the extent of BLM's obligations at the leasing stage:

Taken together, [Park County and Pennaco Energy] establish that there is no bright line rule that site-specific analysis may wait until the APD stage. Instead, the inquiry is necessarily contextual. Looking to the standards set out by regulation and by statute, assessment of all "reasonably foreseeable" impacts must occur at the earliest practicable point, and must take place before an "irretrievable commitment of resources" is made. 42 U.S.C. § 4332(2)(C)(v); Pennaco Energy, 377 F.3d at 1160; Kern, 284 F.3d at 1072; 40 C.F.R. §§ 1501.2, 1502.22. Each of these inquiries is tied to the existing environmental circumstances, not to the formalities of agency procedures. Thus, applying them necessarily requires a fact-specific inquiry.

Id. at 717-18.

The proposed lease sale would result in impacts that BLM will not be able to avoid once the lease sale is finalized because the agency's ability to prevent lessees from engaging in lawful activities on issued leases will be limited. BLM regulations provide that lessees "have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold subject to" limited conditions, including lease stipulations, "specific, nondiscretionary statutes," and limited "reasonable measures" that do not preclude all development activities. 43 C.F.R. § 3101.1-2. Under Pennaco Energy and New Mexico v. BLM, BLM cannot simply assert that site-specific analysis may wait until the APD stage, but must consider whether non-"no surface occupancy" leases constitute an irretrievable commitment of resources, and whether development impacts are reasonably foreseeable, in the context of known fuel supply, industry plans, and existing and ongoing development.

NEPA requires that an agency conduct all environmental analyses at "the earliest possible time." 40 C.F.R. § 1501.2; see also New Mexico, 565 F.3d at 718. Here, this means that BLM must analyze all site-specific impacts now, before it has leased the land and is unable to prevent environmental impacts.

B. The Proposed Lease Sale Fails to Conform to the BLM’s 2015 Wyoming Greater Sage-Grouse Approved Resource Plan Amendments (All Parcels
Within Greater Sage-Grouse Core Areas, Sagebrush Focal Areas, and Priority or General Habitat Management Areas)

1. The Proposed Leasing Action Fails to Prioritize Leasing of Fluid Minerals Outside of Sage-Grouse Habitat, as Required by the ARMPA

The BLM’s Wyoming RMPs (with the exception of Lander), as amended by the 2015 GRSG ARMPA, require that priority will be given to leasing and development of fluid mineral resources, outside of PHMA and GHMA, the proposed action is directly in conflict with a core provision of the 2015 sage-grouse RMP amendments. The Rocky Mountain Region RMPs—including the Rawlins RMP—are subject to the following measure for both priority and general habitat management areas:

Prioritization Objective—In addition to allocations that limit disturbance in PHMAs and GHMAs, the ARMPs and ARMPAs prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs. This is to further limit future surface disturbance and 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 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.¹

The BLM is subject to clear direction in the RMP amendments that its greater sage-grouse RMP plans and conservation strategy rely not only on stipulations within designated habitats (stipulations acknowledged as insufficient, in Wyoming, to result in a net conservation gain for general habitat, see 2015 RMPA ROD at 1-30 to 1-31, but also on a larger strategy of prioritizing development outside of all sage-grouse habitats.

An apparent BLM policy of leasing virtually all nominated parcels within sage-grouse habitat is not only inconsistent with the RMPs and FLPMA’s consistency requirement, it also undermines a fundamental assumption of the RMP Amendment EISs – as well as the U.S. Fish and Wildlife Service’s determination that listing the greater sage-grouse under the Endangered Species Act was “not warranted.” That assumption is that the measures adopted in the RMP Amendments will result in oil and gas development tending to occur outside of greater sage-grouse habitat. The Worland and Lander FOs’ ongoing pattern of offering leases encompasses Priority sage-grouse habitat shortly following the finalization of the sage-grouse RMPs strongly undermines that assumption. It further undermines the assumption in the Fish and Wildlife

¹ 2015 Rocky Mountain RMP ROD at 1-25.
Service’s “not warranted” finding for the greater sage-grouse that federal and state implementation of the “Wyoming Plan” for fluid minerals will continue the 2012-15 pattern of reduced drilling within core areas. If BLM is not actually going to give meaningful content to its plan direction to prioritize leasing outside of sage-grouse habitats, it cannot rely on FEISs, such as the Wyoming Sage Grouse RMP FEIS, that assume the effectiveness of that plan direction.

The March 2018 EAs provide no evidence whatsoever that BLM has considered, let alone prioritized, whether other lands outside of sage-grouse habitat might be more suitable for new leasing than a parcel of sage-grouse habitat—much less one that previously went leased and unused for ten years.

Any proposed leasing must conform to a key management prescription of those plans—the obligation to “prioritize the leasing and development of fluid mineral resources outside GRSG habitat.” The BLM is subject to clear direction in the IM 2016-143 and the RMP amendments that its sage-grouse RMP plans and conservation strategy rely not only on stipulations within designated habitats, but also on a larger strategy of prioritizing development outside of all sage-grouse habitats. A proposed lease sale of only GRSG habitat, without adequate consideration of impacts on grouse populations and life history requirements, has the potential to violate of IM 2016-143 and the Greater Sage-Grouse RMP amendments. Without the analysis of factors including importance of the lands in question for habitat function, it is impossible for BLM understand how offering leases within sage-grouse habitat is consistent with the IM 2016-143 prioritization sequence, and therefore fails to conform to the ARMPA requirement to prioritize leasing outside such habitat.

A. The Proposed Lease Sale Environmental Assessments Fails to Meet BLM’s Statutory Obligations Under the National Environmental Policy Act

1. BLM Has Failed to Take a “Hard-Look” at the Site-Specific Environmental Consequences of Leasing the Proposed Parcels

BLM must analyze in detail direct, indirect and cumulative impacts from oil and gas leasing and development on the greater sage-grouse and its habitat. See 40 C.F.R. § 1508.27(b)(7); Kern v. Bureau of Land Management, 282 F.3d 1062, 1075-77 (9th Cir. 2002). The BLM’s reliance on the landscape-scale RMP and ARMPA EISs, and use of a Determination of NEPA Adequacy, fails to meet this obligation. The DNA completely fails to conduct an informed, site-specific analysis of (a) the biological resources that may be affected by the proposed lease and its reasonably foreseeable indirect effects, or (b) whether oil and gas development is possible consistent with the ARMPA’s lek buffer requirements. Without site-specific surveys to determine whether or not greater sage-grouse use or are reasonably likely to
use the lands in question, it is impossible for BLM to have taken a hard look at how the proposed action may affect the species.

This lack of site-specific analysis is of great concern due to the declining population numbers and vulnerability of this greater-sage grouse in their last refuge in Wyoming.

2. **BLM Has Failed to Consider the Cumulative Impacts of Massive Oil and Gas Leasing and Development on Greater Sage-Grouse Habitat in Wyoming**
   (All Parcels Within Greater Sage-Grouse Core Areas, Sagebrush Focal Areas, and Priority or General Habitat Management Areas)

In considering whether or not to make available for leasing additional sage-grouse habitats in the High Plains and Wind River/Bighorn Basin Districts, BLM must assess the current state of sage-grouse populations in that portion of the species' range, including the individual populations and seasonal habitats that may be affected by the proposed leases, and the implications of development for local and regional grouse survival, connectivity, and possible recovery. The DNA fails to engage in any such cumulative impacts analysis.

In the spring, during the breeding season, sage grouse males seek out courtship areas, known as “leks” that are open areas of bare soil, short grass steppe, windswept ridges, or exposed knolls in which to gather and perform their ritualized mating displays and breed with females. An important factor affecting lek location appears to be proximity to, as well as configuration and abundance of, nesting habitat. Leks are normally “traditional,” and occur in the same location each year. Some leks studied by early investigators have persisted for 28–67 years since first counted. The presence of broken bird-point arrowheads on some leks suggests that sage-grouse had used those sites for at least 85 years. Leks and the number of attending males are regularly used to monitor the long-term status of populations because of their traditional locations.

In a recent study looking at greater sage-grouse across six western states, it was reported that 90% of the active leks were surrounded by areas having greater than 40% sagebrush cover. Further, 99% of the active leks were in landscapes with less than 3% of the area in human development. Successful leks occurred in areas with low road densities — less than 1 km/km² of secondary roads, less than .05km/km² of highways, and less than .01 km/km² of interstate

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6 Ibid.
highways. Another pertinent finding was that habitat suitability was highest when power line densities were less than .06 km/km²; leks were absent where power line densities exceeded .2 km/km². With respect to communication/cellular towers, leks were absent when tower densities exceeded .08 km/km². Wisdom et al. reported that areas extirpated of sage grouse had 27 times the human density, 3 times more area in agriculture, were 60% closer to highways, and had 25% higher density of roads than what was found in occupied habitat. Also, it was found that power lines and cellular towers had significant impacts on whether or not a habitat was occupied.9

BLM's own experts recommend a 4-mile No Surface Occupancy ("NSO") buffer for all active leks in Priority Habitats, Focal Areas, Connectivity Areas, and General Habitats for existing oil and gas leases and permitted activities that would potentially disturb breeding, nesting, and broodrearing sage grouse, with exceptions available for mineral leases or claims located entirely within this buffer for a wellsite of minimal size and intrusion to be placed at a location most distal from an active lek or leks. We agree and insist that BLM follow these recommendations.

BLM, in its GRSG RMP Amendments, and in the proposed stipulations for these lease sales, implements buffer distances in accordance with the United States Geological Survey (USGS) Report as described in Appendix B to the GRSG RMP Amendment. These are set at 3.1 miles for roads and energy infrastructure, 2 miles for tall structures, and 1.2 miles for low structures, and represent the lowest (least protective) end of the protection spectrum described by Manier et al. (2014).10 These buffer distances are inappropriately small. While they may be adequate to protect breeding grouse on the lek, they will allow these disruptive and damaging features to be located in the midst of prime nesting habitat, which extends 5.3 miles from the lek site (Holloran and Anderson 2005).

Studies published by Braun in 1977 and Connelly in 2000 initially set the standard that leks should be buffered by a 3.2 km or 2 mile radius.11 However, more recent studies have suggested that the 3.2 km is inadequate for the conditions needed for successful breeding and nesting. Connelly et al. reported in their assessment for the Western Governors' Association that road traffic within 7.6 km had adverse impacts on male grouse attendance at leks.12 Sage grouse nesting grounds are located typically in a radius of 5.3 miles of the lek (and sometimes farther). Because the nesting period is equally sensitive and equally important to survival of and

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9 Ibid.  
12 Connelly 2004.
recruitment to sage grouse populations, larger buffers are necessary. Coates et al. (2013) found that for the Mono Basin sage grouse population, 90% of habitat use occurred within 4.66 miles of a lek. The Coates et al. results are conservative relative to activity patterns found for other sage grouse populations across the West.

The National Technical Team observed, "it should be noted that protecting even 75 to 80% of nesting hens would require a 4 mile radius buffer (Table 1). Even a 4 mile NSO buffer would not be large enough to offset all the impacts reviewed above." Importantly, a 0.6-mile lek buffer covers by area only 2% of the nesting habitat encompassed by a 4-mile lek buffer, which takes in approximately 80% of nesting grouse according to the best available science. BLM’s own experts recommended for existing fluid mineral leases that a 4-mile NSO buffer should be applied to leks, with an exception allowed in cases where the entire lease is within 4 miles of a lek, in which case a single wellsite should be permitted in the part of the lease most distal to the lek. This recommendation is reinforced by a similar recommendation from western state agency biologists, who also recommended a 4-mile NSO buffer.

Numerous other studies support the NTT’s recommendations. It was found in one study that a 3 km buffer encompassed only 45% of the nesting females associated with that lek, while a 5 km buffer accommodated 64% of the nests. It was also reported that nests located within 1 km of another nest tended to have lower nesting success likely due to enhanced prey detection by predators. The same study further suggests that to protect and maintain sage grouse populations residing in relatively contiguous sagebrush habitats, managers should minimize or halt actions that reduce the suitability of nesting habitats within 5 km of a lek until detailed site specific monitoring suggested otherwise. It also noted that a substantial number of females nested distances greater than 5 km from a lek and that this additional increment of individual recruitment could be important for population viability.

15 Id.
18 Id.
19 Id.
20 Id.
Indeed, placing a heavy focus on habitat protection around leks is not suitable for ensuring the viability of sage grouse populations. Studies have shown that both nest and brood rearing habitats are on average 6 km from leks, and it is not until 10 km from leks that one reaches the threshold where 90% of the habitat occurs. Johnsgard indicated that there was no obvious relationship between lek location and nest site. In 5 different studies involving more than 300 nests the average distance between lek and Sage-grouse nest where the females was first seen or captured was 3.5 mi (5.6 km). Nesting distances could be much greater than this average. For example, a majority (~90%) of nesting and brood-rearing habitat was within 10 km (6.2 miles) of active leks in Alberta; 97 percent of nests were found within 6.2 miles of leks where females were marked in the Powder River Basin in Montana and Wyoming. Walker et al. found in another study that the impacts from energy development on lek persistence and nesting were still apparent at a distance of 6.4 km from the disturbance.

As previously mentioned, although leks are important focal points for breeding and subsequent nesting in the surrounding region, other seasonal use areas and habitat requirements may be equally limiting to sage grouse populations. Brood occurrence is greater in more heterogeneous sagebrush stands, where patchy cover reduces predator efficiency but still affords necessary forb resources. Sage-grouse are more abundant in patchy habitats containing a mix of mesic, forb-rich foraging areas interspersed within suitable sagebrush escape cover. Broods are typically found in areas near nest sites for the first 2 to 3 weeks after hatching. Such habitat needs to provide adequate cover and areas with sufficient forbs and insects to ensure chick survival in this life stage.

Suitable and diverse winter habitats are critical to the long-term persistence of grouse populations. As summer ends, the diet of sage-grouse shifts from a diet of insects, forbs and sagebrush to one comprised almost entirely of sagebrush. In winter, the grouse depends heavily on sagebrush for cover, habitat selection being driven by snow depth, the availability of

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23 Aldridge and Boyce. 2007.
26 Kruck et al. 2013.
28 Id.
29 Doherty 2008.
30 Id.
sagebrush above the snow, and topographic patterns that favorable mitigate the weather. Abundance of sagebrush at the landscape scale greatly influences the choice of wintering habitat. One study found that the grouse selected for landscapes where sagebrush dominate over 75% of the landscape with little tolerance for other cover types. Because appropriate wintering habitat occurs on a limited basis and because yearly weather conditions influence its availability, impacts to wintering habitat can have large disproportional effects on regional populations. One study in Colorado found that 80% of the wintering use occurred on only 7% of the area of sagebrush available. Additionally, some degree of site fidelity to winter areas is suspected to exist, and wintering areas not utilized in typical years may become critical in severe winters.

Lower elevation sagebrush winter habitat used by sage grouse may also constitute important winter areas for big game and early spring forage areas for domestic livestock. Due to differing vegetative condition requirements, land treatments on lower elevation sagebrush areas to increase big game or livestock forage at the expense of sagebrush cover and density could have long-term negative consequences for the grouse.

The EIS must also analyze whether any of the lease areas for sale provide winter concentration areas for sage-grouse, and if so, prohibit disturbance within these areas. BLM should not allow new surface occupancy on federal leases within winter concentration areas during any time of the year.

Moreover, the EAs fail to acknowledge the BLM’s widespread and ongoing pattern of leasing vast areas of sage-grouse habitat, including priority habitat, since finalization of the ARMPAs, in violation of the ARMPAs’ prioritization mandate. Even if BLM’s interpretation of the prioritization objective is upheld, the record is strikingly clear that the agency has, for two years, been engaged in a pattern of blanket leasing of general and priority habitats. Review of BLM lease sale and sage-grouse habitat data reveals that, in Wyoming alone, between September 2015 and September 2017, BLM has leased or offered for lease the some 63,115 acres within designated greater sage-grouse PHMA, and 252,174 acres within GHMA for oil and gas development. Currently-proposed sales in Montana and Wyoming are similarly dominated by leasing within PHMA and GHMA:

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32 Doherty et al. 2008.
33 Id.
35 Caudill et al. 2013.
37 Doherty et al. 2008.
December 2017 Montana sale: 187 out of 204 parcels offered; 38

December 2017 Wyoming sale: of 45 parcels to be offered, 26 parcels are partly or entirely in PHMA, and 24 parcels are partly or entirely in GHMA; 39

March 2018 Wyoming sale: 96 percent of parcels to be offered under the proposed alternative for Wind River/Bighorn Basin District are in sage grouse habitat, 40 and 37 parcels to be offered in the High Plains District are in PHMA or GHMA, 41 and

June 2018 Wyoming sale: 44 parcels are located wholly in PHMA, 30 parcels contain both GHMA and PHMA, and 89 parcels are located wholly in GHMA. 42

These are only a few examples—other recent BLM sales have already occurred in Wyoming and Montana during 2016 and 2017 that leased other sage grouse-protected areas. All of these sales suffer from the same flaw as this auction: they violate the prioritization requirements of the 2015 RMPs, and fail to consider reasonable alternatives that do not lease PHMAs and GHMAs.

Such widespread new leasing of fluid minerals in Priority Habitats is a phenomenon that was not contemplated by either the ARMPAs, nor by the Fish and Wildlife Service in its decision that adequate regulatory measures exist so as to make the listing of the species under the Endangered Species Act “not warranted.” See U.S. Fish and Wildlife Service, 12-Month Finding on a Petition To List Greater Sage-Grouse (Centrocercus urophasianus) as an Endangered or Threatened Species, 80 Fed. Reg. 59,858, 59,891 (Oct. 2, 2015) (“The Federal Plans prioritize the future leasing and development of nonrenewable-energy resources outside of sage-grouse habitats.”)

3. BLM Has Failed to Take a Hard Look at Hydraulic Fracturing Impacts to Humans, Aquatic Species, and the Environment (Parcels WY-181Q-103, 102, 113, 114, 115, 117, 127, 128, 130, 131, 132, 134, 145, 146, 147, 150, and 153)

Oil and gas development in Wyoming has been shown to seriously harm pristine rivers and streams. Natural systems, aquatic species, and humans alike require fresh and abundant water in order to thrive. For the purposes of this letter, the Upper Green River Network has focused within the Green River Basin and Great Divide Basin in Wyoming. It should be noted that hydraulic fracturing for oil and gas has impacted water resources in other regions of the state as well. Human health, aquatic species, and environmental and climactic concerns will be subsequently discussed in regards to the March 1st Quarter Lease Sales in Wyoming. Following, the specific parcels in question will be listed along with underlying surface water bodies.

The 2016 EPA report “Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States” concludes that hydraulic fracturing activities can impact drinking water resources under some circumstances. Oil and Gas hydraulic fracturing wells in Wyoming have shown to have extremely close proximity to drinking water resources. This means there is no vertical distance between the top of the hydraulically fractured rock formation and the bottom of the treatable water. An example of groundwater pollution as a result from oil and gas hydraulic fracturing occurred in Pavillion Wyoming around 2006, and has took a decade to prove the connection between polluted groundwater and hydraulic fracturing. A small town has suffered severe health concerns because of excessive hydraulic fracturing activities. While aquifers underlying the lease sales in question may not currently provide domestic purposes, it would be far too risky to risk groundwater pollution as drought conditions persist and Wyoming grows in population.

Oil and gas development further depletes currently stressed streams and aquifers, has the potential to introduce pollutants into the water, and may increase sediment loads, which may affect aquatic species. Research has shown that even trace amounts of chemicals used in fracking can harm the gills and livers of fish species. Fracking chemical spills are not uncommon, therefore can relatively easily harm fish. Additionally, farm animals may graze on lands that are also in close proximity to fracking wells and be susceptible to water contamination. Researchers

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at Cornell found a correlation between fracking wastewater spills and dying calves. Fish and wildlife provide sustainable economic, cultural, and aesthetic benefits to the state of Wyoming and therefore should under any circumstances be a viable externality for the short-term benefits of oil and gas extraction.

a. Great Divide Basin:

Many of the Wyoming 1st Quarter Lease Sale Parcel Notice bring forth concerns regarding abundance of water resources. The Great Divide Basin is an Endorheic, or closed basin, meaning water does not flow out of the watershed where the majority of the water originates. Inflowing water into the barred geology of the Great Divide Basin eventually evaporates leaving behind higher concentrations of minerals and other sediment that would otherwise continue downstream. Because of these high evaporation and seepage rates, endorheic water bodies can be more sensitive to pollutants. Further, the basin is quite arid and only receives 7 to 10 inches annually.

b. Parcels of Concern:

Parcels in the Wyoming March 2018 1st Quarter Lease Sales 103, 102, 113, 114, 115, 117, 127, 128, 130, 131, 132, 134, 145, 146, 147, 150, and 153 raise specific trepidations in terms of overlap of Red Creek, Lost Creek, Scotty Lake, McKay Lake, and some small unnamed ponds and creeks. Native fish species that reside in the streams underlying the above parcels include Mountain Sucker, Mottled Sculpin, and Speckled Dace. Further non-native fish species also reside in the area and provide significant recreational benefit to the area.

Drilling hydraulic fracturing wells in the Green River Basin should not be allowed to occur within a close proximity to surface water, and the hydraulic connectivity between groundwater and surface water should be seriously considered. Hydraulic fracturing has proven to negatively impact the quality and quantity of drinking water, fish and wildlife, and the ecosystem as a whole. The sensitive geology and climactic conditions within the Great Divide Basin should also be taken into account before allowing further oil and gas development. BLM lands in Sweetwater County and statewide are better served to the public in their current condition to support sustainable economies such as agriculture, recreation, and tourism.

4. BLM Has Failed to Consider a Reasonable Range of Alternatives

BLM's failure to consider alternative lease parcels that do not fall within GRSG habitats violates not only the ARMPA's prioritization requirement, but also NEPA's requirement that federal agencies consider a reasonable range of alternatives. Under the Mineral Leasing Act, BLM has long-established discretion on what lands it may offer for lease, and is not obligated to lease any particular parcel simply because it has been nominated. To the extent that BLM might conclude that there is a need for additional oil and gas leasing in the High Plains and Wind River/Bighorn Basin Districts, despite the historically low level of interest in development of existing leases, it is well within its discretion under the Mineral Leasing Act to minimize resource conflicts by offering instead an alternative parcel outside of greater sage-grouse habitat.

For the following reasons, the Center and WWP hereby protest the proposed auction of the above-enumerated parcels, and request they it be withdrawn from sale. At a minimum, if BLM elects to proceed with the sale, (a) it must not do so prior to the preparation of a legally-adequate Environmental Impact Statement that takes a hard look at the reasonably foreseeable indirect and cumulative impacts of leasing activities in Wyoming, and (b) incorporates into the lease terms all stipulations required by the 2015 Greater Sage-Grouse Approved Resource Management Plan Amendments.

As authorized representative on behalf of Protestors:

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Literature Cited


Caudill, Danny, et al., Winter habitat use by juvenile greater sage-grouse on Parker Mountain, Utah: implications for sagebrush management, 7 Human-Wildlife Interactions 2:250 (2013) ("Caudill 2013").


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