November 22, 2017

BY ELECTRONIC MAIL

U.S. Bureau of Land Management
High Desert District Office
Attn: Phillip Blundell
280 Highway 191 North
Rock Springs, WY 82901-3447
blm_wy_hdd_may_parcels@blm.gov

Re: Comments on the EA for the WY-181Q Second Quarter 2018 Lease Sale Parcels

Dear Mr. Blundell:

WildEarth Guardians and Center for Biological Diversity submit the following comments on the Bureau of Land Management's ("BLM's") draft environmental assessment ("EA"), DOI-BLM-WY-D000-2018-0001-EA,[1] and proposed finding of no significant impact ("FONSI") for the High Desert and Wind River-Bighorn Basin District Offices in Wyoming. The EA is in support of the BLM's June 2018 (WY-181Q Second Quarter) competitive oil and gas lease sale. The agency is proposing to lease 163 parcels totaling approximately 199,298.57 acres in Carbon, Sublette, Sweetwater, and Uinta counties.

WildEarth Guardians is a nonprofit environmental advocacy organization dedicated to protecting the wildlife, wild places, wild rivers, and health of the American West. On behalf of our members, Guardians has an interest in ensuring the BLM fully protects public lands and resources as it oversees the oil and gas industry's plans to lease publicly-owned minerals. More specifically, Guardians has an interest in ensuring the BLM meaningfully and genuinely takes into account the air, water, and climate implications of its oil and gas decisions, including objectively and robustly weighing the costs and benefits of authorizing the release of more greenhouse gas emissions known to contribute to global warming.

The Center for Biological Diversity ("The Center") is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center also works to reduce greenhouse gas emissions to protect biological diversity, our environment, and public health. The Center has over 1.1 million

[1] The EA for the lease sale is available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/85072/123500/150613/EnvironmentalAssessment_V1_June2018.pdf.

members and on-line activists, including those living in southwest, Wyoming who have visited public lands in the region for recreational, scientific, educational, and other pursuits and intend to continue to do so in the future. Our members are particularly interested in protecting the many native, imperiled, and sensitive species and their habitats, including greater sage-grouse, that may be affected by the proposed oil and gas leasing.

As discussed below, WildEarth Guardians and the Center request that the BLM refrain from offering all the parcels up for lease until it completes its requirements under the Clean Air Act, 42 U.S.C. §§ 7401–7671q, the National Environmental Policy Act of 1976 ("NEPA"), 42 U.S.C. §§ 4321–4370h, NEPA regulations promulgated thereunder by the White House Council on Environmental Quality ("CEQ"), 40 C.F.R. § 1500, *et seq*., and the Federal Land Policy and Management Act of 1976 ("FLPMA"), 43 U.S.C. §§ 1701–1787.

I. Legal Background

A. Clean Air Act

The Clean Air Act requires the Environmental Protection Agency to set National Ambient Air Quality Standards ("NAAQS") to protect public health and welfare. 42 U.S.C. § 7409. After EPA designates NAAQS, states then develop State Implementation Plans ("SIPs") in order to implement the NAAQS. *Id*. at § 7410.

Federal agency actions must comply with SIPs. Specifically, the Clean Air Act provides that, "No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity" that does not conform to an approved state air quality implementation plan. 42 U.S.C. § 7506(c)(1). "The assurance of conformity . . . shall be an affirmative responsibility of the head of such . . . agency." *Id*. Thus, federal agency actions must not 1) "cause or contribute to any new violation of any [air quality] standard," 2) "increase the frequency or severity of any existing violation of any standard in any area," 3) or "delay timely attainment of any standard or any required interim emission reductions or other milestones in any area." *Id*. § 7506(c)(1)(B).

EPA has designated the state of Wyoming as in nonattainment with the 2008 NAAQS for ozone. Thus, the BLM is prohibited from undertaking any activity in a nonattainment area that does not conform to federal conformity regulations and Wyoming's SIP. *See* 40 C.F.R. § 93.150(a); *see also* Wyoming SIP at 020-0002-008 Wyo. Code R. § 3. The BLM must make a general conformity determination for any activity authorized in an ozone nonattainment area that has direct and indirect emissions of volatile organic compounds ("VOCs") or nitrogen oxides ("NOx") that exceed 100 tons/year. *See* 40 C.F.R. § 93.153(b)(1). Direct emissions are defined as those emissions that are caused or initiated by the Federal action and occur at the same time and place as the action and "are reasonably foreseeable." 40 C.F.R. § 93.152. Indirect emissions are defined as those emissions that are caused by the Federal action, but may occur later in time or distance, and are reasonably foreseeable, and which the Federal agency can practically control and will maintain control over. *Id*. "A Federal agency must make a determination that a Federal action conforms to the applicable implementation plan in accordance with the requirements of this subpart *before* the action is taken." *Id*. § 93.150(b) (emphasis added).

B. FLPMA

The BLM must also comply with the Federal Land Policy and Management Act ("FLPMA"). FLPMA requires that "[t]he Secretary [of the Interior] shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and, when appropriate, revise land use plans which provide by tracts or areas for the use of the public lands." 43 U.S.C. § 1712(a).

The BLM fulfills this mandate by developing Resource Management Plans ("RMPs") for each BLM field office. In general, RMPs must be up-to-date. The BLM's Land Use Planning Handbook states that, "[RMP] revisions are necessary if monitoring and evaluation findings, new data, new or revised policy, or changes in circumstances indicate that decisions for an entire plan or a major portion of the plan no longer serve as a useful guide for resource management." BLM Land Use Planning Handbook, H-1610-1, Section VII.C at 46. Furthermore, the Handbook states that amendments are needed whenever there is a need to "[c]onsider a proposal or action that does not conform to the plan," "implement new or revised policy that changes land use plan decisions," "respond to new, intensified, or changed uses on public land," or "consider significant new information from resource assessments, monitoring, or scientific studies that change land use plan decisions." *Id*. Section VII.B at 45.

When the BLM issues a new RMP or amends a RMP, the agency must also comply with the requirements of NEPA. *See* 43 C.F.R. §§ 1601.0–6. Thus, the BLM is required to issue an Environmental Impact Statement ("EIS") with each RMP. *Id*. The BLM may tier its project-level analyses to a broader NEPA document, such as the EIS accompanying the RMP. *Id*. § 46.140. But, "[a] NEPA document that tiers to another broader NEPA document . . . must include a finding that the conditions and environmental effects described in the broader NEPA document are still valid or address any exceptions." *Id*. Put another way, "[t]o the extent that any relevant analysis in the broader NEPA document is not sufficiently comprehensive or adequate to support further decisions, the tiered NEPA document must explain this and provide any necessary analysis." *Id*. § 46.140(b).

Finally, under FLPMA, in the development and revision of land use plans, the BLM is required to "provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards[.]" 43 U.S.C. § 1712(c)(8).

C. NEPA

NEPA is our "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). The law requires federal agencies to fully consider the environmental implications of their actions, taking into account "high quality" information, "accurate scientific analysis," "expert agency comments," and "public scrutiny," prior to making decisions. *Id*. at 1500.1(b). This consideration is meant to "foster excellent action," resulting in decisions that are well informed and that "protect, restore, and enhance the environment." *Id*. at 1500.1(c).

To fulfill the goals of NEPA, federal agencies are required to analyze the "effects," or impacts, of their actions to the human environment prior to undertaking their actions. *Id*. § 1502.16(d). To this end, the agency must analyze the "direct," "indirect," and "cumulative" effects of its actions, and assess their significance. *Id*. §§ 1502.16(a), (b), and (d). Direct effects include all impacts that are "caused by the action and occur at the same time and place." *Id*. § 1508.8(a). Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." *Id*. at § 1508.8(b). Cumulative effects include the impacts of all past, present, and reasonably foreseeable actions, regardless of what entity or entities undertake the actions. *Id*. § 1508.7.

An agency may prepare an environmental assessment ("EA") to analyze the effects of its actions and assess the significance of impacts. *See id*. § 1508.9; *see also* 43 C.F.R. § 46.300. Where effects are significant, an agency must prepare an Environmental Impact Statement ("EIS"). *See* 40 C.F.R. § 1502.3. Where significant impacts are not significant, an agency may issue a Finding of No Significant Impact ("FONSI") and implement its action. *See* 40 C.F.R. § 1508.13; *see also* 43 C.F.R. § 46.325(2).

Within an EA or EIS, the scope of the analysis must include "[c]umulative actions" and "[s]imilar actions." 40 C.F.R. §§ 1508.25(a)(2) and (3). Cumulative actions include action that, "when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." *Id*. § 1508.25(a)(2). Similar actions include actions that, "when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together." *Id*. § 1508.25(a)(3). Key indicators of similarities between actions include "common timing or geography." *Id*.

II. The BLM Fails to Conduct a Conformity Analysis in Compliance with the Clean Air Act and FLPMA.

To start, the BLM fails to conduct a conformity analysis in compliance with the Clean Air Act and FLPMA. At least one parcel for the lease sale is located within Wyoming's nonattainment area for ozone.[2] Despite this, BLM summarily concludes that the emissions from the lease sale are not reasonably foreseeable and thus a conformity analysis is not required at this time. EA at 62–63. Instead, BLM plans to analyze the emissions at the Application Permit to Drill stage. *Id*. But, leasing is clearly a cause of future project emissions—if there are no leases, no new development on federal lands can occur. Thus, BLM's assumptions and its failure to act based on these assumptions violate the Clean Air Act.

EPA's conformity regulations define "reasonably foreseeable" emissions as projected future direct and indirect emissions that are: (1) identified at the time the conformity determination is made; (2) the location of such emissions is known; and (3) the emissions are quantifiable as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency. 40 C.F.R. § 93.152. Here,

[2] BLM's map of the lease sale parcels is available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/85072/123529/150645/OG_saleParcel_18_2ndQ_Prelim.jpg.

the location of the emissions is known because the location of the lease parcel is known. Also, the emissions are quantifiable because the Pinedale area is heavily developed and the agency could easily estimate potential well emissions based on the surrounding area. Indeed, a quick comparison of the lease parcel with a map of the Pinedale RMP's Reasonably Foreseeable Development scenario demonstrates that the proposed lease parcel is directly within the Pinedale Anticline and a slew of active wells.[3] Thus, the BLM's own analyses acknowledge that development on this parcel is reasonably foreseeable. BLM's RMP for the Pinedale Field Office even estimates emissions for development in the area as well.[4]

The BLM also acknowledges that these emissions are reasonably foreseeable in the EA. For example, the BLM notes that "[o]ver the last 10 years, the development on federal oil and gas mineral estate in the High Desert District has resulted in an average of 545 wells being spudded annually," EA at 106, and "[t]his RFD projects a total of 12,723 total wells could be developed during the life of the [resource management] plans. . . . Current APD permitting trends within the field offices confirm that the RFD assumptions are accurate." EA at 107. Clearly BLM has development estimates that it has confirmed are accurate. All it has to do is calculate representative emissions.

Finally, the BLM claims that the conformity regulations exempt federal onshore oil and gas leases from a conformity analysis where lease sales are made on a broadscale. *See* EA at 62–63. But, the opposite is actually true. The conformity regulations specifically exempt offshore oil and gas leasing as broadscale decisions, but do not exempt onshore leases, which occur only after the BLM has developed broadscale RMP analysis analyzing where to lease. *See* 40 C.F.R. § 93.153(c)(3). As a result, the BLM must analyze the conformity of the proposed leases as required by the Clean Air Act and NEPA at the lease sale stage.

III. The BLM Fails to Comply with NEPA and FLMPA.

A. The BLM Must Prepare an EIS.

A federal agency must prepare an EIS when a major federal action "significantly affects the quality of the human environment." 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1502.4. A federal action "affects" the environment when it "will or *may* have an effect" on the environment. 40 C.F.R. § 1508.3 (emphasis added); *Airport Neighbors Alliance v. U.S.*, 90 F.3d 426, 429 (10th Cir. 1996). Significance is gauged based on the context and intensity of the proposed action. 40 C.F.R. § 1508.27. Context "means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests,

[3] The location of the Pinedale FO parcel is T31N, R109W, S12. *See* June 2018 Lease Sale, Legal Description of Parcels, https://eplanning.blm.gov/epl-front-office/projects/nepa/85072/123503/150616/V1.WY182Q_Appendix_B.pdf. The Reasonably Foreseeable Development Scenario for the Pinedale RMP puts this parcel directly within the Pinedale Anticline and a large number of active wells. *See* https://eplanning.blm.gov/epl-front-office/projects/lup/63200/78639/90107/05_Figure_5.pdf.

[4] See the FEIS for the Pinedale RMP at: https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage&currentPageId=88620. The emissions estimates are in Chapter 4 at 4-8, Figure 4-1.

and the locality." *Id*. § 1508.27(a). Intensity "refers to the severity of impact," and is determined by weighing ten factors, including "whether the action is related to other actions with individually insignificant but cumulatively significant impacts and whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment." *Id*. § 1508.27(b). For the former factor, "[s]ignificance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts." *Id*. Finally, "[i]f an agency decides not to prepare an EIS, it must supply a convincing statement of reasons to explain why a project's impacts are insignificant." *Blue Mtns Biodiversity Proj. v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998) (internal quotations omitted) (finding that a timber salvage sale coupled with other salvage sales in the area could result in significant impacts).

The BLM's analysis in June 2018 lease sale EA is deficient and requires preparation of an EIS for a number of reasons. First, as discussed in more depth in section E, the June 2018 lease sale will have significant cumulative impacts on the environment because the parcels in the sale are geographically adjacent to parcels for the March 2018 lease sale in Wyoming and the June 2018 lease sale in Colorado. The proposed number and location of parcels for both the March 2018 Wyoming lease sale and the June 2018 Colorado lease sale are known. Thus, it is reasonable for the BLM to anticipate these impacts. But, the BLM fails to even mention that other lease sales are occurring in the same area. Indeed, the BLM does not even include a substantive cumulative impacts analysis. Instead, the agency claims that a cumulative impacts analysis is not needed because "the proposed action of offering the subject parcels for lease, and the subsequent issuance of leases, in and of itself, would not result in any significant cumulative impacts." EA at 134. The agency also argues that a cumulative greenhouse gas analysis is not needed because "climate change and global warming are global phenomena . . . [and] the analysis presented above about the direct and indirect effects of GHG emission from the proposed actions is also an analysis of the cumulative effects of the proposed action." *Id*. Without a cumulative impacts analysis, the BLM cannot conclude that the impacts from the proposed lease sale will be insignificant, and the agency's FONSI cannot stand.

Second, as discussed above, the BLM fails to complete a conformity analysis as required by the Clean Air Act. As a result, the lease sale threatens a violation of Federal and state law – another significance factor that the BLM fails to consider. These factors combined demonstrate that BLM must prepare an EIS because the lease sale may significantly affect the quality of the human environment.

B. The BLM Improperly Defers Its Site-Specific NEPA Analyses to the Application Permit to Drill Stage.

On a similar note, throughout the EA for the lease sale, the BLM attempts to further segment its analysis by claiming that it will conduct site-specific NEPA analyses at the Application Permit to Drill ("APD") stage. *See, e.g*., EA at 82 ("Additional information about potential emissions would also be available and calculated as part of subsequent site-specific reviews at the APD stage."); *see also* EA at 117 ("Site-specific surveys for special status plants and wildlife would be considered at the APD stage to determine the presence/absence of important plant and wildlife resources."). However, BLM's deferral of comprehensive NEPA

analysis at the leasing stage ignores a crucial distinction—the scope of the action approved at the leasing stage (200,000 acres of new oil and gas development) is much broader than the scope of the action approved at the APD stage (a single well).

BLM's postponement of site-specific NEPA analysis until the APD stage violates the letter and spirit of NEPA. "NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment." *U.S. Bureau of Land Mgmt. v. Kern*, 284 F.3d 1062, 1072 (9th Cir. 2002); *see also* 40 C.F.R. § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens *before decisions are made* and before actions are taken."). This is especially the case if postponing analysis results in a piecemeal look at the impacts. *See* 40 C.F.R. § 1508.27 ("Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts."). Deferring NEPA analysis to the APD stage results in piecemeal consideration of impacts because the analysis is limited to the environmental impacts from a single well and, because BLM did not analyze the cumulative impacts of new development on 200,000 acres at the leasing stage, the cumulative impacts of BLM's leasing decision are never evaluated.

Finally, as noted above, NEPA provides that the BLM must assess three types of actions: (1) connected actions, (2) cumulative actions, and (3) similar actions. 40 C.F.R. § 1508.25. Connected actions "are closely related and therefore should be discussed in the same impact statement." *Id*. Actions are connected if they, among other things: [a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id*. Because drilling cannot occur without the BLM first leasing the minerals, leasing and drilling are interdependent, connected actions. Thus, the BLM must estimate the impacts of drilling these wells at the lease sale stage. Leasing also conveys a right to develop and is thus considered an irretrievable commitment of resources. NEPA requires that agencies prepare an EIS "before committing themselves irretrievably to a given course of action, so that the action can be shaped to account for environmental values." *See Pennaco Energy, Inc. v. U.S. Dep't of the Interior*, 377 F.3d 1147, 1159 (10th Cir. 2004) (quoting *Sierra Club v. Hodel*, 848 F.2d 1068, 1093 (10th Cir. 1988)). This means that once BLM reaches the APD stage, the agency cannot include additional lease stipulations to limit drilling and other cumulative impacts. Thus, further analysis at the APD stage would be too little, too late.

The need to do a full NEPA at the lease sale stage is further supported by the fact that the BLM frequently approves APDs without further NEPA analysis. Since October 1, 2017, the Rawlins Field Office alone is proposing to approve 24 wells via categorical exclusions, including:

- Approval of 4 federal wells in Sweetwater County in the Rawlins Field Office through categorical exclusions DOI-BLM-WY-D030-2018-0040-CX, DOI-BLM-WY-D030-2018-0041-CX, DOI-BLM-WY-D030-2018-0042-CX, and DOI-BLM-WY-D030-2018-0043-CX;
- Approval of 1 federal well in Sweetwater County in the Rawlins Field Office through categorical exclusion DOI-BLM-WY-D030-2018-0046-CX;
- Approval of 1 federal well in Sweetwater County in the Rawlins Field Office through categorical exclusion DOI-BLM-WY-D030-2018-0027-CX;

- Approval of 1 federal well in Sweetwater County in the Rawlins Field Office through categorical exclusion DOI-BLM-WY-D030-2018-0028-CX;
- Approval of 4 federal wells in Sweetwater County in the Rawlins Field Office through categorical exclusions DOI-BLM-WY-D030-2018-0022-CX, DOI-BLM-WY-D030-2018-0023-CX, DOI-BLM-WY-D030-2018-0024-CX, and DOI-BLM-WY-D030-2018-0025-CX;
- Approval of 4 federal wells in Sweetwater County in the Rawlins Field Office through categorical exclusions DOI-BLM-D030-2017-0133-CX, DOI-BLM-WY-D030-2018-0018-CX, DOI-BLM-WY-D030-2018-0019-CX, and DOI-BLM-WY-D030-2018-0020-CX;
- Approval of 2 federal wells in Sweetwater County in the Rawlins Field Office through categorical exclusions DOI-BLM-WY-D030-2018-0015-CX and DOI-BLM-WY-D030-2018-0016-CX.
- Approval of 3 federal wells in Sweetwater County in the Rawlins Field Office through categorical exclusions DOI-BLM-WY-D030-2018-0006-CX, DOI-BLM-WY-D030-2018-0005-CX, and DOI-BLM-WY-D030-2017-0210-CX; and
- Approval of 4 federal wells in Sweetwater County in the Rawlins Field Office through categorical exclusions DOI-BLM-WY-D030-2018-0001-CX, DOI-BLM-WY-D030-2018-0002-CX, DOI-BLM-WY-D030-2018-0003-CX, and DOI-BLM-WY-D030-2018-0004-CX.

Other Wyoming BLM Field Offices also frequently use categorical exclusions to approve APDs,[5] and use of these is very likely to further increase under the current administration.[6]

In sum, unless the BLM actually commits, through the imposition of a lease stipulation or stipulations, to conduct additional NEPA analysis at the drilling stage, it more often than not does not happen. This means that any commitment to address the impacts development of the proposed leases through subsequent NEPA is, at best, hollow, and at worst, a deliberate attempt to avoid accountability to addressing potentially significant, connected environmental impacts under NEPA.

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[5] *See, e.g.*, Buffalo Field Office, Devon Energy Barlow Ranch POD Categorical Exclusion, https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=90881; Casper Field Office, Devon Energy Production Company, L.P. / Cottonwood Draw Unit 38-72 12 Pad Categorical Exclusion, https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=88834; Cody Field Office, Merit, Phelps 53 and Phelps 55 Oil Wells Categorical Exclusion, https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=89320 ;Worland Field Office, Merit Energy Company Gooseberry Unit APDs Categorical Exclusion, https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=82712.

[6] *See, e.g.*, Dep't of Interior, *Secretarial Order No. 3354* (July 7, 2016), https://www.doi.gov/sites/doi.gov/files/uploads/doi-so-3354.pdf; Office of the White House, *Presidential Executive Order on Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure* (Aug. 15, 2017), https://www.whitehouse.gov/the-press-office/2017/08/15/presidential-executive-order-establishing-discipline-and-accountability.

C. The BLM's Fails to Analyze the Impacts of Multi-Stage Hydraulic Fracturing and Horizontal Drilling for the Rock Springs Field Office Parcels in Violation of NEPA and FLPMA.

The June 2018 lease sale proffers to lease 44 parcels (56,191.05 acres) in the Rock Springs Field Office. But, because the RMP for this office, the Green River Resource Management Plan ("Green River RMP") and Final EIS, are severely out of date and the EA does not correct this deficiency, the BLM cannot lease these parcels.

Courts have held that when the BLM's lease sale proposes parcels for fracking,[7] the agency must analyze fracking either in the broader RMP or the EA. *See, e.g., Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 937 F. Supp. 2d 1140, 1156 (N.D. Cal. 2013) (invalidating BLM lease sale because "the scale of fracking in shale-area drilling today involves risks and concerns that were not addressed by the PRMP/FEIS' general analysis of oil and drilling development in the area"). Here, BLM has not analyzed the environmental impacts of this new extraction technology, or provided even a general comparison of environmental impacts associated with conventional drilling vs. horizontal drilling/multi-stage fracturing.

The BLM completed the Green River RMP and FEIS in 1997.[8] But, the frequent use of multi-stage hydraulic fracturing coupled with horizontal drilling did not occur the early 2000's. *See* U.S. Energy Info. Admin., *Hydraulically Fractured Wells Provide Two-Thirds of U.S. Natural Gas Production* (2015), https://www.eia.gov/todayinenergy/detail.php?id=26112; EIA *Hydraulic Fracturing Accounts for About Half of Current U.S. Crude Oil Production* (2015), https://www.eia.gov/todayinenergy/detail.php?id=25372. In contrast, today, 67% of the U.S.'s natural gas comes from wells that use fracking, and 50% of the U.S.'s oil comes from wells that use fracking. *Id.* As the BLM is well aware, the use of multi-stage fracking coupled with horizontal drilling not only opened up vast areas of minerals that were previously uneconomical to extract, the process of fracking causes more intense impacts to our air, water, land, and wildlife. *See* Exhibit 1, Concerned Health Prof'ls of NY & Physicians for Soc. Responsibility, *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (Unconventional Gas and Oil Extraction)* (4th ed. 2016). Because the geographic range and the intensity of oil and gas development has changed significantly since 1997 because of new extraction technologies, the BLM must analyze these impacts in either a revised RMP and accompanying FEIS or an EA/EIS for the lease sale. Unfortunately for the BLM, neither the Green River RMP nor the EA for the June 2018 lease sale suffice to meet this requirement.

To start, a search of the Green River RMP and FEIS fails to result in a single mention of multi-stage hydraulic fracturing or horizontal drilling. The June 2018 EA does not correct this deficiency despite the fact that the BLM's EA relies on the analyses in the respective RMPs to address any missing impacts. The main information on fracking in the EA, is a Hydraulic

[7] The term "fracking" refers to extraction methods using a combination of horizontal drilling and multi-stage fracturing.

[8] The Green River RMP is available on the BLM's website at: https://eplanning.blm.gov/epl-front-office/projects/lup/63096/75581/83689/greenriver-rmp.pdf. The FEIS is available at https://digitalcommons.usu.edu/wyoming_resourceplans/2/.

Fracturing White Paper in Appendix D.[9] But, the white paper's section on the impacts from fracking is alarmingly incomplete. For example, it defers analysis of any air quality emissions and geologic hazards such as earthquakes until the APD stage. App'x D at 2, 11. And, the section on public health impacts is a short paragraph that simply states that impacts depend on the proximity and intensity of development. This cursory analysis cannot stand under NEPA's mandate that the BLM take a "hard look" at the impacts from its proposed action.

The BLM's lack of analysis on fracking not only violates NEPA but also violates FLPMA. As noted above, FLPMA requires that the BLM amend an RMP whenever there is a need to "[c]onsider a proposal or action that does not conform to the plan," "respond to new, intensified, or changed uses on public land," or "consider significant new information from resource assessments, monitoring, or scientific studies that change land use plan decisions." BLM Land Use Planning Handbook, H-1610-1, Section VII.B at 45. At a minimum, the use of multi-stage fracking coupled with horizontal drilling in the Rock Springs Field Office constitutes a "new, intensified, or changed use[] on public land." As a result, the BLM cannot move forward with leasing the 44 parcels in the Rock Springs Field Office until it either completes an amendment to the RMP or includes a full analysis of the impacts of fracking and horizontal drilling in a revised EA or EIS.

D. The BLM Fails to Properly Analyze the Direct and Indirect Impacts of Greenhouse Gas Emissions that Would Result from Issuing the Proposed Lease Parcels in Violation of NEPA.

The BLM's EA is similarly lacking on the subject of direct and indirect greenhouse gas emissions. While we appreciate the BLM's attempts to disclose the reasonably foreseeable direct and indirect greenhouse gas emissions resulting from development of the proposed leases (*see* EA at 109–111), the BLM fails to correctly quantify direct and indirect emissions from the lease sales.

In the EA direct greenhouse gas emissions section, the BLM accidentally includes language from the December 2017 lease sale[10] that states:

> The lands proposed for lease as part of the sale under consideration are within the Kemmerer, Rawlins, and Pinedale field offices and only represent a portion of the area covered by the RFD. The 45 proposed parcels, containing approximately 72,884.37 acres, is 0.67% of the total acreage included in the HDD RFD; *no parcels in this sale are in the RSFO*. Assuming these lands are leased and developed to the full potential, as projected by the RFD for the GSG ARMPA (2015), development to the full RFD in the KFO would produce a total of 380,551

[9] Appendix D is available at https://eplanning.blm.gov/epl-front-office/projects/nepa/85072/123507/150620/V1.WY182Q_Appendix_D.pdf.

[10] The December 2017 lease sale for the High Desert District is available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/65707/104725/128293/HDD_EA_for_Nov_2017_Lease_Sale_v.1.pdf. The repeated language from the December 2017 EA is on page 71.

> metric tonnes (mt) of CO2e; the PFO is projected to produce a total of 1,618,329 mt; and the RFO is projected to produce a total of 1,147,892 mt.

EA at 110 (emphasis added). But, the June 2018 lease sale actually includes 44 parcels (56,191.05 acres) in the Rock Springs office. Therefore, the BLM's statement and calculations on direct emissions is incomplete and misleading. The BLM's indirect greenhouse gas emissions analysis suffers from a similar error. See EA at 110–111. It includes emissions calculations from the Wyoming Greater Sage-Grouse Land Use Plan Amendment FEIS for the Rawlins, Kemmerer, and Pinedale Field Offices but fails to include any information on the Rock Springs Field Offices.

Finally, even if the BLM had included the correct numbers for direct and indirect greenhouse gas emissions, the BLM's analysis would still be deficient because it fails to discuss site-specific direct and indirect emissions from the actual lease parcels as opposed to development across an entire field office. Estimating greenhouse gas emissions from leasing is entirely possible and has been done by the BLM in the past. For example, in the Royal Gorge Field Office of Colorado, the BLM contracted with URS Group Inc. to prepare an analysis of air emissions from the development of seven oil and gas lease parcels. *See* Exhibit 2, URS Group Inc., "Draft Oil and Gas Air Emissions Inventory Report for Seven Lease Parcels in the BLM Royal Gorge Field Office," Prepared for BLM, Colorado State Office and Royal Gorge Field Office (July 2013). This report estimated greenhouse gas emissions on a per well basis. *See* Exhibit 2 at 3, 5. This report was later supplanted by the Colorado Air Resource Management Modeling Study, or CARMMS, which estimated reasonably foreseeable emissions of greenhouse gases, criteria pollutants, and hazardous air pollutants associated with oil and gas development throughout Colorado, as well as part of New Mexico, and modeled air quality impacts. *See* Exhibit 3, ENVIRON, "Colorado Air Resource Management Modeling Study (CARMMS) 2021 Modeling Results for the High, Low and Medium Oil and Gas Development Scenarios," Prepared for BLM Colorado State Office (January 2015) (updated report available at https://www.blm.gov/sites/blm.gov/files/program_natural%20resources_soil%20air%20water_air co_quick%20link_CARMMS.pdf). As part of the CARMMS report, the BLM estimated annual per well emissions, including greenhouse gas emissions, as follows:

Phase	PM_{10}	$PM_{2.5}$	VOC	CO	NO_X	SO_2	CO_2	CH_4	N_2O	HAP
Conventional Construction	5.21	0.64	0.05	0.23	0.72	0.02	108.1	0.00	0.00	0.01
CBM Construction	3.37	0.44	0.03	0.12	0.36	0.01	56.58	4.06	0.00	0.00
Conventional Production	1.15	0.15	6.67	1.30	0.73	0.00	251.9	17.14	0.00	0.43
CBM Production	2.25	0.25	13.10	1.13	0.62	0.00	181.6	19.05	0.00	1.31

It is notable that, based on this estimate, total CO_2 emissions associated with construction and production of conventional (rather than "CBM" or coalbed methane) wells, could be as much as 360 tons per year. And, to top it off, this number would very likely increase for an unconventional oil or gas well, as shown by the Kleinfelder Report, which estimates emissions

for representative oil and gas wells in the Uinta, Upper Green River, San Juan, Williston, and Denver Basins. *See* Exhibit 4, Kleinfelder, "Air Emissions Inventory Estimates for a Representative Oil and Gas Well in the Western United States," Report Prepared for Bureau of Land Management (March 25, 2013).

TABLE 1-2
SUMMARY OF EMISSION ESTIMATES FOR A SINGLE OIL OR GAS WELL

Well Type:	Gas	Gas	Gas	Oil	Oil
Pollutant	**Uinta/ Piceance** (tpy)	**Upper Green River** (tpy)	**San Juan** (tpy)	**Williston** (tpy)	**Denver** (tpy)
NOx	15.6	14.6	5.6	15.6	6.3
CO	3.8	3.9	3.1	8.0	3.4
VOC	3.4	5.2	5.3	17.6	6.7
SO_2	0.0004	0.0004	0.001	0.001	0.001
PM_{10}	6.9	6.7	6.8	6.9	6.6
$PM_{2.5}$	0.8	0.8	0.5	0.8	0.5
CO_2	2,552.1	2,882.1	651.9	3,156.4	1,049.0
CH_4	12.2	14.1	6.1	16.6	1.8
N_2O	0.05	0.05	0.04	0.6	0.04
GWP	2,825	3,194	791	3,682	1,099
Benzene	1.4	1.5	1.4	1.5	1.4
Toluene	1.0	1.2	1.0	1.0	1.0
Ethylbenzene	0.00003	0.01	0.0008	0.0008	0.0006
Xylene	0.6	0.7	0.6	0.6	0.6
n-Hexane	7.5	7.5	7.5	7.9	7.5
Total HAPs	10.4	10.9	10.5	11.0	10.5

Note: Sums may not precisely total due to round off differences. A value of 0.00 indicates that pollutant is not emitted or emitted in de minimis amounts. If there is a non-zero value, at least one significant figure is reported. Greenhouse gas emissions are in terms of short tons CO_2, CH_4, and N_2O. Global Warming Potential (GWP) is in terms of short tons of CO_2 equivalent (CO_2e), using a GWP of 1 for CO_2, 21 for CH_4, and 310 for N_2O.

Either way, the BLM has the capability to analyze these emissions and cannot forgo this analysis at the lease sale stage. The BLM also has a duty to include correct information in each EA.

E. The BLM Fails Analyze the Cumulative Impacts of Greenhouse Gas Emissions that Would Result from Issuing the Proposed Lease Parcels in Violation of NEPA.

The BLM's analysis also fails to account for greenhouse gas emissions from cumulative and similar actions. Specifically, the BLM fails to take into account greenhouse gas emissions from BLM lease sales in Wyoming, including the geographically adjacent March 2018 lease sale in the High Plains and Wind River-Bighorn Basin Districts, and lease sales in surrounding Western states.

NEPA requires an agency to analyze the impacts of "similar" and "cumulative" actions in the same NEPA document in order to adequately disclose impacts in an EIS or provide sufficient justification for a FONSI in an EA. *See* 40 C.F.R. §§ 1508.25(a)(2) and (3). Indeed, the Ninth Circuit has held that "[a]n EA's analysis of cumulative impacts 'must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.'" *Te-Moak Tribe v. U.S. Dep't of Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (quoting *Lands Council v. Powell*, 395 F.3d 1019, 1027 (9th Cir. 2005)).

It is notable that at the same time and in this same region, the BLM has sold, is selling, and will be selling thousands of acres of oil and gas leases, including:

- Wyoming: In June, the BLM sold 26 parcels covering 31,924.77 acres in the High Desert District Office. *See* https://eplanning.blm.gov/epl-front-office/projects/nepa/65707/110941/135810/SALERESULTS.pdf. In September, the BLM sold 127 parcels totaling 106,687 acres in the High Plains and Wind River/Big Horn Basin Districts. *See* https://eplanning.blm.gov/epl-front-office/projects/nepa/65707/121307/148154/SALE_RESULTS_3rd_Qtr_2017.v3.pdf. This December, the agency is offering 45 parcels (72,843.75) in the High Desert District. *See* https://eplanning.blm.gov/epl-front-office/projects/nepa/65707/115163/140610/Sale_Notice.pdf. And, in March 2018, the agency is offering 172 parcels (173,660 acres) in the High Plains and Wind River/Big Horn Basin Districts.

- Montana/North Dakota: In June, the BLM leased 49 parcels (15,611.47 acres) in southeastern Montana, *see* https://www.blm.gov/sites/blm.gov/files/MTDAKs%206-13-17%20Comp%20Results.pdf. In September, the BLM sold 15 parcels totaling 4,438.07 acres in South and North Dakota, *see* https://www.blm.gov/sites/blm.gov/files/MTDAKs%2009_12_17_07_11_17_Comp%20Stats_Combined.pdf. In December, the BLM is planning to lease 204 parcels totaling 98,889 acres in southeastern Montana, https://eplanning.blm.gov/epl-front-office/projects/nepa/78400/120223/146733/12-12-17_Internet_Sale_Notice_revised_09-14-17_(1).pdf. And, in March 2018, the BLM is planning to lease 110 parcels totaling 63,616 acres across the state. *See* "2018 Lease Sales," "March 2018," https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/regional-lease-sales/montana-dakotas.

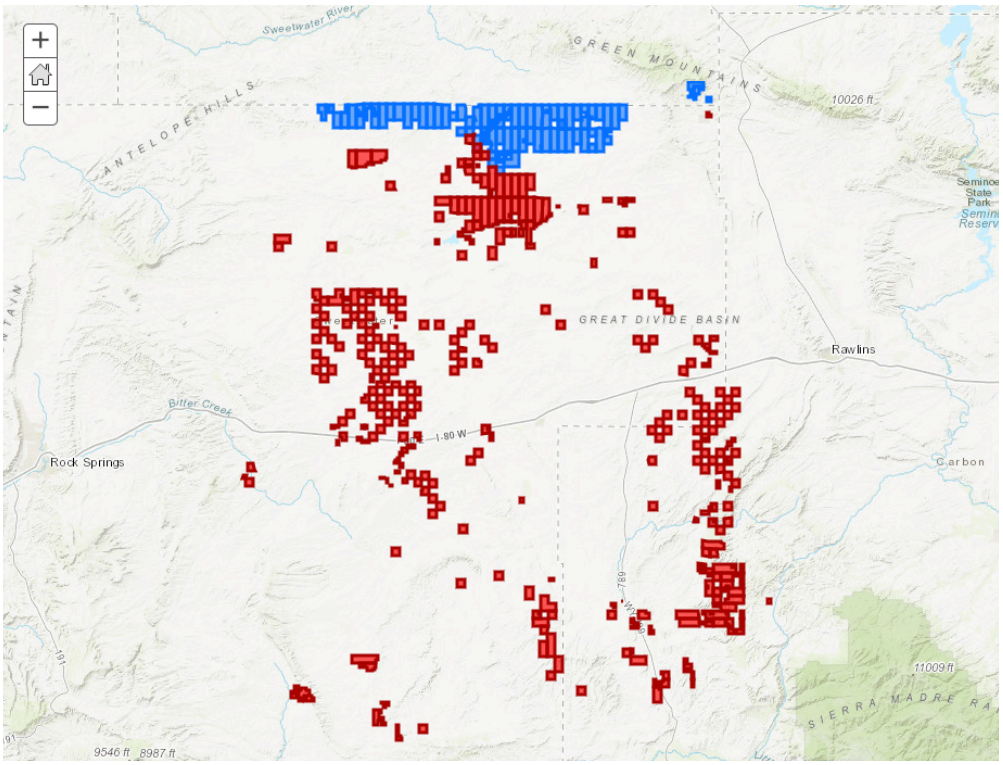
- Colorado: On June 8, 2017, the BLM sold 70 parcels covering 63,268.120 acres in western Colorado. *See* https://eplanning.blm.gov/epl-front-office/projects/nepa/70241/109218/133789/Sale_Results_June2017.pdf. In December of 2017, the BLM is also contemplating the sale of 28 parcels covering 29,604.09 acres in western Colorado. *See* https://eplanning.blm.gov/epl-front-office/projects/nepa/72396/96540/116594/GJFO&CRVFO_Initial_Parcel_List_Scoping_Dec2017.pdf. And, in March 2018, the BLM is planning to lease 9 parcels comprising 2,585.13 acres in the southeastern corner of the state. https://eplanning.blm.gov/epl-front-office/projects/nepa/80672/108369/132690/TRFO_Initial_Parcel_List_Scoping_March2018.pdf.

- Utah: On June 13, 2017, the agency sold 8 parcels covering 7,478.990 acres in the Color Country District Office for sale. *See* https://www.blm.gov/sites/blm.gov/files/Programs_EnergyandMinerals_OilandGas_Leasing_RegionalLeaseSales_Utah_2017_SaleResults.pdf. In September, the BLM sold three parcels containing 4,101.710 acres in the West Desert District. *See* https://www.blm.gov/sites/blm.gov/files/Programs_OilandGas_Leasing_RegionalLeaseSales_Utah_2017_SALERESULTS.pdf. The agency is also offering 75 parcels for sale (94,040.53 acres) in the Green River District in December 2017. *See*

https://eplanning.blm.gov/epl-front-office/projects/nepa/80165/119105/145357/1UtahDec2017NoticeOfSale.pdf. And, in March 2018, the BLM is proposing to lease 43 parcels comprising 52,401 acres in the Moab and Monticello Field Offices. https://eplanning.blm.gov/epl-front-office/projects/nepa/82261/121038/147794/News_Release_-_CCYD_Lease_Sale_Comment__Period.pdf.

- **All told, the BLM has leased or is proposing to lease approximately 1173 parcels or 1,020,149.63 acres of publically-owned land in the states listed above in 2017 and 2018.**[11]

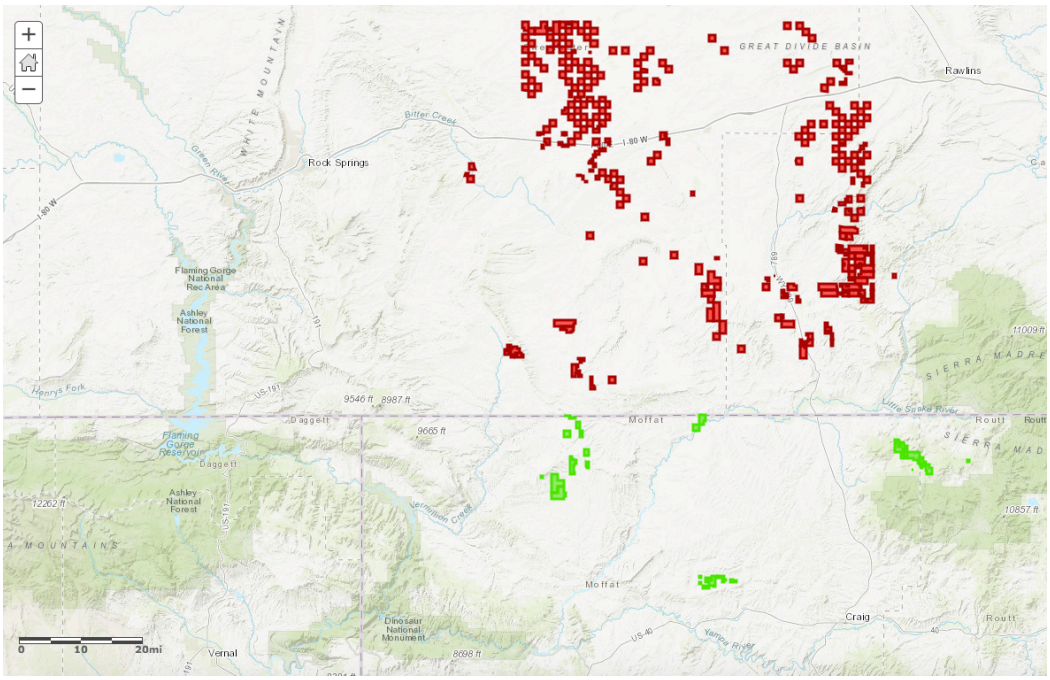
The BLM cannot ignore these similar, cumulative federal lease sales. This argument is further supported by a visual demonstration of how close many of the proposed lease parcels proposed are. For example, the June 2018 lease parcels for the High Desert District and the March 2018 lease parcels for the High Plains and Wind River-Bighorn Basin Districts are actually geographically adjacent to each other as shown by the map below.



The March 2018 parcels are shown in blue. The June 2018 parcels are in red.

This issue extends to lease parcels in adjacent states as well. For example, the June 2018 lease parcels in Wyoming are only approximately 5 miles from the June 2018 lease parcels for Colorado.

[11] This number includes the parcels and acreage for the June 2018 lease sale in Wyoming.



The June 2018 WY parcels are shown in red. The June 2018 CO parcels are in green.

Finally, the need to take into account "similar" and "cumulative" actions is underscored by the fact that the BLM acknowledges that the proper geographic area for analyzing and assessing the impacts of greenhouse gas emissions is on a statewide and regional scale. *See* EA at 110. Although this assessment was apparently prepared to try to mislead the public into believing that emissions from the proposed development are not significant, it actually emphasizes the need for the BLM to not simply account for emissions from the proposed lease sales, but to also account for all greenhouse gas emissions associated with BLM-approved oil and gas projects and lease sales region-wide. The BLM cannot insinuate that emissions are insignificant in the context of state and regional emissions, but then fail to disclose the direct, indirect, and cumulative greenhouse gases that would result from all other "similar" and "cumulative" actions within the state and region. Clearly, this failure is in violation of the NEPA's requirement to analyze cumulative and similar impacts with common timing and geography.

F. The BLM Fails to Analyze the Costs of Reasonably Foreseeable Carbon Emissions Using Well-Accepted, Valid, Credible, GAO-Endorsed, Interagency Methods for Assessing Carbon Costs in Violation of NEPA.

In addition to a complete lack of cumulative impacts analysis for greenhouse gases, it is particularly disconcerting that the agency omits a discussion on the social cost of carbon protocol, a valid, well-accepted, credible, and interagency-endorsed method of calculating the costs of greenhouse gas emissions and understanding the potential significance of such emissions while simultaneously touting the monetary benefits from the lease sale. *See* EA at 91–92, 130.

The social cost of carbon protocol for assessing climate impacts is a method for "estimat[ing] the economic damages associated with a small increase in carbon dioxide (CO2)

emissions, conventionally one metric ton, in a given year [and] represents the value of damages avoided for a small emission reduction (i.e. the benefit of a CO2 reduction)." Exhibit 5, U.S. Environmental Protection Agency ("EPA"), "Fact Sheet: Social Cost of Carbon" (Nov. 2013) at 1, formerly available online at https://www.epa.gov/climatechange/social-cost-carbon. The protocol was developed by a working group consisting of several federal agencies.

In 2009, an Interagency Working Group was formed to develop the protocol and issued final estimates of carbon costs in 2010. *See* Exhibit 6, Interagency Working Group on Social Cost of Carbon, "Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" (Feb. 2010), available online at https://www.epa.gov/sites/production/files/2016-12/documents/scc_tsd_2010.pdf. These estimates were then revised in 2013 by the Interagency Working Group, which at the time consisted of 13 agencies. *See* Exhibit 7, Interagency Working Group on Social Cost of Carbon, "Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" (May 2013), available online at https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf. This report and the social cost of carbon estimates were again revised in 2015. *See* Exhibit 8, Interagency Working Group on Social Cost of Carbon, "Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866" (July 2015). Again, this report and social cost of carbon estimates were revised in 2016. *See* Exhibit 9, Interagency Working Group on Social Cost of Greenhouse Gases, "Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866" (Aug. 2016), available online at https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf.

Most recently, as an addendum to previous Technical Support Documents regarding the social cost of carbon, the Department of the Interior joined numerous other agencies in preparing estimates of the social cost of methane and other greenhouse gases. *See* Exhibit 10, Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, "Addendum to Technical Support Document on Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866: Application of the Methodology to Estimate the Social Cost of Methane and the Social Cost of Nitrous Oxide" (Aug. 2016).

Depending on the discount rate and the year during which the carbon emissions are produced, the Interagency Working Group estimates the cost of carbon emissions, and therefore the benefits of reducing carbon emissions, to range from $10 to $212 per metric ton of carbon dioxide. *See* Chart Below. In one of its more recent update to the Social Cost of Carbon Technical Support Document, the White House's central estimate was reported to be $36 per metric ton. Exhibit 10 at 4.

In July 2014, the U.S. Government Accountability Office ("GAO") confirmed that the Interagency Working Group's estimates were based on sound procedures and methodology. *See* Exhibit 11, GAO, "Regulatory Impact Analysis, Development of Social Cost of Carbon Estimates," GAO-14-663 (July 2014), http://www.gao.gov/assets/670/665016.pdf.

Year	5% Average	**3% Average**	2.5% Average	High Impact (95th Pct at 3%)
2010	10	**31**	50	86
2015	11	**36**	56	105
2020	12	**42**	62	123
2025	14	**46**	68	138
2030	16	**50**	73	152
2035	18	**55**	78	168
2040	21	**60**	84	183
2045	23	**64**	89	197
2050	26	**69**	95	212

Most recent social cost of carbon estimates presented by Interagency Working Group on Social Cost of Carbon. The 95th percentile value is meant to represent "higher-than-expected" impacts from climate change. *See* Exhibit 10.

Although often utilized in the context of agency rulemakings, the protocol has been recommended for use and has been used in project-level decisions. For instance, the EPA recommended that an EIS prepared by the U.S. Department of State for the proposed Keystone XL oil pipeline include "an estimate of the 'social cost of carbon' associated with potential increases of GHG emissions." Exhibit 12, EPA, Comments on Supplemental Draft EIS for the Keystone XL Oil Pipeline (June 6, 2011).

More importantly, the BLM's Billings Field Office, has also utilized the social cost of carbon protocol in the context of oil and gas approvals. For example, the Billings Field Office estimated "the annual SCC [social cost of carbon] associated with potential development on lease sale parcels." Exhibit 13, BLM, "Environmental Assessment for October 21, 2014 Oil and Gas Lease Sale," DOI-BLM-MT-0010-2014-0011-EA (May 19, 2014) at 76, https://blm_prod.opengov.ibmcloud.com/sites/blm.gov/files/MT-DAKS%20Billings%20Oct%202014%20EA%20Protest.pdf. In conducting its analysis, the BLM used a "3 percent average discount rate and year 2020 values," presuming social costs of carbon to be $46 per metric ton. *Id*. Based on its estimate of greenhouse gas emissions, the agency estimated total carbon costs to be "$38,499 (in 2011 dollars)." *Id*. In Idaho, the BLM also utilized the social cost of carbon protocol to analyze and assess the costs of oil and gas leasing. Using a 3% average discount rate and year 2020 values, the agency estimated the cost of carbon to be $51 per ton of annual CO_2e increase. *See* Exhibit 14, BLM, "Little Willow Creek Protective Oil and Gas Leasing," EA No. DOI-BLM-ID-B010-2014-0036-EA (February 10, 2015) at 81, https://eplanning.blm.gov/epl-front-office/projects/nepa/39064/55133/59825/DOI-BLM-ID-B010-2014-0036-EA_UPDATED_02272015.pdf. Based on this estimate, the agency estimated that the total carbon cost of developing 25 wells on five lease parcels to be $3,689,442 annually. *Id*. at 83.

To be certain, the social cost of carbon protocol presents a conservative estimate of economic damages associated with the environmental impacts climate change. As the EPA has

noted, the protocol "does not currently include all important [climate change] damages." Exhibit 5 at 1. As explained:

> The models used to develop [social cost of carbon] estimates do not currently include all of the important physical, ecological, and economic impacts of climate change recognized in the climate change literature because of a lack of precise information on the nature of damages and because the science incorporated into these models naturally lags behind the most recent research.

Id. In fact, more recent studies have reported significantly higher carbon costs. For instance, a report published this month found that current estimates for the social cost of carbon should be increased six times for a mid-range value of $220 per ton. *See* Exhibit 15, Moore, C.F. and B.D. Delvane, "Temperature impacts on economic growth warrant stringent mitigation policy," Nature Climate Change 2 (January 12, 2015). And a report from this summer, estimated carbon costs to be $50 per metric ton, a value that experts have found to be the "best estimate of the social cost of greenhouse gases." *See* Exhibit 16, Revesz, R. *et al*. "Best cost estimate of greenhouse gases," 357 *Science* 655, 655 (Aug. 18, 2017). In spite of uncertainty and likely underestimation of carbon costs, nevertheless, "the SCC is a useful measure to assess the benefits of CO2 reductions," and thus a useful measure to assess the costs of CO2 increases. Exhibit 5.

That the economic impacts of climate change, as reflected by an assessment of social cost of carbon, should be a significant consideration in agency decision making, is emphasized by a recent White House report, which warned that delaying carbon reductions would yield significant economic costs. *See* Exhibit 17, Executive Office of the President of the United States, "The Cost of Delaying Action to Stem Climate Change," (July 2014). As the report states:

> [D]elaying action to limit the effects of climate change is costly. Because CO_2 accumulates in the atmosphere, delaying action increases CO_2 concentrations. Thus, if a policy delay leads to higher ultimate CO_2 concentrations, that delay produces persistent economic damages that arise from higher temperatures and higher CO_2 concentrations. Alternatively, if a delayed policy still aims to hit a given climate target, such as limiting CO_2 concentration to given level, then that delay means that the policy, when implemented, must be more stringent and thus more costly in subsequent years. In either case, delay is costly.

Id. at 1.

The requirement to analyze the social cost of carbon is supported by the general requirements of NEPA and is specifically supported in federal case law. Courts have ordered agencies to assess the social cost of carbon pollution, even before a federal protocol for such analysis was adopted. In 2008, the U.S. Court of Appeals for the Ninth Circuit ordered the National Highway Traffic Safety Administration to include a monetized benefit for carbon emissions reductions in an Environmental Assessment prepared under NEPA. *Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin*., 538 F.3d 1172, 1203 (9th Cir. 2008). The Highway Traffic Safety Administration had proposed a rule setting corporate average fuel economy standards for light trucks. A number of states and public interest groups

challenged the rule for, among other things, failing to monetize the benefits that would accrue from a decision that led to lower carbon dioxide emissions. The Administration had monetized the employment and sales impacts of the proposed action. *Id*. at 1199. The agency argued, however, that valuing the costs of carbon emissions was too uncertain. *Id*. at 1200. The court found this argument to be arbitrary and capricious. *Id*. The court noted that while estimates of the value of carbon emissions reductions occupied a wide range of values, the correct value was certainly not zero. *Id*. It further noted that other benefits, while also uncertain, were monetized by the agency. *Id*. at 1202.

More recently, a federal court has done likewise for a federally approved coal lease. That court began its analysis by recognizing that a monetary cost-benefit analysis is not universally required by NEPA. *See High Country Conservation Advocates v. U.S. Forest Service*, 52 F.Supp. 3d 1174 (D. Colo. 2014) (citing 40 C.F.R. § 1502.23). However, when an agency prepares a cost-benefit analysis, "it cannot be misleading." *Id*. at 1182 (citations omitted). In that case, the NEPA analysis included a quantification of benefits of the project, but, the quantification of the social cost of carbon, although included in earlier analyses, was omitted in the final NEPA analysis. *Id*. at 1196. The agencies then relied on the stated benefits of the project to justify project approval. This, the court explained, was arbitrary and capricious. *Id*. Such approval was based on a NEPA analysis with misleading economic assumptions, an approach long disallowed by courts throughout the country. *Id*. Furthermore, the court reasoned that even if the agency had decided that the social cost of carbon was irrelevant, the agency must still provide "*justifiable reasons* for not using (or assigning minimal weight to) the social cost of carbon protocol . . . ." *Id*. at 1193 (emphasis added). In August, a federal district court in Montana cited to the *High Country* decision and reaffirmed its reasoning, rejecting a NEPA analysis for a coal mine expansion that touted the economic benefits of the expansion without assessing the carbon costs that would result from the development. *See Mont. Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, No. CV 15-106-M-DWM (D. Mont. Aug. 14, 2017).

A recent op-ed in the New York Times from Michael Greenstone, the former chief economist for the President's Council of Economic Advisers, confirms that it is appropriate and acceptable to calculate the social cost of carbon when reviewing whether to approve fossil fuel extraction. *See* Exhibit 18, Greenstone, M., "There's a Formula for Deciding When to Extract Fossil Fuels," New York Times (Dec. 1, 2015), available at https://www.nytimes.com/2015/12/02/upshot/theres-a-formula-for-deciding-when-to-extract-fossil-fuels.html. Just this year, the Proceedings of the National Academy of Sciences of the United States of America ("PNAS"), acknowledged in a peer-reviewed article from February of this year that the social cost of carbon analysis is "[t]he most important single economic concept in the economics of climate change," and that "federal regulations with estimated benefits of over $1 trillion have used the SCC." Exhibit 19, William D. Nordhaus, Revisiting the Social Cost of Carbon, PNAS, Feb. 14, 2017, http://www.pnas.org/content/114/7/1518.full.pdf.

Clearly, the social cost of carbon provides a useful, valid, and meaningful tool for assessing the climate consequences of the proposed leasing, and the BLM's complete failure to discuss it or otherwise explain its omission while touting the economic benefits of the lease sale is arbitrary and capricious.

IV. The BLM Has the Legal Authority to Not Lease the Protested Parcels and Must Take a Hard Look at a No Action Alternative

As the BLM acknowledges on the first page of the EA, BLM has complete discretion to reject the proposed leasing, contrary to a recent position taken by the BLM National Office. Exhibit 20, Letter from John F. Ruhs, Acting Deputy Director, Operations (Oct. 19, 2017). Not only does the agency have complete discretion to decide when and where to lease available lands, but the agency has complete authority and discretion to make a determination that lands are not available for leasing. This means that BLM has the authority to reject expressions of interest, to refrain from offering leases for sale, and to otherwise apply deliberation, public interest considerations, and environmental scrutiny prior to offering any available lands for sale.

The text of the Mineral Leasing Act ("MLA") and case law interpreting it support this conclusion. The MLA provides that "[a]ll lands subject to disposition under this chapter which are known or believed to contain oil or gas deposits *may be leased* by the Secretary." 30 U.S.C. § 226(a) (emphasis added). In 1931, the Supreme Court found that the MLA "goes no further than to empower the Secretary to lease [lands with oil and gas potential] which, exercising a reasonable discretion, he may think would promote the public welfare." *U.S. ex rel. McLennan v. Wilbur*, 283 U.S. 414, 419 (1931). A 1965 case stated that the Mineral Leasing Act "left the Secretary discretion to refuse to issue any lease at all on a given tract." *Udall v. Tallman*, 380 U.S. 1, 4 (1965).

When a leasing application is submitted to the federal government but before the actual lease sale, no right has been vested in the applicant or potential bidders, and BLM retains the authority not to lease. "The filing of an application which has been accepted does not give any right to lease or generate a legal interest which reduces or restricts the discretion vested in the Secretary whether or not to issue leases for the lands involved." *Duesing v. Udall*, 350 F.2d 748, 750-51 (D.C. Cir. 1965), *cert. den.* 383 U.S. 912 (1966). *See also McDonald v. Clark*, 771 F.2d 460, 463 (10th Cir. 1985) ("While the [MLA] gives the Secretary the authority to lease government lands under oil and gas leases, this power is discretionary rather than mandatory"); *Western Energy Alliance v. Salazar*, 709 F.3d 1040, 1044 (10th Cir. 2013) ("The MLA, as amended by the [Federal Onshore Oil and Gas Leasing] Reform Act of 1987, continues to vest the Secretary with considerable discretion to determine which lands will be leased."). Similarly, IBLA decisions consistently recognize that BLM has "plenary authority over oil and gas leasing" and broad discretion with respect to decisions to lease. *See Penroc Oil Corp., et al.*, 84 IBLA 36, 39, GFS (O&G) 8 (1985). Thus, BLM has authority to disapprove mineral leasing of public lands and should use this authority to stop the June 2018 lease sale.

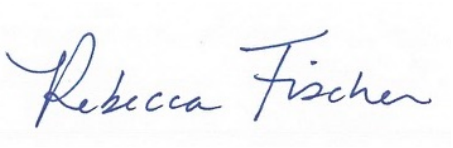
Similarly, the BLM must take a "hard look" at a no action alternative. *WildEarth Guardians v. United States Bureau of Land Mgmt.*, 870 F.3d 1222, 1233 (10th Cir. 2017); *see also Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 786 (9th Cir. 2006). Here, the BLM concludes that the "no action" alternative "would not prevent future leasing in these areas consistent with land use planning decisions and subject to appropriate stipulations, identified in the respective land use plans," EA at 7. But, this conclusion presents a false choice. The BLM is the entity that gets to decide whether or not lease the parcels. Therefore, leasing the parcels in the future is not a foregone conclusion. The BLM could decide to continue to defer these parcels of

withdraw them completely. The BLM's analysis is similar to the one that the 10th Circuit rejected in *WildEarth Guardians v. United States Bureau of Land Mgmt.*, 870 F.3d 1222. There the BLM assumed that even if it did not lease the coal at issue, other coal would take its place. *Id.* at 1228. But, the 10th Circuit rejected this conclusion because, among other things, "the [BLM's] blanket assertion that the coal would be substituted for other sources, unsupported by hard data, does not provide 'information sufficient to permit a reasoned choice' between the preferred alternative and no action alternative." *Id.* at 1235. Similarly, here the BLM summarily concludes that it will continue to offer the leases in the future as if the agency has no control over the issue. The BLM provides no support for this conclusion. Thus, the BLM's discussion of the "no action" alternative cannot satisfy the required "hard look" standard required by NEPA.

V. Conclusion

In sum, the BLM's EA for the June 2018 lease sales in the High Desert District Office does not comply with the requirements of the Clean Air Act because it fails to include a conformity analysis. The BLM also fails to comply with NEPA and FLPMA because it 1) fails to complete an EIS for the lease sale, 2) improperly defers analysis to the APD stage, 3) fails to assess the new impacts that will result from the use of fracking and horizontal drilling, 4) fails to properly analyze direct and indirect greenhouse gas emissions, 5) omits a cumulative impacts analysis of the other lease sales occurring in surrounding western states, and 6) omits the social cost of carbon calculation or otherwise explain its absence. As a result, the BLM must defer leasing any of the nominated parcels until it corrects these deficiencies as provided for under the MLA.

Sincerely,



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