

FAX COVER SHEET

TO	BLM Utah State Director
COMPANY	WildEarth Guardians
FAX NUMBER	18015394237
FROM	WildEarth Guardians
DATE	12/15/2014 5:02:14 PM MST
RE	Fwd: Protest of February 2012 lease sale

COVER MESSAGE

----- Forwarded message -----

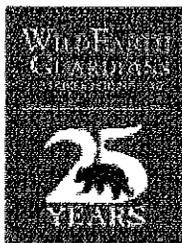
From: WildEarth Copier <copier@wildearthguardians.org>

Date: Mon, Dec 15, 2014 at 3:58 PM

Subject: Protest of February 2012 lease sale

To: BLM Utah State Director{WildEarth Guardians} <18015394237@efaxsend.com>

If there are any questions, please contact Erik Molvar at (307) 399-7910.



December 15, 2014

Utah State Director
Bureau of Land Management
440 West 200 South, Suite 500
Salt Lake City, UT 84101

Via FAX to 801-539-4237

**RE: PROTEST OF CERTAIN PARCELS TO BE OFFERED AT
BLM'S FEBRUARY 2015 COMPETITIVE OIL & GAS LEASE SALE**

Dear State Director:

In accordance with 43 C.F.R. §§ 4.450-2 and 3120.1-3, WildEarth Guardians and Rocky Mountain Wild protest certain parcels being offered at the Bureau of Land Management's (BLM) February 2015 Utah competitive oil and gas lease sale.

This protest is based on concerns over leasing lands adjacent to Gunnison sage grouse habitats. Given that a plan revision process is underway and significant impacts to Gunnison sage grouse and their habitats could occur as a result of leasing neighboring lands for oil and gas development, BLM should defer these parcels so that it does not foreclose on alternatives that could be considered in these pending NEPA processes. This protest is also based on failures by the BLM to adequately consider the social cost of carbon, as well as potentially significant impacts of hydraulic fracturing and related processes on groundwater aquifers.

We appreciate the fact that the BLM has begun to implement the Interior leasing reforms. We are pleased to have had the opportunity to comment on the EA prior to the lease sale. However, some of our concerns remain insufficiently addressed by the NEPA documents thus far, and so we are protesting certain parcels to be offered at the February 2015 lease auction. We also appreciate that BLM has elected to defer 29 parcels totaling 25,419 acres, situated in Gunnison sage grouse habitats and other sensitive lands, as a credit to the BLM's effort to move toward balance.

I. THE PARTIES

WildEarthGuardians (Guardians) is a non-profit conservation group with thousands of members in Colorado and other states. Guardians is dedicated to protecting wildlife, wild rivers, and wild places throughout the American West. Guardians has a particular interest in the conservation of greater sage grouse, and has a Sagebrush Sea Campaign dedicated to the protection and recovery of this bird and other species inhabiting sagebrush steppe ecosystems. Members of Guardians utilize land and water resources within and near these areas for hiking, camping, recreational, scientific study, photography, and aesthetic uses. Guardians and its members are actively involved in BLM oil and gas activities in this region and participate in National Environmental Policy Act (NEPA) stages of BLM oil and gas leasing and projects by submitting comments. Guardians has a long record of advocating for preventing the impacts of oil and gas development from destroying lands and wildlife in Colorado and throughout the West. As a consequence, Guardians and its members would be adversely affected by the sale of the lease parcels being protested here and they have an interest in this matter.

Rocky Mountain Wild is dedicated to conserving and recovering native and naturally functioning ecosystems in the Greater Southern Rockies and Plains. Its members value the clean water, fresh air, healthy communities, sources of food and medicine, and recreational opportunities provided by native biological diversity. RMW passionately believes that all species and their natural communities have the right to exist and thrive. Rocky Mountain Wild uses the best available science to forward its mission through participation in policy, administrative processes, legal action, public outreach and organizing, and education.

II. THE ISSUES

AT RISK: WILDLIFE, OPEN SPACES, AND CLEAN AIR AND WATER

Oil and gas activities on the public lands at issue herein are quickly escalating. BLM is approving record numbers of large oil and gas development projects across the West. The lands at issue here are mostly federal lands managed by BLM. Many of these lands provide critical habitat for a number of species, ranging from sage grouse, to mule deer, to severely imperiled species, such as fish species in the Green/Colorado River Basin and Platte River Basin, and sage grouse on the sagebrush country. Many of the BLM lands at issue serve as quiet, serene places of natural beauty and solitude, and as such, they provide excellent recreational opportunities for hiking, birding, wildlife viewing, hunting, fishing, backpacking, and enjoyment of open spaces.

The explosion of oil and gas development on these lands threatens all of the above resources, for which BLM has a mandatory duty to protect for "multiple use." Oil and gas development has and will lead to fragmented habitat and surface disturbances through well pad construction, oil and gas well rigs, increased vehicular traffic, miles of roads, pipelines and power lines, and noise from generators and compressor stations. All of these associated activities serve to disrupt habitat, destroy nesting and brooding grounds, and disturb wildlife.

These activities can significantly impact elk, mule deer, pronghorn antelope, and sage grouse, as well as many other species that live there. Many of these lands serve as critical breeding and nesting habitat near sage grouse leks. Many rare species find some of their last secure refuges on these lands.

Protestors realize, of course, that a lease itself does not necessarily create immediate disturbances, but as BLM well knows, if a lease is not subject to a "No Surface Occupancy" (NSO) stipulation, the lessee receives contractually-enforceable surface use rights. 43 C.F.R. § 3101.1-2. In other words, once a lease is sold, the cat is out of the bag, putting sensitive resources which have yet to be properly considered through site-specific NEPA analysis at risk of significant and potentially unacceptable harm. Because it represents an irretrievable and irreversible commitment of resources, the leasing stage is extremely critical. We are deeply concerned that the BLM has characterized the act of mineral leasing as little more than a paper transaction when, in reality, it is an important, legally consequential event that commits lands to a particular use.

III. FAILURE TO PROVIDE ADEQUATE PROTECTIONS FOR GUNNISON SAGE GROUSE

We protest Parcel UTU90964, which is shown to be adjacent to Gunnison sage grouse occupied habitat, including brood-rearing and winter use areas. The EA fails to consider the impact of leasing and development directly adjacent to this important habitat. Even though this parcel may not be listed as encompassing the bird's habitat, it will still have impacts on the species. It is unrealistic to expect the grouse to stay within the determined habitat boundaries. Portions of occupied habitat will be impacted by developing this parcel.

Holloran (2005) found that several types of oil and gas infrastructure sited within 1.9 miles of the lek site had a negative impact on populations of breeding males on the lek; these infrastructure feature include both wellpads during the post-drilling, production phase and gravel trunk roads leading to five or more wellpads.¹ Walker et al. (2007) also documented that coalbed methane well development within 3.2 km (1.9 miles) of leks was correlated with significant population declines.² An analysis in Hanser et al. (2011: 89) also indicated 3.2 km (1.9 miles) as the avoidance zone around active wellpads for sage grouse.³ It is important to note that a single wellpad or road can cause significant impacts, and these impacts occur even in cases where roads are not visible from the lek site due to intervening terrain (Holloran 2005). Drilling activities can have significant impacts when wells are sited within 3 miles of leks (*id.*). Infrastructure can also have a negative impact on sage grouse during the brood-rearing period. Distances of impacts found in scientific studies were reviewed and summarized by Doherty et al. (2014, Attachment 1). Aldridge and Boyce (2009) found a significant depression of brood success within increasing density of oil and gas wells within 1 km of the nest site; wellfield areas were classified in this study as "attractive sinks" where grouse might select habitat but experience higher rates of

¹ Holloran, M. J. 2005. Greater sage-grouse (*Centrocercus urophasianus*) population response to natural gas field development in western Wyoming. PhD Dissertation. University of Wyoming. Laramie, Wyoming.

² Walker, B.L., D.E. Naugle, and K.E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71(8):2644-2654.

³ Wyoming Basins Ecoregional Assessment, online at http://sagemap.wr.usgs.gov/Docs/WBEA/wbea_book_15mb.pdf

mortality. For Gunnison sage grouse, Aldridge et al. (2012) recommended that developments be sited at least 1.5 km away from any nesting habitat. See Attachment 2.

The leasing EA states "information is not anticipated to be available until a decision is made by the USFWS regarding the potential listing of the species." However, on November 20, 2014, the Fish and Wildlife Service issued its decision to list this species as a 'threatened species.' The information contained within that listing decision represents new information and the best available science regarding the species. The listing of this species also creates an obligation for BLM to consult with the USFWS pursuant to Section 7 of the Endangered Species Act. Failure to consult regarding the impacts to this listed species is a violation of the ESA.

In accordance with WO IM 2010-117, "the State Directors have discretion to temporarily defer leasing on specific tracts of land based on information under review during planning." BLM should defer leasing this parcel until further environmental analysis can be done which considers this new and updated information. Leasing of the parcel without adequate environmental analysis considering the best available science is arbitrary, capricious, and a violation of law.

IV. FAILURE TO PROVIDE ADEQUATE PROTECTIONS FOR WHITE-TAILED AND GUNNISON PRAIRIE DOGS

We protest Parcel UTU90963, which overlaps with the Westwater white-tailed prairie dog colony, and Parcel UTU90969, which overlaps with the Little Valley Gunnison's prairie dog active colony. Both species of prairie dog are listed as a BLM Species of Concern. Drilling and production operations have potentially significant impacts on prairie dogs, through causing habitat loss and fragmentation, direct mortality from vehicle strikes, and causing dust pollution and chemical spills that negatively affect plant growth and habitat productivity, as well as offering additional perches for raptors, corvids, and other predators. The leasing EA states, "White-tailed prairie dogs will not [be] affected to a degree that detailed analysis is required and therefore impacts were not analyzed in this EA." EA at 70. BLM has violated NEPA by failing to analyze an impact based on a pre-determined assumption that a species will not be affected.

Further, NEPA analysis is not predicated on the degree of an impact. NEPA dictates that BLM take a "hard look" at the environmental consequences of a proposed action and the requisite environmental analysis "must be appropriate to the action in question." *Metcalf v. Daley*, 214 F.3d 1135, 1151 (9th Cir. 2000); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989). In order to take the "hard look" required by NEPA, BLM is required to assess impacts that include: "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, *whether direct, indirect, or cumulative.*" 40 C.F.R. § 1508.8 (emphasis added). "[C]umulative impact analysis must be timely. It is not appropriate to defer consideration of cumulative impacts to a future date when meaningful consideration can be given now." *Kern v. US. Bureau of Land Management*, 284 F.3d 1062, 1075 (9th Cir. 2000); *Neighbors of Cuckly Mountain v. United States Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998); *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312-1313 (9th Cir. 1990). "In determining the scope of the required NEPA analysis, an agency must consider not only the proposed action, but also

three types of related actions – ‘connected actions’, similar ‘actions’, and ‘cumulative actions’. 40 C.F.R. 1508.25(a). “Cumulative actions” are those which when viewed with other proposed actions have cumulatively significant impacts. *Id.* at 1508.25(a)(2). Significance 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. 40 C.F.R. 1508.27 (b)(7). Prior to leasing the above listed parcels, BLM must analyze the impacts of its decision on these prairie dog species. Failure to do this is arbitrary, capricious, and a violation of NEPA.

In a recent Court Order dated September 29, 2014, Federal District Court Judge Donald Molloy, remanded the negative 12-month finding for the white-tailed prairie dog back to FWS for further consideration. One of the main threats highlighted in that litigation was the impact of oil and gas development. Leasing of this parcel should be deferred until FWS completes a new 12-month finding.

Rocky Mountain Wild protested the RMPs for the Moab, Price, and Vernal Field Offices due to inadequate consideration of white-tailed prairie dogs in the adopted management alternatives. In these protests we argued that the 660-foot boundary (UT-S-218) is arbitrary and inadequate to protect the species and ensure its recovery from its current population decline. We ask BLM to implement at least a half-mile No Surface Occupancy stipulation for prairie dog colonies (or at least analyze this more protective buffer in the final EA). Since analysis of impacts to prairie dogs was not completed in the leasing EA, the adequacy of this lease stipulation cannot be known. BLM must complete an adequate NEPA analysis of the impacts of leasing these parcels on the prairie dogs as its current leasing decision is arbitrary, capricious, and contrary to law.

V. BLM FAILED TO ADEQUATELY ANALYZE AND ASSESS GREENHOUSE GAS EMISSIONS AND CLIMATE IMPACTS

The BLM’s EA completely fails to address the greenhouse gas and climate impacts of the proposed leases, even though these impacts have the potential to be significant and clearly are a relevant and significant issue with regards to the leasing of oil and gas.

This omission is shocking because even other BLM Field Offices in the region are at least taking some steps to acknowledge the potential climate implications of oil and gas leasing and even taking steps to reasonably quantify potential greenhouse gas emissions, including emissions of carbon dioxide, methane, and nitrous oxide. For example, in Colorado’s Royal Gorge Field Office, the BLM at least took steps to disclose potential climate impacts and greenhouse gas emissions associated with its upcoming May 2015 oil and gas lease sale in its analysis and assessment of air quality impacts. See Attachment 3, Excerpt from BLM, “Environmental Assessment for the RGFO May 2015 Competitive Oil and Gas Lease Sale,” DOI-BLM-CO-FO2-2014-049-EA (full EA available at [file:///Users/rmcleanair/Desktop/May%2015%20RGFO%20lease%20sale%20\(pre-public%20draft,cs0%20edits%20incorporated\).pdf](file:///Users/rmcleanair/Desktop/May%2015%20RGFO%20lease%20sale%20(pre-public%20draft,cs0%20edits%20incorporated).pdf)). The BLM disclosed in this recent analysis, for example, that, “Subsequent development of any leases sold would result in both short and longer term incremental increases in overall emissions of pollutants, including GHGs [greenhouse

gases].” Attachment 3 at Unnumbered pages 12-13. The agency also estimated potential greenhouse gas emissions on a per well basis.

Although we disagree that the Royal Gorge Field Office sufficiently disclosed potentially significant climate and greenhouse gas impacts such that FONSI is justified, nevertheless, clearly the Canyon Country District of the BLM can and must do more than it did in the EA justifying the February 2015 Utah oil and gas lease sale. Below, we detail further the shortcomings of the BLM in addressing greenhouse gas and climate impacts.

The EA Presents no Estimate of Reasonably Foreseeable Greenhouse Gas Emissions

As noted above, the EA presents no estimate of greenhouse gas emissions that are a reasonably foreseeable consequence of issuing the proposed leases. In Appendix C to the EA, the BLM dismisses taking any steps to acknowledge, even on a qualitative basis, the likely greenhouse gas emissions that would result. See EA at 133-134. Yet this dismissal is wholly unsupported. The agency seems to dismiss disclosing greenhouse gas emissions because of its perception that analyzing climate impacts is not possible. Estimating the amount of greenhouse gas emissions that would result, however, is possible and relevant to the ultimate impacts of the proposed leasing. The BLM may believe that analyzing climate impacts is not possible (unjustifiably, as will be explained further), but this has no bearing on the agency’s ability to estimate reasonably foreseeable emissions. The failure to disclose greenhouse gas emissions indicates the BLM failed to adequately analyze and assess impacts and has not justified the issuance of a FONSI under NEPA.

The BLM Inappropriately Rejected Addressing Climate Impacts

The BLM’s assertions in Appendix C that analyzing and assessing the climate implications of oil and gas leasing is not possible are completely unsupported. Not only can the agency disclose potential greenhouse gas emissions, but the BLM can also assess the climate impacts related to greenhouse gas emissions using the social cost of carbon protocol.

The social cost of carbon protocol 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).” Attachment 4, U.S. Environmental Protection Agency (“EPA”), “Fact Sheet: Social Cost of Carbon” (Nov. 2013) at 1, available online at <http://www.epa.gov/climatechange/Downloads/EPAactivities/scc-fact-sheet.pdf>.

In 2009, an Interagency Working Group was formed to develop the protocol and issued final estimates of carbon costs in 2010. See 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 <http://www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf>. These estimates were revised in 2013 by the Interagency Working Group, which at the time consisted of 13 agencies, including the Department of Agriculture and Council on Environmental Quality. See Attachment 5, 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 <http://www.whitehouse.gov/sites/default/files/omb/assets/foreg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf>. 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 \$11 to \$220 per metric ton of carbon dioxide. See Table below. In July 2014, the U.S. Government Accountability Office confirmed that the Interagency Working Group's estimates were based on sound procedures and methodology. See Attachment 6, GAO, "Regulatory Impact Analysis, Development of Social Cost of Carbon Estimates," GAO-14-663 (July 2014), available online at <http://www.gao.gov/assets/670/665016.pdf>.

Social Cost of CO₂, 2015-2050^a (in 2011 Dollars)

Year	Discount Rate and Statistic			
	5% Average	3% Average	2.5% Average	3% 95 th percentile
2015	\$12	\$39	\$61	\$116
2020	\$13	\$46	\$68	\$137
2025	\$15	\$50	\$74	\$153
2030	\$17	\$55	\$80	\$170
2035	\$20	\$60	\$85	\$187
2040	\$22	\$65	\$92	\$204
2045	\$26	\$70	\$98	\$220
2050	\$28	\$76	\$104	\$235

^a The SCC values are dollar-year and emissions-year specific.

Although often utilized in the context of agency rulemakings, the protocol has been recommended for use in project-level decisions. For instance, the EPA recommended that a final 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." See Attachment 7, U.S. EPA, Comments on Supplemental Draft EIS for the Keystone XL Oil Pipeline (June 6, 2011), available online at [http://yosemite.epa.gov/oeca/web/eis.nsf/\(PDFView\)/20110125/\\$file/20110125.PDF?OpenElement](http://yosemite.epa.gov/oeca/web/eis.nsf/(PDFView)/20110125/$file/20110125.PDF?OpenElement). Furthermore, there is no indication that the social cost of carbon protocol would not be appropriate for project-level decisions. As a recent ruling from the U.S. District Court for the District of Colorado found, there is no reason to believe that the "protocol [is] inaccurate or not useful" in the context of project level decisions. *High Country Conservation Advocates, et al. v. U.S. Forest Service, et al.*, F.Supp.2d---, 2014 WL 20922751 at 11 (D. Colo. 2014).

To be certain, the social cost of carbon protocol presents a conservative estimate of the economic impacts of climate change. As the EPA has noted, the protocol "does not currently include all important [climate change] damages." Attachment 4 at 1. As the EPA explained,

"The models used to develop SCC [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.* Nevertheless, as the EPA states, "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. *Id.*

That the economic impacts of climate change, as reflected by an assessment of social cost of carbon, should be a significant consideration in agency decisionmaking, is emphasized by a recent White House report, which warned that delaying carbon reductions would yield significant economic costs. *See* Attachment 8, Executive Office of the President of the United States, "The Cost of Delaying Action to Stem Climate Change" (July 2014), available online at http://www.whitehouse.gov/sites/default/files/docs/the_cost_of_delaying_action_to_stem_climate_change.pdf.

This report from the White House follows on the heels of a Presidential Executive Order issued in 2009, which makes the "reduction of greenhouse gas emissions a priority for federal agencies." Executive Order 13514, Preamble. To effect this goal, the Executive Order directs federal agencies, including the BLM, to, among other things, "prioritize actions based on a full accounting of both economic and social benefits and costs" and to "accurately and consistently quantify and account for greenhouse gas emissions," including "emissions of greenhouse gases resulting from Federal land management practices." *Id.* at Section 1 and 9(a). To fulfill the requirements of Executive Order 13514, it is absolutely imperative for the BLM to quantify greenhouse gas emissions and the costs of additional carbon emissions using the social cost of carbon protocol.

The need for the BLM to analyze and assess climate impacts is underscored by the fact that the RMPs for the Monticello and Moab Field Offices, as well as the associated Final Environmental Impact Statements, do not address these impacts with regards to the reasonably foreseeable oil and gas development likely to occur over 15 years. The BLM did not address potential greenhouse gas emissions associated with oil and gas development and certainly did not analyze and assess climate impacts using the social cost of carbon protocol. The lack of a programmatic analysis and assessment of greenhouse gas and climate impacts based on the reasonably foreseeable development authorized by the RMPs underscores that the EA fails to fully address all direct, indirect, and cumulative impacts, and therefore that a FONSI is not justified.

The BLM cannot justify a FONSI or the leasing of the proposed parcels unless and until it fully analyzes and assesses the greenhouse gas emissions and carbon costs associated with reasonably foreseeable development. Although the agency may assert that future development is speculative, this claim is specious. The BLM has not proposed to adopt any condition or stipulation that would require future climate/greenhouse gas analyses and/or allow the agency to prohibit development on the basis of such analyses. Thus, the agency is irreversibly and irretrievably committing resources and therefore cannot punt on this issue and foreclose the opportunity to conduct meaningful analysis under NEPA and constrain development accordingly.

VI. THE EA FAILS TO ANALYZE AND ASSESS THE IMPACTS OF HYDRAULIC FRACTURING

The BLM has not adequately analyzed and assessed the impacts of hydraulic fracturing, or fracking, associated with development of the proposed oil and gas leases, as required by NEPA. Of particular concern is that the agency has not adequately addressed the impacts of horizontal drilling and fracking of shale formations, which the oil and gas industry is increasingly utilizing in this area of Utah. As recent news reports have revealed, industry is increasingly eyeing shale formations in the Paradox Basin of southern Utah for horizontal drilling and fracking. See Attachment 9, O'Donoghue, Amy Joi, "Striking a balance: Moab's future hinges on energy and recreation," Deseret News (April 15, 2014). Disturbingly, this development pressure comes even as the BLM has never addressed the programmatic environmental impacts of horizontal drilling in the Canyon Country District in NEPA and here, has not addressed the unique impacts associated with this development.

This is disconcerting as horizontal drilling and fracking carries with it unique risks and impacts that have never before been contemplated by the BLM. These impacts include, but are not limited to:

- Water consumption impacts: According to recent Final EIS prepared by the U.S. Forest Service, more than 50 acre-feet of water are required to drill and frack one horizontal shale well in the Niobrara Formation in Colorado. U.S. Forest Service, "Pawnee National Grassland Oil and Gas Leasing Analysis Final Environmental Impact Statement" (December 2014) at 77, available online at http://a123.g.akamai.net/7/123/11558/abc123/forestservic.download.akamai.com/11558/www/nepa/95573_FSP113_2393686.pdf. Furthermore, water used for fracking can never again be used (it must either be recycled for fracking or injected underground for disposal). The BLM has never addressed the water consumption impacts of drilling and fracking shale in the Paradox Basin.

- Water quality impacts: The water quality impacts of horizontal drilling and fracking appear to be highly uncertain and unique, with increased risks of surface and groundwater contamination associated with well stimulations and production. An analysis recently prepared by the U.S. Forest Service disclosed three key sources of potential water quality contamination. First, hydraulic fracturing may produce fissures that allow fluids to migrate into water sources. Second, the well casing might fail, allowing fluids to escape into underground drinking water. Third, accidental spills at the surface could contaminate surface water or seep into groundwater. As the Forest Service explained:

Hydraulic fracturing fluids, oil, gasoline, and other chemicals are handled above ground before and after injection. This creates a contamination risk from spills, run-off, or seepage. Spills are somewhat common in oil and gas development. Of the 43 publically reported incidents, 14 were related to surface spills. In addition, the Colorado Oil and Gas Conservation Commission (COGCC) maintains a database of spills. Using this database, it has been reported that during 2014 there were an average of two spills per day in

Colorado, 521 from January 2014 through July 2014, and 575 in 2013. In addition, some of these spills affected groundwater and surface water.

See Attachment 10 at 40. To date, the BLM has not analyzed or assessed the water quality impacts of horizontal drilling and fracking in the Canyon Country District.

- Air quality impacts: According to disclosures from both the BLM and the U.S. Forest Service, horizontally drilled and fracked wells release more air pollution than conventional oil and gas wells due to the need for heavier equipment, more energy intensive hydraulic fracturing operations, and increased fuel consumption. Of particular concern are the release of nitrogen oxides (“NO_x”) and volatile organic compounds (“VOCs”), which are key ozone precursor emissions. The U.S. Environmental Protection Agency recently proposed stronger standards for ground-level ozone, heightening concerns over the impacts of drilling and fracking to air quality in southern Utah. See Attachment 11, U.S. EPA, “Overview of EPA’s Proposal to Update the Air Quality Standards for Ground-level Ozone.”

- Greenhouse gas emissions/climate impacts: Studies report that the carbon footprint of horizontal wells is greater than the footprint of vertical or conventional oil and gas wells. This is not only due to the fact that horizontal drilling and fracking requires more energy, thereby requiring more fuel, equipment, etc., but also due to higher methane emissions. A report published recently, for example, explains, “The GIIG [greenhouse gas] footprint of shale gas is significantly larger than that from conventional gas, due to methane emissions with flow-back fluids and from drill out of wells during well completion.” Attachment 12, Howarth, R.W., et al. (2011), Methane and the greenhouse-gas footprint of natural gas from shale formations, *Climatic Change*, 106:679-690 at 688, available online at <http://www.acsf.cornell.edu/Assets/ACSF/docs/attachments/Howarth-EtAl-2011.pdf>. Although this recent report related to the development of natural gas from shale, the findings are equally applicable to shale oil development, in particular the proposed APDs, given that oil wells also produce gas.

More importantly, reports emphasize that considerable uncertainty exists around the environmental impacts of horizontal drilling and fracking, particularly of shale formations. For example, as the Government Accountability Office (“GAO”) reported in 2012, while oil and gas development poses inherent environmental and public health risks, the extent of these risks associated with shale oil and gas development is “unknown.” GAO, “Oil and Gas, Information on Shale Resources, Development, and Environmental and Public Health Risks,” GAO-12-732 (Sept. 2012), available online at <http://www.gao.gov/assets/650/647791.pdf>.

At the least, this information underscores that since the adoption of the RMPs, our understanding of the potentially significant impacts of oil and gas development has advanced considerably. To this end, it is clear that these past programmatic NEPA documents, as applied to site-specific actions such as the proposed leases, no longer sufficiently disclose potentially significant impacts related to oil and gas development such that the BLM can reasonably rely upon them in justifying a Finding of no Significant Impact (“FONSI”).

VII. CONCLUSION AND REQUEST FOR RELIEF

For the foregoing reasons, WildEarth Guardians and Rocky Mountain Wild request that the protested parcels not be offered for sale at the February 2015 competitive oil and gas lease sale. If BLM declines to withdraw the protested wilderness parcels, then we request that at the minimum, *adequate* protective stipulations be placed on the leases before the lease sale in order to provide protection for wildlife, air quality, water quality, and other special resources.

Respectfully submitted,



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List of Attachments:

1. USGS paper on lek buffers
2. Aldridge et al. (2012) study on anthropogenic impacts to Gunnison sage grouse
3. Royal Gorge Field Office EA except
4. EPA fact sheet
5. Social cost of climate change report
6. GAO report on oil shale development
7. EPA Keystone XL letter
8. Executive Office of the President Cost of Delaying Action on Climate Change
- 9.