WILDEARTH GUARDIANS
A FORCE FOR NATURE

March 14, 2015

Via Overnight Delivery

Juan Palma
State Director
U.S. Bureau of Land Management
Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101

BLM - UT - 950
2015 MAR 16 AM 10 25

Re: Protest of May 2015 Competitive Oil and Gas Lease Sale

Dear Mr. Palma:

Pursuant to 43 C.F.R. § 3120.1-3, WildEarth Guardians hereby protests the Bureau of Land Management's ("BLM's") proposal to offer 14 publicly owned oil and gas lease parcels covering 15,264.5 acres of land for competitive sale on May 19, 2015. These lease parcels include the following, as identified by the BLM's in its Final May 2015 Oil and Gas Sale List:[1]

Lease Serial Number	Acres	Field Office	County
UTU91055	947.12	Richfield	Sevier
UTU91056	2,046.35	Richfield	Sevier
UTU91057	1,217.28	Richfield	Sevier
UTU91058	1,921.745	Richfield	Sevier
UTU91059	1,021.59	Richfield	Sevier
UTU91060	1,172.53	Richfield	Sevier
UTU91061	722.43	Cedar City	Beaver
UTU91062	1,038.60	Cedar City	Beaver
UTU91063	160.00	Cedar City	Beaver
UTU91064	1,200	Cedar City	Beaver
UTU91065	2,198.84	Richfield	Sanpete/Sevier
UTU91066	764.29	Richfield	Sevier
UTU91067	640.00	Richfield	Sevier
UTU91068	213.72	Vernal	Uintah

[1] This list is available on the BLM's website at http://www.blm.gov/style/medialib/blm/ut/lands_and_minerals/oil_and_gas/may_2015.Par.51065.File.dat/SaleList.pdf.

STATEMENT OF INTEREST

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 conveys the right for the oil and gas industry to develop publicly owned minerals. More specifically, Guardians has an interest in ensuring the BLM meaningfully and genuinely takes into account the climate implications of its oil and gas leasing decisions and objectively and robustly weighs the costs and benefits of authorizing the release of more greenhouse gas emissions that are known to contribute to global warming. We also have an interest in ensuring the BLM reduces greenhouse gas emissions from direct and indirect activities pursuant to Executive Order 13,514, issued by President Obama on October 5, 2009, and other related policies and Executive mandates.

The mailing address for WildEarth Guardians to which correspondence regarding this protest should be directed is as follows:

WildEarth Guardians
1536 Wynkoop, Suite 310
Denver, CO 80202

STATEMENT OF REASONS

WildEarth Guardians protests the BLM's May 2015 oil and gas lease sale over the agency's failure to adequately analyze and assess the climate impacts of the reasonably foreseeable oil and gas development that will result in accordance with the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4331, *et seq*., and regulations promulgated thereunder by the White House Council on Environmental Quality ("CEQ"), 40 C.F.R. § 1500, *et seq*.

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," meaning 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. 40 C.F.R. § 1502.16(d). To this end, the agency must analyze the "direct," "indirect," and "cumulative" effects of its actions, and assess their significance. 40 C.F.R. §§ 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." 40 C.F.R. § 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. 40 C.F.R. § 1508.7.

An agency may prepare an environmental assessment ("EA") to analyze the effects of its actions and assess the significance of impacts. *See* 40 C.F.R. § 1508.9; *see also* 43 C.F.R. § 46.300. Where effects are significant, an Environmental Impact Statement ("EIS") must be prepared. *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).

Here, the BLM fell short of complying with NEPA with regards to analyzing and assessing the potentially significant climate impacts of oil and gas leasing. In support of its proposed leasing, the agency prepared three EAs, one for lease parcels in the Richfield Field Office (EANo. DOI-BLM-UT-C020-2014-036-EA), one for lease parcels in the Cedar City Field Office (EA No. DOI-BLM-UT-C010-2015-0009-EA), and one for the lease parcel in the Vernal Field Office (EA No. DOI-BLM-UT-G010-2014-093-EA). In two EAs, Richfield and Vernal, the BLM generally acknowledged that climate change is a very serious issue and that it is being fueled by the release of human-produced greenhouse gas emissions. *See* Richfield EA at 17 and Vernal EA at 17. Further, in at least one EA, the BLM acknowledged that increased greenhouse gas emissions "are likely to accelerate the rate of climate change." Richfield EA at 17. However, in both EAs, the BLM failed to even analyze the reasonably foreseeable emissions that would result from selling oil and gas lease parcels, as well as failed to assess the significance of any emissions.

Yet in both the Cedar City and Richfield EA, the BLM asserted that, "there is substantial amount of professional disagreement and uncertainty as to what impacts greenhouse gas (GHG) emissions have on climate[.]" Cedar City EA at 62-63, Richfield EA at 68. This, despite the fact that there is nearly unanimous scientific agreement over the impacts that greenhouse gas emissions have on the climate. *See* Exhibit 1, NASA, "Consensus: 97% of Climate Scientists Agree," website available at http://climate.nasa.gov/scientific-consensus/ (last accessed March 13, 2015). Further, as President Obama acknowledged in his 2014 State of the Union address, "[T]he debate is settled. Climate change is a fact." Exhibit 2, "President Barack Obama's State of the Union Address," website available at https://www.whitehouse.gov/the-press-office/2014/01/28/president-barack-obamas-state-union-address (last accessed March 13, 2015). If the Cedar City Field Office believes that 97% scientific agreement and explicit Presidential acknowledgement of this science represents a "substantial amount of professional agreement," then the BLM has a serious mutiny on its hands.

In any case, the BLM has completely failed to provide information and analysis, even brief information and analysis, supporting a FONSI and any decision to sell and issue the aforementioned lease parcels. Either the BLM must prepare an EIS or it cannot proceed with the lease sale as proposed. Below, we detail how BLM's proposal fails to comply with NEPA.

1. **The BLM Failed to Analyze and Assess the Direct, Indirect, and Cumulative Impacts of Greenhouse Gas Emissions that Would Result from Issuing the Proposed Lease Parcels**

In all three EAs, the BLM completely rejected analyzing and assessing the potential direct and indirect greenhouse gas emissions, including carbon dioxide and methane, that would result from the reasonably foreseeable development of the proposed leases. Although acknowledging that development of the lease parcels would occur and that greenhouse gas emissions would be produced, no analysis of these emissions was actually prepared. For instance, in the Cedar City EA, the BLM states that, "[L]easing the parcels would lead to some type of exploration that would have indirect effects on global climate through GHG [greenhouse gas] emissions." Cedar City EA at 51.[2]

The BLM provides varied excuses for avoiding an actual analysis of potential greenhouse gas emissions. In all cases, these excuses do not to remedy the agency's failings.

In both the Cedar City and Richfield EAs, the BLM asserts that, while it is possible to estimate reasonably foreseeable greenhouse gas emissions, such estimates "would be highly speculative and add little or no value to ensuring a well-informed May 2015 oil and gas lease sale decision." Cedar City EA at 64, Richfield EA at 70. This assertion is specious at best, particularly given that other BLM Field Offices, including, but not limited to, the Four Rivers Field Office in Idaho, the Billings Field Office in Montana, the Miles City Field Office in Montana, the Royal Gorge Field Office in Colorado, and others have not only estimated reasonably foreseeable greenhouse gas emissions associated with the development of oil and gas leases, but clearly do not believe that such information is so speculative that it "add[s] little or no value to ensuring a well-informed" decision under NEPA.

In the Four Rivers Field Office of Idaho, the BLM utilized an emission calculator developed by air quality specialists at the BLM National Operations Center in Denver to estimate likely greenhouse gases that would result from leasing five parcels. *See* Exhibit 3, BLM, "Little Willow Creek Protective Oil and Gas Leasing," EA No. DOI-BLM-ID-B010-2014-0036-EA (February 10, 2015) at 41, available online at https://www.blm.gov/epl-front-office/projects/nepa/39064/55133/59825/DOI-BLM-ID-B010-2014-0036-EA_UPDATED_02272015.pdf (last accessed March 13, 2015). Relying on a report prepared in 2014 for the BLM by Kleinfelder Inc., which estimated oil and gas well emissions throughout the western United States, the agency estimated that 2,893.7 tons of carbon dioxide equivalent ("CO_2e") would be released per well. *Id.* at 35.[3] Based on the analyzed alternatives, which

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[2] In the Vernal EA, the BLM does not even mention that greenhouse gas emissions are a reasonably foreseeable impact of development of the proposed oil and gas leases.

[3] The Kleinfelder report cited by BLM in the EA for the Idaho oil and gas lease sale is referenced by the agency as follows:

> Kleinfelder, Inc., and Environ International Corporation. 2014. Air emissions inventory for a representative oil and gas well in the western United States. Developed under contract with the Bureau of Land Management, updated March 21, Littleton, CO.

Exhibit 1 at 90. Despite requests to Idaho BLM, this report has not yet been provided to WildEarth Guardians. The BLM explains that the Kleinfelder report, "provides detailed emission estimates of criteria pollutants, greenhouse gases (GHG), and key hazardous air pollutants (HAPs) anticipated to be released during each phase of oil and gas development for a representative oil and gas well in the United States." Exhibit 1 at 113.

projected between 5 and 25 new wells, the BLM estimated that total greenhouse gas emissions would be between 14,468.5 tons and 72,342.5 tons annually. *Id.*

In both the Billings and Miles City Field Offices of Montana, the BLM estimated likely greenhouse gas emissions from development of oil and gas leases. To do so, the agency first calculated annual greenhouse gas emissions from oil and gas activity within the Field Offices. *See* Exhibit 4, BLM, "Environmental Assessment for October 21, 2014 Oil and Gas Lease Sale," DOI-BLM-MT-C020-2014-0091-EA (May 19, 2014) at 51, available online at http://www.blm.gov/style/medialib/blm/mt/blm_programs/energy/oil_and_gas/leasing/lease_sales/2014/oct__21_2014/july23posting.Par.88257.File.dat/BiFO%20Oct%202014%20EA.pdf (last accessed March 13, 2015) and Exhibit 5, BLM, "Environmental Assessment for October 21, 2014 Oil and Gas lease Sale," DOI-BLM-MT-0010-2014-0011-EA (May 19, 2014) at 47, available online at http://www.blm.gov/style/medialib/blm/mt/blm_programs/energy/oil_and_gas/leasing/lease_sales/2014/oct__21_2014/july23posting.Par.25990.File.dat/MCFO%20EA%20October%202014%20Sale_Post%20with%20Sale%20(1).pdf (last accessed March 13, 2015). The BLM then calculated total greenhouse gases by assuming that the percentage of acres to be leased within the federal mineral estate of the Field Offices would equal the percentage of emissions. *Id.* Although we have concerns over the validity of this approach to estimate emissions (an "acre-based" estimate of emissions is akin to estimating automobile emissions by including junked cars, which has the misleading effect of reducing the overall "per car" emissions), nevertheless it demonstrates that the BLM has the ability to estimate reasonably foreseeable greenhouse gas emissions associated with oil and gas leasing and that such estimates are valuable for ensuring a well-informed decision.[4]

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 6, 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 emissions of carbon dioxide and methane on a per-well basis and estimated the total number of wells that could be developed in these seven parcels. *See* Exhibit 6 at 3 and 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 7, 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), available online at http://www.blm.gov/style/medialib/blm/co/information/nepa/air_quality.Par.97516.File.dat/CAR

[4] In addition to the Billings and Miles City Field Offices, the BLM estimated greenhouse gas emissions associated with oil and gas leasing in the Butte and Dillon Field Offices.

MMS_Final_Report_w-appendices_012015.pdf (last accessed March 13, 2015).[5] As part of the CARMMS report, the BLM estimated 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

Using these CARMMS estimates, it appears relatively straightforward for the BLM to estimate total greenhouse gas emissions. In the case of the proposed lease parcels in the Richfield Field Office, the agency concluded that a reasonable estimate of development would be 10 wells (one per lease parcel) over the 10-year life of the lease. Presuming the wells are conventional, this would amount to a potential of up to 1,081 tons of carbon dioxide for construction (108.1 tons/year * 10 wells) and 25,190 tons of carbon dioxide annually for the life of the leases (251.9 tons/year * 10 wells * 10 years).

Although the BLM may assert that such greenhouse information is of "no value" because of its perceived "speculative" nature, there is no basis for such a claim. Using the agency's own logic, this would mean that any analysis of future environmental impacts would be of "no value" because future predictions are inherently uncertain. Of course, this would completely undermine NEPA's mandate that significance be based on "uncertain[ty]." 40 C.F.R. § 1508.27(b)(5). Indeed, if the climate impacts of oil and gas leasing are, as the BLM asserts, so uncertain, then an EIS is justified. As CEQ states, whether or not impacts are significant, and therefore trigger the need to prepare an EIS, are based on whether impacts are "highly uncertain or involve unique or unknown risks." *Id.* The BLM cannot summarily dismiss significant issues, such as climate change, on the basis of uncertainty without assessing whether this uncertainty necessitates preparation of an EIS.

In both the Cedar City and Richfield EAs, the BLM acknowledged that leasing would lead to emissions of greenhouse gases, but asserted that estimating such reasonably foreseeable emissions would be "unreasonable." Cedar City EA at 51-52, Richfield EA at 54. This argument holds no weight whatsoever as NEPA does not allow agencies to reject analyzing

[5] Although to date, the BLM has not yet provided WildEarth Guardians with the actual greenhouse gas inventory data prepared as part of the CARMMS report, the report states that while the data exists, it was not included in the report because the "modeling do[es] not use these emissions[.]" Exhibit 3 at 32. This inventory data is beginning to be cited by the BLM in oil and gas leasing EAs to disclose reasonably foreseeable cumulative emissions. For example, in the Little Snake Field Office of Colorado, the BLM estimated reasonably foreseeable carbon dioxide emissions from oil and gas development to be up to 828,987 tons per year. *See* Exhibit 8, BLM, "Environmental Assessment for the Little Snake Field Office February 2015 Competitive Oil & Gas Lease Sale," DOI-BLM-CO-N010-2014-0031-EA (August 2014) at 23.

impacts on the arbitrary basis that such analyses would be "unreasonable." To be certain, NEPA provides that data may be incomplete or unavailable. *See* 40 C.F.R. § 1502.22. However, CEQ regulations require that where such data is incomplete or unavailable, that an EIS is required and further state that, unless the costs are exorbitant, such incomplete or unavailable data must still be gathered. *Id.*

Regardless, the agency's arguments in the EAs are belied by the fact that, as just discussed, other BLM Field Offices clearly believe that an analysis of reasonably foreseeable greenhouse gas emissions is not only reasonable, but also possible and useful. Furthermore, even other land management agencies, including the U.S. Forest Service ("USFS"), are analyzing greenhouse gas emissions associated with oil and gas leasing decisions. In a recent Final EIS analyzing the impacts of oil and gas leasing on the Pawnee National Grassland in Colorado, the USFS reported that reasonably foreseeable oil and gas development would emit up to 127,440 tons of carbon dioxide and up to 6,068 tons of methane annually. *See* Exhibit 9, USFS, "Pawnee National Grassland Oil and Gas Leasing Analysis Final Environmental Impact Statement" (December 2014) at 188, available online at http://a123.g.akamai.net/7/123/11558/abc123/forestservic.download.akamai.com/11558/www/nepa/95573_FSPLT3_2393686.pdf (last accessed March 13, 2015). Even the Fishlake National Forest in Utah estimated greenhouse gas emissions from reasonably foreseeable development that would result form their oil and gas leasing decision. In a Final EIS prepared in 2013, the agency estimated that 365,336 metric tons of CO_2e would be released annually, not just from production and other related direct impacts, but also indirectly from transportation, refining, and ultimate consumption. *See* Exhibit 10, USFS, "Record of Decision and Final Environmental Impact Statement, Oil and Gas Leasing Analysis" (August 2013) at 169, available online at http://a123.g.akamai.net/7/123/11558/abc123/forestservic.download.akamai.com/11558/www/nepa/24321_FSPLT3_1452301.pdf (last accessed March 13, 2015).

In the Vernal EA, the BLM appears to assert that, based on its belief that greenhouse gas emissions would be "negligible," it is not obligated to analyze the reasonably foreseeable greenhouse gas emissions associated with leasing. It is difficult, if not impossible, to understand how the BLM could possibly assert that emissions would be negligible without having even prepared an estimate of emissions. NEPA does not allow agencies to dismiss impacts as insignificant without having prepared any analysis, even brief analysis, to justify such insignificance. The BLM also asserts that, "The assessment of greenhouse gas emissions and climate change remains in its earliest stages of formulation," seeming to imply that estimating emissions is somehow outside the realm of current understanding and ability. Vernal EA at 34. It is not clear on what this claim is based, as the BLM clearly has been capable of estimating greenhouse gas emissions and deriving reasonable insight into the potentially significant impacts of oil and gas leasing.

Overall, the BLM appears to believe that analyzing and assessing greenhouse gas emissions from the reasonably foreseeable impacts of oil and gas development is too speculative, and therefore not warranted. At the same time, in all three EAs, the BLM estimated likely emissions of non-greenhouse gases, including the criteria air pollutants nitrogen oxides ("NO_x") and volatile organic compounds ("VOCs"). *See* Cedar City EA at 29-30, Richfield EA at 24,

Vernal EA at 34. The BLM cannot assert that it was reasonable or appropriate to estimate these emissions, yet not reasonable or appropriate to estimate greenhouse gas emissions.

Adding to the shortcomings in the EAs is that the BLM failed to analyze the cumulative impacts of greenhouse gas emissions from past, present, and reasonably foreseeable oil and gas development. As noted above, other BLM Field Offices, including several Montana Field Offices and Colorado Field Offices, have analyzed the likely greenhouse gas emissions that would result based on the BLM's own reasonably foreseeable development scenarios. *See e.g.* Exhibit 5 at 51, Exhibit 8 at 23. In this case, the BLM has not made any attempt to estimate greenhouse gas emissions that would result from oil and gas development likely to occur under the agency's reasonably foreseeable development scenarios for the Cedar City, Richfield, and Vernal Field Offices.

The failure to address cumulative greenhouse gas emissions is made worse by the fact that the underlying Final EISs prepared for these Field Offices' Resource Management Plans nowhere analyze or assess greenhouse gas emissions associated with oil and gas development. In light of this, the BLM clearly has no basis to conclude that greenhouse gas emissions resulting from the reasonably foreseeable impacts of oil and gas development associated with the proposed leasing would not be significant. Without any analysis of cumulative greenhouse emissions whatsoever, the agency's proposed FONSIs are unsupported under NEPA.

2. The BLM Failed to Analyze the Costs of Reasonably Foreseeable Carbon Emissions Using Well-Accepted, Valid, Credible, GAO-Endorsed, Interagency Methods for Assessing Carbon Costs that are Supported by the White House

Compounding the failure of the BLM to make any effort to estimate the greenhouse gas emissions that would result from reasonably foreseeable oil and gas development is that the agency also rejected analyzing and assessing these emissions in the context of their costs to society. It is particularly disconcerting that the agency refused to analyze and assess costs using 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.

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 11, 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 (last accessed March 13, 2015). The protocol was developed by a working group consisting of several federal agencies, including the U.S. Department of Agriculture, EPA, CEQ, and others, with the primary aim of implementing Executive Order 12866, which requires that the costs of proposed regulations be taken into account.

In 2009, an Interagency Working Group was formed to develop the protocol and issued final estimates of carbon costs in 2010. *See* Exhibit 12, 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.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf (last accessed March 13, 2015). These estimates were then revised in 2013 by the Interagency Working Group, which at the time consisted of 13 agencies, including the Department of Agriculture. *See* Exhibit 13, 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://www.whitehouse.gov/sites/default/files/omb/inforeg/social_cost_of_carbon_for_ria_2013_update.pdf (last accessed March 13, 2015).

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* Chart Below. 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 14, 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 (last accessed March 13, 2015).

Revised Social Cost of CO_2, 2010 – 2050 (in 2007 dollars per metric ton of CO_2)

Discount Rate Year	5.0% Avg	3.0% Avg	2.5% Avg	3.0% 95th
2010	11	32	51	89
2015	11	37	57	109
2020	12	43	64	128
2025	14	47	69	143
2030	16	52	75	159
2035	19	56	80	175
2040	21	61	86	191
2045	24	66	92	206
2050	26	71	97	220

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 13 at 3.

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 15, EPA, Comments on Supplemental Draft EIS for the Keystone XL Oil Pipeline (June 6, 2011).

More importantly, the BLM has also utilized the social cost of carbon protocol in the context of oil and gas leasing. In recent Environmental Assessments for oil and gas leasing in Montana, the agency estimated "the annual SCC [social cost of carbon] associated with potential development on lease sale parcels." Exhibit 5 at 76. 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 3 at 81. 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 4. 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 16, Moore, C.F. and B.D. Delvane, "Temperature impacts on economic growth warrant stringent mitigation policy," *Nature Climate Change* (January 12, 2015) at 2. 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 4.

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* Exhibit 17, Executive Office of the President of the United States, "The Cost of Delaying Action to Stem Climate Change" (July 2014), available online at https://www.whitehouse.gov/sites/default/files/docs/the_cost_of_delaying_action_to_stem_climate_change.pdf (last accessed March 13, 2015). 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.

Exhibit 17 at 1.

The requirement to analyze the social cost of carbon is supported by the general requirements of NEPA, specifically supported in federal case law, and by Executive Order 13,514. As explained, NEPA requires agencies to take a analyze the consequences of proposed agency actions and consider include direct, indirect, and cumulative consequences. In terms of oil and gas leasing, an analysis of site-specific impacts must take place at the lease stage and cannot be deferred until after receiving applications to drill. *See New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 717-18 (10th Cir. 2009); *Conner v. Burford,* 848 F.2d 1441 (9th Cir.1988); *Bob Marshall Alliance v. Hodel,* 852 F.2d 1223, 1227 (9th Cir.1988).

To this end, 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. National Highway Traffic Safety Administration*, 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*, ---F. Supp.2d---, 2014 WL 2922751 (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 3 (citations omitted). In that case, the NEPA analysis included a quantification of benefits of the project. However, the quantification of the social cost of carbon, although included in earlier analyses, was omitted in the final NEPA analysis. *Id.* at p. 19. 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.* at pp. 19-20.

In addition to case law, Executive Order 13,514 makes the "reduction of greenhouse gas emissions a priority for federal agencies." Executive Order 13,514 at Preamble. The reduction of emissions includes emissions from both direct and indirect activities. *Id.* at Section 1. This

Executive Order requires that, "[i]n order to create a clean energy economy that will increase our Nation's prosperity, promote energy security, protect the interests of taxpayers, and safeguard the health of our environment," it is the "policy of the United States" that agencies "shall prioritize actions based on a full accounting of both economic and social benefits and costs." *Id.* When quantifying greenhouse gas emissions, the USFS is specifically instructed to "accurately and consistently quantify and account for greenhouse gas emissions" from sources controlled by the agency, including "emissions of greenhouse gases resulting from Federal land management practices." *Id.* at Section 9(a). The results of quantifying emissions from proposed federal land management actions, of fully accounting for all economic and social costs and benefits of those proposed actions, and the resulting prioritization of actions based on this quantification and accounting must be fully disclosed on publically available websites. *Id.* at Section 1.

In light of all this, it appears more than reasonable to have expected the BLM to take into account carbon costs as part of its NEPA analyses. The agency did not. Instead, the BLM rejected the notion that a social cost of carbon analysis was appropriate, implicitly concluding that there would be no cost associated with the proposed oil and gas leasing.

The BLM again provides varied responses for not addressing the social cost of carbon. In the Vernal EA, the agency asserts that calculating social cost of carbon is only appropriate during rulemaking. Vernal EA at 132-133. However, there is nothing to suggest that calculating social cost of carbon is not an appropriate means of analyzing and assessing greenhouse gas emissions at the project level. Not only has the EPA endorsed its use at the project-level, but the federal court in *High Country Conservation Advocates* expressly found there was no support for the assertion that the social cost of carbon protocol was inaccurate or otherwise not useful at the project level. *See High Country Conservation Advocates* at p. 19.

In both the Cedar City and Richfield EAs, the BLM flippantly dismisses the notion of carbon costs, claiming "there is a substantial amount of professional disagreement and uncertainty as to what impacts greenhouse gas (GHG) emissions have on climate and, as a result, it is not possible to determine what social costs, if any, could be caused by emissions of GHGs." Cedar City EA at 62, Richfield EA at 68. This statement is simply false as there are clearly means of determining the social cost of carbon and there is not a "substantial amount" of professional disagreement and uncertainty. With the White House and several other federal agencies, including the EPA, Department of Agriculture, Department of Energy, Department of Commerce, Department of the Treasury, and National Economic Council, supporting social cost of carbon protocol as a means of assessing the costs of greenhouse gas emissions, any "substantial amount" of disagreement or uncertainty would seem to be a figment of BLM's imagination.

In any case, the fact that the BLM has, in the context of other oil and gas lease sale environmental analyses, clearly acknowledged that social cost of carbon analyses are appropriate, useful, and possible, the refusal of the agency to similarly undertake such analyses in the context of the Cedar City, Richfield, and Vernal EAs is unsupported under NEPA and cannot stand to support the decision to offer the aforementioned lease parcels for sale and issuance in May of 2015.

Sincerely,

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