



Northwest
1216 Lincoln Street
Eugene, Oregon 97401
(541) 485-2471

Rocky Mountains
103 Reeder's Alley
Helena, Montana 59601
(406) 443-3501

Southwest
208 Paseo del Pueblo Sur #602
Taos, New Mexico 87571
(575) 751-0351

Defending the West www.westernlaw.org

Western Environmental Law Center

June 29, 2015

Protest submitted via electronic mail; Protest and exhibits submitted via U.S. Mail

Director (210)
Attn: Protest Coordinator
P.O. Box 71383
Washington, D.C. 200024-1383

Re: Protest of Miles City Proposed Resource Management Plan and Final Environmental Impact Statement

To Whom It May Concern:

The Western Environmental Law Center, along with the Montana Environmental Information Center, Sierra Club, and WildEarth Guardians ("Conservation Groups"), submit the following protest on the Bureau of Land Management ("BLM") Miles City Field Office ("MCFO") Proposed Resource Management Plan ("Draft RMP") and associated Final Environmental Impact Statement ("Final EIS" or "FEIS").

As required by 40 C.F.R. § 1610.5-2(a)(2), the names, mailing addresses, and telephone numbers for each organization filing this protest are listed below:

Western Environmental Law Center
1216 Lincoln Street
Eugene, Oregon 97401
(541) 485-2471

Sierra Club
85 Second Street, 2nd Floor
San Francisco, CA 94105
(415) 977-5500

Montana Environmental Information Center
107 W Lawrence St.
Helena, MT 59601
(406) 443-2520

WildEarth Guardians
1536 Wynkoop, Suite 310
Denver, CO 80202
(303) 437-7663

I. INTERESTS AND PARTICIPATION OF PROTESTING PARTIES

The **Western Environmental Law Center** (“WELC”) uses the power of the law to defend and protect the American West’s treasured landscapes, iconic wildlife and rural communities. WELC combines legal skills with sound conservation biology and environmental science to address major environmental issues in the West in the most strategic and effective manner. WELC works at the national, regional, state, and local levels; and in all three branches of government. WELC integrates national policies and regional perspective with the local knowledge of our 100+ partner groups to implement smart and appropriate place-based actions.

The **Montana Environmental Information Center** (“MEIC”) is a non-profit environmental advocacy group that protects clean water and a healthy environment for all Montanans. MEIC was founded in 1973 by Montanans concerned about protecting and restoring Montana's natural environment.

Sierra Club is America’s largest grassroots environmental organization, with more than 2.4 million members and supporters nationwide. In addition to creating opportunities for people of all ages, levels and locations to have meaningful outdoor experiences, the Sierra Club works to safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and litigation. Sierra Club is dedicated to exploring, enjoying, and protecting the wild places of the Earth; to practicing and promoting the responsible use of the Earth’s resources and ecosystems; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives.

WildEarth Guardians is a Santa Fe, New Mexico-based nonprofit organization with offices throughout the western U.S., including in Utah. WildEarth Guardians is dedicated to protecting and restoring wild places, wildlife, wild rivers, and the health of the American West and has over 44,000 members. As part of its Climate and Energy Program, Guardians works to combat climate change by advancing clean energy and aiding a transition away from fossil fuels, the key source of the greenhouse gases fueling global warming, particularly on our public lands. In doing so, Guardians defends the public interest by safeguarding clean air, pure water, vibrant wildlife populations, and protected open spaces.

The Conservation Groups have consistently participated in the planning process for the revisions to the Miles City RMP. The signors to this protest and other conservation organizations submitted comments to BLM raising concerns with various aspects of BLM’s proposed revisions and the important resources at stake. *See* letters submitted to BLM dated June 5, 2013 regarding the Draft EIS (hereinafter “Draft Comments”) (attached hereto as Exhibit 1), and again on February 3, 2014 (attached as Exhibit 2) (hereinafter “Supplemental Comments”).

II. ISSUES PRESENTED AND PARTS OF THE PLAN UNDER PROTEST

This protest focuses on BLM's failure to adequately analyze and disclose the direct, indirect, and cumulative impacts of coal, oil, and gas development called for by BLM in the Proposed RMP and Final EIS, and, correspondingly, the impact that such development will have on air quality and climate change. These issues are addressed in the following sections of the Proposed RMP and Final EIS:

- Consideration of alternatives (discussed in chapter 2); and
- Consideration of environmental consequences (discussed in chapter 4).

As Conservation Groups have previously explained to BLM and the Department of Interior, finalizing the Miles City RMP as proposed would commit billions of tons of unnecessary carbon pollution to the Department of Interior's ledger and cement BLM's place as an agency that is dramatically out of step with the Obama Administration's stated climate objectives. Not only does BLM persist with a business-as-usual approach to fossil fuel extraction in the Proposed RMP, BLM refuses to even consider any alternative that would restrict coal, oil and gas development on public lands that BLM manages.

Since our organizations submitted our initial comments on the DEIS in June 2013, new studies have come to light that reinforce the urgency of the climate problem and the need for federal agencies to address difficult climate questions head on. For example, in January 2015, Nature published a peer-reviewed study concluding that in order to meet internationally-accepted climate targets (and keep global mean temperatures within 2°C of preindustrial times), globally a third of all oil reserves, half of all gas reserves and more than 80 percent of coal reserves must remain in the ground through 2050.¹ Additionally, a recent report from the Center of American Progress and The Wilderness Society found that greenhouse gas emissions from federal oil, gas, and coal account for more than 20 percent of all U.S. greenhouse gas emissions and 24 percent of all U.S. energy-related emissions. Regarding the planning area, the report found that emissions associated with federal coal from Wyoming and Montana—primarily in the Powder River Basin—accounts for 10 percent of all U.S. greenhouse gas emissions.²

The Miles City Proposed RMP, which allows for more than 70 billion tons of coal development and 7,343 new oil and gas wells, continues to stand in opposition to the President's climate agenda. Earlier this year, the President announced a new executive order that requires the federal government to cut greenhouse gas emissions by 40 percent by 2025 from 2008 levels.

¹ The Geographical Distribution of Fossil Fuels Unused When Limiting Global Warming to 2 °C, Christophe McGlade and Paul Elkins, 517 Nature 187-90 (Jan. 8, 2015) (attached as Exhibit 6).

² Claire Moser, et al., Center for American Progress & The Wilderness Society, *Cutting Greenhouse Gas from Fossil-Fuel Extraction on Federal Lands and Waters* (March 19, 2015), available at <https://www.americanprogress.org/issues/green/report/2015/03/19/108713/cutting-greenhouse-gas-from-fossil-fuel-extraction-on-federal-lands-and-waters/>.

However, these reductions will be meaningless if they are dwarfed by the substantial emissions that will occur from the leasing, mining, and burning of coal within the Miles City planning area.

On behalf of our members and supporters that live, work, and recreate in Montana, the Conservation Groups reiterate our call that the BLM not finalize the RMP revisions until it has reconsidered the wisdom of unchecked fossil fuel development on the public lands that BLM manages. In March of this year, Secretary Jewell promised the American people an “honest and open” conversation about the federal coal leasing program.³ By taking a single-minded approach to development of coal, oil and gas development on public lands, and a head-in-the-sand approach to confronting the causes and dangers of climate disruption, BLM’s Proposed RMP and Final EIS for the Miles City Field Office is a fundamentally flawed document that fails to comply with the legal requirements of NEPA.

III. STATEMENT OF REASONS IN SUPPORT OF CONSERVATION GROUPS’ PROTEST OF THE BLM MILES CITY FIELD OFFICE PROPOSED RESOURCE MANAGEMENT PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT

The National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, and its implementing regulations, promulgated by the Council on Environmental Quality (“CEQ”), 40 C.F.R. §§ 1500.1 *et seq.*, is our “basic national charter for the protection of the environment.” 40 C.F.R. § 1500.1. Recognizing that “each person should enjoy a healthful environment,” NEPA ensures that the federal government uses all practicable means to “assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings,” and to “attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences,” among other policies. 43 U.S.C. § 4331(b).

NEPA regulations explain, in 40 C.F.R. §1500.1(c), that:

Ultimately, of course, it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork – even excellent paperwork – but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.

Thus, while “NEPA itself does not mandate particular results, but simply prescribes the necessary process,” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989), agency adherence to NEPA’s action-forcing statutory and regulatory mandates helps federal agencies ensure that they are adhering to NEPA’s noble purpose and policies. *See* 42 U.S.C. §§ 4321, 4331.

³ Sally Jewell, Secretary of Interior (March 17, 2015), available at <http://www.doi.gov/news/pressreleases/secretary-jewell-offers-vision-for-balanced-prosperous-energy-future.cfm>.

Below, Conservation Groups detail major flaws under NEPA that remain in the Proposed Miles City RMP:

- The Miles City RMP continues to ignore any alternative that would meaningfully reduce climate impacts and protect the environment, such as an alternative with less coal production, an alternative with stipulations to limit oil and gas development, or an alternative that permanently protects critical areas.
- The Miles City RMP fails to appropriately assess air impacts from development authorized under the plan, including by failing to consider indirect effects from coal combustion and failing to revise its ozone analysis in light of the best science.
- The Miles City RMP fails to take a hard look at the impacts of climate change, including by underreporting the climate impacts of its proposal, excluding any social cost of carbon analysis, failing to commit to mitigation measures to address the serious issue of methane emissions and waste, and failing to address the impacts of coal, oil, and gas development on human resiliency.
- The Miles City RMP fails to take a hard look at hydraulic fracturing.

A. BLM Failed to Consider a Reasonable Range of Alternatives

As explained above, perhaps the biggest flaw in BLM's Miles City RMP revision process has been the agency's unbending refusal to consider any alternative that would reduce climate impacts and greenhouse gas emissions by limiting fossil fuel development within the planning area. Conservation Groups put forward reasonable proposed alternatives that would have limited fossil fuel development within the planning area. *See* Draft Comments (Exhibit 1); Northern Plains Resource Council Comments (Exhibit 3). Unfortunately, in its FEIS BLM persists with a business-as-usual approach to fossil fuel development that presumes high levels of coal, oil, and natural gas production in the planning area over the next twenty years. The Proposed RMP/FEIS failed to consider Conservation Groups' reasonable proposed alternatives.

BLM's failure to consider any reasonable limit to the unchecked expansion of fossil fuel development on public lands is particularly problematic because it assumes such development is a good idea at the very time that it is becoming abundantly clear that we must chart a different energy future. Whether or not BLM agrees with this viewpoint is immaterial for purposes of this protest. NEPA contains no substantive mandate. However, BLM's refusal to even consider the reasonable alternatives put forward by the Conservation Groups prevents BLM from engaging in the reasoned consideration of alternatives that is the very core of NEPA's procedural mandate and renders BLM's FEIS invalid.

1. BLM Failed to Consider an Alternative in Which Less Coal Is Available for Leasing and Development

In its FEIS, BLM violated NEPA by failing to consider *any* alternative that would reduce coal development, including alternatives raised by the Conservation Groups nearly two years ago. Every alternative considered in the FEIS proposes to authorize extensive energy development, and all of them make more than 71 billion tons of coal available for leasing and development over approximately 1.5 million acres of BLM land. Although BLM states that its proposal opens up the planning area to an astounding 71 billion tons of coal mining, in the Minerals Appendix to the RMP BLM hedges this figure by noting that it expects “only” 1.166 billion short tons of coal would actually be developed by mines within the planning area. Minerals App. at 130. Whether one evaluates the total amount of coal that BLM makes available for leasing or the total amount of coal that BLM expects to lease from within the planning area, it is clear that the numbers remain the same across all considered alternatives. There is zero difference between the considered alternatives with respect to coal production and combustion.

BLM’s single-vision approach to fossil fuel development violates NEPA by foreclosing consideration of reasonable alternatives that call for less coal development. As Conservation Groups explained in comments on the draft plan: “The RMP revision process is the perfect opportunity for BLM to re-evaluate these competing resources and give suitable weight to FLPMA’s mandate to, where appropriate, preserve and protect public lands in their natural condition.” (citing 43 U.S.C. § 1701(a)(8)).

In comments on the DEIS, Conservation Groups objected to BLM’s failure to consider any alternatives that would result in significantly less greenhouse gas (“GHG”) pollution. Draft Comments at 7, 11, 53. As the Conservation Groups explained in their Draft Comments, BLM “must take a hard look at climate change impacts, and reconsider its proposed alternative in light of those impacts.” *Id.* at 7. Moreover, the Conservation Groups explained, “[BLM’s] preferred alternative would authorize oil and gas and coal development in a manner that suggests it has no power whatsoever to influence events. . . . BLM not only has the authority, but an obligation to address GHG emissions and methane waste.” *Id.* at 11. The Northern Plains Resource Council also objected to the lack of alternatives with respect to coal. Northern Plains DEIS Comments at 7-8. BLM responded to the lack of coal alternatives in its response to comments and attempted to justify its single-coal-alternative approach with the true but legally irrelevant statement that, “[a]dditional environmental analysis in accordance with NEPA and the coal leasing regulations would be conducted in response to leasing requests.” Public Comments App. at 4, 5.

Despite Conservation Groups’ reasonable proposal that BLM consider at least one alternative that entailed less coal mining and combustion, in the FEIS BLM again analyzed only full-production scenarios. In the FEIS, BLM considered five alternatives, labelled A-E, that are identical with respect to coal. FEIS 2-76. There is absolutely zero variation between alternatives with respect to coal: each alternative calls for leaving approximately 1.5 million acres, containing approximately 70 billion tons of coal open for coal leasing. FEIS 2-76. Consistent with this utter lack of distinction between alternatives, the FEIS presents only one reasonably

foreseeable development scenario for all alternatives, with identical production estimates for all existing coal operations in the area. Minerals App. at 130.

The consideration of reasonable alternatives is the “heart” of an agency’s NEPA analysis. 40 C.F.R. § 1502.14. In an EIS, the agency must “[r]igorously explore and objectively evaluate *all* reasonable alternatives” 40 C.F.R. § 1502.14(a) (emphasis added). Not only must an EIS consider all reasonable alternatives, it is a bedrock NEPA principle that agencies cannot only consider alternatives that are virtually identical, skewing the decision towards one course of action. *Or. Natural Resource Council v. BLM*, 625 F.3d 1092, 1123 (9th Cir. 2010) (setting aside RMP).

As explained by the Tenth Circuit, “[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of an EIS to inform agency deliberation and facilitate public involvement would be greatly degraded.” *New Mexico ex rel Richardson v. BLM*, 565 F.3d 683, 708-11 (10th Cir. 2009). *See id.* at 708-11 (holding that agency violated NEPA by failing to consider a reasonable alternative). Here, BLM rejected consideration of any alternative that would result in reduced coal production in the project area. As explained by the Ninth Circuit, “[t]he existence of reasonable but unexamined alternatives renders a [NEPA analysis] inadequate.” *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1065 (9th Cir. 1998).

In response to Conservation Groups’ comments, BLM acknowledges that the alternatives are identical with respect to coal. Public Comments App. at 4. The agency offers only one excuse for the complete lack of diversity with respect to coal alternatives: “Additional environmental analysis in accordance with NEPA and the coal leasing regulations would be conducted in response to leasing requests.” Public Comments App. at 4-5. BLM’s excuse, however, is nonresponsive. The concern is not that OSM is ignoring specific environmental impacts associated with specific coal mine developments. Rather it is that by failing to consider alternatives, BLM is disregarding its multiple-use mandate and foreclosing consideration of more environmentally protective options.

However, BLM’s governing statute, FLPMA, does not mandate that every use be accommodated on every piece of land; rather, delicate balancing is required. *See Norton v. S. Utah Wilderness Alliance*, 542 U.S. 55, 58 (2004). “‘Multiple use’ requires management of the public lands and their numerous natural resources so that they can be used for economic, recreational, and scientific purposes without the infliction of permanent damage.” *Public Lands Council v. Babbitt*, 167 F.3d 1287, 1290 (10th Cir. 1999) (citing 43 U.S.C. § 1702 (c)). As held by the Tenth Circuit, “[i]f all the competing demands reflected in FLPMA were focused on one particular piece of public land, in many instances only one set of demands could be satisfied. A parcel of land cannot both be preserved in its natural character and mined.” *Rocky Mtn. Oil & Gas Ass’n v. Watt*, 696 F.2d 734, 738 n. 4 (10th Cir. 1982) (quoting *Utah v. Andrus*, 486 F.Supp. 995, 1003 (D.Utah 1979)); *see also* 43 U.S.C. § 1701(a)(8) (stating, as a goal of FLPMA, the necessity to “preserve and protect certain public lands in their natural condition”); *Pub. Lands Council*, 167 F.3d at 1299 (citing § 1701(a)(8)). Indeed, as the Tenth Circuit has held, “an alternative that closes [an area] to development does not necessarily violate the principle of

multiple use, and the multiple use provision of FLPMA is not a sufficient reason to exclude more protective alternatives from consideration.” *New Mexico*, 565 F.3d at 710.

BLM’s complete failure to consider some menu of alternatives with respect to coal is particularly troubling because the vast amounts of coal made open to leasing (70 billion tons) is wholly inconsistent with the United States’s commitments to limit GHG emissions to abate climate change. Indeed, leasing making 70 billion tons of coal reserves open to leasing and development is inconsistent with mainstream science regarding the amount of GHG reductions necessary to avoid the worst impacts of climate change. With the Copenhagen Accord, the United States committed to taking steps necessary to maintain global warming below 2°C.⁴ With the proposed Clean Power Plan regulations on GHG emissions from existing stationary sources, the U.S. government has presented a policy to reduce GHG emissions from the U.S. power sector by 30% by 2030. 79 Fed. Reg. 34830, 34832 (June 18, 2014). The U.S. Energy Information Administration projects that this policy will result in a 40% reduction in coal consumption in the United States.⁵ Approving a menu of alternatives that uniformly permit development of 70 billion tons of coal—approximately 70 times the annual coal consumption of the United States—is patently unreasonable and in conflict with federal policy regarding reduction of GHG emission to abate climate change. 40 C.F.R. § 1502.16(c).

Not only do BLM’s identical coal alternatives conflict with federal policy regarding GHG reductions; they also conflict with virtually all science regarding the level of GHG reductions required to avoid the worst impacts of climate change.⁶ Indeed, research shows that for the United States to meet its commitment to limiting global warming to 2°C and thereby avoid “dangerous anthropogenic interference with the climate system” 95% of recoverable coal reserves in the United States must not be mined.⁷ The Intergovernmental Panel on Climate Change concluded that to have a 66% chance of avoiding warming to 2°C, no more than additional 1,000 gigatonnes of carbon dioxide (“CO₂”) may be emitted globally.⁸ Combustion of the 70 billion tons of coal that BLM’s PRMP makes available would, when burned, release approximately 100 billion tonnes (or gigatons) of CO₂, equivalent to ten percent of the carbon budget for the entire world.⁹ In short, BLM’s failure to consider reasonable alternatives with regard to land made available for additional coal leasing was irresponsible, contrary to federal policy, and arbitrary and capricious.

⁴ U.N. Climate Change Conference 2009, Copenhagen, Den., Dec. 7-19, 2009, Rep. of the Conference of the Parties on its Fifteenth Sess., FCCC/CP/2009/11/Add.1 (Mar. 30, 2010) (hereinafter, Copenhagen Accord).

⁵ EIA, Annual Energy Outlook 2015 at 22 (attached as Exhibit 7); EIA, Analysis of the Impacts of the Clean Power Plan at 47 (2015) (attached as Exhibit 10).

⁶ Intergovernmental Panel on Climate Change, Working Group I Contribution to the IPCC Fifth Assessment Report Climate Change 2013: The Physical Science Basis, Summary for Policy Makers 20 (2013) (attached as Exhibit 23); McGlade & Ekins at 189 & tbl. 1 (attached above as Exhibit 6).

⁷ McGlade & Ekins, *supra*.

⁸ Intergovernmental Panel on Climate Change, Climate Change 2014 Synthesis Report 8 (2014) (attached as Exhibit 20)

⁹ EIA, Carbon Dioxide Emissions Coefficients, http://www.eia.gov/environment/emissions/co2_vol_mass.cfm.

2. BLM Failed to Consider Stipulations to Limit Oil and Gas Development

The Miles City Field Office must take a hard look in the RMP at methods to reduce GHG emissions and at how authorizations and management activities will ensure implementation of feasible GHG emission reduction strategies. The MCFO may not wait to address GHG emissions at the APD stage, while ignoring them at the RMP and subsequent leasing stages. In our Draft Comments, we proposed different sets of BMPs for reducing methane emissions from oil and gas operations that have been endorsed by the BLM, a BLM contractor, the EPA Natural Gas Star Program, and non-profit research and advocacy organizations. *See* Draft Comments at 54-62.

These BMPs identify methods to reduce GHG emissions that offer the MCFO tried and true measures which, if required for oil and gas development, would ensure feasible GHG emission reduction strategies. Many of the methane emission reduction technologies and practices are common across the different sources of BMPs, increasing confidence in their effectiveness. These BMPs provide best-available-technology-and-practice-based standards to reduce methane emissions from oil and gas activity in the planning area and should be considered by the BLM. An additional approach that BLM should consider is adoption of a performance standard-based approach that would establish maximum leak and vent rates for oil and gas activity.

In the FEIS, the MCFO failed to consider the multiple effective and environmentally sustainable methods and practices to reduce methane waste. As noted in our Draft Comments, while BLM has in the past claimed that it will impose methane mitigation measures at the site-specific stage, it has failed to do so. Moreover, the RMP-stage is the appropriate place to address these measures to ensure consistency, put the oil and gas industry on notice of what leasing on BLM lands will look like, and meet its duties to address this issue as required by NEPA, the Federal Land Policy and Management Act (“FLPMA”), the Mineral Leasing Act, and Secretarial Order 3226.

B. BLM Failed to Take a Hard Look at Impacts to Air Quality

The MCFO must consider foreseeable impacts to visibility and air quality degradation that will result from development authorized by the Miles City RMP and EIS. In particular, the MCFO must consider the air quality impacts from oil and gas development in the planning area. Much of air pollution from oil and gas operations, which is specifically discussed, below, also degrades visibility. Section 169A of the Clean Air Act (“CAA”), 42, U.S.C. § 7401 *et seq.* (1970) sets forth a national goal for visibility, which is the “prevention of any future, and the remedying of any existing, impairment of visibility in Class I areas which impairment results from manmade air pollution.” Congress adopted the visibility provisions in the CAA to protect visibility in “areas of great scenic importance.” H.R. Rep. No. 294, 95th Cong. 1st Sess. at 205 (1977). In promulgating its Regional Haze Regulations, 64 Fed. Reg. 35,714 (July 1, 1999), the U.S. Environmental Protection Agency (“EPA”) provided:

Regional haze is visibility impairment that is produced by a multitude of sources

and activities which emit fine particles and their precursors and which are located across a broad geographic area. Twenty years ago, when initially adopting the visibility protection provisions of the CAA, Congress specifically recognized that the “visibility problem is caused primarily by emission into the atmosphere of SO₂, oxides of nitrogen, and particulate matter, especially fine particulate matter, from inadequate[ly] controlled sources.” H.R. Rep. No. 95-294 at 204 (1977). The fine particulate matter (PM) (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust) that impairs visibility by scattering and absorbing light can cause serious health effects and mortality in humans, and contribute to environmental effects such as acid deposition and eutrophication.

The visibility protection program under sections 169A, 169B, and 110(a)(2)(J) of the CAA is designed to protect Class I areas from impairment due to manmade air pollution. The current regulatory program addresses visibility impairment in these areas that is “reasonably attributable” to a specific source or small group of sources, such as, here, air pollution resulting from oil and gas development authorized by the Miles City RMP. *See* 64 Fed. Reg. 35,714.

Moreover, EPA finds the visibility protection provisions of the CAA to be quite broad. Although EPA is addressing visibility protection in phases, the national visibility goal in section 169A calls for addressing visibility impairment generally, including regional haze. *See e.g., State of Maine v. Thomas*, 874 F.2d 883, 885 (1st Cir. 1989) (“EPA’s mandate to control the vexing problem of regional haze emanates directly from the CAA, which ‘declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in Class I areas which impairment results from manmade air pollution.’”) (citation omitted).

Here, there are a number of Class I air quality areas that may be directly impacted by any development authorized by the Miles City RMP. These areas include, but are not necessarily limited to the following: Northern Cheyenne Indian Reservation, Fort Peck Indian Reservation, Badlands Wilderness, Lostwood Wilderness, Medicine Lake Wilderness Area, Theodore Roosevelt National Park, UL Bend Wilderness Area, and Wind Cave National Park. FEIS at 3-19.

Research indicates a strong correlation between oil and gas development and increased ozone concentrations – particularly in the summer when warm, stagnant conditions yield an increase in O₃ from oil and gas emissions. Marco A Rodriguez, et al., *Regional Impacts of Oil and Gas Development on Ozone Formation in the Western United States*, JOURNAL OF AIR & WASTE MANAGEMENT ASSOCIATION (Sept. 2009) (Attached as Exhibit to Draft Comments). Particularly in areas of significant existing oil and gas development – such as the area researched by Rodriguez, the San Juan Basin in the Four Corners region, but also relevant, here – “peak incremental O₃ concentration of 10 ppb” have been simulated. *Id.* at 1118. This study indicates a “clear potential for oil and gas development to negatively affect regional O₃ concentrations in the western United States, including several treasured national parks and wilderness areas in the Four Corners region. It is likely that accelerated energy development in this part of the country will worsen the existing problem.” *Id.* Although these findings are based on a case study in the Four Corners region, the applicability of this research is far broader and should be considered by

MCFO, here.

Despite these impacts, and indeed the MCFO's recognition of some of these impacts, the MCFO's preferred alternative calls for oil and gas activity that would "add to regional emissions." FEIS at 4-7. Although the MCFO has modeled some of the air quality impacts, it dismissed many of the admitted increases as "negligible" because they will not exceed NAAQS. Draft EIS at 4-13. This analysis does not consider, as the MCFO notes, more localized impacts that may be much greater, or more constant. *Id.* ("A larger increase in ambient concentrations may occur in some localized areas in which large engines operate continuously." "At locations with construction activities, vehicle traffic on unpaved roads, or off-road travel, temporary particulate matter (PM10) concentration increases may be moderate or high if adverse weather conditions occurred."). The impacts of these shorter term and more localized impacts should not be discounted.

As the Endocrine Disruption Exchange has noted:

In addition to the land and water contamination issues, at each stage of production and delivery tons of toxic volatile compounds, including benzene, toluene, ethylbenzene, xylene, etc., and fugitive natural gas (methane), escape and mix with nitrogen oxides from the exhaust of diesel-driven, mobile and stationary equipment to produce ground-level ozone. Ozone combined with particulate matter less than 2.5 microns produces smog (haze). Gas flared produced ozone has created a serious air pollution problem similar to that found in large urban areas, and can spread up to 200 miles beyond the immediate region where gas is being produced. Ozone not only causes irreversible damage to the lungs, it is equally damaging to conifers, aspen, forage, alfalfa, and other crops commonly grown in the West. Adding to this is the dust created by fleets of diesel-driven water trucks working around the clock hauling the constantly accumulating condensate water from well pads to central evaporation pits.¹⁰

Increases in ground-level ozone not only impact regional haze and visibility, but can also result in dramatic impacts to human health, as discussed more fully, below. According to the EPA:

Breathing ground-level ozone can result in a number of health effects that are observed in broad segments of the population. Some of these effects include:

- Induction of respiratory symptoms
- Decrements in lung function

¹⁰ The Endocrine Disruption Exchange. Undated. *Chemicals In Natural Gas Operations: Health Effects Spreadsheet and Summary*, available at: <http://www.endocrinedisruption.com/chemicals.multistate.php> (attached to Draft Comments as Exhibit 1).

- Inflammation of airways

Respiratory symptoms can include:

- Coughing
- Throat irritation
- Pain, burning, or discomfort in the chest when taking a deep breath
- Chest tightness, wheezing, or shortness of breath

In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.¹¹

By dismissing the additional contributions of air pollutants as “negligible” or a small contribution to a percentage of the NAAQS, the MCFO also fails to consider the cumulative impacts of air pollution caused by the oil and gas development authorized by the Miles City RMP. However, oil and gas development of federal minerals, combined with development of private resources, along with other activity in the area, may present impacts that exceed NAAQS or contribute to violations of Class I visibility requirements. The MCFO must consider the cumulative impacts of development authorized by the RMP “added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. § 1508.7.

Here, those other actions include operations at the Colstrip coal-fired power plant, which uses coal from the Rosebud Mine. Colstrip causes significant air pollution, including emissions of sulfur dioxide (“SO₂”). In 2010, U.S. EPA issued a new SO₂ NAAQS standard, recognizing that the prior 24-hour and annual SO₂ standards did not adequately protect the public against adverse respiratory effects associated with short term (5 minutes to 24 hours) SO₂ exposure. U.S. EPA, Final Rule for the Primary National Ambient Air Quality Standard for Sulfur Dioxide, 75 Fed. Reg. 35,520, 35,550 (June 22, 2010). The new 2010 SO₂ NAAQS standard is a 1-hour standard set at 196 micrograms per cubic meter (—µg/m³) or 75 parts per billion (—ppb). 40 C.F.R. § 50.17(a). The standard is met —when the three-year average of the annual (99th percentile) of the daily maximum 1-hour average concentrations is less than or equal to 75 ppb. Id. § 50.17(b). Due to both the shorter averaging time and the numerical difference, the new 1-hour SO₂ NAAQS is far more stringent than the prior standard.

Recent modeling demonstrates that Colstrip may violate the 1-hour SO₂ National Ambient Air Quality Standard (“NAAQS”). Air dispersion modeling performed on behalf of

¹¹ EPA, *Health Effects of Ozone in the General Population*, available at: <http://www.epa.gov/apti/ozonehealth/population.html> (attached to Draft Comments as Exhibit 2).

MEIC and Sierra Club demonstrates, based on 2011 emissions reported by the company in EPA's Clean Air Markets Database, that Colstrip's current 99th percentile hourly emissions (for Units 1-4) violate the 1-hour SO₂ NAAQS by a significant margin.¹² Even under EPA's newly established 30-day rolling average SO₂ emission limits for Units 1 and 2, 1-hour SO₂ NAAQS exceedances are almost certain to occur. A substantial body of scientific evidence demonstrates that "exposure to SO₂ in even very short time periods—such as five minutes—causes decrements in lung function, aggravation of asthma, and respiratory and cardiovascular morbidity." These findings were thoroughly documented in an Integrated Science Assessment completed as part of the NAAQS evaluation, and in the final NAAQS rule itself. 75 Fed. Reg. at 35,524 – 35,529. In addition to these health impacts, SO₂ can also contribute to regional haze. *See* 64 Fed. Reg. 35,714. In short, BLM must fully consider the cumulative impacts of air pollution in the planning area.

1. BLM Failed to Consider the New Ozone Standards

Ozone has long been recognized to cause adverse health effects. Short term exposure to ozone causes multiple negative respiratory effects, from inflammation of airways to more serious respiratory effects that can lead to use of medication, absences from school and work, hospital admission, emergency room visits, and chronic obstructive pulmonary disease ("COPD"). Respiratory harm from ozone exposure, even at current standards, can harm healthy people. The impacts are much more serious for people with lung disease, such as asthma. Long-term exposure to elevated levels of ozone results in numerous negative harmful effects, such as permanent lung damage and abnormal lung development in children. Long-term exposure may also increase risk of death from respiratory problems. Short- and long-term exposure to elevated levels of ozone can also harm people's hearts and cardiovascular system. *See* 79 Fed. 75234-311.

On December 17, 2014, EPA published a proposal to revise NAAQS for ozone to 65 to 70 parts per billion (ppb) from the current 75 ppb. National Ambient Air Quality Standards for Ozone, 79 Fed. Reg. 75234 (Dec. 17, 2014). This decision was driven by significant recent scientific evidence that the current standard of 75 ppb does not adequately protect public health and that ozone concentrations as low as 72 ppb can cause respiratory harm to young, healthy adults following exposure for less than eight hours. *Id.* at 75249-311 (citing controlled human exposure studies documenting adverse effects to lung function from ozone concentrations of 60 ppb and 72 ppb and epidemiologic panel studies documenting short- and long-term respiratory harms in cities that meet the 75 ppb ozone standard).¹³ Recent studies have also documented decreased lung functioning and airway inflammation in young, healthy adults at ozone concentrations as low as 60 ppb; these effects, if repeated, can lead to more serious respiratory impairments. *Id.* at 75280, 75305.

¹² *See* Memorandum from L. Sears (Sept. 21, 2012) (attached to Draft Comments as Exhibit 111).

¹³ Brown et al., 2008; Kim et al., 2011; Schelegle et al., 2009; Adams 2002; Adams 2008; Brunekreef et al., 1994; Spektor et al., 1988a; Ulmer et al., 1997; Gielen et al., 1997; Mar and Koenig, 2009.

Studies have documented “significant associations with respiratory emergency department visits with children and adults” in places that met the current standard of 75 ppb, but would not have met the proposed standards of 65-70 ppb. *Id.* at 75283-85, 75307 (citing Mar and Koenig, 2009; Dales et al., 2006). The existing standard is plainly insufficient to protect children with asthma and members of other sensitive groups. *Id.* at 75285-87. These impacts will be exacerbated by the worsening impacts of climate change. *Id.* at 75242.

In short, the best science shows that the 75 ppb standard is inadequate to protect public health: “the respiratory effects experienced following exposures to O₃ concentrations lower than 75 ppb could be adverse to some individuals, particularly if experienced by members of at risk populations (*e.g.*, people with asthma, children).” *Id.* at 75280.

Revision of the ozone standard from 75 ppb to 65 or 70 ppb is expected to lead to “meaningful reductions in mean premature mortality.” *Id.* at 75308. The Clean Air Scientific Advisory Committee (CASAC) has noted that even a reduced standard of 70 ppb may not be sufficient to protect public health with an adequate margin of safety, and that a standard as low as 60 ppb would be scientifically justified. *Id.* at 75309-10. CASAC concluded that adverse respiratory effects “almost certainly occur” at lower levels for potentially at risk populations, such as children, the elderly, and people with asthma, people who are active or work outdoors, and people with lung diseases such as COPD. *Id.* at 75305. Thus, a lower level is necessary in order to protect the broader population. *Id.*

NEPA imposes on federal agencies a continuing duty to supplement draft or final environmental impact statements in response to significant new circumstances or information relevant to environmental concerns and bearing on the proposed action. *Idaho Sporting Cong., Inc. v. Alexander*, 222 F.3d 562, 566 n.2 (9th Cir. 2000); 40 C.F.R. § 1502.9(c)(1)(i). Here, EPA’s proposal to revise ozone standards, as well as the science supporting the revision, constitute new circumstances and information, which BLM must take account of in its final EIS. The FEIS’s conclusions regarding ozone are based on comparison to the existing NAAQS for ozone. EPA’s proposed revision of the ozone NAAQS and the abundant science supporting the proposal plainly demonstrate that the current NAAQS are not sufficient to protect public health. Accordingly, the ozone analysis must be revised. The need for BLM to revise its ozone analysis in light of EPA’s proposed new standard is especially acute given BLM’s acknowledgement that its preferred alternative may contribute to violations of the *existing* standard. *See* FEIS at 676. Further, the FEIS’s analysis of ozone neglects to address and consider that the impacts of climate change will worsen ozone pollution.

2. The BLM Failed to Adequately Analyze and Assess Impacts to Ozone Ambient Air Quality Standards In Accordance with NEPA

The FEIS entirely failed to adequately analyze and assess direct, indirect, and cumulative air quality impacts under NEPA. The FEIS asserts that compliance with National Ambient Air Quality Standards (“NAAQS”) for ozone, the key ingredient of smog, and other air pollutants, will be assured under the proposed RMPA. However, this assertion is not supported as no actual analysis of air quality impacts was completed.

The BLM appears to rely on its “Air Resource Management” plan to assert that air quality impacts will not be significant, or that they have otherwise been adequately disclosed. This plan, which is set forth in the Air Resources and Climate Appendix in the FEIS, does not actually analyze or assess air quality impacts.

In fact, in the Air Resources and Climate Appendix (including the Air Resources Management Plan Appendix) to the FEIS, the BLM acknowledges that it is in the progress of performing the very air quality analysis that is necessary to ensure that air quality impacts are appropriately analyzed and assessed in the Miles City Field Office. For example, with regards to ozone, the agency discloses that an ozone air quality analysis will not be completed prior to the issuance of the RMP and ROD. Air Resource Management Plan Appendix at 15. The BLM cannot forego an analysis of reasonably foreseeable air quality impacts in this way.

Here, where information regarding reasonably foreseeable significant impacts is lacking, the BLM must gather and include the information in order to ensure a complete environmental impact statement unless the costs of obtaining the data are exorbitant or the means of obtaining it are not known. *See* 40 C.F.R. § 1502.22(a). In this case, the information necessary for an adequate analysis of air quality impacts is lacking, meaning the BLM has an obligation to gather the data and utilize it in the FEIS. Clearly the cost of obtaining the information is not exorbitant (BLM discloses it is already gathering the data) and clearly the means of obtaining the data are known. Approval of the RMP based on the FEIS as currently presented is therefore inappropriate under NEPA.

Adding to our concerns is that the BLM entirely ignored reports the agency itself prepared documenting the air quality impacts of oil, gas, and coal development in the Miles City Field Office. These reports include the 2009 and 2014 Powder River Basin Coal review air quality reports. These reports modeled future air quality impacts of activities within the Powder River Basin of northeastern Wyoming and southeastern Montana, including much of the Miles City Field Office, with an emphasis on the impacts of coal mining. These reports were notable because they not only found that current air quality values exceeded the 24-hour PM_{2.5} and 24-hour PM₁₀ NAAQS, but also projected air quality values greater than NAAQS for the 24-hour PM₁₀, 24-hour PM_{2.5}, and annual PM_{2.5} NAAQS by 2020. What the BLM does not acknowledge is that these modeling reports also reported current air quality values greater than the 1-hour NO₂ NAAQS, as well as projected air quality values greater than the 1-hour NO₂ and 1-hour SO₂ NAAQS.

The table below, prepared using data from the 2009 Powder River Coal Review report, demonstrates that current and projected air quality conditions are of significant concern. Given that air quality concentrations are already exceeding the NAAQS, as well as projected to worsen, it appears that the impacts of the Miles City RMP will significantly strain air quality and fail to ensure compliance with federal air quality standards.

Baseline and Projected Levels of NAAQS Pollutants

NAAQS	Standard	2004 Baseline Concentration	2020 Lower Coal Development Scenario	2020 Upper Coal Development Scenario
1-hour NO ₂	100 ppb	217.43 ppb	233.97 ppb	235.35 ppb
Annual PM _{2.5}	15 g/m ³	13.4 g/m ³	16.3 g/m ³	16.3 g/m ³
24-hour PM _{2.5}	35 g/m ³	87.6 g/m ³	218.4 g/m ³	218.4 g/m ³
24-hour PM ₁₀	150 g/m ³	250.4 g/m ³	624.1 g/m ³	624.3 g/m ³
1-hour SO ₂	75 ppb	62.5 ppb	90.9 ppb	97.01 ppb

Similarly, the 2014 Powder River Basin Coal Review 3A report cites violations of the ozone, PM_{2.5}, and PM₁₀ NAAQS in a number of Class I and sensitive Class II areas in the region. See 2014 Powder River Basin Coal Review report at 3-7—3-18. These results are not cited in the FEIS or addressed in the analysis and assessment of impacts. The agency cannot simply reject information under NEPA because it believes it may underestimate impacts.

Despite the reported data and its reference in the FEIS, the analysis and assessment of air quality impacts does not even attempt to analyze actual impacts to air quality in the context of air quality standards. Instead, the FEIS only compares emissions data. It is unclear why this modeling data was not addressed in the actual analysis and assessment of impacts, or why the BLM did not attempt to analyze air quality impacts in light of the dire predictions of the Powder River Basin Coal Review. Nevertheless, it further underscores that the BLM failed to comply with NEPA by refusing to analyze and assess how current and projected emissions from reasonably foreseeable development will directly, indirectly, and cumulatively affect air quality.

3. BLM Failed Entirely to Consider Indirect Air Pollution Impacts from Foreseeable Coal Combustion

Conservation Groups protest BLM’s unlawful failure to consider the indirect effects of air pollution from coal combustion. The FEIS discusses air pollution impacts in Chapter 4. The FEIS acknowledges the obligation to consider air pollution that will result indirectly from the proposed action at FEIS 4-2. Conservation Groups’ comments addressing this issue are attached to this protest.

NEPA requires agencies to consider the indirect effects of their actions. 40 C.F.R. § 1502.16(b). Indirect effects are defined as “effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” *Id.* § 1508.8(b). Here, the FEIS and PRMP would allow for leasing of approximately 70 billion tons of coal through 2040. FEIS at 2-76. The FEIS further recognizes that all coal produced from leases will be burned for energy production. FEIS Mineral App. at 129. The FEIS also foresees that 1 billion short tons of coal will be produced from existing mining operations within the Miles City Field Office during the planning period. FEIS Mineral App. at 130. Nevertheless, BLM fails entirely to assess the air pollution impacts that will result from such combustion.

Such impacts, however, are numerous and widespread.¹⁴ Coal combustion causes tremendous emissions of nitrogen oxides (NO_x), sulfur oxides (SO₂), particulate matter (PM), and mercury, among other deadly pollutants.¹⁵ This pollution causes widespread health impacts.¹⁶ Mercury deposition from coal combustion, for example, is causing widespread health effects across the United States and the planet, particularly to the brain development of children.¹⁷ One recent study by the Clean Air Task Force found the following health impacts for coal combustion in the United States:

Table 2

Health Impact	Incidence (annual)	Valuation (in \$millions)
Mortality	13,200	\$96,300
Hospital Admissions	9,700	\$230
ER Visits for Asthma	12,300	\$5
Heart Attacks	20,400	\$2,230
Chronic Bronchitis	8,000	\$3,560
Asthma Attacks	217,600	\$11

¹⁴ See Paul R. Epstein et al., *Full Cost Accounting for the Life Cycle of Coal* 1219 Ann. N.Y. Acad. Sci. 73 (2011) (life cycle of costs from coal causes \$175 to 523 billion in damages in United States annually) (attached as Exhibit 11).

¹⁵ *Id.* at 86-87.

¹⁶ Clean Air Task Force, *The Toll from Coal* 10 (Sept. 2010) (13,000 annual mortalities in US) (attached as Exhibit 12); Conservation Action Trust, *Urbanemissions.info*, Greenpeace, *Coal Kills: An Assessment of Death and Disease Caused by India's Dirtiest Energy Source* at 1 (2012) (80,000 to 115,000 premature deaths annually) (attached as Exhibit 13); Health and Environment Alliance, *The Unpaid Health Bill: How Coal Power Plants Make Us Sick*, at 5 (March 2013) (estimating 18,500 premature deaths due to coal pollution annually in European Union) (attached as Exhibit 14); Edward Wong, *Air Pollution Linked to 1.2 Million Premature Deaths in China*, N.Y. Times (Apr. 1, 2013) (reporting 1.2 million premature deaths annually due to air pollution in China), available at http://www.nytimes.com/2013/04/02/world/asia/air-pollution-linked-to-1-2-million-deaths-in-china.html?_r=0..

¹⁷ See, e.g., Bellenger, *Economic Benefits of Methylmercury Exposure Control in Europe: Monetary Value of Neurotoxicity Prevention* (2012) (monetizing impacts of mercury exposure) (attached as Exhibit 15); UNEP, *A Time to Act*, *supra*; Environmental Defense Fund, *Mercury Alert: Cleaning Up Coal Plants for Healthier Lives* (Mar. 2011) (attached as Exhibit 16); Mahaffery, *Adult Women's Blood Mercury Concentrations Vary Regionally in the United States: Association with Patterns of Fish Consumption (NHANES 1999-2004)*, 117 *Envtl. Health Perspectives* 47 (2009) (attached as Exhibit 17); Collin A. Eagles-Smith, et al., USGS, *Mercury in Fishes from 21 National Parks in the Western United States—Inter- and Intra-Park Variation in Concentrations and Ecological Risk*, Open-File Report 2014-1051 (2014) (attached as Exhibit 18).

Lost Work Days	1,627,800	\$150 ¹⁸
----------------	-----------	---------------------

The annual cost to the U.S. economy from these health impacts is staggering: over \$100 billion.¹⁹ When all of the externalities of coal are added up, the harm caused by coal to our national economy has been estimated at \$175-\$860 billion annually.²⁰ Indeed, it appears that the cost of the harms from burning coal is greater than the benefit derived from using coal for energy.²¹ These effects of coal combustion should have been acknowledged, addressed, and quantified. The FEIS, however, failed entirely to address these insidious and deleterious, but wholly foreseeable, impacts. There is no question that they are foreseeable and included in the FEIS’s reasonably foreseeable development scenario. FEIS Minerals App. at 128-30. Because the combustion of the coal in the planning area is a reasonably foreseeable indirect effect of the PRMP’s decision to make it available for continued leasing and strip-mining, the FEIS was required to assess the air pollution impacts that will result from combustion. 40 C.F.R. § 1502.16(b).

BLM offers no excuse for failing to assess non-GHG air pollution from foreseeable coal production. With respect to GHG emissions, BLM asserts that “GHG emissions from activities outside the planning area were not included because insufficient data exist to quantify these emissions.” FEIS at 4-17. This argument, however, is specious. The U.S. Energy Information Administration has long provided GHG emission coefficients from which GHG emissions can be calculated based on the volume or mass of fossil fuel to be combusted.²² Thus, BLM could have easily calculated the amount of GHG emissions that would result from combustion of 70 billion tons of sub-bituminous and lignite coal. The agency’s failure to do so was arbitrary and capricious.

C. BLM Failed to Take a Hard Look at Climate Impacts

BLM has failed to take a hard look at the climate impacts of its proposed plan—perpetuating a disconnect between the agency’s recognition of the effects of climate change and the agency’s decisionmaking that allows for the continued leasing and development of massive quantities of coal, oil and gas. BLM failed to analyze cumulative and incremental effects of coal, oil, and gas development on climate change, and failed to consider the Conservation Groups’ detailed comments addressing climate change and GHG emissions, especially our Draft Comments at 7-23 and our Supplemental Comments, incorporated herein as Exhibits 1 and 2. 40 C.F.R. § 1506.6.

¹⁸ Clean Air Task Force, *The Toll from Coal*, *supra* at 10.

¹⁹ *Id.*

²⁰ Epstein, et al., *Full Cost Accounting for the Life Cycle of Coal*, *supra*.

²¹ Nicholas Z. Muller et al., *Environmental Accounting for Pollution in the United States Economy* 101 Am. Economic Review 1649 (2011) (cost of economic harm from coal vastly exceeds market value generated by coal) (attached to Draft Comments as Exhibit 39); Ben Machol & Sarah Razk, *Economic Value of U.S. Fossil Fuel Electricity Health Impacts* 52 *Env’t Int’l* 75 (2013) (fossil fuel generation costs nation \$361-886 billion annually in externalized costs) (attached as Exhibit 19).

²² EIA, *Carbon Dioxide Emissions Coefficients*, http://www.eia.gov/environment/emissions/co2_vol_mass.cfm.

Agency decisionmaking at the RMP stage, where fundamental land use choices are made, must account for the full lifecycle of coal, oil and gas production. The MCFO's failure to account for lifecycle impacts represents a serious deficiency in the Proposed RMP and FEIS. As discussed below, BLM not only has the authority, but an obligation, to fully address GHG emissions and methane waste. Furthermore, the MCFO must consider not only the cumulative impact of the GHG emissions authorized by the Proposed RMP, it must also consider those emissions combined with other activities in the area. As noted above, "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct." *Ctr. for Biological Diversity*, 538 F.3d 1172, 1217.

1. BLM Failed to Disclose the CO₂ Emissions from Burning 70 Billion Tons of Coal Made Available By the Proposed RMP and FEIS

In its Proposed RMP/FEIS, BLM failed to adequately analyze and disclose the climate impacts of its proposal, particularly regarding the impact of burning 70 billion tons of coal and drilling 7,343 new oil and gas wells. *See* FEIS at 4-254, 4-265. BLM has oddly chosen to allow for more than 70 billion tons of coal during the planning period, while simultaneously anticipating that industry would actually generate only about 1/70th of that amount. BLM's "come and get it" approach to federal coal in the RMP – calling for vastly more production than could occur under current or even greatly increased production levels – is misguided, out of step with the President's climate objectives, and, as explained above, violates NEPA by presenting only one coal production alternative. BLM also violated NEPA by failing to quantify the amount of CO₂ that will occur during combustion of this coal. Whether the amount of coal mined ends up being 1 billion tons, 70 billion tons, or somewhere in between, because all of the coal mined will be burned in coal-fired power plants, BLM must disclose the easily quantifiable emissions that will result from burning this coal. Instead, BLM refused to quantify *any* level of CO₂ emissions from combustion and failed to offer any rationale explanation as to why those emissions could not be quantified and disclosed to both the public and decisionmakers.

BLM significantly under reported the climate impacts of its proposed plan, misleading the public first by failing to account for the vast majority of the greenhouse gas emissions that will result from BLM's decision, then by failing to fully account for the harm those emissions will cause, and finally by asserting that these emissions do not matter because they account for only a small percentage of statewide totals. Each of these errors, standing alone, would be enough to condemn BLM's FEIS to reversal. Taken together, they reveal significant flaws in BLM's analysis and give the impression of an agency that is determined not to fully evaluate or disclose the climate impacts of what it is doing.

According to the U.S. Supreme Court, the mandatory disclosure of impacts is the "key requirement of NEPA." *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 96 (1983). According to the Tenth Circuit, an agency's NEPA review will be set aside where the agency (1) "entirely failed to consider an important aspect of the problem," (2) "offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view o the product of agency expertise," (3) "failed to base its

decision on consideration of the relevant factors,” or (4) made “a clear error of judgment.” *Utah Envtl. Cong. v. Troyer*, 479 F.3d 1269, 1280 (10th Cir. 2007).

As explained in Section B.2., above, NEPA requires agencies to consider the indirect effects of their actions. 40 C.F.R. § 1502.16(b). Indirect effects are defined as “effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” *Id.* § 1508.8(b).

BLM’s Proposed RMP and FEIS make available for leasing more than 70 billion tons of federal coal, FEIS at 2-76, 4-257, and BLM estimates that industry would produce approximately one billion tons of coal during the planning period – roughly 1/70th of what BLM makes available. Minerals App. at 130. The FEIS and Proposed RMP further recognize that virtually all coal mined in this area will be burned to generate electricity. Minerals App. at 129. Given that BLM acknowledges that all of the coal made available by its plan will be burned, it is unlawful for BLM to then fail to account for the quantifiable emissions that will result from that combustion. In the context of the climate impacts of the plan, those emissions are not just part of the equation – they are basically the whole equation. By not even acknowledging that those emissions will occur – as BLM must given the indirect effects requirement of NEPA – BLM makes it appear as though the climate impacts of its proposal are comparatively minor, when in fact the opposite is true.

In comments on the draft RMP revision, the Conservation Groups explained BLM’s error, stating that BLM “must consider not only the cumulative impact of the greenhouse gas emissions authorized by the revised RMP, it must also consider those emissions combined with other activity in the area.” Draft Comments at 11.

In the FEIS, BLM quantified only “direct” emissions from mining operations, but did not even attempt to quantify “indirect” emissions from combustion, (FEIS at 4-17) as it must under NEPA. As a result, BLM dramatically underreported the amount of CO₂ that will result from combustion of coal from the planning area, even though BLM and other federal agencies have been calculating CO₂ emissions from combustion for coal mining proposals for years. *See, e.g.*, BLM, Wright Area EIS (2010); BLM, Alton Coal Mine DEIS (2011) and SEIS (2015); Forest Service, West Elk Coal Lease Modification EIS (2013); BLM, West Antelope EA (2014); OSM, Bull Mountain EA (2014); Forest Service, Greens Hollow EA (2015).

To convert from “tons of coal mined” to “tons of CO₂ emitted during combustion,” BLM and other agencies use a conversion factor that takes into account specific aspects of the coal seam, such as sulfur content and heat generating capacity, among other factors. In the past, for coal mines in the Powder River Basin, BLM has used 1.659 as the conversion factor,²³ meaning that for every ton of coal mined, there will be 1.659 tons of CO₂ emitted when that same coal is burned in coal fired power plants.

²³ BLM, WRIGHT AREA FEIS at 4-140 (2010), available at <http://www.blm.gov/wy/st/en/info/NEPA/documents/hpd/Wright--Coal.html>.

By not calculating *any* of the CO₂ emissions from combustion of the 70 billion tons of coal made available by the Proposed RMP, BLM has omitted from consideration the vast majority of the greenhouse gasses associated with the plan, or, in this case, over 116 billion tons of CO₂ emissions.²⁴ NEPA requires agencies to analyze and disclose the direct and indirect impacts of their decisions. BLM's failure to meet this simple, clear, and long-standing mandate renders BLM's Final EIS both misleading and legally invalid. With regard to the climate impacts of the proposal, and the billions of tons of coal that the plan calls for burning in coal-fired power plants, BLM has thus "entirely failed to consider an important aspect of the problem," *Utah Envtl. Cong. v. Troyer*, 479 F.3d at 1280, and the FEIS must be set aside.

2. BLM Failed to Consider the Social Cost of Carbon

In addition to failing to calculate the indirect CO₂ emissions that will result from burning coal from the planning area, BLM also failed to take the next step and tell the public what impact those emissions will have on the environment. Instead, BLM relied solely on the *amount* of CO₂e as a proxy for disclosing the *impact* of those emissions. In doing so, BLM violated NEPA by failing to utilize the social cost of carbon – a tool created by federal agencies and generally accepted in the scientific community – that would have allowed the agency to analyze the impact of these emissions.

NEPA specifically requires federal agencies to analyze and disclose the environmental effects of their actions, including "ecological . . . aesthetic, historic, cultural, economic [and] health" impacts.²⁵ Where "information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known," NEPA regulations direct agencies to evaluate a project's impacts "based upon theoretical approaches or research methods generally accepted in the scientific community."²⁶ The social cost of carbon is based on generally accepted research methods and years of peer-reviewed scientific and economic studies. As such, it is the best tool now available for agencies to use in predicting and analyzing the climate impacts of proposed federal actions. BLM's failure to use the social cost of carbon thus violates the requirement that agencies use the generally accepted tools available to them in order to evaluate the impacts of their decisions.

This failure is far more than a mere flyspeck. Using any of the interagency working group's (IWG) social cost of carbon (SCC) values demonstrates that the production of coal, oil, and gas as called for BLM's plan will likely result in massive economic damages associated with climate change. The updated interagency SCC estimates for 2020 are \$12, \$43, \$65 and \$129 (in 2007\$).²⁷ The IWG does not instruct federal agency which discount rate

²⁴ See, e.g., OSM, Environmental Assessment for the Bull Mountain Mine, estimating combustion-related CO₂ emissions account for roughly 96 percent of the total CO₂ emissions from the mine, factoring in mining, transportation, and combustion-related emissions.

²⁵ 40 C.F.R. § 1508.8.

²⁶ 40 C.F.R. § 1502.22(b)(4).

²⁷ See Intergency 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) at 3 (hereinafter 2013 TSD) (attached as Exhibit 5) (including a table of revised SCC estimates from 2010-2050). To put these figures in perspective, in 2009 the British government used a range of \$41-\$124 per ton of CO₂, with a central value

to use, suggesting the 3 percent discount rate (\$43 per ton of CO₂) as the “central value,” but further emphasizing “the importance and value of including all four SCC values[;]” i.e., that the agency should use the range of values in developing NEPA alternatives.²⁸

The agency’s obligation to analyze the costs associated with GHG emissions through NEPA was directly affirmed by the court in *High Country Conservation Advocates v. U.S. Forest Service*, 52 F. Supp. 3d 1174 (D.Colo. 2014). In his decision, Judge Jackson identified the IWG’s SSC protocol as a tool to “quantify a project’s contribution to costs associated with global climate change.” *Id.* at 1190.²⁹ “The critical importance of [climate change]...tells me that a ‘hard look’ has to include a ‘hard look’ at whether this tool, however imprecise it might be, would contribute to a more informed assessment of the impacts than if it were simply ignored.” *Id.* at 1192. To fulfill this mandate, they agency must disclose the “ecological[,] ... economic, [and] social” impacts of the proposed action. 40 C.F.R. § 1508.8(b).

The CEQ Guidance also recently affirmed the inclusion of this type of economic assessment.

If tools or methodologies are available to provide the public and the decision-making process with information that is useful to distinguishing between the no-action and proposed alternatives and mitigations, then agencies should conduct and disclose quantitative estimates of GHG emissions and sequestration.

Federal social cost of carbon, which multiple Federal agencies have developed and used to assess the costs and benefits of alternatives in rulemakings, offers a harmonized, interagency metric that can provide decisionmakers and the public with some context for meaningful NEPA review.

CEQ Guidance at 15, 16; *see also* 40 C.F.R. § 1508.25(c).

According to BLM, total combined production emissions in the planning area is 518,115 metric tons per year of CO₂e, FEIS at 4-26—this alone results in a social cost of carbon of **\$22,278,945** per year. However, and as detailed below, this figure is depressed based on BLM’s reliance on the outdated global warming potential (“GWP”) for methane of 21. FEIS at 4-20. Applying the IPCC’s 20-year GWP for methane of 87 results in total combined production

of \$85 (during the same period, the 2010 TSD used a central value of \$21). Ruth Greenspan and Dianne Callan, *More Than Meets the Eye: The Social Cost of Carbon in U.S. Climate Policy, in Plain English*, WORLD RESOURCES INSTITUTE (July 2011) (attached as Exhibit 4). The UK analysis used very different assumptions on damages, including a much lower discount rate of 1.4%. The central value supports regulation four times a stringent as the U.S. central value. *Id.*

²⁸ *See* 2013 TSD at 12.

²⁹ *See also id.* (noting the EPA recommendation to “explore other means to characterize the impact of GHG emissions, including an estimate of the ‘social cost of carbon’ associated with potential increases in GHG emissions.”) (citing Sarah E. Light, *NEPA’s Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies*, 87 Tul. L. Rev. 511, 546 (Feb. 2013)).

emissions of 786,905 metric tons per year of CO₂e, or a social cost of carbon of **\$33,836,915**.

Critically, this figure fails to consider the downstream combustion emissions of fossil fuel production in the planning area, as discussed above. *See* CEQ Guidance (“emissions from activities that have a reasonably close causal relationship to the Federal action, such as those that may occur as a predicate from the agency action (often referred to as upstream emissions) and as a consequence of the agency action (often referred to as downstream emissions) should be accounted for in the NEPA analysis.”) (citing 40 C.F.R. § 1508.8). According to BLM, annual fossil fuel production in the planning area is as follows: 22.4 million tons of coal production (FEIS at 4-370); 5.9 million barrels of oil (FEIS at 4-383); and 7.9 million MCFs of natural gas (FEIS at 4-383). After converting existing production into tons of CO₂e from combustion emissions, this results in: 37 MMTCO₂e of coal; 2.5 MMTCO₂e of oil; and 439,377 MTCO₂e of gas. This results in a combined social cost of carbon from combustion of fossil fuels from the planning area of **\$1,725,933,011**. Thus, the combined social cost of planning area emissions from fossil fuel production and downstream combustion is **\$1,759,769,926**, each year.

BLM’s failure to consider the \$1.7 billion in annual costs of GHG emissions from the planning area effectively assumes a price of carbon that is \$0. *High Country*, 52 F. Supp. 3d at 1192 (holding that although there is a “wide range of estimates about the social cost of GHG emissions[,] neither the BLM’s economist nor anyone else in the record appears to suggest the cost is as low as \$0 per unit. Yet by deciding not to quantify the costs as all, the agencies effectively zeroed out the cost in its quantitative analysis.”).

An agency must “consider every significant aspect of the environmental impact of a proposed action.” *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 107 (1983) (quotations and citation omitted). This includes the disclosure of direct, indirect, and cumulative impacts of its actions, including climate change impacts and emissions. 40 C.F.R. § 1508.25(c). The need to evaluate such impacts is bolstered by the fact that “[t]he harms associated with climate change are serious and well recognized,” and environmental changes caused by climate change “have already inflicted significant harms” to many resources around the globe. *Massachusetts v. EPA*, 549 U.S. 497, 521 (2007); *see also id.* at 525 (recognizing “the enormity of the potential consequences associated with manmade climate change.”). Among other things, the agency’s analysis must disclose “the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity[,]” including the “energy requirements and conservation potential of various alternatives and mitigation measures.” 42 U.S.C. § 4332(c); 40 C.F.R. § 1502.16(e). As explained by CEQ, this requires agencies to “analyze total energy costs, including possible hidden or indirect costs, and total energy benefits of proposed actions.” 43 Fed. Red. 55,978, 55,984 (Nov. 29, 1978); *see also* Executive Order 13514, 74 Fed. Reg. 52,117 (Oct. 5, 2009) (requiring government agencies to disclose emissions information annually from direct and indirect activities). Failing to perform such analysis undermines the agency’s decisionmaking process and the assumptions made.

Applying the SCC, as noted above, takes abstract emissions and places them in concrete, economic terms. It also allows the agency to easily perform the cost-benefit analysis envisioned by EO 12866, as well as BLM’s own policy. Specifically, Instruction Memorandum

No. 2013-131 (Sept. 18, 2013) is reflective of the BLM’s attempt to internalize the costs of such emissions:

All BLM managers and staff are directed to utilize estimates of nonmarket environmental values in NEPA analysis supporting planning and other decision-making where relevant and feasible, in accordance with the attached guidance. At least a qualitative description of the most relevant nonmarket values should be included for the affected environment and the impacts of alternatives in NEPA analyses....

Nonmarket environmental values reflect the benefits individuals attribute to experiences of the environment, uses of natural resources, or the existence of particular ecological conditions that do not involve market transactions and therefore lack prices. Examples include the perceived benefits from hiking in a wilderness or fishing for subsistence rather than commercial purposes. The economic methods described in this guidance provide monetary estimates of nonmarket values. Several non-economic, primarily qualitative methods can also be used to characterize the values attributed to places, landscapes, and other environmental features. Guidance on qualitative methods for assessing environmental values, including ethnography, interviews, and surveys, is in preparation.

Ideally, economic analysis for resource management should consider all relevant values, not merely those that are easy to quantify. Utilizing nonmarket values provides a more complete picture of the consequences of a proposed activity than market data alone would allow. The BLM's Land Use Planning Handbook, Appendix D encourages inclusion of information on nonmarket values, but does not provide detail.

The agency simply cannot ignore its obligation to consider the costs of GHG emissions in its decisionmaking on the Buffalo Proposed RMP/FEIS.

Nor can the agency tout the benefits of coal, oil and gas development without similarly disclosing the costs. *See* 40 C.F.R. § 1502.23. Here, BLM cites the economic benefits of a project—such as job creation or federal royalties—while failing to discuss the costs. FEIS at 1652, 1650. This type of misleading and one-sided analysis is expressly forbidden. *See Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 446-47 (4th Cir. 1996) (“it is essential that the EIS not be based on misleading economic assumptions); *Sierra Club v. Sigler*, 695 F.2d 957, 979 (5th Cir. 1983) (agency choosing to “trumpet” an action’s benefits has a duty to disclose its costs). “If a cost-benefit analysis is relevant to the choice among different alternatives being considered, it must be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences.” CEQ Guidance at 16 (citing 40 C.F.R. § 1502.21).

3. BLM Failed to Consider Available Mitigation Measures that Could Avoid GHG Emissions and Reduce Methane Waste

As noted above, NEPA imposes “action forcing procedures ... requir[ing] that agencies take a *hard look* at environmental consequences.” *Methow Valley*, 490 U.S. at 350 (citations omitted) (emphasis added). These “environmental consequences” may be direct, indirect, or cumulative. 40 C.F.R. §§ 1502.16, 1508.7, 1508.8. BLM is required to take a hard look at those impacts as they relate to the agency action, and the Buffalo RMP fails to provide this hard look analysis. “Energy-related activities contribute 70% of global GHG emissions; oil and gas together represent 60% of those energy-related emissions through their extraction, processing and subsequent combustion.”³⁰ Even if science cannot isolate each additional oil or gas well’s contribution to these overall emissions, this does not obviate BLM’s responsibility to consider oil and gas development in the BFO from the cumulative impacts of the oil and gas sector. In other words, the BLM cannot ignore the larger relationship that oil and gas management decisions have to the broader climate crisis that we face. Here, the Proposed RMP conducted no air quality modeling for emissions, and failed to provide a hard look detailed analysis of impacts. *See* FEIS at 680; *see also Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1379 (9th Cir. 1998) (“To ‘consider’ cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public, in reviewing the [agency’s] decisions, can be assured that the [agency] provided the hard look that it is required to provide.”). If we are to stem climate disaster—the impacts of which we are already experiencing—the agency’s resource management decisions, as provided in the Buffalo Proposed RMP, must be reflective of this reality and plan accordingly.

The Proposed RMP/FEIS fails to do so. BLM provides that “[o]il and gas production is the second major contributor to GHG emissions for all alternatives,” after methane emissions from surface coal mining operations. FEIS at 683. The agency then continues, acknowledging that “[t]he largest sources of GHG emissions within the oil and gas sector include CO₂ emissions from natural gas compressors and drill rig engines, and fugitive CH₄ emissions from wellhead equipment, pneumatic devices and tanks.” *Id.* While the Buffalo RMP offers that “[c]onsiderable reductions in these estimated emissions may be realized at the time of actual development through control technologies,” none of these measures are required. Specifically, Appendix N to the Proposed RMP, the “Buffalo Air Resource Management Plan,” aims to reduce emissions through “operator committed measures.” *Id.* at 2488. In other words, the proponent of a project will determine what control technologies they want to employ, if any at all. For example, the FEIS states: “BLM *may* require proponents to demonstrate compliance with ambient air quality standards and other federal, state, and local air quality regulations.” FEIS at 565 (emphasis added). The agency then offers, at Table N.3, “Sample Emission Reduction Strategies for Oil and Gas Development Projects” as an example of mitigation strategies that could be used. *Id.* at 2490-93; *see National Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 735 (9th Cir. 2001) (“A ‘perfunctory description,’ or ‘mere listing of mitigation measures, without supporting analytical data,’ is insufficient.”). This voluntary and generic approach to GHG emissions, and

³⁰ International Investors Group on Climate Change, *Global Climate Disclosure Framework for Oil and Gas Companies* (Sept 26 2013 Comment Letter).

specifically the issue of methane waste, fails to satisfy the requirements of SO 3226, NEPA, FLPMA, and the MLA. When commenters to the DEIS raised concerns about the lack of GHG mitigation, the BLM's response was dismissive: "The BLM does not require mitigation for GHGs which have no ambient standards by which to establish a compliance threshold." FEIS at 2690, 2692 (Appendix Y). The NEPA process is not only about compliance with federal statutes, rather it mandates that the agency take a "hard look" and evaluate a proposed action's effect on the human environment. 40 C.F.R. § 1508.14 (2015); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). Here, the BLM dismissed that "hard look" responsibility and erroneously reduced NEPA analysis to merely compliance enforcement. Near-term reductions in methane emissions offer a critical opportunity to slow down rapid warming and reduce the peak of the warming, as detailed below. If methane emissions continue to significantly increase, they will substantially increase the pace and severity of climate change.

The Proposed RMP's brief discussion of possible GHG emissions mitigation also does not align with the CEQ's Guidance on GHGs. *See* CEQ Guidance at 21. CEQ Guidance—reiterative of existing regulations—directs BLM to analyze the quality of mitigation measures for GHG emissions, which the agency fails to do. *Id.* at 20 (providing that "this evaluation should *carefully* examine the mitigation for its permanence, verifiability, enforceability, and additionality."). The BLM failed to even mention these considerations when addressing GHG emissions mitigation, and also fails to do so in Table N.3. FEIS 2490-93. The CEQ additionally outlines that in instances where mitigation measures "address the effects of climate change, the agency's final decision should identify those mitigation measures and the agency should consider adopting an appropriate monitoring program." CEQ guidance at 21. Here, the BFO again suggests possible mitigation measures, which may or may not actually occur, and fails to provide any qualitative assessment of effectiveness. FEIS 2489-90. While BFO may be "identifying" mitigation measures, the list does not provide any basis to evaluate whether mitigation is actually being carried out. The CEQ Guidance recognizes the benefit of monitoring mitigation based on the agency's final decision and its outline for mitigation. CEQ guidance at 21. Here, to create a monitoring program, more than a brief list of possible mitigation measures must exist. FEIS 2490-93. A broad list of possible options that may or may not ever be enforced cannot be the basis of a feasible and stable monitoring program.

By making absolutely no commitment on mitigation measures and best management practices ("BMPs") to address the GHG emissions from oil and gas leasing and development, the BFO is missing a critical opportunity and, indeed, obligation, to address the serious issue of methane ("CH₄") emissions and waste. *See* FEIS at 656 ("For major projects . . . BLM *may* require proponents to demonstrate compliance with ambient air quality standards and other federal, state, and local air quality regulations.") (emphasis added); FEIS at 683 ("Considerable reductions in these estimated emissions *may* be realized at the time of actual development through control technologies . . ."). As detailed in Draft Comments, incorporated herein as Exhibit 1, at 32-33, there are readily available and cost-effective mitigation technologies that can drastically reduce the amount of methane lost during production.

Our concern with methane is particularly acute because BLM uses a scientifically stale global warming potential ("GWP") of 21 for methane on the basis, as we understand it, of EPA's

use of the Intergovernmental Panel on Climate Change's ("IPCC's) 1997 Second Assessment Report ("AR2").³¹ FEIS at 682. Even though EPA has since taken action to update methane's warming potential based on the Fourth Assessment Report ("AR4")³², wherein methane's 100-year warming potential is pegged at 25, federal agencies, like BLM, still lazily adopt EPA's old, scientifically stale warming potential of 21.³³ Moreover, the IPCC has issued a new report, the 2013 Fifth Assessment Report ("AR5"), which supersedes both the AR2 and AR4 reports. The IPCC AR5 explains that fossil methane, over a 100-year time frame and accounting for climate-carbon feedbacks, is 36—not 21 or 25—times as potent as carbon dioxide.³⁴ Over a 20-year time frame, which EPA does not even acknowledge, and again accounting for climate-carbon feedbacks, the IPCC's AR5 report explains that fossil methane's warming potential is 87 times as potent as carbon dioxide.³⁵ Regarding the difference between the 100- and 20-year warming periods, the IPCC AR5 report explains "there is no scientific argument for selecting 100 years [as a time frame for GWPs] compared with other choices."³⁶ While both the 100-year or 20-year time frames should be accounted for in NEPA analyses (in particular because doing so involves a simple calculation), we emphasize the 20-year time frame to underscore the importance of near-term GHG reduction opportunities³⁷ and to better align GHG emissions assessments with the lifetime of Federal projects.

Here, not only does the agency cite dated GWP estimates for methane of 21 times the warming potential of CO₂, FEIS at 682, but BLM also relies on the 100-year time period for these estimates, which fails to recognize the urgency of the climate problems we face. Quite simply, we do not have a century to make the necessary changes. Many climate effects are projected before the end of the century. By looking only at the 100-year figure, BLM's analysis ignores costs that accrue in the interim. Methane emissions factor heavily into how we will address greenhouse gas pollution in the near term. Indeed, the IPCC projects that warming increases may reach 3.6°F (2°C) within decades.³⁸ It's possible that we will experience this additional average heat well before mid-century. The dramatic climate impacts we've seen to

³¹ <http://epa.gov/climatechange/ghgemissions/gases/ch4.html>. EPA's GWP of 21 for methane is, notably, based on the IPCC's 1997 Second Assessment Report that, as discussed herein, has been superseded by the IPCC's Fifth Assessment Report at 8-58.

³² See <http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/2013-data-elements.pdf> (p. 21 Table 2); <http://www.epa.gov/ghgreporting/documents/pdf/2013/documents/memo-2013-technical-revisions.pdf> (Attachment A, p. 96).

³³ See, e.g., BLM, Environmental Assessment for the Fram Whitewater Unit Master Development Plan, DOI-BLM-CO-130-2012-0003-EA at 59 (June 2014) (www.blm.gov/style/medialib/blm/co/field_offices/grand_junction_field/oil_and_gas.Par.2317.File.dat/Fram_White_water_EA_6-13-2014.pdf).

³⁴ IPCC, *Climate Change 2013: The Physical Science Basis, Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* at Ch. 8, p. 714, Table 8.7 (2013) (www.climatechange2013.org/).

³⁵ *Id.*

³⁶ *Id.* at 711.

³⁷ Shindell, D., et al., *Simultaneously Mitigating Near-Term Climate Change and Improving Human Health and Food Security*. Science. Vol. 335, no. 6065 pp. 183-189 (Jan. 13, 2012) (attached to Draft Comments as Exhibit 55).

³⁸ *Id.* at 27-28.

date come from an increase of only about 1.5°C.³⁹ The dire reality we face was again reiterated in the IPCC's *Climate Change 2014 Synthesis Report* (attached as Exhibit 20), concluding:

Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems.

Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks.

That the BFO failed to make the use of *any* methane mitigation technology a requirement for existing and future oil and gas development in the planning area is inexcusable. For example, the agency provides: "Considerable reductions in these estimated emissions may be realized at the time of actual development through control technologies such as electric compressor engines, 'green completions,' low or no bleed pneumatic devices, and capture and control of leaks and vents." FEIS at 683. Such optional mitigation measures fail to meaningfully address the critical challenge of addressing methane waste.

To comply with NEPA, the BLM must take a hard look at direct, indirect, and cumulative impacts, as discussed above. 40 C.F.R. §§ 1502.16(a), (b); 1508.25(c). In evaluating impacts, the agency must discuss "[e]nergy requirements and conservation potential of various alternatives and mitigation measures," "[n]atural or depletable resource requirements and conservation potential of various alternatives and mitigation measures," and "[m]eans to mitigate adverse environmental impacts (if not fully covered under 1502.14(f))." 40 C.F.R. §§ 1502.16(e), (f), (h).

We emphasize, again, the "heart" of the NEPA process: BLM's duty to consider "alternatives to the proposed action" and to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. §§ 4332(2)(C)(iii), 4332(2)(E); 40 C.F.R. § 1502.14(a). Alternatives are critical because, "[c]learly, it is pointless to 'consider' environmental costs without also seriously considering action to avoid them." *Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Commn.*, 449 F.2d 1109, 1128 (D.C. Cir. 1971).

Moreover, the BFO fails to quantify the magnitude of methane pollution from oil and gas emissions sources within the planning area. Oil and natural gas systems are the biggest contributor to methane emissions in the United States, accounting for over one quarter of all methane emissions, or 129.9 million metric tons of CO₂e each year (which does not include CH₄

³⁹ *Id.* at 3.

that has been flared, captured, or otherwise controlled).⁴⁰ However, methane emission rates can differ quite dramatically from one oil and gas field to the next, and, depending on the type of mitigation and emission controls employed, emissions can range anywhere from 1% to 12% of production.⁴¹ In order to sufficiently understand the scope of methane emission impacts expected from the proposed action, BLM should quantify estimated emission rates and analyze alternatives that would mitigate these impacts. However, even without specific data from the proposed action, we can assume leakage somewhere between these two extremes and, even at the low end, emissions reductions would not be trivial. The agency's refusal to consider any mitigation measures that would reduce these emissions fails to satisfy BLM's NEPA obligations.

Even setting aside the issue of climate change, every ton of methane emitted to the atmosphere from oil and gas development is a ton of natural gas *lost*. Every ton of methane lost to the atmosphere is therefore a ton of natural gas that cannot be used by consumers. Methane lost from federal leases will also not yield royalties otherwise shared between federal, state, and local governments. This lost gas reflects serious inefficiencies in how BLM oil and gas leases are developed. Energy lost from oil and gas production—whether avoidable or unavoidable—reduces the ability of a lease to supply energy, increasing the pressure to drill other lands to supply energy to satisfy demand. 40 C.F.R. §§ 1502.16(e)-(f). In so doing, inefficiencies create indirect and cumulative environmental impacts by increasing the pressure to satisfy demand with new drilling. 40 C.F.R. §§ 1508.7, 1508.8(b).

Despite this fact, and the agency's acknowledgment that, “[a]s the major component of natural gas, CH₄ emissions from oil and gas exploration, production, and transportation can be considerable,” FEIS at 682, at 533, the RMP characterizes cumulative GHG emissions from each of the Alternatives as negligible, providing:

The total estimated GHG emissions for 2015 for Alternative D (Proposed RMP) of 9.17 million metric tons (MMt) are approximately equal to 0.13% of the total U.S. 2008 GHG emissions of 6,956 MMT.

Id. at 683. We reject any notion that the emissions from specific activities in the Buffalo Proposed RMP are so small as to warrant a dismissive analysis. The reality of climate change is that it is caused by myriad, specific sources of GHG pollution. The CEQ Guidance states that comparing agency action's emissions to global emissions is “not an appropriate method for characterizing the potential impacts associated with a proposed action.” CEQ Guidance at 9. That comparison does nothing more than outline the challenging nature of climate change and

⁴⁰ See U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012*, at 3-63 (April 2014) (attached to Draft Comments as Exhibit 53).

⁴¹ See, e.g., David T. Allen, et. al., *Measurements of methane emissions at natural gas production sites in the United States*, PNAS (Aug. 19, 2013) (finding emissions as low as 1.5% of production at select sites) (attached as Exhibit 21); Anna Karion, et. al., *Methane emissions estimate from airborne measurements over a western United States gas field*, GEOPHYSICAL RESEARCH LETTERS (Aug. 27, 2013) (finding emissions of 6 to 12 percent, on average, in the Uintah Basin) (attached as Exhibit 22).

reinforce the “fact that diverse individual sources of emissions each make relatively small addition to global atmospheric GHG concentrations that collectively have huge impact.” *Id.* For BLM, here, to disavow itself of responsibility for these specific emissions is to condemn us to unabated GHG emissions.

BLM has recognized that “CH₄ emissions from surface coal mining operations in the PRB . . . is the largest contributor compared to other activities in the planning area,” and “[o]il and gas production is the second major contributor to GHG,” involving “CH₄ emissions from wellhead equipment, pneumatic devices and tanks.” FEIS at 683. However, the Buffalo Proposed RMP fails to provide any detailed, hard look analysis of the proposed actions’ contribution to GHG pollution. While the BFO provides charted emissions estimates under each alternative, this is all the agency offers. There is no discussion or analysis of how these emissions will impact specific resources in the Buffalo planning area, and BLM fails to identify any relationship between this data and its decisionmaking process for the Proposed RMP. It is not enough to simply identify an issue of concern, such as GHG pollution. The CEQ Guidance states that agencies “should consider the extent to which a proposed action and its reasonable alternatives contribute to climate change.” CEQ Guidance at 8. To consider the extent of an actions’ contribution to climate change takes more than just identifying a point of concern; rather, it requires discussion and analysis. The CEQ goes further, stating that agencies should take into account the climate change implications of a proposed project and how it alters the environment. *Id.* at 8. Again, to take into account the implications of climate change demands more than brief discussion, but encourages thorough analysis of the environmental implications. The BLM must take steps beyond laying out information, but should provide detailed analysis (including quantification using the social cost of carbon, as described above) of the proposed actions climate change impacts. The agency’s decisionmaking process must be reflective of this data and take meaningful steps to abate and mitigate the identified harm. *See, e.g., Center for Biological Diversity v. National Highway Traffic Safety Admin.*, 538 F.3d 1172 (9th Cir. 2008).

Specifically, the practical applications of BLM’s GHG pollution mandate are manifest through the GHG emissions and methane waste that will result from oil and gas development authorized by the Buffalo Proposed RMP and FEIS. To this end, BLM certainly does not provide any consideration of the relationship between GHG emissions and the RMP decision made, and fails to address or identify any alternatives or mitigation of GHG emissions from oil and gas development in the Buffalo RMP. This failure is in direct conflict with SO 3226 as well as BLM’s mandate under NEPA, FLPMA, and the MLA.

4. BLM Failed to Identify Ways to Manage for Community and Ecosystem Resiliency

Critically absent from the BLM’s analysis is any mention of the climate change impacts already affecting specific resources in the planning area. As provided in Draft Comments, Exhibit 1, at 33-34, and according to experts at the Government Accountability Office (“GAO”), federal land and water resources are vulnerable to a wide range of effects from climate change, some of which are already occurring. These effects include, among others, “(1) physical effects, such as droughts, floods, glacial melting, and sea level rise; (2) biological effects, such as

increases in insect and disease infestations, shifts in species distribution, and changes in the timing of natural events; and (3) economic and social effects, such as adverse impacts on tourism, infrastructure, fishing, and other resource uses.”⁴² There is absolutely no mention, much less analysis, in the Proposed RMP/FEIS of these growing impacts or the necessity to employ climate mitigation measures to ensure landscape and human resiliency and their ability to adapt and respond to climate change impacts.

Beyond mitigating climate change by reducing contributions of GHG pollution to the atmosphere, the BLM can also help promote ecological resiliency and adaptability by reducing external anthropogenic environmental stressors (like coal and oil and gas development) as a way of best positioning public lands, and the communities that rely on those public lands, to withstand what is acknowledged as ongoing and intensifying climate change degradation. It is crucial for the BLM to close the gap in their decisionmaking regarding the cumulative contribution of coal and oil and gas development made available in the planning area, particularly given the conflict between such authorization and the agency’s responsibility to manage for healthy, resilient ecosystems. Although the BLM has recognized the threat of climate change, the agency’s decisionmaking is not reflective of this harm and the agency fails to take the many necessary and meaningful steps to ameliorate the impacts to communities, landscapes, and species. The BLM’s failure to even mention the relationship between climate change and these impacts is a fundamental deficiency in the Proposed RMP/FEIS, and fails to satisfy the agency’s hard look obligation. *See Morris*, 598 F.3d at 681.

Moreover, CEQ Guidance requires that agencies address the impacts of climate change on the environmental consequences of a proposed action. As the CEQ Guidance recognizes, “[c]limate change can increase the vulnerability of a resource, ecosystem, human community, or structure, which would then be more susceptible to climate change and other effects and result in a proposed action’s effects being more environmentally damaging.” 77 Fed. Reg. at 77,828. These effects are already occurring and are expected to increase, resulting in shrinking water resources, extreme flooding events, invasion of more combustible non-native plant species, soil erosion, loss of wildlife habitat, and larger, hotter wildfires. These impacts have been catalogued in recent scientific studies by federal agencies, including the National Climate Assessment,⁴³ and highlighted by President Obama. *See* Exec. Order No. 13,653, § 1. As the CEQ Guidance recognizes, “GHGs already in the atmosphere will continue altering the climate system into the future, even with current or future emissions control efforts.” 77 Fed. Reg. at 77,829. In other words, climate change impacts are and will continue to be part of the new normal, and “managing th[o]se risks requires deliberate preparation, close cooperation, and coordinated planning ... to improve climate preparedness and resilience; help safeguard our economy,

⁴² GAO Report, *Climate Change: Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources* (2007) (attached to Draft Comments as Exhibit 33); *see also* Committee on Environment and Natural Resources, National Science and Technology Council, *Scientific Assessment of the Effects of Global Climate Change on the United States* (2008) (attached to Draft Comments as Exhibit 34); Melanie Lenart, et. al. *Global Warming in the Southwest: Projections, Observations, and Impacts* (2007) (attached to Draft Comments as Exhibit 35) (describing impacts from temperature rise, drought, floods and impacts to water supply on the southwest).

⁴³ Available at <http://nca2014.globalchange.gov/>.

infrastructure, environment, and natural resources; and provide for the continuity of ... agency operations, services, and programs.” Exec. Order No. 13,653, § 1.

NEPA analyses must account for this reality. While the CEQ Guidance suggests that existing and reasonably foreseeable climate change impacts be considered as part of an agency’s hard look at impacts, the guidance must also account for the fact that climate change effects are and will continue to be a key component of the environmental baseline. Agencies are required under NEPA to “describe the environment of the areas to be affected or created by the alternatives under consideration.” 40 C.F.R. § 1502.15. The affected environment discussion sets the “baseline” for the impacts analysis and comparison of alternatives. As the Ninth Circuit has recognized, “without establishing...baseline conditions...there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” *Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988) (explaining further that “[t]he concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process”).

Excluding climate change effects from the environmental baseline ignores the reality that the impacts of proposed actions must be evaluated based on the already deteriorating, climate-impacted state of the resources, ecosystems, human communities, and structures that will be affected. Accordingly, BLM must clarify that existing and reasonably foreseeable climate change impacts as part of the affected environment in the planning area, which then must be assessed as part of the agency’s hard look at impacts, and integrated into *each* of the alternatives, including the no action alternative. Put differently, simply acknowledging climate impacts as part of the affected environment is insufficient. BLM must incorporate that information into their hard look at impacts (e.g., the cumulative impact of climate change, the proposed action, and other past, present, and reasonably foreseeable impacts), in particular to help inform the design and consideration of alternatives and mitigation measures.

Critically, the final guidance should emphasize that agencies may not shirk their responsibility to assess climate change merely because of uncertainties. “Reasonable forecasting and speculation is...implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labelling any and all discussion of future environmental effects as ‘crystal ball inquiry.’” *Save Our Ecosystems v. Clark*, 747 F.2d 1240, 1246 n.9 (9th Cir. 1984 (quoting *Scientists’ Inst. for Pub. Info., Inc. v. Atomic Energy Comm.*, 481 F.2d 1079, 1092 (D.C. Cir. 1973)). NEPA’s hard look merely requires “a reasonably thorough discussion of the significant aspects of the probable environmental consequences” to “foster both informed decision-making and informed public participation.” *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1194 (9th Cir. 2008) (quotations and citations omitted). As here, BLM has refused to address the implications of their actions in the context of climate change on the basis of uncertainties, such as the lack of fine-scale modeling, which has led BLM to take short-sighted, arbitrary, and capricious action that does not, in fact, account for climate change.

In this context, and to accurately account for and integrate climate change impacts into the affected environment, hard look, alternatives, and mitigation analysis, BLM should evaluate

the relevant resources, ecosystems, or communities for key vulnerabilities as part of the baseline assessment. The vulnerability of ecosystems and communities, as well as the species and physical elements they comprise, depends on their inherent qualities and their ability to change or adapt to address new climatic conditions. For example, the vulnerability of certain species can be affected by the tolerance of individual organisms to the direct effects of climate change, the ability of populations to adapt to those conditions through the expression of genetic variability, and the ability to adjust behaviorally to changes in the ecosystem, such as prey shifts. A vulnerability assessment would examine the species and physical elements of existing ecosystems and determine which elements are sensitive, which are resilient, which have the ability to adapt, and what the likely consequences would be of anticipated changes in climate. Human infrastructure—bridges, roads, buildings, etc.—should be assessed similarly.

Because ecosystems (including the human communities that rest within such ecosystems) are so complex, it is impossible to evaluate the vulnerabilities of every population, species, community, or other element of the system in question. Instead, risk assessment must focus on particular, high-priority elements or “key vulnerabilities.” In its 5th Assessment Report, the IPCC suggested the following criteria for identifying key vulnerabilities:

- Exposure of society, community or social-ecological system to climate stressors.
- Importance of vulnerable system(s).
- Limited ability of society, community, or social-ecological systems to cope with and build adaptive capacities or limit the adverse consequences of climate related hazard.
- Persistence of vulnerable conditions and degree of irreversibility of consequences.
- Presence of conditions that make societies highly susceptible to cumulative stressors in complex and multiple-interacting systems.

In other words, key vulnerabilities are likely to occur where the effects of climate change are large and intense, imminent, long lasting, highly probable, irreversible, and likely to limit the distribution of highly valued systems or system elements. BLM should clarify that understanding and assessing these vulnerabilities, based on existing information and tools,⁴⁴ is a key component of the affected environment, hard look at impacts, and the design and consideration of alternatives and mitigation measures. The Proposed RMP/FEIS is devoid of this type of analysis and consideration.

5. BLM Failed to Discuss Possible Conflicts Between Making 70 Billion Tons of Coal Available for Development and Federal Climate Policies.

NEPA requires environmental impact statements to include discussions of “[p]ossible conflicts between the proposed action and the objectives of Federal . . . policies.” 40 C.F.R.

⁴⁴ Where there is scientific uncertainty, agencies must satisfy the requirements of 40 C.F.R. § 1502.22.

§ 1502.16(c). Here, as noted, the proposed action, along with all alternatives involve making 70 billion tons of coal available for leasing and development. FEIS at 2-76. As noted above, development of this massive reserve of coal is inconsistent with the United State’s commitments under the Copenhagen Accord and its policy for GHG reductions under the Clean Power Plan. The proposed Clean Power Plan was proposed after the comment period for the DEIS. BLM, however, was still required to consider whether its proposed actions would possibly conflict with this policy and how the agency could reconcile the Proposed RMP/FEIS and these federal policies. 40 C.F.R. § 1506.2(d). The FEIS, however, fails entirely to even mention these federal policies, let alone discuss possible conflicts and propose means of reconciling them. BLM’s complete failure to discuss these policies was arbitrary and capricious.

D. BLM Failed to Take a Hard Look at Impacts from Fracking

The Proposed RMP/FEIS is further deficient because although the Proposed RMP contemplates extensive oil and gas extraction, the FEIS fails to take a hard look at the impacts of hydraulic fracturing (or “fracking”), the process which will almost certainly be used for some of this activity. 78 Fed. Reg. at 31638/3 (BLM estimates that roughly 90 percent of new wells on federal lands are hydraulically fractured). Hydraulic fracturing using a fracturing fluid together with a proppant is used to extract oil and gas from shale formations, and a similar process is used for coalbed natural gas extraction. For example, there is absolutely no mention of fracking impacts to air quality from the emission of VOCs emitted during well completion or ambient dust from increased truck traffic, and no discussion of impacts to surface and groundwater quality from fracking chemicals or the possibility of spills or accidents. While BLM does provide estimates regarding water quantity, *see* FEIS 4-56, it marginalizes the amount consumed and fails to provide any actual analysis of impacts.

BLM’s failure to adequately address the impacts of hydraulic fracturing is particularly egregious because, concurrent with the NEPA process for the RMP, BLM was separately stating the need to devote additional attention to hydraulic fracturing. In a rule addressing hydraulic fracturing proposed in May 2012, BLM acknowledged that hydraulic fracturing has important environmental impacts but that existing BLM regulations and practices failed to adequately address those impacts. 77 Fed. Reg. 27,691, 27,692 (May 11, 2012). BLM reiterated these observations in a re-proposal of the rule issued in May 2013, and in the final rule issued March 26, 2015. 80 Fed. Reg. 16,128 (Mar. 26, 2015); 40 C.F.R. § 3160 *et seq.* (hereinafter “Fracking Rule”). Because BLM had repeatedly recognized the importance of hydraulic fracturing, BLM was required to discuss the environmental impacts of hydraulic fracturing in the NEPA analysis for the RMP. The rules will apply to more than 750 million acres of public and tribal lands across the United States, as well as private lands where the minerals are federally managed (“split estate”). This is an area more than seven times the size of California. Strong rules are needed because these lands include our nation’s last wild places, sources of drinking water for tens of millions of Americans, and farms, ranches, and backyards.

In the course of developing these rules, the BLM released two separate proposals before issuing a final rule—the first in May, 2012 and the second in May, 2013. The second draft was significantly watered down when compared to the first. Some of the most glaring problems in the

second version have been removed, but many aspects of the final rules are weaker than the original proposal. While there have been a few improvements, these rules largely bow to industry demands, putting drinking water at risk, thwarting transparency, and failing to modernize key standards. Despite these shortcomings, the timing of the Fracking Rule and its new requirements for developing oil and gas on Federal lands—having been years in the making—was reasonably foreseeable and should have been analyzed and included in BLM’s alternatives analysis, but was not. For example, the agency recognizes: “Permitting a new well is governed by Onshore Oil and Gas Order No. 1 and other applicable federal and state laws and regulations. This includes new and future laws and regulations such as the residence setback being finalized by the WOGCC.” FEIS at 2603. Despite this acknowledgement of “future laws and regulations” BLM fails to even mention the Fracking Rule.

The Fracking Rule supplements the requirements already imposed under existing regulatory requirements (*see* 43 C.F.R. § 3160 *et seq.*) and other state and federal laws. For example, the Fracking Rule “establishes new requirements to ensure wellbore integrity, protect water quality, and enhance public disclosure of chemicals and other details of hydraulic fracturing operations.” 80 Fed. Reg. at 16,129. Under the Fracking Rule, any operator planning to conduct hydraulic fracturing must do the following, among other things:

- Submit detailed information about the proposed operation, including wellbore geology, the location and faults and fractures, the depths of all usable water, estimated volume of fluid to be used, and estimated direction and length of fractures, to BLM with the APD or Sundry Notice and Report on Wells (Form 3160-5) as a Notice of Intent to hydraulically fracture an existing well;
- Design and implement a casing and cementing program that follows best practices and meets performance standards to protect and isolate usable water, defined generally as those waters containing less than 10,000 parts per million of total dissolved solids (TDS);
- Monitor cementing operations during well construction;
- Take remedial action if there are indications of inadequate cementing, and demonstrate to the BLM that the remedial action was successful;
- Perform a successful mechanical integrity test prior to the hydraulic fracturing operation;
- Monitor annulus pressure during a hydraulic fracturing operation;
- Manage recovered fluids in rigid enclosed, covered or netted and screened above-ground storage tanks (although with limited exceptions on a case-by-case basis);
- Disclose the chemicals used to the BLM and the public (although with exceptions for “trade secrets”); and

- Provide documentation of all of the above actions to BLM.

80 Fed. Reg. at 16,129-30; 43 C.F.R. § 3160. BLM not only failed to analyze and apply these new requirements to the planning area, but failed to mention these new, reasonably foreseeable requirements altogether.

The Proposed RMP/FEIS is further deficient for failing to address the fracking rule itself. BLM intended for the Fracking Rule to take effect on June 24, 2015 and to “appl[y] to all wells regulated by BLM,” including those within the planning area. *Id.* at 16,131. These BLM statements from 2012, 2013, and 2015 demonstrate that development of this rule, and application of this rule to the planning area, was reasonably foreseeable and should have been analyzed and included in BLM’s NEPA analysis, but was not. BLM should have considered, for example, the fracking rule’s requirement to manage recovered fluids in rigid enclosed, covered or netted and screened above-ground storage tanks unless a case-by-case exception is granted. As part of this consideration, BLM should have addressed the likelihood that operators would request exemptions to this requirement in the planning area; if so, the appropriateness of granting any such exemptions, including the impacts of different methods of fluid storage. 80 Fed. Reg. at 16,129-30; 43 C.F.R. § 3160. BLM not only failed to analyze and apply these new requirements to the planning area, but failed to mention these new, reasonably foreseeable requirements altogether.

The failure to address the impacts of hydraulic fracturing is particularly egregious because, in promulgating the fracturing rule, BLM stated that impacts of hydraulic fracturing on “landscapes, air, wildlife, etc., as well as greenhouse gas emissions from oil and gas development,” would be analyzed during the “land use planning” process. 80 Fed. Reg. at 16,191. BLM must follow through on that commitment here. Conversely, because BLM failed to consider these impacts in development of the fracking rule, the fracking rule plainly cannot provide a substitute for consideration of these impacts here.

IV. CONCLUSION

The Conservation Groups appreciate your consideration of the information and concerns addressed herein, as well as the information included in the attached exhibits. This information is critical and must be included in the final analysis for the Buffalo RMP and EIS.

Should you have any questions or wish to discuss our concerns in greater detail, please do not hesitate to contact us.

Sincerely,



Kyle Tisdel

Attorney, Climate & Energy Program Director
Western Environmental Law Center
208 Paseo del Pueblo Sur, Unit 602
Taos, New Mexico 87571
575.751.0351
tisdel@westernlaw.org