Land Use Planning Protest Resolution Report

for the

Miles City Field Office Final Supplemental Environmental Impact Statement and Proposed Resource Management Plan Amendment



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Acronyms

BFO Buffalo City Field Office
BLM Bureau of Land Management

C Celsius

CEQ Council on Environmental Quality C.F.R. Code of Federal Regulations

CH₄ methane

CO₂ Carbon dioxide

CRA Congressional Review Act

EIS Environmental Impact Statement

EO Executive Order

FLPMA Federal Land Policy and Management Act

FR Federal Register

GAO Government Accountability Office

GHG greenhouse gas

GtCO₂ gigatonnes of carbon dioxide GWP global warming potential estimate

IPCC Intergovernmental Panel on Climate Change

IWG Interagency Working Group

MCFO Miles City Field Office

NEPA National Environmental Policy Act

RFD reasonably foreseeable development

RMP Resource Management Plan

RMPA Resource Management Plan Amendment

SCC social cost of carbon SCM social cost of methane

SEIS Final Supplemental Environmental Impact Statement

Introduction

Upon release of the Final Supplemental Impact Statement (SEIS) and Proposed Resource Management Plan Amendment (RMPA), a 30-day protest period began on October 4, 2019, at which time any person who previously participated in the planning process and had an interest that is or may be adversely affected by the proposed plan could submit a protest on the proposed plan. A protest can raise only those issues which were submitted for the record during the planning process.

All protests had to be in writing and filed with the Bureau of Land Management (BLM), either as a hard copy or electronically via the ePlanning website by the close of the protest period, which was November 4, 2019. All protest letters sent to the BLM via fax or e-mail were be considered invalid unless a properly filed protest was also submitted.

The ePlanning page for each planning project contained a tool for submitting a valid protest electronically. The link to the respective ePlanning project page where a protest could be filed was included in the Notice of Availability for the Final SEIS and Proposed RMPA, and in related news releases and Dear Reader letters.

All protests had to be filed within the 30-day protest period, which began on the date that the notice of receipt of the Final SEIS/Proposed RMPA is published in the Federal Register (FR), October 4.

The following items must have been included to constitute a valid protest (see 43 C.F.R. Part 1610.5-2):

- The name of the RMP or RMPA and final EIS being protested;
- The name, mailing address, telephone number and interest of the person filing the protest (in other words, how the protestor will be adversely affected by the approval or amendment of the plan);
- A statement of the issue or issues being protested;
- A statement of the part or parts of the plan or amendment being protested (including Chapter, Section, Page, and/or Map);
- A copy of all documents addressing the issue or issues that were submitted during the planning
 process by the protesting party, or an indication of the date the issue or issues were discussed
 for the record; and
- A concise statement explaining why the State Director's decision is believed to be wrong.

Protestors were informed that before including their personal identifying information in their protests, their entire protest—including personal identifying information—may be made publicly available at any time. BLM cannot guarantee that personal identifying information would be withheld upon request.

In order for the issue raised in a protest to be valid, it had to include the following:

- It must be in the record that the protest issue has been raised in the planning process before, or that the issue provides significant new information (in other words, it came to light near the end of the draft RMP or RMPA comment period);
- The protest must relate to a planning issue, not an implementation issue;
- The protest must clearly state what law/regulation/policy the BLM is violating (i.e., names the law/regulation/policy specifically or uses key words that make it clear);
- The protest must clearly explain why the proposed RMP or RMPA violates the stated law/regulation/policy;

- The protest must give a reference in the document where the violation stated occurs; and
- The protest must be concise.

If the protest lacked any of the above elements, it was deemed invalid.

The 30-day protest period ended on November 4, 2019. The BLM then reviewed all protest issues for the proposed planning decisions in accordance with 43 C.F.R. § 1610.5-2. The BLM's Acting Assistant Director for Resources and Planning concluded that the BLM Montana State Director followed the applicable laws, regulations, and policies, and considered all relevant resource information and public input. The Acting Assistant Director for Resources and Planning addressed the protests and issued a Protest Resolution Report to protesting parties and posted the Report on the BLM's website – no changes to the Proposed RMP Amendment were necessary. The decision for each protest, regarding its validity and its approval or denial, was recorded in writing and along with the reasons for the decision. The decision was sent to the protesting party by certified mail, return receipt requested.

On October 16, 2020, the United States District Court for the District of Montana set aside the Miles City Approved RMP Amendment because the Court determined that William Perry Pendley "exercised the Director's exclusive authority to resolve protests" on proposed RMP decisions. The Department disagrees with the court's decision, and, as particularly relevant here, with the assertion that only the BLM Director may resolve protests on resource management plans. Moreover, as described above, Mr. Pendley did not actually resolve the protests for the Miles City RMP Amendment. Nonetheless, the Department recognizes that the Court has set aside the Miles City RMP Amendment based on its conclusions to the contrary. Accordingly, following the Court's order, the Secretary and his staff completed an independent evaluation of a proposed Protest Resolution Report and Proposed Record of Decision. Following that review, the Secretary approved this Protest Resolution Report, issued a written decision to protesting parties, and posted this Report on the BLM's website. The decision of the Secretary is the final decision of the Department of the Interior.

Specific information related to the protests received can be found below.

Miles City SEIS/RMPA Protest Period

The BLM released the Miles City Field Office Final SEIS and Proposed RMPA for public protest on October 4, 2019. The BLM received six (6) protest letters during the 30-day protest period (see Protesting Party Index, below).

Protestor/Organization	Determination
Western Energy Alliance	Denied - Issues
Richland County	Denied - Issues
The Wilderness Society	Denied - Issues and Comments
Western Environmental Law Center, Sierra Club, Montana Environmental Information Center, WildEarth Guardians, Western Organization of Resource Councils, Center for Biological Diversity, Powder River Basin Resource Council, Northern Plains Resource Council, Natural Resources Defense Council, and Big Blackfoot Riverkeeper	Denied - Issues and Comments
Montana Natural Resource Coalition	Denied - Issues

LaDonna Benes	Dismissed - Comments Only
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As outlined in the BLM's FR notice dated October 4, 2019 (84 FR 33284), the planning regulations at 43 C.F.R. § 1610.5-2 describe the requirements for filing a valid protest. All protest letters were evaluated to determine which protest letters were complete, timely, and which persons held standing to protest, consistent with BLM land use planning regulations at 43 C.F.R. § 1610.5-2. The Protesting Party Index includes determinations as to how protest letters did or did not meet the requirements.

Coal Screening Analysis

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: Both the Buffalo and Miles City coal screening analyses contained in the SEISs are fraught with error and cannot be lawfully relied upon to determine what lands should be open for coal leasing, as explained below.

[Agriculture] Multiple-use screens did not include a thorough analysis of coal leasing impacts to -; agriculture. The new coal screens BLM conducted in developing Alternatives B and C included multiple-use screens that considered conflicts with oil and gas wells; oil and gas units; perennial, riparian, and wetland resources; conservation easements; recreation areas; sport fishing reservoirs; areas of critical environmental concern; and cultural viewsheds. Conflicts with area agriculture were not explicitly considered and we believe BLM must consider these impacts before selecting an appropriate Alternative.

[Historic Lands] Unsuitability criterion 7 at 43 C.F.R. § 3461.5(g)(1) provides that:

All publicly or privately-owned places which are included in the National Register of Historic Places shall be considered unsuitable. [...] On Figure 3-1, "Alternative B: Impact Analysis Area," Federal coal beneath the Bones Brothers Ranch southeast of Birney, Mont., on Hanging Woman Creek has been deemed acceptable for leasing under Alternative B. The Bones Brothers Ranch is listed on the National Register of Historic Places and falls under the definition of Historic lands under 43 C.F.R §3461.5(g).

Issue: The coal screening analyses contained in the SEIS has errors and cannot be lawfully relied upon to determine what lands should be acceptable for further consideration for coal leasing.

Response: 43 C.F.R. § 3420.1-4(e) establishes the coal screening criteria to be applied prior to land use planning actions in order to identify areas acceptable for further consideration for leasing.

The BLM competitive leasing regulations establish four major steps to be used during the land use planning process to identify federal coal areas acceptable for further consideration for leasing. The four steps are 1) identification of coal development potential; 2) application of the coal unsuitability criteria; 3) multiple use conflict evaluation and elimination; and 4) surface owner consultation (43 C.F.R. § 3420.1-4(e)). Collectively, these steps are called the Coal Screening Process and are described in more detail below.

First, the BLM evaluates the planning are to identify "only those areas that have development potential may be identified as acceptable for further consideration for leasing. The Bureau of Land Management shall estimate coal development potential for the surface management agency" (43 C.F.R. \S 3420.1-4(e)(1)). Lands determined to have development potential are considered acceptable for further consideration for leasing and are evaluated based on the three remaining coal screens as described

below. Lands determined to not have development potential are eliminated from further consideration for leasing.

Eligible lands that are reviewed using the coal unsuitability criteria identified at 43 C.F.R. § 3461.5 (43 C.F.R. § 3420.1-4(e)(2)). These 20 criteria identify certain lands as unsuitable for all or certain stipulated methods of coal mining, . Some of the criteria have exceptions or exemptions whereby lands could be leased if the definition is met. For example, lands that qualify as unsuitable under *Criterion* 7, may be excepted "if, after consultation with the [ACHP] and the [SHPO], they are approved by the surface management agency, and, where appropriate, the State or local agency with jurisdiction over the historic site." The regulation also exempts from this criterion, "[lands] to which the operator made substantial legal and financial commitments prior to January 4, 1977, [lands] on which surface coal mining operations were being conducted on August 3, 1977, or [lands] which include operations on which a permit has been issued" (43 C.F.R. §§ 3461.5(g)(2)-(3)). Lands determined to be unsuitable for leasing are eliminated from further consideration for leasing in the planning process.

Eligible lands are also evaluated for multiple uses that may conflict with coal leasing and, under 43 C.F.R. § 3420.1-4e(3), "multiple land use decisions shall be made which may eliminate additional coal deposits from further consideration for leasing, to protect resource values of a locally important or unique nature not included in the unsuitability criteria." Multiple-use values may include possible oil and gas development and soil, forest, wildlife, recreation, agriculture, air, and watershed resources. Lands with coal potential may be eliminated from further consideration for leasing where multiple uses conflict.

Finally, 43 C.F.R. § 3400.0-5 describes the process by which the BLM consults with qualified surface owners that have expressed their preference for mining federal coal under their surface lands. In order to be a qualified surface owner, the individual(s) must: (1) hold legal or equitable title to the surface of split estate lands; (2) have their principal place of residence on the land; personally conduct farming or ranching operations upon a farm or ranch unit to be affected by surface mining operations; or receive directly a significant portion of their income, if any, from such farming and ranching operations; and (3) have met the first two conditions for a period of at least 3 years, except for persons who gave written consent less than 3 years after they met the requirements. In computing the 3-year period, the BLM Authorized Officer shall include periods during which title was owned by a relative of such person by blood or marriage if, during such periods, the relative would have met the requirements of this section.

In the planning area, agricultural lands are be primarily found within river bottoms and areas with alluvial valley floors. As identified in Appendix A of the Final SEIS/Proposed RMPA, all perennial streams, 100-year floodplains, alluvial valley floors, wetlands, and riparian areas are determined unacceptable for further consideration for leasing. Additionally, under 43 C.F.R. § 3461, *Criterion 16* identifies 100-year floodplains as unsuitable (43 C.F.R. § 3461 (p)(1)) and *Criterion 19* identifies alluvial valley floors as unsuitable (43 C.F.R. § 3461 (s)(1)). Finally, agriculture lands that are split-estate (federal minerals with private surface owners) must receive written consent from the landowner for leasing. Thus, agricultural lands in the planning area are afforded significant protection from coal leasing.

With regard to protection of historical sites, the Bones Brothers Ranch was determined unsuitable for coal leasing under 43 C.F.R. § 3461.5 during the planning process. However, as described above, there is an exception for *Criterion* 7, which would allow the lands to be leased if the conditions are met. As a result, the exception, the Bones Brothers Ranch is identified as acceptable for further consideration for leasing with the caveat that the exception for criterion 7 under 43 C.F.R. § 3461.5(g)(2) must be met. See Appendix A for the Final SEIS/Proposed RMPA.

The BLM followed the coal screening requirements as described above. Accordingly, this protest is denied.

Other Laws

Richland County, MT Board of County Commissioners Ross Butcher, et al.

Issue Excerpt Text: In our comments, we concluded that the SEIS/RMPA constitutes a Major Rule and Significant Regulatory Action as defined in 5 U.S.C. § 804(3). As a result, and irrespective of which alternative was selected by BLM during the SEIS/RMPA process, the Miles City SEIS/RMPA and RODs are required to be submitted to the White House Office of Management and Budget (OMB), Office Information and Regulatory Affairs OMB/OIRA and the U. S. Congress for a concurrence review in accordance with the Congressional Review Act (CRA). To our knowledge, this administrative step has not been undertaken.

Montana Natural Resource Coalition Loren H. Young, et al.

Issue Excerpt Text: On August 15, 2019, MtNRC filed with the BLM specific and detailed comments on the Miles City SEIS/RMPA. In those comments, which are attached to this protest, we concluded that the SEIS/RMPA constitutes a Major Rule and Significant Regulatory Action as defined in 5 U.S.C. § 804(3). As a result, and irrespective of which alternative was selected by BLM during the SEIS/RMPA process, the Miles City SEIS/RMPA and RODs are required to be submitted to the White House Office of Management and Budget (OMB), Office Information and Regulatory Affairs OMB/OIRA, and the U.S. Congress for a concurrence review in accordance with the Congressional Review Act (CRA). To our knowledge, this important procedural has not been completed, potentially placing BLM actions and decisions under the new RMP at risk.

Issue: BLM has violated the Congressional Review Act (CRA) because the SEIS/RMPA constitutes a Major Rule and Significant Regulatory Action as defined by 5 United States Code 804(3), and BLM has failed to submit the SEIS/RMPA and its Record of Decision, and supporting cost-benefit analysis, to the Office of Management Bureau and United States Congress for a concurrence review.

Response: The protestor submits that the BLM has failed to comply with the reporting provisions of the Congressional Review Act by not submitting the Record of Decision for this plan amendment to GAO and Congress. The Department may choose to send a copy of the final plan amendment to GAO, the Speaker of the House of Representatives and the President of the Senate.. Thus, the BLM has not made a final determination as to whether this is a major rule or regulatory action. The BLM notes, "No determination, finding, action, or admission under this chapter shall be subject to judicial review." 5 USC 805. Accordingly, this protest is denied.

FLPMA - General

The Wilderness Society Chase Huntley

Issue Excerpt Text: Neither the Miles City nor Buffalo Resource Management plan amendments consider the potential for capturing and storing climate change emissions via the sequestration of carbon in the native soils and vegetation that blankets these Field Offices. The extent of carbon sequestration in the soil and natural systems within these field offices, and the implications of reasonably foreseeable development on that ecosystem service, is not adequately addressed in the RMPAs. In both FEISs sequestration is at best alluded to; the amount of carbon sequestered in terrestrial ecosystems nationally and in the two states is only mentioned (see page 3-10 of both FEISs). There is no discussion of how land management decisions could help, or hinder, carbon sequestration in natural systems in

these two Field Offices. There is a need for a holistic analytic analysis that considers sequestration of carbon as part of the land use planning for these two areas, including especially lands with wilderness characteristics.

The court order that is driving this process found three deficiencies in the existing Buffalo and Miles City RMPs that required further analysis under the National Environmental Policy Act (NEPA) and Federal Land Policy and Management Act (FLPMA): the availability of coal for leasing and development needed to be reconsidered; downstream combustion impacts from coal needed to be considered; and the time horizon for analyzing GHG emissions needed to be reassessed. Considering the potential for carbon sequestration in soils and native vegetation (including in Lands with Wilderness Characteristics (often abbreviated to "LWC" in NEPA documents)) is a necessary, and appropriate, part of considering how much land will be available for coal mining. If lands are not made available for coal development more carbon can be stored in the soils and grasslands of these areas, reducing climate change impacts. BLM violated NEPA's 'hard look' mandate by failing to consider this issue in order to meet the terms of the court's order.

In addition to not meeting the requirements of the court order, the failure to consider carbon sequestration in these RMPs fails to meet the requirements of FLPMA. When the BLM develops an RMP it must consider present and potential uses of the lands; consider the relative scarcity of the values involved and alternative means of meeting those values (including via recycling); and weigh long-term versus short-term benefits to the public of the proposed plan. 43 U.S.C. §§ 1712(c)(5)-(7). Clearly a consideration of the value of carbon sequestration in native soils and grasslands would meet these requirements and the failure to consider capturing and storing climate change emissions via sequestration altogether violates these provisions.

Issue: BLM's failure to consider carbon sequestration in either of the SEISs/RMPAs violates the hard look requirements of NEPA and the requirements of Federal Land Policy and Management Act (FLPMA).

Response:

The effects analysis must demonstrate that the BLM took a "hard look" at the impacts of the action (BLM NEPA Handbook, H-1790-1, 6.8.1.2, Analyzing Effects). The BLM need not speculate about all conceivable impacts, but it must evaluate the reasonably foreseeable significant effects of the proposed action within the context of the purpose and need for the action (40 C.F.R. §§ 1502.13, 1508.8). A "hard look" is a reasoned analysis containing quantitative or detailed qualitative information of high quality and scientific integrity, including information provided as part of the public involvement. (BLM NEPA Handbook, H-1790-1, 6.8.1.2 Analyzing Effects; 40 C.F.R. §§ 1500.1(b), 1502.24). The NEPA documents are to be analytic, rather than encyclopedic, with data and analyses that are commensurate with the importance of the impact ((40 C.F.R. §§ 1500.4(b), 1502.2(a)), 1502.15). When drafting an EIS the analysis must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 C.F.R. § 1500.1(b)). Further, when the BLM develops or revises land use plans, it must consider present and potential uses of the lands; consider the relative scarcity of the values involved and alternative means of meeting those values (including via recycling); and weigh long-term versus short-term benefits to the public of the proposed plan. 43 U.S.C. §§ 1712(c)(5)-(7).

¹ References to the CEQ regulations throughout this protest resolution report and within the underlying EIS are to the regulations in effect prior to September 14, 2020. The revised CEQ regulations effective September 14, 2020 are not referred to in this protest resolution report or in the underlying EIS because the NEPA process associated with the proposed action began prior to this date (See 40 C.F.R. § 1506.13).

The purpose and need for this SEIS is to respond to the court order described in Chapter I of the Final SEIS/Proposed RMPA. That order did not include direction to the BLM to analyze carbon sequestration, therefore it was not within the scope of analysis for this SEIS based on the purpose and need statement in Chapter I. The purpose of carbon sequestration is to mitigate/reduce impacts from climate change, which the BLM considers as part of its analysis of air resources. The BLM considered air resources as part of the multiple use conflicts screen applied during the coal screening process described above. In Alternative C, the multiple use criterion used to reduce conflicts with air resources limited coal development to an 8-mile infrastructure around existing mines, thereby making all other lands in the planning area (approximately I,586,400 acres) unavailable in order to specifically address air resource concerns, including climate change. Further, carbon sequestration is a mitigation action item specifically provided for in the 2015 RMP to reduce impacts to air resources, including climate change., The 2015 MCFO RMP also has management actions related to carbon and geo-sequestration (BLM 2015; pages 2-27; 2-69; and 2-107) and the impact analysis in that EIS does discuss sequestration (BLM 2015; pages 4-17 through 4-19 and 4-305 through 4-307). However, because the 2015 RMP was not challenged on this issue, the issue was not brought forward in this SEIS. Therefore, it remains in effect.

The BLM considered carbon sequestration in the 2015 Miles City RMP, but it was not identified as an issue in the court order that instigated this SEIS process. Therefore, in the context of the purpose and need of this SEIS, the BLM did properly consider present and potential uses of the land, the relative scarcity of the values involved, and the long- term versus short-term benefits to the public in the multiple-use screen of the coal screening process. Accordingly, this protest is denied.

Protest Issue By Topic Area

NEPA – Baseline

WELC, WORC, et al. Laura King, et al.

Issue Excerpt Text: BLM MCFO fails to justify the unusual pattern of coal production it forecasts. Historic data for Montana coal production since 2001 show alternating peaks and troughs of coal production, never reaching above 45 million tons per year, with each trough deeper than the last, as demonstrated in the chart below. BLM's forecast, however, foresees a spike in coal production in the near term followed by flat production that steps down over the RMP's 20-year timeframe. The spike is significant: coal production is forecasted to increase more than 10 million tons per year in 2020 from 2019 levels, increasing again in 2021 to 46 million tons per year.

BLM articulates no reason why coal production will spike by nearly 30% in the coming years, much less why coal production will reach levels above historical production of the last 20 years. The two major factors cited by BLM that affect demand for coal from mines within the planning area – retirements of coal-fired power plants and volatility in the overseas coal export market – suggests decline of coal demand, or at best uncertainty about future demand levels. EIA forecasts declining to flat coal production in western states over the same timeframe.

Issue: The MCFO RFD projections predict a spike in coal production that is inconsistent with other forecasts and lack any clarification or justification for its projections such that the BLM has failed to adequately describe forecasted production in the Planning Area.

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¹ Miles City Field Office Resource Management Plan

Response:

The Council on Environmental Quality's (CEQ) regulations implementing NEPA require that agencies use "high quality information" (40 C.F.R. § 1500.1(b)). NEPA regulations require the BLM to "ensure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements" (40 C.F.R. § 1502.24).

The BLM NEPA Handbook also directs the BLM to "use the best available science to support NEPA analyses and give greater consideration to peer-reviewed science and methodology over that which is not peer-reviewed" (BLM Handbook H-1790-1, p. 55). Under the BLM's guidelines for implementing the Information Quality Act, the BLM applies the principle of using the "best available" data in making its decisions (BLM Information Quality Act Guidelines, February 9, 2012).

Trends in the RFD are specific to the MCFO. The forecasted production is derived from information obtained from mine operators in the MCFO and BLM records; therefore, no modeling projections were needed to estimate forecasted production. This RFD accounts for projected closures at the Colstrip Power Plant and closure of the Lewis and Clark Power Plant in Montana. See Section 3.2.2. Refer also to Appendix B, which explains how the RFD was developed.

The BLM's RFD forecasts are appropriate. Accordingly, this protest is denied.

NEPA – Cumulative Effects

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: In the Buffalo SEIS and Miles City SEIS, BLM purports to quantify the cumulative GHG emissions from producing and burning coal, oil, and gas generated under the Buffalo and Miles City Field Offices. Buffalo SEIS at 3-25, T. 3-9; Miles City SEIS at 3-23, T. 3-8. By quantifying the GHG emissions of the two plans together, BLM has corrected one significant error from the SDEISs. However, additional flaws remain that BLM must correct in order to comply with NEPA's mandate that the agency take a hard look at the cumulative climate impacts of its proposals. 40 C.F.R. 1508.7.

First, the cumulative GHG emissions reported in the Buffalo SEIS and Miles City SEIS do not match.

Second, as described in the sections that follow, BLM failed to use any available tool to analyze the impact of these cumulative GHG emissions beyond merely disclosing the amount of emissions calculated. At a minimum, NEPA required BLM to use available tools, such as: (I) the social cost of carbon and social cost of methane to quantify the environmental harms caused by BLM's massive fossil fuel extraction plans, and (2) carbon budgets to provide meaningful context as to the climate impacts as to the Buffalo and Miles City plans.

Issue: The Final SEIS/Proposed RMPA violates NEPA because it fails to adequately discuss the cumulative impacts of potential greenhouse gas (GHG) emissions from coal leasing throughout the Planning Area. BLM has reported inconsistent emission between the two SEISs and has failed to use any available tool like the social cost of carbon (SCC) to analyze the impact of these cumulative GHG emissions beyond merely disclosing the amount of emissions calculated.

Response:

The BLM must discuss the cumulative effects of the proposed action and the alternatives when preparing an EIS (BLM Handbook H-1790-1, Section 6.8.3). The CEQ regulations (40 C.F.R. § 1508.7) define cumulative effects as "... the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions."

See NEPA - Impacts Analysis - Economics, for a response to the issue regarding the social cost of carbon.

The BLM has included an analysis of cumulative GHG emissions from the production and combustion of coal based on the RFD. Evaluation of impacts in the SEIS were prepared in accordance with the CEQ's Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions (84FR30097) which states that "A projection of a proposed action's direct and reasonably foreseeable indirect GHG emissions may be used as a proxy for assessing potential climate effects." In addition, the use of GHG emissions to evaluate climate change impacts was upheld in the court's opinion and order as stated under Claim 4 page 47, "BLM's selection of GHG emissions as a proxy by which to analyze climate change impacts represents a scientific judgment deserving of deference."

A carbon budget is based on the premise that there is a strong relationship between GHG emissions and future global temperature increases. Carbon budgeting is an approach for identifying how much additional carbon dioxide (CO_2) emissions the atmosphere can accept in order to limit global warming to a temperature increase above pre-industrial levels, such as 2.0° Celsius (C), as defined in the Paris Agreement, or 1.5°C, as used in many integrated climate assessment models.

The carbon budget was developed as a tool to assist policy makers in reducing GHG emissions on national and global scales. The budget has evolved over time as scientists refine data and estimates of cumulative carbon emissions that have already occurred. For example, scientists recently revised the budget described in the Intergovernmental Panel on Climate Change (IPCC) Special Report to account for problems associated with the Earth System Models used in the IPCC Fifth Assessment Report budget estimates. These models underestimated historical cumulative CO₂ emissions and were projecting temperatures warmer than have been observed.

According to the IPCC Special Report, "uncertainties in the size of these estimated remaining carbon budgets are substantial." The IPCC SR estimates the budget for a 50/50 chance of exceeding 1.5°C at 580 gigatons of CO_2 (Gt CO_2), with an uncertainty of ± 400 Gt CO_2 . This uncertainty is nearly 70% of the budget and results from the precise meaning of the 1.5°C target, the definitions of "surface temperature" and "pre-industrial" period, the choice in observational temperature datasets, the uncertainty in non- CO_2 factors that influence warming, and if earth-system feedbacks should be considered.

With the large uncertainty in estimating carbon budgets, it is not a useful tool for assigning a GHG emissions significance level at this time. Furthermore, the IPCC Special Report states that proposed actions across many sectors and spatial scales are needed to reduce emissions and limit warming. There is no requirement or mechanism to apply a worldwide carbon budget to a management plan in this SEIS. Evaluations of such proposed actions are beyond the scope of this EIS. Based on the disclosed GHG emissions in the EIS and the substantial uncertainties in the size of carbon budgets, including carbon budgets would not provide additional useful information to the decision-maker or the public.

Furthermore, in the proceedings for litigation on the 2015 MCFO RMP/EIS, plaintiffs offered that "the

BLM might have used a "global carbon budget" or "social cost of carbon protocol," as the standard by which to measure cumulative climate impacts. (Doc. 72-1 at 34-35.) A carbon budget caps the amount of greenhouse gases that may be emitted worldwide to stay below a certain warming threshold. In support of the use of a global carbon budget, Plaintiffs cite the Paris Agreement's mandate to limit global warming "well below 2°C above pre-industrial levels." Id. at 34 n.12. Plaintiffs identify no case, and the Court has discovered none, that supports the assertion that NEPA requires the agency to use a global carbon budget analysis."

The approximately two percent difference between the Buffalo Field Office (BFO) and MCFO cumulative emission totals is based on the location of sources and magnitude of emissions from those sources in each of the planning areas to establish the basis for cumulative emissions. These cumulative sources are different for the BFO and MCFO planning areas. The BLM used the EPA FLIGHT data to determine emissions from large sources other than coal mining and oil and gas development and production in the planning area (see Section 3.3 of the Final SEIS). In addition, the cumulative emissions totals include GHG emissions from the production and downstream combustion of coal, oil, and gas from the 2019 Buffalo Field Office Coal Leasing Final SEIS and Proposed RMPA.

For the reasons stated above, this protest is denied.

NEPA - Range of Alternatives

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: Indeed, the Montana Federal District Court invalidated BLM's prior ElSs for the Buffalo and Miles City RMPs explicitly because the agency failed to consider a reasonable alternative that reduced the amount of coal made available under the plans. The court explained that "BLM's failure to consider any alternative that would decrease the amount of extractable coal available for leasing rendered inadequate the Buffalo ElS and Miles City ElS in violation of NEPA." W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt., 2018 WL 1475470 at *9 (D. Mont. March 26, 2018). BLM has failed to correct that error here, and instead repeats arguments already made and judicially rejected.

In both the Buffalo and Miles City SEISs, BLM failed to consider any alternative that reduced the amount of coal available for development.

In Miles City, BLM similarly only evaluated alternatives that would entail the exact same amount of coal development. As in Buffalo, BLM's alternatives differed slightly in terms of acreage available (Alternative A, 1,581,238 acres available; Alternative B, 1,214,380 acres available (the Preferred Alternative); Alternative C, 158,400 acres available), but did not differ in the amount of coal that would be produced. Miles City SEIS at ES-5. According to BLM, "The GHG emissions for production, transportation, and combustion are the same under the No Action Alternative (Alternative A) and the action alternatives (Alternatives B and C). This is because the same RFD scenario was forecasted in all three alternatives." Miles City SEIS at 3-13.

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: BLM offers several unavailing excuses as to why it cannot consider a No Leasing Alternative. ...In Miles City, BLM echoes some of these claims:

1. "BLM is required to go through the coal screening-process . . . to arrive at its decision on coal allocations."

2. BLM's coal screens, set out at 43 C.F.R. § 3420.1-4(e) "are clear in their direction that coal unacceptability for leasing is based on protecting specific, high-value resources and does not consider unspecific resource concerns." Miles City DSEIS at 2-7.

These claims lack merit.

First, it is clear that Federal Land Policy and Management Act's ("FLPMA") multiple use mandate does not require BLM to prioritize mineral development over other uses, including Conservation Groups' preferred alternative of closing the Buffalo and Miles City planning areas to all fossil fuel development in order to avoid using public lands to exacerbate climate change. The fact that coal leasing is one possible use for public lands does not mean that the Department of the Interior is required to manage public lands to accommodate coal leasing for decades into the future. FLPMA does not mandate that every use be accommodated on every piece of land; rather, balance 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)). Here, BLM acknowledges that using these lands for coal, oil, and gas production will result in massive amounts of GHG emissions (both direct and indirect), and that GHG emissions are the leading cause of climate change. Miles City SEIS at 3-6 to 3-9; Buffalo SEIS at 3-6 to 3-9. Prioritizing the need to reduce GHG emissions from public lands over the need to promote fossil fuel development on those same public lands does not violate FLPMA's multiple use mandate.

. . .

Second, the Mineral Leasing Act ("MLA") similarly does not preclude BLM from considering a No Leasing Alternative, including an alternative where BLM would not issue any future leases for coal, oil, or gas in the Buffalo and Miles City planning areas.

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: In order for BLM to properly analyze and disclose to the public the environmental consequences of its plans, the agency must first understand how its decision to allow massive amounts of coal, oil, and gas production in the planning areas impacts overall production and use of these fossil fuels. BLM has the tools that would allow it to study the issue and disclose the market and climate impacts to the public and decisionmakers — other federal agencies have used these market models for years — but BLM has failed to either use these tools or explain its refusal to do so in the SEISs.

BLM failed here in three key ways. First, BLM refused to consider a "no coal leasing alternative," or indeed any alternative that entails a different amount of coal leasing under either the Buffalo or Miles City plan. Second, BLM failed to consider a "no fossil fuel" Leasing Alternative under either plan, which would stop BLM from issuing new coal, oil, and gas leases in both the Buffalo and Miles City planning areas, effectively closing the Powder River Basin to new leasing. Third, although BLM refuses to study the market effects of *any* alternative, it "assumes" that its decisions – across the entire Powder River Basin and all federal lands – have no impact on the amount of coal developed. This final point is plainly inaccurate and has been rejected by several courts.

Issue: BLM violated NEPA in both SEISs because it has failed to include an alternative that either prohibits new coal leasing or significantly reduces coal leasing within the planning area. Further, BLM refuses to study the market effects of *any* alternative; it "assumes" that its decisions – across the entire

Powder River Basin and all federal lands – have no impact on the amount of coal developed.

Response:

The NEPA directs the BLM to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources;..." (42 U.S.C. § 4332). The NEPA analysis must analyze those alternatives necessary to permit a reasoned choice (40 C.F.R. § 1502.14). In determining the alternatives to be considered, the emphasis is on what is "reasonable," that is to say "reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant" (Question 2a, CEQ Forty Most Asked Questions Concerning CEQ's NEPA Regulations (March 23, 1981)). The purpose and need for action dictates the range of alternatives that must be analyzed, because action alternatives are not reasonable if they do not respond to the purpose and need for action (BLM NEPA Handbook, H-1790-1, 6.2 Purpose and Need,

6.2.1 The Role of the Purpose and Need Statement, 6.6.1 Reasonable Alternatives).

The BLM is required to include a discussion of a range of reasonable alternatives to the proposed action, alternatives which are technically and economically feasible and which meet the purpose and need, and which have a lesser environmental impact (42 U.S.C 4332(2)(C); 40 C.F.R. § 1502.14; 40 C.F.R. § 1508.9(b); 43

46.420(b)). No specific or minimum number of alternatives is required (43 C.F.R. § 46.415(b). When there are potentially a very large number of alternatives, the BLM may only analyze a reasonable number to cover the full spectrum of alternatives. What consists of a reasonable range depends on the nature of the proposal and the facts of the case (BLM Handbook H-1790-1, Section 6.6.1 quoting Question 1b, CEQ, Forty Most Asked Questions Concerning CEQ's NEPA Regulations, March 23, 1981). However, if an agency considers alternatives during the EIS process, but opts not to analyze one or more in detail, the environmental analysis document must identify the alternatives not carried forward and briefly explain why they were eliminated from detailed analysis (40 C.F.R. § 1502.14). C.F.R

The BLM NEPA Handbook identifies a number of potential reasons for eliminating an action alternative from detailed analysis (H-1790-1, Section 6.6.3):

- It is ineffective (it would not respond to the purpose and need);
- It is technically or economically infeasible;
- It is inconsistent with the basic policy objectives for the management of the area (such as, not in conformance with the LUP);
- Its implementation is remote or speculative;
- It is substantially similar in design to an alternative that is analyzed; or
- It would have substantially similar effects to an alternative that is analyzed.

In some situations, it may be appropriate to analyze a proposed action or alternative that may be outside the BLM's jurisdiction. BLM NEPA Handbook, H-1790-1, at 50. (citing Question 2b, CEQ Forty Most Asked Questions Concerning CEQ's NEPA Regulations (March 23, 1981)): "An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because

the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies. Section 1500.1(a)."

Section 2.2.5 of the SFEIS describes how the BLM considered a no leasing alternative and the agency's rationale for dismissing it from detailed analysis. Although a land use planning-level decision can be made that precludes coal development throughout the planning area, it does so by determining lands as unacceptable for further consideration of leasing; the process undertaken to arrive at this land use plan allocation must be consistent with the federal regulations. Namely, the BLM is required to go through the coal screening process outlined in 43 C.F.R. § 3420 et. seq. to arrive at its decision on coal allocations as described above in the response to the protest regarding coal screening analysis. As part of this process, the multiple-use screen is the screen used to remove lands that would conflict with resources of high value to the public from further consideration for coal leasing.

Alternatives B and C show a reduction in lands acceptable for further consideration of leasing compared to Alternative A; Alternative C makes unacceptable nearly five times more acres than Alternative A and three times more acres than Alternative B, for the specific purpose of addressing greenhouse gas emissions through the coal screening process. Once the land use plan-level decision has identified areas acceptable or unacceptable for further consideration of leasing, the decision whether to lease parcels is made at the application level; that is a discretionary action and the no-leasing/no-action alternative would be considered at that stage in the NEPA process.

The forecasted production in the RFD scenario is derived from information obtained from mine operators in the MCFO and BLM records and future estimates provided by the operators and existing lease applications. Based on this information, the BLM determined that there would be no additional leasing during the life of the plan; therefore, the RFD scenario is limited to the approved leases and existing lease applications beyond the already approved leases and existing lease applications. Any future leasing beyond the current leases and existing lease applications considered in this RFD scenario would exceed the scope of impacts analyzed in this RMPA and would require additional NEPA analysis. The policy detailed in 43 C.F.R. § 3420.1—4e explains the selectivity of resources that should drive such determinations of unacceptability. This is consistent with BLM Handbook 3420, which directs the BLM to prioritize energy development to support competitive energy markets and national energy objectives. The BLM's authorities are clear in their direction that coal unacceptability for leasing is based on protecting specific, high-value resources and does not consider unspecific resource concerns.

Decisions made in this RMPA would not result in shifts to the energy market. This is because the RFD does not anticipate new leasing beyond the approved leases or existing lease applications. Additionally, because the NEPA document is a supplement to the 2015 RMP, the no-action alternative is the current Approved RMP (continued management); at the site-specific project level, a no leasing alternative would be analyzed in response to an application.

The BLM considered a no leasing alternative, but eliminated it from further analysis consistent with the requirements of the CEQ regulations. The BLM determined that for the purpose and need of this SEIS a market analysis was not required to adequately analyze the RFD scenario. For the reasons stated above, this protest is denied.

NEPA – Impacts Analysis – Air Resources, Including Greenhouse Gases and Climate Change

The Wilderness Society

Chase Huntley

Issue Excerpt Text: NEPA requires a more searching analysis of climate implications than merely disclosing the amount of pollution. Rather, BLM must examine the "ecological[,]... economic, [and] social" impacts of those emissions, including an assessment of their "significance." 40 C.F.R. §§ 1508.8(b), 1502.16(a)-(b). The U.S. Supreme Court has called the disclosure of impacts the "key requirement of NEPA," and held that agencies must "consider and disclose the actual environmental effects" of a proposed action in a way that "brings those effects to bear on [the agency's] decisions." Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, 462 U.S. 87, 96 (1983) (emphasis added). The tons of greenhouse gases emitted by the proposed actions are not the "actual environmental effects" under NEPA. Rather, the actual environmental effects are the climate impacts caused by those emissions, such as property loss, changes in energy demand, impacts to agriculture, forestry, and fisheries, human health impacts, changes in fresh-water availability, ecosystem service impacts, impacts to outdoor recreation, and catastrophic impacts. These kinds of impacts are included in the SCC calculations developed by the IWG. BLM's failure to employ SCM and SCC methods in the environmental impact statements at issue here violates NEPA and should be corrected.

The Wilderness Society Chase Huntley

Issue Excerpt Text: In preparing the FEISs for these RMPAs, BLM failed to conduct the necessary NEPA analysis relative to methane pollution and climate change. In order to comply with the court's opinion in W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt., CV16-21-GF-BMM, (D. Mont. Mar. 26, 2018) and NEPA, BLM must use the best available science by analyzing the warming potential of methane emissions. BLM must quantify potential lifecycle methane emissions, analyze potential climate change impacts associated with those emissions using available tools, such as the social cost of carbon (SCC), and evaluate mitigation measures to reduce emissions and natural gas waste for each alternative.

WELC, WORC, et al. Laura King, et al.

Issue Excerpt Text: BLM failed to contextualize emissions, such as through the use of the social cost of carbon protocol, a valid, well-accepted, credible, and interagency-endorsed method of calculating the costs of greenhouse gas emissions and understanding the potential significance of such emissions. Although the social cost of carbon and social cost of methane protocols could be used to analyze and disclose to the public the significance of the emissions and impacts of the Buffalo and Miles City plans individually, such an analysis is also informative, appropriate and would fulfill the analysis required by NEPA as part of BLM's analysis of the cumulative climate impact of the two plans together. NEPA requires a more searching analysis of climate implications than merely disclosing the amount of pollution. Rather, BLM must examine the "ecological[,]... economic, [and] social" impacts of those emissions, including an assessment of their "significance." 40 C.F.R. §§ 1508.8(b), 1502.16(a)-(b). The U.S. Supreme Court has called the disclosure of impacts the "key requirement of NEPA," and held that agencies must "consider and disclose the actual environmental effects" of a proposed action in a way that "brings those effects to bear on [the agency's] decisions." Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, 462 U.S. 87, 96 (1983) (emphasis added). The tons of greenhouse gases emitted by the proposed actions are not the "actual environmental effects" under NEPA. Rather, the actual environmental effects are the climate impacts caused by those emissions, such as property loss, changes in energy demand, impacts to agriculture, forestry, and fisheries, human health impacts, changes in fresh water availability, ecosystem service impacts, impacts to outdoor recreation, and catastrophic impacts. These kinds of impacts are included in the social cost of carbon calculations developed by the Interagency Working Group.

Not only does BLM violate NEPA's 'hard look' mandate in its failure to analyze and disclose the

significance of emissions through use of tools such as the social cost of carbon protocol, but also because the agency includes an extensive analysis of the economic benefits of the RMP without similarly disclosing the costs, see Buffalo SEIS at 3-25 to -30 and Appendix D and Miles City SEIS at 3-39 to -51 and Appendix D, thus providing a misleading analysis in violation of NEPA. High Country Conservation Advocates v. U.S. Forest Service. 52 F.Supp. 3d 1174, 1193 (D. Colo. 2014).

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: Finally, BLM fails to take a hard look at the indirect and cumulative impacts of coal combustion. Emissions of particulate matter, oxides of nitrogen, sulfur dioxide, and highly toxic lead, mercury, and arsenic will result in significant impacts.

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: While BLM disclosed GWPs for both the 20-year and 100-year time horizons from the IPCC's 2013/2014 Fifth Assessment Report (hereinafter, "AR5"), it failed to use the correct values for methane GWP from that report. Miles City SEIS at 3-13; Buffalo SEIS at 3-13. BLM cites a 100-year methane GWP of 28 and a 20-year methane GWP of 84. Miles City SEIS at 3-13; Buffalo SEIS at 3-13. AR5 includes a range of estimates for methane GWP.25 Without including climate-carbon feedbacks ("cc fb"), methane has a 100-year GWP ("GWP100") of 28 and a 20-year GWP ("GWP20") of 84. However, the IPCC also notes that, "[t]hese values do not include CO2 from methane oxidation. Values for fossil methane are higher by I and 2 for the 20 and 100 year metrics, respectively (Table 8.A.I) (emphasis added)."26 In other words, the most current lower-end scientific estimate of GWP100 for fossil methane, which is what will be produced from these BLM leases, is 30, not 28, and for GWP20 is 85, not 84. The IPCC also provides upper end estimates of fossil methane GWP100 and GWP 20 with cc fb of 36 and 87, respectively. BLM has provided no justification for why it relies on the incorrect, lower-end estimates of GWP100 and GWP20. These failures undermine the accuracy and integrity of the GWP analysis. See 40 C.F.R. §§ 1500.1(b), 1502.24. Thus, BLM failed to provide a "full and fair discussion" of the methane pollution resulting from its actions, as required by NEPA. See id. § 1502.1.

Western Energy Alliance

Tripp Parks

Issue Excerpt Text: It is clear from the FSEIS that quantification of the impacts of GHG emissions at the leasing stage remains "speculative," at best, based on the assumptions that are incorporated into the document. Specifically, the calculations of GHG emissions from oil and natural gas leasing in the Final SEIS are necessarily over-estimated because BLM does not have sufficient qualitative data, and it assumes that all oil and natural gas produced from the leases will be combusted.

. . .

BLM's inability to control—or even know—what the end uses of oil and gas produced on federal leases will be, in addition to the inability to know if the leases will even be developed, shows that the analysis of downstream emissions is uncertain at best. Taken together, these assumptions clearly result in an overestimation of GHG emissions from oil and natural gas leasing in the planning area. We urge BLM to reconsider these calculations based on more realistic assumptions.

Issue: BLM failed to take a hard look at the direct, indirect, and cumulative impacts of coal combustion on air resources and climate change and thus violates NEPA in the following ways:

1. BLM failed to properly identify and analyze emissions produced by coal combustion.

- 2. BLM overestimated downstream emissions due to lack of qualitative and quantitative data.
- 3. BLM failed to employ social cost of methane (SCM) and SCC methods in the environmental impact statements at issue that would provide proper contexts for the direct and indirect impacts of the proposed action.
- 4. BLM's reliance on incorrect 20-year and 100-year global warming potential (GWP) estimates failed to adequately disclose the impacts of methane pollution resulting from the proposed action.

Response:

The effects analysis must demonstrate that the BLM took a "hard look" at the impacts of the action (BLM NEPA Handbook, H-1790-1, 6.8.1.2, Analyzing Effects). The CEQ regulations specify that the environmental information made available to public officials and citizens before decisions are made must be of "high quality" (40 C.F.R. § 1500.1(b)). A "hard look" is a reasoned analysis containing quantitative or detailed qualitative information. (BLM NEPA Handbook, H-1790-1, 6.8.1.2 Analyzing Effects). The BLM must use information of high quality and scientific integrity in its NEPA analysis, including information provided as part of the public involvement (40 C.F.R. § 1500.1(b) and 1502.24). The NEPA documents are to be analytic, rather than encyclopedic (40 C.F.R. § 1500.4(b) and 1502.2(a)). NEPA directs that data and analyses in an EIS must be commensurate with the importance of the impact (40 C.F.R. § 1502.15), and that NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 C.F.R. § 1500.1(b)).

NEPA directs that data and analyses in an EIS must be commensurate with the importance of the impact (40 C.F.R. § 1502.15), and that NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 C.F.R. § 1500.1(b)). The BLM is required to take a hard look at potential environmental impacts of adopting the MCFO Final SEIS/Proposed RMPA.

The level of detail of the NEPA analysis must be sufficient to support reasoned conclusions by comparing the amount and the degree of change (impact) caused by the proposed action and alternatives (BLM Handbook H-I790-I, Section 6.8.1.2). The BLM need not speculate about all conceivable impacts, but it must evaluate the reasonably foreseeable significant effects of the proposed action (40 C.F.R. §§ 1502.13).

Additionally, the BLM must discuss the cumulative effects of the proposed action and the alternatives when preparing an EIS (BLM Handbook H-1790-1, Section 6.8.3). CEQ regulations (40 C.F.R. § 1508.7) define cumulative effects as "... the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions."

First, per the court order, "The Court agrees with the District of Colorado that, despite the benefits of the social cost of carbon protocol, NEPA does not require a cost-benefit analysis under these circumstances. High Country, 52 F.Supp.3d at 1190. BLM's failure to measure the cumulative impacts of its fossil fuel management by either of Plaintiffs' suggested metrics does not present a 'clear error of judgment.' League of Wilderness Defs., 549 F.3d at 1215."

This evaluation of climate impacts in the SEIS fully responds to the specific requirements of the District of Montana's ruling. Specifically, the MCFO SEIS quantifies the GHG emissions based on global warming

GWP values for both 20- and 100-year time horizons. It uses this data to calculate carbon dioxide equivalents (see Table 3-1 in the MCFO SEIS for a description of the GWPs and scientific relevance of these two time horizons). Additionally, GHG emissions from coal, oil, and gas from the MCFO are provided as a percentage of state, national, and global emissions.

In addition to quantifying GHG emissions, the MCFO SEIS provides a discussion on the physical manifestations of climate change and climate change projections at regional and state scales. The BLM took this approach because climate change and potential climate impacts, in and of themselves, are often not well understood by the general public (Etkin and Ho 2007; National Research Council 2009). This is in part due to the challenges associated with communicating about climate change and climate impacts. It stems in part from the fact that most impacts are due to invisible factors, such as GHGs, and there is a long lag time and geographic scale between causes and effects (National Research Council 2010).

Research indicates that for difficult environmental issues, such as climate change, most people more readily understand the issue under the following scenarios:

- If it is brought to a scale that is relatable to their everyday lives (Dietz 2013)
- When the science and technical aspects are presented in an engaging way, such as narratives about the potential implications of the climate impacts (Corner, Lewandowsky, Phillips, and Roberts 2015)
- Examples are given and information is made relevant to the audience, while linking the local and global scales (National Research Council 2010).

The BLM's approach recognizes that there are adverse environmental impacts associated with the development and use of fossil fuels on climate change; it quantifies potential GHG emission estimates and discusses potential climate change impacts qualitatively, thus effectively informing the decision-maker and the public of the potential for GHG emissions and the potential implications of climate change. This approach presents the data and information in a manner that follows many of the guidelines for effective climate change communication developed by the National Academy of Sciences (National Research Council 2010). It makes the information more readily understood and relatable to the decision-maker and the general public. In addition, in Chapter 3 of the SEIS, the BLM provides a thorough discussion on GWPs, the uncertainty associated with these estimates, and the reasoning for selecting the GWPs used in its calculations. As a result of various complex feedbacks in the earth-atmosphere system, GWPs can only be roughly estimated; according to the IPCC, GWPs have a large uncertainty: ±30 percent and ±39 percent for the 20-year and 100-year CH₄ GWPs, respectively, and ±21 percent and ±29 percent for the 20-year and 100-year Nitrogen oxide GWPs, respectively (IPCC 2013). Estimates of GWPs have been updated over the years as the models used to calculate them have been refined and to reflect the changing composition of the atmosphere that impacts the GWP of each additional ton of GHG emissions. GWPs have been calculated for several GHGs over different time horizons, including 20 years, 100 years, and 500 years. The choice of time horizon depends on the type of application and policy context; hence, no single time horizon is optimal for all policy goals. The United Nations Framework Convention on Climate Change and its Kyoto Protocol adopted the 100-year GWP and the EPA uses the 100-year time horizon in its annual GHG inventories.

This SEIS/RMPA reports carbon dioxide equivalent emissions using GWPs for the 100-year time horizon for consistency with the Environmental Protection Agency's inventory as well as GWPs for the 20-year time horizon to more clearly estimate the relative impacts of shorter-lived GHGs (i.e., CH₄) over the 20-year life of the SEIS/RMPA.

As commenters state, NEPA does not require a cost-benefit analysis (40 C.F.R. § 1502.23), although it does require consideration of economic and social effects (40 C.F.R. § 1508.8(b)). The economic analysis conducted in the MCFO SEIS is for regional economic impact. It describes the effects that agency activities may have on economic conditions and local economic activity, generally expressed as projected changes in employment, labor income, and economic output (Watson, Wilson, Thilmany, and Winter 2007). See Section E.3 of the Final SEIS/Proposed RMPA for more information.

The BLM presented potential changes in economic activity, using such indicators as employment, labor earnings, and output. Output is a measure of the total value of all goods produced. As represented in input-output models, such as IMPLAN, output is the total value of purchases by intermediate and final consumers, or intermediate outlays plus value added; thus, as the BLM clearly presented in the MCFO SEIS, output is not a social benefit, and the BLM did not conduct an economic cost-benefit analysis.

In the approach taken in the MCFO SEIS, the BLM qualitatively discusses climate projections and the link to GHGs and quantifies GHG emissions for the alternatives. This effectively informs the decision-maker and the public of future climate effects at a variety of scales.

Accordingly, the protest is denied.

NEPA - Impacts Analysis - Economic Considerations

The Wilderness Society

Chase Huntley

Issue Excerpt Text: BLM must evaluate the economics of drilling projects by accounting for the benefits of methane reductions to public health, the climate, and the environment, as well as the costs to these very same areas from impacts caused by methane emissions the agency and operators are unable to prevent. If the agency chooses to base decisions in these ElSs and plan amendments on the new, limited, and arbitrary definition of waste under its 2018 Rescission Rule, which is being litigated, that does not delimit the agency's full spectrum of field office level authority and responsibility, it must present an analysis to support that decision that also takes these factors into account.

WELC, WORC, et al.

Laura King, et al.

Issue Excerpt Text: BLM fails to use readily available market-modeling mechanisms and new, peer-reviewed literature examining the impacts of U.S. coal leasing policy on supply, price, and consumption. The fact is that BLM is in control of a massive percentage of the U.S. coal supply, and that changes in coal supply will affect its price and use. Here, through the Buffalo and Miles City RMP amendments, BLM could close the Powder River Basin, the largest coal producing region in the country, to future coal leases. That policy, embodied in the No Leasing Alternatives that BLM refused to study in these SEISs, and as demonstrated by the independent modelling and analyses of Erickson and Lazarus and Vulcan Philanthropies, would cause a massive decrease in U.S. coal supply, leading to an increase in coal price, and cause some U.S. utilities to switch from coal to cheaper alternatives with fewer or no GHG emissions, such as gas, wind, solar, and energy efficiency. BLM must use one of the available energy modelling tools, such as EIA's NEMS or ICF's Integrated Planning Model, to disclose these impacts and compare across alternatives, or explain why it cannot do so. 40 C.F.R. § 1502.22. BLM's failure to do so here inaccurately diminishes the climate impacts of BLM's plans and violates NEPA. BLM's SEISs fail to provide accurate scientific information, fail to use available tools to study the market and climate effects of its proposal, and fail to take the "hard look" that NEPA requires.

Issue: The BLM fails to adequately disclose and analyze the economic impacts of the proposed action and thus violates NEPA in a few ways;

- BLM has failed to evaluate the economics of drilling projects by accounting for the benefits of
 methane reductions to public health, the climate, and the environment, as well as the costs to
 these very same areas from impacts caused by methane emissions the agency and operators are
 unable to prevent.
- 2. BLM has failed to use readily available market-modeling mechanisms and new, peer-reviewed literature examining the impacts of U.S. coal leasing policy on supply, price, and consumption.

Response: The effects analysis must demonstrate that the BLM took a "hard look" at the impacts of the action (BLM NEPA Handbook, H-1790-1, 6.8.1.2, Analyzing Effects). The CEQ regulations specify that the environmental information made available to public officials and citizens before decisions are made must be of "high quality" (40 C.F.R. § 1500.1(b)). A "hard look" is a reasoned analysis containing quantitative or detailed qualitative information. (BLM NEPA Handbook, H-1790-1, 6.8.1.2 Analyzing Effects). The BLM must use information of high quality and scientific integrity in its NEPA analysis, including information provided as part of the public involvement (40 C.F.R. § 1500.1(b) and 1502.24). The NEPA documents are to be analytic, rather than encyclopedic (40 C.F.R. § 1500.4(b) and 1502.2(a)). NEPA directs that data and analyses in an EIS must be commensurate with the importance of the impact (40 C.F.R. § 1502.15), and that NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 C.F.R. § 1500.1(b)).

NEPA directs that data and analyses in an EIS must be commensurate with the importance of the impact (40 C.F.R. § 1502.15), and that NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail (40 C.F.R. § 1500.1(b)). The BLM is required to take a hard look at potential environmental impacts of adopting the MCFO/Final SEIS/Proposed RMPA.

The level of detail of the NEPA analysis must be sufficient to support reasoned conclusions by comparing the amount and the degree of change (impact) caused by the proposed action and alternatives (BLM Handbook H-1790-1, Section 6.8.1.2). The BLM need not speculate about all conceivable impacts, but it must evaluate the reasonably foreseeable significant effects of the proposed action (40 C.F.R. §§ 1502.13).

Additionally, the BLM must discuss the cumulative effects of the proposed action and the alternatives when preparing an EIS (BLM Handbook H-1790-1, Section 6.8.3). CEQ regulations (40 C.F.R. § 1508.7) define cumulative effects as "... the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions."

The Final SEIS/Proposed RMPA is specific to the MCFO. Regarding the social cost of methane, Section E.3 of the Final SEIS/Proposed RMPA provides detailed rationale for not considering the social cost of methane in the SEIS. Simply put, an energy market model is not necessary to inform the management decision. The analysis in the SEIS is focused on the upper limits of GHG emissions as it accounts for the maximum production forecasted in the RFD. If the market were to contract, GHG emissions would be less than what is disclosed. See Sections 3.2.1 and 3.2.2 and Appendix C of the Final SEIS/Proposed RMPA.

Accordingly, the protest is denied.