

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

WILDEARTH GUARDIANS,	)	
DEFENDERS OF WILDLIFE, and	)	
SIERRA CLUB,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civ. No. 1:11-cv-01481-RJL
	)	
U.S. BUREAU OF LAND MANAGEMENT,	)	
	)	
Defendant,	)	
	)	
STATE OF WYOMING, ALPHA	)	
WYOMING LAND CO., and	)	
PEABODY ENERGY CORP.	)	
	)	
Intervenor-Defendants.	)	

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**PLAINTIFFS’ MOTION FOR SUMMARY JUDGMENT**

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Pursuant to Rule 56 of the Federal Rules of Civil Procedure and Local Rule 7.1(h), Plaintiffs WildEarth Guardians, Defenders of Wildlife, and the Sierra Club (“Plaintiffs”) hereby move for summary judgment on all claims at issue in this litigation and based on the Administrative Record submitted by Federal Defendant U.S. Bureau of Land Management (“BLM”). In support of this motion, Plaintiffs are concurrently filing a Memorandum of Points and Authorities. Pursuant to Local Rule 7.1(f), Plaintiffs request oral argument on this motion.

For the reasons provided in the supporting Memorandum, Plaintiffs contend that they are entitled to judgment as a matter of law on their claims. Consequently, Plaintiffs respectfully request that this Court grant summary judgment in their favor and (1) declare that BLM has violated the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, and the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1701 *et seq.*, and (2) vacate

BLM's authorization, sale, and issuance of the Belle Ayr North and Caballo West Federal coal leases until BLM has complied with NEPA and FLPMA.

Respectfully submitted on this 13th day of December 2012.

/s/ Samantha Ruscavage-Barz  
Samantha Ruscavage-Barz (Bar No. CO0053)  
WildEarth Guardians  
516 Alto Street  
Santa Fe, New Mexico 87501  
(505) 988-9126 x.1158 (office)  
ruscavagebarz@wildearthguardians.org

/s/ James J. Tuthton  
James J. Tuthton (Bar No. CO0054)  
WildEarth Guardians  
6439 E. Maplewood Ave.  
Centennial, Colorado 80111  
(720) 301-3843 (office)  
jtuthton@wildearthguardians.org

*Counsel for Plaintiffs*

### **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT was served on all counsel of record through the Court's ECF system on this 13th day of December, 2012.

/s/ Samantha Ruscavage-Barz  
*Counsel for Plaintiffs*

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WYOMING LAND CO., and	)	
PEABODY ENERGY CORP.	)	
	)	
Intervenor-Defendants.	)	

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**PLAINTIFFS' MEMORANDUM OF POINTS AND AUTHORITIES  
IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT**

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## GLOSSARY

APA	Administrative Procedure Act
AR	Administrative Record
BLM	U.S. Bureau of Land Management
CO <sub>2</sub>	Carbon dioxide
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
GHG	Greenhouse gas
IBLA	Interior Board of Land Appeals
the Leases	Belle Ayr North and Caballo West coal leases
µg/m <sup>3</sup>	Micrograms per cubic meter
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NO <sub>x</sub>	Nitrogen oxide
Plaintiffs	WildEarth Guardians, Defenders of Wildlife, and Sierra Club
PM <sub>10</sub>	Particulate matter less than 10 microns in diameter
ppm	Parts per million
PRB	Powder River Basin
RMP	Resource Management Plan
ROD	BLM Record of Decision for West Antelope II leases
VOC	Volatile organic compound
WDEQ	Wyoming Department of Environmental Quality

## INTRODUCTION

On July 21, 2010, and July 29, 2010 the U.S. Bureau of Land Management (“BLM”) issued Records of Decision (“RODs”) authorizing the leasing of just under 300 million tons of Federal coal in the Belle Ayr North and Caballo West coal lease tracts (“the Leases”) in Wyoming’s Powder River Basin. The owners of the Belle Ayr and Caballo Mines applied for these Leases to extend the life of their existing coal mines. AR 3, 49. This case challenges BLM’s decisions to approve the Leases without taking the steps required by Federal law to protect air quality and climate.

First, BLM authorized the Leases without properly analyzing the environmental impacts that lease development would have on the air quality in the Powder River Basin, which is already significantly impaired due to existing and extensive coal mining in the region. BLM acknowledged that mining activities on the Leases will emit ozone and particulate matter, but failed to analyze the impacts of these air pollutants and their significance in the Environmental Impact Statement (“EIS”) for the Leases. These failures violate the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, and the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1701 *et seq.*

Second, BLM failed to analyze the climate impacts of increased carbon dioxide (“CO<sub>2</sub>”) emissions from both the mining and burning coal from the Leases. BLM also failed to analyze the cumulative impacts to climate from CO<sub>2</sub> emissions that will result when the mined coal from 10 other pending Federal coal leases in the Powder River Basin is burned in coal-fired power plants. The Belle Ayr North and Caballo West leases promise to exacerbate the role of both the Powder River Basin and the existing Belle Ayr and Caballo Mines as major contributors to climate change in the United States, given that coal mined from the leases will release between

426 and 554 million tons of CO<sub>2</sub> when it is burned. Burning coal produced from the Leases is a logical consequence of BLM's leasing decisions and, therefore, should have been considered in the leasing EIS. This failure violates NEPA.

Third, BLM failed to analyze a reasonable range of alternatives to address the indirect and cumulative impacts from CO<sub>2</sub> emissions due to coal combustion. BLM's alternatives for the Leases were limited to variations in lease tract configurations. None of the alternatives analyzed in the EIS included consideration of measures to reduce or eliminate significant impacts to climate from the magnitude of CO<sub>2</sub> emissions created by BLM's leasing decisions. This failure violates NEPA.

On July 30, 2012, Judge Kollar-Kotelly granted Federal Defendants' Motion for Summary Judgment in *WildEarth Guardians et. al. v. Salazar et al.*, 2012 WL 3065363 (D.D.C. 2012). That case challenged BLM's authorization of the West Antelope II leases in the Powder River Basin, alleging similar claims to those in the instant case. *Id.* at \*1-2. The court held that: (1) Plaintiffs lacked standing to bring their NEPA claims related to climate change impacts, *Id.* at \*7; (2) BLM took a hard look at air quality impacts from the West Antelope II leases, *Id.* at \*8-10, and (3) BLM's discussion of air quality impacts complied with FLPMA, *Id.* at \*13. Plaintiffs have appealed the court's decision on the grounds that the court erred in holding that Plaintiffs lacked standing to raise climate impacts, and BLM's discussion of ozone impacts complied with NEPA and FLPMA. *WildEarth Guardians et. al. v. Salazar et al.* (Case No. 12-5312 in D.C. Court of Appeals).<sup>1</sup> Plaintiffs describe in detail below the reasoning behind their position that

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<sup>1</sup> Plaintiffs do not take issue with Judge Kollar-Kotelly's holding in *WildEarth Guardians* that BLM adequately considered impacts to air quality from nitrogen dioxide emissions caused by coal mining on the West Antelope II leases. For this reason, Plaintiffs do not pursue the allegation in their Complaint for this action that BLM failed to analyze the impacts of nitrogen dioxide emissions from the Leases.

issues pertaining to BLM's ozone and particulate matter analyses supporting authorization of the West Antelope II leases were wrongly decided and, as a result, should not provide guidance to this Court in deciding similar issues in this case. With respect to Plaintiffs' climate-related claims, *WildEarth Guardians* does not provide any guidance because the court did not reach the merits of those claims. Finally, Judge Kollar-Kotelly's holding that Plaintiffs lacked standing to raise claims related to climate impacts is not relevant here because Plaintiffs present a different basis for standing than that presented in *WildEarth Guardians*.

For these reasons, the this Court should hold unlawful and set aside BLM's authorizations for both of the Leases.

#### **STATEMENT OF FACTS**

The Powder River Basin ("PRB") in northeastern Wyoming and southeastern Montana is the largest source of coal in the United States. AR 9378, 11148. In 2006 alone, 42 percent of all coal produced in the United States came from the PRB. AR 2038. Since 2000, PRB coal production has increased nearly 40 percent, from 360 million tons to a record 494 million tons annually. AR 11149. Hundreds of coal-fired power plants with various generating capacities in 36 states burn coal from the region. AR 2039. The ten most productive coal mines in the United States are located in the PRB. AR 11149. The Federal government owns over 90 percent of the coal deposits in the PRB, AR 9389, which means that existing PRB mines are almost wholly dependent on Federal coal for their continued survival.

Between 2004 and 2006, BLM received 12 applications to lease Federal coal in the Wyoming portion of the PRB from coal companies operating existing mines in the area. AR 1558 (Table listing 12 lease applications and relevant information). All 12 lease applications are for "maintenance coal tracts" which are intended to "continue or extend the life of an existing

coal mine.” AR 1481. The Leases challenged herein are two of the 12 Federal coal lease applications before BLM. The agency did not combine all of the lease applications into a single EIS. Instead, BLM grouped sets of lease applications into separate EISs.<sup>2</sup> The leases at issue here—Belle Ayr North and Caballo West—were included in the South Gillette Area Environmental Impact Statement, which also included the West Coal Creek and Maysdorf II lease tracts.<sup>3</sup> AR 1482 (map showing the four lease applications included in the South Gillette FEIS).

**I. THE BELLE AYR NORTH AND CABALLO WEST FEDERAL COAL LEASES**

On July 6, 2004, RAG Coal West (now known as Alpha Coal West), the operator of the Belle Ayr Mine, filed an application with BLM for Federal coal reserves in a tract (“Belle Ayr North tract”) located in the Wyoming PRB, immediately adjacent to the Belle Ayr Mine in Campbell County, Wyoming. AR 3. Alpha Coal West applied to lease the Belle Ayr North tract in order to extend the life of the Belle Ayr Mine. *Id.* The existing Belle Ayr Mine produced 26.6 million tons of coal in 2007, and the Mine has 235.8 million tons of recoverable coal reserves remaining. AR 1560. The Belle Ayr North tract includes approximately 1,578.74 acres containing 208.1 million tons of Federal coal. AR 3.

On March 15, 2006, Caballo Coal Company, the operator of the Caballo Mine, filed an application with BLM for Federal coal reserves in a tract (“Caballo West tract”) located in the Wyoming PRB, immediately adjacent to the Caballo Mine in Campbell County, Wyoming. AR 49. Caballo Coal Company applied to lease the Caballo West tract in order to extend the life of

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<sup>2</sup> The West Antelope II EIS covered the West Antelope II lease application. The Wright Area EIS covered six lease applications—North Hilight, South Hilight, West Hilight, North Porcupine, South Porcupine, and West Jacobs Ranch. The Hay Creek EIS covered the Hay Creek lease application.

<sup>3</sup> The West Coal Creek and Maysdorf II lease tracts are not at issue in this case.

the Caballo Mine. *Id.* The existing Caballo Mine produced 31.2 million tons of coal in 2007, and the Mine has 584.8 million tons of recoverable coal reserves remaining. AR 1563. The Caballo West tract includes approximately 777.49 acres containing 87.5 million tons of Federal coal. AR 49.

## **II. THE NEPA PROCESS**

On August 5, 2009 BLM issued its Final EIS (hereafter “the South Gillette FEIS” or “FEIS”) for four coal lease applications, including the Belle Ayr North and Caballo West leases. AR 1475. The FEIS analyzed four alternatives, including the No Action alternative, for the proposed action of holding competitive lease sales and issuing leases for the Federal coal lands included in the four proposed lease tracts. AR 1489, 1497. The selected alternative (“Alternative 2”) proposed to reconfigure each tract to include some or the entire tract as applied for, and to allow BLM to increase the size of the tract. AR 1497. The action alternatives varied only with regard to tract configuration as it related to competitive interest. AR 1489, 1497.

Plaintiffs provided comments on both the South Gillette Draft EIS and FEIS. *See* AR 4035-53; AR 4125-27; AR 4111-20; AR 4245-67.

On July 21, 2010, the BLM Wyoming State Director signed the ROD for the Belle Ayr North lease application adopting Alternative 2, as analyzed in the FEIS. AR 25. On July 29, 2010, the BLM Wyoming State Director signed the ROD for the Caballo West lease application adopting Alternative 2, as analyzed in the FEIS. AR 68.

On August 30, 2010, Plaintiffs timely filed a Notice of Appeal and Petition for Stay with the Interior Board of Land Appeals (“IBLA”) over BLM’s issuance of the RODs for the Belle Ayr North and Caballo West Leases. AR 10770-10818. On October 28, 2010, the IBLA denied Plaintiffs’ Petition for Stay of the RODs, thereby making BLM’s decision to offer the challenged

leases effective, final, and subject to judicial review. AR 11718-25 (IBLA Order); *see also* 43 C.F.R. § 4.21(a)(3), (b)(4), (c). Accordingly, on June 24, 2011, Plaintiffs filed a motion to voluntarily dismiss their Appeal in order to challenge BLM's decision in Federal court. AR 11775-76. On August 9, 2011, the IBLA filed an order granting this dismissal. AR 11778.

On October 10, 2011, Plaintiffs filed a motion to stay this litigation pending an outcome in *WildEarth Guardians et. al. v. Salazar et al.* (Case No. 1:10-cv-1174-CKK) which Plaintiffs believed could provide guidance for the instant case. Dkt. No. 21. This Court denied Plaintiffs Motion on June 12, 2012. On July 30, 2012 Judge Kollar-Kotelly granted Federal Defendants' Motion for Summary judgment in *WildEarth Guardians*. As discussed in the Introduction and in more detail below, the court erred in several of its holdings, and Plaintiffs are currently appealing those holding which they believe are in error. Thus, *WildEarth Guardians* does not provide meaningful guidance for deciding the issues in the instant case.

### STANDARD OF REVIEW

Under the standards of review set forth in the Administrative Procedure Act ("APA"), the Court must review whether BLM's actions are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); *Defenders of Wildlife v. Babbitt*, 130 F. Supp. 2d 121, 124 (D.D.C. 2001). "[I]n making the factual inquiry concerning whether an agency decision was 'arbitrary or capricious,' the reviewing court 'must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.'" *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989) (quoting *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971)).

Furthermore, the Court considers "whether the agency acted within the scope of its legal authority, whether the agency has explained its decision, [and] whether the facts on which the

agency purports to have relied have some basis in the record. . . .” *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 105 (D.D.C. 1995) (citing *Citizens to Preserve Overton Park*, 401 U.S. at 415-16; *Prof'l Drivers Council v. Bureau of Motor Carrier Safety*, 706 F.2d 1216, 1220 (D.C. Cir. 1983)). “Summary judgment is an appropriate procedure for resolving a challenge to a Federal agency’s administrative decision when review is based upon the administrative record . . . even though the Court does not employ the standard of review set forth in Rule 56, Fed. R. Civ. P.” *Id.* (citing *Richards v. I.N.S.*, 554 F.2d 1173, 1177 n.228 (D.C. Cir. 1977)).

## ARGUMENT

### I. PLAINTIFFS HAVE STANDING TO MAINTAIN THIS ACTION

Plaintiffs have standing to challenge BLM’s Belle Ayr North and Caballo West leasing decisions because they can demonstrate: (1) injury; (2) causation; and (3) redressability.

*Massachusetts v. EPA*, 549 U.S. 497, 517 (2007). Plaintiffs are submitting declarations from their members setting forth specific facts supporting standing, which for purposes of summary judgment must be taken to be true. *Sierra Club v. EPA*, 292 F.3d 895, 899 (D.C. Cir. 2002).

Plaintiffs have suffered direct, procedural and informational injuries under NEPA and the APA based on BLM’s failure to adequately consider the Leases’ impact on air quality and climate change. Belle Ayr and Caballo are massive coal leases that will produce just under 300 million tons of coal and, when burned to generate electricity, will release up to 554 million metric tons of carbon dioxide. AR 11165. Because BLM failed to properly disclose or consider these air quality and climate change impacts, its final decision to issue leases that will permanently harm lands Plaintiffs’ members use and enjoy was ill-informed, causing Plaintiffs harm.



The D.C. Circuit Court has called NEPA claims the “archetypal procedural injury.” *Nat’l Parks Cons. Ass’n v. Manson*, 414 F.3d 1, 5 (D.C. Cir. 2005). *See Lemon v. Geren*, 514 F.3d 312, 1315 (D.C. Cir. 2008) (“The idea behind NEPA is that if the agency’s eyes are open to the environmental consequences of its actions . . . it may be persuaded to alter what it proposed.”) While Plaintiffs are harmed in direct, concrete ways by the agency’s substantive decision (e.g. by air pollution from coal mining), they are also harmed by the agency’s failure to follow NEPA’s procedural requirements, compliance with which may have changed the agency’s decision. *See, e.g., Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989) (NEPA “focus[es] the agency’s attention on the environmental consequences of a proposed project” to ensure that these are not overlooked in decisionmaking); 40 C.F.R. § 1500.1(c) (“NEPA’s purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action.”). Additionally, a procedural rights plaintiff “never has to prove that if he had received the procedure the substantive result would have been altered. All that is necessary is to show that the procedural step was connected to the substantive result.” *Sugar Cane Growers Coop. of Fla. v. Veneman*, 289 F.3d 89, 94-95 (D.C. Cir. 2002).<sup>4</sup>

**A. Plaintiffs Have Standing to Maintain This Action Independent of Climate-Related Injuries.**

A plaintiff can enforce procedural rights “as long as the procedures in question are designed to protect some threatened concrete interest.” *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 573 n.8 (1992). NEPA’s procedural requirements are designed to protect Plaintiff’s

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<sup>4</sup> This Court need only find standing for one plaintiff, *Massachusetts*, 549 U.S. at 518, and Plaintiffs here meet the test for associational standing because (1) at least one member of each organization would have standing in his own right; (2) the litigation seeks to protect interests germane to the organization’s purpose; and (3) neither the claim asserted nor the relief requested requires the participation of individuals. *Hunt v. Wash. State Apple Adver. Comm’n*, 432 U.S. 333, 343 (1977).

concrete recreational and aesthetic interests in the grasslands surrounding the enormous Belle Ayr and Caballo coal lease tracts. *See Friends of the Earth, Inc. v. Laidlaw Env'tl. Servs., Inc.*, 528 U.S. 167, 183 (2000) (holding that environmental plaintiffs adequately allege injury in fact by asserting that “they use the affected area and are persons ‘for whom the aesthetic and recreational values of the area will be lessened’ by the challenged activity.”) In issuing the Leases, BLM violated NEPA’s procedural mandate by failing to provide any analysis of the impacts to air quality from ozone concentrations or PM<sub>10</sub> emissions resulting from these Leases. *See infra* Part II.A.

Jeremy Nichols, a member of WildEarth Guardians, Sierra Club, and Defenders of Wildlife, has visited the nearby Thunder Basin National Grassland, located to the southeast of the leases, on at least seven occasions and has definite plans to do so again, with his next trip scheduled for April 2013. Nichols Decl. ¶¶ 5-8, 11. While on these trips he has enjoyed viewing wildlife and hiking through broad plains, forested areas, and gullies. *Id.* ¶ 10. Mr. Nichols has observed active strip mining at Belle Ayr and Caballo several times, including on June 27, 2012 and on March 19, 2011, when he saw a brownish-orange haze and black dust cloud above the mine. *Id.* ¶¶ 11-12. The Thunder Basin National Grasslands are a special place to Mr. Nichols, and seeing coal mining operations and air pollution in an area he treasures for its remoteness, open skies, and scenery diminishes his recreational and aesthetic interests. *Id.* ¶¶ 10, 12. Mr. Nichols’ harm suffices for standing purposes.

Moreover, BLM’s failure to adequately evaluate and disclose the air quality and climate impacts of the Leases in its EIS further harms Plaintiffs by denying them the ability to review and share this information with the public, their members, and federal policy-makers in a wide range of advocacy efforts aimed at achieving a cleaner environment and more sensible energy

policies. Nichols Decl. ¶ 38. This public information purpose is central to NEPA, “guarantee[ing] that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.” *Robertson*, 490 U.S. at 349. *See also Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (NEPA is designed to provide information to the public and provide for fully informed participation in decisionmaking); *Nat’l Wildlife Fed’n v. Hodel*, 839 F.2d 694, 712 (D.C. Cir. 1989) (“[T]he elimination of the opportunity to see and use an EIS prepared under federal law does constitute a constitutionally sufficient injury on which to ground standing.”).

Plaintiffs’ harms are fairly traceable to defendant’s failure to consider the full environmental impacts of the Leases. BLM admits, for instance, that development of the Leases will result in increased air emissions of PM<sub>10</sub> and other pollutants that are ozone precursors. AR 1713, 1684. Viewing these air pollutants diminishes Mr. Nichols’ aesthetic and recreational enjoyment in the area. Nichols Decl. ¶ 12. Plaintiffs do not need to show that BLM would have selected the “no action” alternative had it adequately considered the air quality impacts of the Leases. It is enough to demonstrate that an adequate analysis could lead the agency to reject the Leases or modify them in ways that would lessen the air quality impacts, which is a sufficient showing for redressability of a procedural injury brought under NEPA and the APA. *See, e.g., Lujan*, 504 U.S. at 572 n.7 (noting that a procedural rights plaintiff satisfies the redressability prong of standing if there is “some possibility that the requested relief will prompt the injury causing party to reconsider the decision that allegedly harmed the litigant.”). A favorable decision in this case would force BLM to fully analyze the environmental impacts associated with emissions of PM<sub>10</sub> and ozone precursors, including the impacts on local air quality and public health, and could lead the agency to take steps to lessen or avoid air emissions.

In *Center for Biological Diversity v. Department of Interior*, 563 F.3d 466 (D.C. Cir. 2009), the Court of Appeals found that petitioners had standing to raise their climate change claims under NEPA because an irrationally-based offshore oil leasing program “could cause a substantial increase in the risk to their enjoyment of the animals affected by the offshore drilling.” *Id.* at 479. The Court’s essential holding—that a plaintiff has standing to raise any NEPA defect where he has a concrete interest affected by an agency’s procedural error—demonstrates that Plaintiffs have standing to raise all NEPA defects in this case. Plaintiffs have concrete recreational and aesthetic interests in their use and enjoyment of the public lands that are in the vicinity of the leases, (Nichols Decl. ¶¶ 10-15), and BLM’s decision to go forward with the Leases without fully complying with NEPA’s procedural requirements will cause a significant increase in risk to Plaintiffs’ interests.

*CBD* is consistent with a long line of authority in the D.C. Circuit. For instance, *Sierra Club v. Adams*, 578 F.2d 389, 391-93 (D.C. Cir. 1978), also affirms the principle that a plaintiff does not need to establish independent grounds for standing with respect to each flaw in an agency’s NEPA document. In *Adams* the Sierra Club and other American environmental advocacy groups alleged three NEPA deficiencies in an EIS prepared by the Department of Transportation in conjunction with a highway project in Panama. 578 F.2d at 391. The agency conceded that plaintiffs had standing to challenge the EIS with regard to its discussion of the spread of foot-and-mouth disease. *Id.* The agency asserted, however, that plaintiffs lacked standing with respect to the EIS’s evaluation of alternatives and discussion of the impact of the project on two local tribes, the Cuna and Coho Indians. *Id.* The court held that “because appellees have established an independent basis for standing to challenge the FEIS, they also have standing to argue the public interest in support of their claim that there is inadequate

discussion and consideration of the construction on the Cuna and Choco Indians.” *Id.* at 393 (emphasis added). In 2006 the Supreme Court affirmed the essential point of *Adams*, stating that “once a litigant has standing to request invalidation of a particular agency action, it may do so by identifying all grounds on which the agency may have failed to comply with its statutory mandate.” *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 353 n.5 (2006) (citing *Adams*, 578 F.2d at 392) (internal quotation omitted). As described above, Plaintiffs here have more than satisfied the necessary showing to support standing for claims related to BLM’s inadequate consideration of climate change and air quality impacts in the NEPA process.

**B. Plaintiffs Also Have Standing to Maintain This Action Because of Climate-Related Injuries.**

Even if Plaintiffs somehow lacked standing to attack all relevant aspects of BLM’s NEPA process on the basis of their members’ use of the very lands directly affected by the mines, Plaintiffs would also have standing because their members will be affected by the massive CO<sub>2</sub> pollution that will result from BLM’s decision.

**1. Climate injury-in-fact.**

The BLM leases at issue here will lead to the release of 554 million metric tons of CO<sub>2</sub>. This massive burst of pollution will exacerbate climate change. Climate change is already injuring Plaintiffs’ members and these emissions will worsen those impacts. Thus, Plaintiffs’ members have suffered an invasion of legally protected interests that is “actual or imminent.” *Lujan*, 504 U.S. at 560. As discussed above with regard to non-climate harms, Plaintiffs suffered a procedural injury from BLM’s failure to adequately consider the climate change implications of its leasing decisions under NEPA.

To establish both actual and imminent injury from climate change, Plaintiffs rely on member declarations and the expert declaration of climate scientist Dr. Michael MacCracken. Together they establish a geographic nexus between the lands owned or enjoyed by Plaintiffs' members and the impacts of climate change in this country. The Supreme Court relied heavily on a declaration from Dr. MacCracken to find standing for plaintiffs in *Massachusetts v. EPA*, 549 U.S. at 521-22, and Dr. MacCracken's sworn declaration submitted here is based on his professional, expert knowledge of climate science and the impacts of climate change.

MacCracken Decl. ¶¶ 1-12. Dr. MacCracken concludes that carbon dioxide emissions associated with the mining and burning of coal from the Belle Ayr and Caballo leases will amplify and exacerbate climate change impacts in specific geographic areas where Plaintiffs have members that live and recreate, including parts of the western United States and coastal areas in Florida and New Jersey. *Id.* ¶¶ 13, 23, 37, 38, 41.

Petitioners have many members, including declarants, who have been and will continue to be injured by adverse effects of climate change. These injuries include the following harms:

- Actual aesthetic and recreational harms already suffered by members who use and enjoy public lands in forested areas that are undergoing deforestation as a result of insect pests. For example, Jeremy Nichols has witnessed once vibrant forests decimated by insects in the Mt. Zirkel Wilderness Area in northern Colorado, the Platte River Canyon in Medicine Bow National Forest in southeastern Wyoming, and the Black Hills of western South Dakota and northeastern Wyoming. Nichols Decl. ¶ 26. These changes in the forest ecology are attributable to climate change, MacCracken Decl. ¶ 37-38, and harm both Mr. Nichols' aesthetic enjoyment of the forests and his recreational interest in hiking and camping in these areas. Nichols Decl. ¶ 26. Mr. Nichols now avoids hiking and camping in these areas as a

result of his reasonable concerns that climate-related pest infestation and deforestation are damaging the area. Nichols Decl. ¶ 26; MacCracken Decl. ¶ 38. The Supreme Court has previously found that this type of harm to one's use and enjoyment of natural resources constitutes injury-in-fact sufficient for standing. *See Laidlaw*, 528 U.S. at 183-84 (finding that pollution discharges and declarant's reasonable concerns about the impacts of those discharges directly affected the declarant's recreational, aesthetic, and economic interests for purposes of standing).

- Actual harm to economic interests already suffered by members who had personal property destroyed as a result of a recent storm surge along coastal New Jersey. For example, Sierra Club member Joyce Isaza lost her car in the recent storm surge, Isaza Decl. ¶ 5, and Sierra Club member Greg Auriemma lost his furnace, hot water heater, air conditioning system, main electrical panel, and dock. Auriemma Decl. ¶ 5. Dr. MacCracken specifically identifies this type of storm surge as being related to climate change. MacCracken Decl. ¶ 37.
- Imminent harm to aesthetic and economic interests of members who own coastal real estate that is threatened by continued sea level rise, coastal erosion, and increased storm surges. For example, Sierra Club member Percy Angelo's home is located on Lemon Bay on the west coast of Florida in an area designated by the state as a Coastal High Hazard Area at particular risk during hurricanes and tropical storm events. Angelo Decl. ¶ 4. She is now facing the fact that that sea level rise threatens to destroy the mangroves that line her property and possibly her home as well. *Id.* Sierra Club member Joel Fedder lives in Longboat Key, Florida less than 50 feet from the water. Fedder Decl. ¶ 5. He is also facing the fact that sea level rise and increasingly severe storm weather events threaten his property. *Id.* ¶¶ 7-8.

These concerns of imminent harm are well supported by current climate science (MacCracken Decl. ¶ 38) and present the type of imminent harm that the Supreme Court previously found sufficient for injury-in-fact. *See Massachusetts*, 549 U.S. at 523 (“Petitioners maintain that the seas are rising and will continue to rise, and have alleged that such a rise will lead to a loss of [the state’s] territory. . . . Our cases require nothing more.”).

## 2. Causation

To establish causation Plaintiffs must show that their injuries are “fairly traceable” to the challenged actions of the Defendant. *Lujan*, 504 U.S. at 560. In the climate change context, the Supreme Court rejected the “erroneous assumption that a small incremental step, because it is incremental, can never be attacked in a federal judicial forum” and found causation where an agency action “contributes” to plaintiff’s climate-related injuries. *Massachusetts*, 549 U.S. at 523-24. Plaintiffs maintain that BLM’s leasing decisions at Belle Ayr and Caballo result in increased greenhouse gas emissions that contribute meaningfully to Plaintiffs’ climate-related injuries. Complaint, ¶¶ 6, 7, 16. This is all that is required.

In the world of coal burning and greenhouse gas pollution, the Belle Ayr and Caballo mines are dominant influences. They are the sixth and seventh largest coal producers in the United States, AR 10789, and the leases challenged here will produce roughly 67 million tons of coal per year and more than 300 million tons over the life of the leases. AR 02032. Plaintiffs’ expert economist Tom Power calculates that the leases represent about 15 percent of annual coal production in the Wyoming portion of the PRB, which in turn produces roughly 42 percent of the country’s coal. Power Decl. ¶ 11. When burned, the coal from these leases has the potential to release up to 554 million metric tons of CO<sub>2</sub> into the atmosphere. AR 11165; *see infra* Part II.B. Combined with other pending federal coal leases in Wyoming’s section of the PRB—which



Plaintiffs assert BLM has an obligation to consider in its NEPA review—the Leases will contribute to the release of up to 10.6 billion tons of CO<sub>2</sub>. AR 11165-66. In its Endangerment Finding, EPA found that greenhouse gas emissions, including carbon dioxide, endanger public health and welfare. 74 Fed. Reg. 66,496 (Dec. 15, 2009); MacCracken Decl. ¶ 25. The agency also found that carbon dioxide emissions have already raised global temperatures and have already caused rising sea levels and loss of coastal lands. These effects will continue to grow, with more coastal land lost due to sea level rise and increased and higher storm surges. *Id.* at 66,533. Earlier this year the D.C. Circuit Court of Appeals unanimously upheld the Endangerment Finding from industry challenges, finding that it was based on “a substantial scientific record.” *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 116 (D.C. Cir. 2012).

In addition to the information in the record, the declarations of Dr. MacCracken and those of Plaintiffs’ members demonstrate that BLM’s decision to lease the Belle Ayr and Caballo tracts contributes to Plaintiffs’ climate-related injuries. Dr. MacCracken concludes that the Belle Ayr and Caballo leases will lead “to substantial future emissions that will contribute very importantly to more significant adverse impacts, making them more costly and longer lasting.” MacCracken Decl. ¶ 13. He makes several relevant findings to support this conclusion: 1) increased greenhouse gas emissions, which include carbon dioxide emissions, will contribute to global warming impacts in the U.S. (*Id.*); 2) each increment of greenhouse gas emissions, including those from burning coal mined at Belle Ayr and Caballo, will have both short and long-term climate impacts (*Id.* ¶¶ 13, 41); 3) the impacts of climate change identified by Plaintiffs, such as property damage from sea level rise and storm surges, as well as deforestation due to beetle infestation, are the types of impacts already occurring due to greenhouse gas-induced climate

change (*Id.* ¶¶ 37-38); 4) scientists expect sea level rise to continue in the future, posing a very real threat to coastal property owners, including those in parts of Florida and New Jersey (*Id.* ¶ 38) where Plaintiffs have members.

The climate related-impacts to Plaintiffs' members described above are "fairly traceable" to BLM's leasing decisions: 1) leasing these tracts will result in coal mining (in its EIS BLM calls this the "logical consequence" of its leasing decision, AR 02032); 2) nearly all of the coal mined will be burned to generate electricity in coal-fired power plants (BLM admits this fact in its EIS, AR 02032); 3) burning coal in coal-fired power plants results in carbon dioxide emissions (a widely known fact that BLM notes in its EIS, AR 020234); 4) carbon dioxide is a greenhouse gas and incremental emissions of carbon dioxide contribute to the impact of global warming in areas visited or owned by Plaintiffs' members (MacCracken Decl. ¶¶ 37-38; *Nichols* Decl. ¶¶ 10-15; Angelo Decl. ¶ 4; Fedder Decl. ¶ 5; Auriemma Decl. ¶ 3; Isaza Decl. ¶ 3). There are no third party decision-makers who will affect the outcome in an uncertain manner. The only decisions third parties have to make here is for Intervenors (the operators of the Belle Ayr and Caballo mines), to sell the coal to coal-fired power plants, which even BLM acknowledges as a near certainty in its FEIS. AR 02032.

### **3. Redressability**

Plaintiffs climate injures can be redressed by a favorable decision of this Court which remands BLM's NEPA decision on any basis: climate or non-climate. With respect to both climate and non-climate harms, because Plaintiffs seek to protect a procedural right, the redressability prong is relaxed. *See Lujan*, 504 U.S. at 572 n.7 ("The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy."). As the Supreme Court explained, a

procedural rights plaintiff has standing where there is “some possibility” that the relief sought will prompt the agency to reconsider its decision. *Massachusetts*, 549 U.S. at 518.

With respect to climate harms, the “no action” alternative advocated by Plaintiffs would reduce the rate at which CO<sub>2</sub> emissions are increasing, MacCracken Decl. ¶ 13, 41, and the Supreme Court found such a showing sufficient for redressability in *Massachusetts v. EPA*. The Court found that even if the desired agency action “will not by itself *reverse* global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to slow or reduce it.” 549 U.S. at 525 (emphasis in original). Interpreting this statement, the Colorado District Court found that in challenging oil and gas leases based on climate impacts, “a plaintiff does not have to show that a favorable decision would stop or reverse climate change . . . provided a favorable decision would slow or reduce the pace at which global emissions are increasing, then the plaintiff has satisfied the redressability prong.” *Amigos Bravos v. BLM*, 816 F. Supp. 2d 1118, 1137 (D.N.M. 2011).

In its FEIS evaluating the Leases, BLM speculates that selection of the “no action” alternative would be unlikely to affect the CO<sub>2</sub> emissions attributable to coal-burning power plants because other mines could simply replace the Belle Ayr and Caballo coal. AR 02044-45. As fully explained in the declaration of economist Dr. Thomas M. Power, this speculation is unfounded. *Power Decl.* ¶¶ 15, 34. Basic economic principles of supply and demand dictate that significant changes in coal supply (here 67 million tons per year and roughly 300 million tons overall) will affect the price of coal, which will, in turn, change the amount of coal demanded and consumed. *Id.* ¶ 9. Particularly because coal from other regions such as Appalachia or the Illinois Basin have higher mining, safety, and emission control costs than PRB

coal, a decision not to lease the Belle Ayr and Caballo tracts would increase the cost of using coal for many electric generators. *Id.* ¶ 17-18.

The conclusion from this analysis is that “[a]n increase or decrease in federal PRB coal put on the national coal market is *not* a carbon-neutral” decision. *Id.* ¶ 36. Not only would the price of coal change, but overall energy consumption would also likely change in response to the price of energy. *Id.* ¶ 27-29. Thus, more coal and cheaper coal prices would encourage more energy consumption. By the same token, the “no action” alternative (*i.e.*, reducing PRB coal production by 67 million tons per year) would lead coal prices to rise \$3 per ton and lead to a decrease in electricity consumption. *Id.* ¶ 33.

Based on this analysis, Mr. Power concludes that BLM is wrong in assuming that one ton of coal not mined in the PRB would be offset by one ton of additional coal mined elsewhere—rather, two-thirds of the supply gap would be closed by electric generators reducing their use of coal because of its increased cost. *Id.* ¶ 34. This means that a decision not to lease the Belle Ayr and Caballo tracts would reduce the amount of coal burned each year by 45 million tons, and the amount of carbon dioxide emissions associated with coal burning in this country would fall by roughly 74 million metric tons per year. *Id.* Even if one assumes that all 45 million tons per year of coal are replaced by natural gas (the burning of which emits far less carbon dioxide than coal but far more than renewable energy sources such as wind and solar power), the net amount of carbon dioxide emissions avoided would still be significant. *Id.* ¶¶ 35-37.

Based on this market analysis, supported by admissible declaration testimony by an expert economist, if BLM were to reject the Belle Ayr and Caballo lease sales by selecting the “no action” alternative, the result would be less coal mined, less coal burned, and fewer greenhouse gas emissions from the U.S. electricity sector as a whole. *Id.* ¶¶ 9, 34. This

reduction in greenhouse gas emissions would reduce the pace at which greenhouse gas emissions are increasing, thus redressing Plaintiffs' injuries. *Massachusetts*, 549 U.S. at 525-26.

## II. BLM'S COAL LEASE AUTHORIZATIONS VIOLATED NEPA

NEPA was enacted to ensure that Federal projects do not proceed until the Federal agency analyzes all environmental effects associated with those projects. *See* 42 U.S.C. § 4332(2)(C); *see also Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (NEPA achieves its purpose through “action forcing procedures. . . requir[ing] that agencies take a *hard look* at environmental consequences.”) (citations omitted) (emphasis added). All NEPA analyses must analyze alternatives to the proposed action as well as the direct, indirect, and cumulative impacts associated with the action. *See* 42 U.S.C. § 4332(2), 40 C.F.R. §§ 1508.7, 1508.8.

NEPA's hard look should provide an analysis of impacts that is “useful to a decisionmaker in deciding whether, or how, to alter [a project] to lessen cumulative environmental impacts.” *Natural Res. Def. Council v. Hodel*, 865 F.2d 288, 299 (D.C. Cir. 1988). NEPA's hard look at direct, indirect, and cumulative environmental impacts also informs an agency's alternatives analysis. *See Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1128 (D.C. Cir. 1971) (“Clearly, it is pointless to ‘consider’ environmental costs without also seriously considering action to avoid them.”).

Before authorizing the Leases, BLM was required to analyze the direct, indirect, and cumulative impacts of lease authorization on air quality and climate. As part of BLM's hard look at these impacts, NEPA specifically requires that the agency evaluate the cumulative impacts of: (1) ozone and particulate matter (“PM<sub>10</sub>”) emissions from Lease activities along with ozone and PM<sub>10</sub> emissions from other existing and reasonably foreseeable future activities, (2)

CO<sub>2</sub> emissions from coal mining activities on the Leases themselves combined with CO<sub>2</sub> emissions from mining on 10 other Federal coal leases in the PRB, and (3) CO<sub>2</sub> emissions from burning the coal mined from the Leases in combination with CO<sub>2</sub> emissions from burning the coal mined from 10 other Federal coal leases. *See Grand Canyon Trust v. FAA*, 290 F.3d 339, 342 (D.C. Cir. 2002) (stating that “agency’s [environmental analysis] must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum”).

Council on Environmental Quality (“CEQ”) regulations define “cumulative impacts” 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 other actions. *Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*

40 C.F.R. § 1508.7 (emphasis added). Thus, even if the environmental impacts of an individual lease would be minimal, these impacts may be significant when added to environmental impacts from existing and future leases. *Grand Canyon Trust* described the elements of a sufficient cumulative impacts analysis:

[a] meaningful cumulative impacts analysis must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

*Grand Canyon Trust*, 290 F.3d at 345 (citations omitted).

**A. BLM Failed to Take a Hard Look at Local Air Quality Impacts.**

Surface coal mining activities generate various air pollutants including ozone precursors<sup>5</sup> and PM<sub>10</sub>. Yet, BLM failed to take a hard look at the impacts of these pollutants from the Leases on the already deteriorated air quality in the Wyoming PRB. BLM's authorization of the Leases without addressing air quality impacts from these pollutants is precisely the kind of uninformed decisionmaking that NEPA forbids.

**1. BLM Failed to Take a Hard Look at the Direct and Cumulative Impacts of Ozone Emissions from Coal Mining on Air Quality.**

Ground-level ozone is a dangerous pollutant that has a “causal relationship[] with a range of respiratory morbidity effects, including lung function decrements, increased respiratory symptoms, airway inflammation, increased airway responsiveness, and respiratory-related hospitalizations and emergency department visits.” 73 Fed. Reg. 16,436, 16,443-46 (March 27, 2008). Furthermore, EPA has stated that the latest scientific evidence regarding ozone effects “is highly suggestive that [ozone] directly or indirectly contributes to non-accidental and cardiorespiratory-related mortality,” including “premature mortality.” *Id.* EPA has concluded that individuals with asthma are at particular risk from the adverse effects of ozone. *Id.* Pursuant to the Clean Air Act, EPA established a National Ambient Air Quality Standard (“NAAQS”) for ozone at 0.075 parts per million (“ppm”) over an eight-hour period. 73 Fed. Reg. 16,436. In its FEIS, BLM recognizes these health effects from inhalation of ground-level ozone. AR 1719.

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<sup>5</sup> Ozone is formed when the ozone precursors nitrogen oxide (“NO<sub>x</sub>”) and volatile organic compounds (“VOC”) react with sunlight. AR 1684. Overburden removal and coal blasting events, tailpipe emissions from coal mining equipment, and emissions from trains used to haul coal from mines produce these ozone precursors. AR 1716.

However, BLM failed to take the requisite hard look at the direct and cumulative air quality impacts of increased ozone emissions resulting from coal mining on the Leases. Although BLM acknowledged that ozone is an issue of concern by including ozone as one of the air quality standards applicable to BLM's analysis of leasing impacts, AR 1713, the FEIS provides no analysis of the direct impacts to air quality from ozone concentrations that will result from Lease development. BLM simply provided a table of ozone levels from 2001 through 2008 and did no more. AR 1716. BLM provided a similar characterization of the affected environment in the West Antelope II FEIS, which the court in *WildEarth Guardians*, 2012 WL 3065363 at \*8, determined was adequate to comply with NEPA. However, the court's holding on this issue was in error, so the holding should not guide this Court's decision with respect to this issue. Judge Kollar-Kotelly held that BLM's ozone analysis was reasonable because the agency had adequately characterized the affected environment for ozone emissions in the PRB by noting that the area was in attainment with the ozone NAAQS. *Id.* However, the requirement that an EIS discuss the affected environment is distinct from the requirement that an EIS analyze the environmental consequences of a proposed action. *Compare* 40 C.F.R. § 1502.15 (requirement to discuss affected environment) with 40 C.F.R. § 1502.16 (requirement to analyze environmental consequences). Moreover, the NEPA regulations explicitly reject use of the "affected environment" discussion to fulfill NEPA's hard look requirement. 40 C.F.R. § 1502.15 ("Verbose descriptions of the affected environment are themselves no measure of the adequacy of the environmental impact statement."). Accordingly, although BLM's FEIS for the Leases has fulfilled NEPA's requirement for a discussion of the affected environment, this discussion does not fulfill NEPA's requirement that the FEIS analyze the environmental consequences of



ozone emissions from development of the Leases.<sup>6</sup> Because the FEIS lacks “a detailed statement of the environmental impacts” of ozone, BLM has not “fully consider[ed] and balanc[ed] the environmental factors” relevant to its leasing decisions. *Defenders of Wildlife v. Salazar*, 698 F. Supp. 2d 141, 149 (D.D.C. 2010).

In its response to Plaintiffs’ FEIS comments regarding the agency’s failure to analyze ozone impacts, BLM did not deny that the FEIS lacks an ozone impacts analysis, stating only that “[o]zone has been included in EIS discussions on emissions of NO<sub>x</sub> since NO<sub>x</sub> is one of the main ingredients involved in the formation of ground level ozone.” AR 3744. However, an analysis of NO<sub>x</sub> emissions is not equivalent to an analysis of ozone emissions. First, because EPA has not established a NAAQS for NO<sub>x</sub>, there is no standard against which to judge whether actual or predicted NO<sub>x</sub> levels from lease development are significant. Second, because NO<sub>x</sub> concentrations are measured in micrograms per cubic meter (“μg/m<sup>3</sup>”) whereas ozone concentrations are measured in parts per million, NO<sub>x</sub> concentrations cannot serve as a proxy for ozone concentrations. In her holding that BLM adequately considered ozone in the West Antelope II FEIS, Judge Kollar-Kotelly implicitly believed that BLM’s analysis of NO<sub>x</sub> emissions from mining activities was the equivalent of an ozone analysis. *WildEarth Guardians*, 2012 WL 3065363 at \*8. Clearly, NO<sub>x</sub> emissions are not a proxy for ozone emissions. Thus, BLM’s estimates for NO<sub>x</sub> concentrations for the Belle Ayr North and Caballo West leases (38.0 μg/m<sup>3</sup> in 2013 and 59.8 μg/m<sup>3</sup> in 2014 respectively) do not constitute an analysis of the direct

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<sup>6</sup> Judge Kollar-Kotelly also considered BLM’s identification of “the potential health risks associated with inhalation of ground-level ozone” to fulfill the requirement that BLM consider the impacts of ozone. *Id.* at \*8. However, general disclosure of health impacts from ozone exposure does not provide any information regarding how, or whether, coal mining on BLM’s leases will increase the occurrence of these health impacts in and around the project area. If these health impacts are “caused by the action” that BLM is proposing, then it must disclose these effects “and their significance” in the FEIS. 40 C.F.R. §§ 1508.8, 1502.16.

impacts of ozone emissions to air quality from coal mining. AR 1717-1718 (discussion of NO<sub>x</sub> modeling for the Leases).

BLM also failed to take a hard look at the cumulative impacts of ozone emissions from the Leases “when added to other past, present, and reasonably foreseeable future actions” as required by the NEPA regulations. 40 C.F.R. § 1508.7. There is no mention of ozone in the “Cumulative Environmental Consequences” section of the FEIS that deals with air quality. *See* AR 1962-1972. Such an omission is clearly unlawful given BLM’s identification of ozone as a pollutant of concern from lease development, AR 1684, NEPA’s requirement to consider the cumulative impacts, and this Circuit’s determination in *Grand Canyon Trust*, 290 F.3d at 342, that an agency cannot view a proposed action in a vacuum. In her discussion of ozone emissions in the West Antelope II FEIS, Judge Kollar-Kotelly does not differentiate between analysis of direct and cumulative impacts to air quality from ozone emissions, and does not address Plaintiffs’ claim that BLM failed to analyze cumulative impacts of ozone from the West Antelope II leases in combination with ozone emissions from BLM’s other coal leases in the PRB. *WildEarth Guardians*, 2012 WL 3065363 at \*8. The requirement that BLM consider the “direct effects”<sup>7</sup> of ozone emissions is distinct from the requirement that BLM consider the cumulative impacts of ozone emissions. Here, BLM failed to take a hard look at both the direct and cumulative impacts to air quality from ozone emissions, choosing instead to remain knowingly uninformed about the effects of its decision on air quality. BLM’s failure was, therefore, arbitrary and capricious and violated NEPA.

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<sup>7</sup> The NEPA regulations define direct effects as effects “which are caused by the action and occur at the same time and place. 40 C.F.R. § 1508.8.

**2. BLM Failed to Take a Hard Look at Direct Effects of 24-Hour PM<sub>10</sub> Emissions from Coal Mining on Air Quality.**

Particulate matter less than 10 microns in diameter, or PM<sub>10</sub>, is a criteria pollutant under the Clean Air Act. *See* 71 Fed. Reg. 61,144 (Oct. 17, 2006). The NAAQS promulgated by EPA pursuant to the Clean Air Act limits 24-hour PM<sub>10</sub> concentrations to no more than 150 µg/m<sup>3</sup>. *Id.* at 61,202. According to EPA, health effects associated with short-term exposure to PM<sub>10</sub> include “aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions), increased respiratory symptoms in children, and premature mortality.” *Id.* at 61,178. BLM notes that PM<sub>10</sub> concentrations in the air “can appear as black soot, dust clouds, or gray hazes.” AR 1685. The FEIS includes PM<sub>10</sub> as one of the air quality standards applicable to BLM’s analysis of leasing impacts.<sup>8</sup> AR 1682.

BLM fails to take a hard look at the direct impacts of lease development on the 24-hour PM<sub>10</sub> NAAQS as required by NEPA. Direct effects “are caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Accordingly, because development of the Leases will result in PM<sub>10</sub> emissions and because the Clean Air Act limits short-term exposure levels of this pollutant, BLM is required to consider the impact of these emissions on air quality. However, the Air Quality section of Chapter 3 in the FEIS does not consider whether PM<sub>10</sub> emission levels from mining activities on the Leases would approach or exceed the 24-hour standard or the extent to which these emissions would degrade short-term air quality. In the context of discussing Wyoming Department of Environmental Quality’s (“WDEQ’s”) modeling results for compliance with annual PM<sub>10</sub> concentrations, the agency asserts that “there have been

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<sup>8</sup> Coal crushing, storage, and handling facilities are the primary PM<sub>10</sub> emission sources in the Powder River Basin. AR 1682. Railroad locomotives used to haul coal are also sources of PM<sub>10</sub> emissions. *Id.*

no exceedances of the 24-hour and annual PM<sub>10</sub> NAAQS” at the Belle Ayr and Caballo Mines.<sup>9</sup> AR 1693, 1702. There is no indication in the FEIS that either BLM or WDEQ performed modeling or any other analysis to determine 24-hour PM<sub>10</sub> concentrations from development of the Leases.

The court’s determination in *WildEarth Guardians*, 2012 WL 3065363 at \*9, that BLM’s PM<sub>10</sub> analysis in the West Antelope II FEIS was reasonable and thus complied with NEPA does not provide useful guidance here because that holding addressed only the adequacy of BLM’s cumulative impacts analysis. All of the court’s citations to the record with respect to PM<sub>10</sub> deal with BLM’s cumulative impacts analysis of PM<sub>10</sub> levels. Here, Plaintiffs claim that BLM failed to take a hard look at the direct impacts of 24-hour PM<sub>10</sub> levels from development of the Leases and, as a result, have not provided “the detailed statement of the environmental impacts” from PM<sub>10</sub> emissions caused by mining on the Leases as required by NEPA. *Defenders of Wildlife v. Salazar*, 698 F. Supp. at 149.

BLM cannot reasonably assume that the Leases will not result in exceedances of the 24-hour PM<sub>10</sub> NAAQS simply because there have not been any previous exceedances of the standard at either of the mines.<sup>10</sup> Indeed, such an assumption appears unreasonable given BLM’s

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<sup>9</sup> WDEQ issued air permits for the Belle Ayr and Caballo Mines in 2005 and 2006. AR 1692-93, 1698. Prior to issuing these permits, WDEQ performed modeling to estimate whether the mines would comply with the annual PM<sub>10</sub> standard for the life of the mines. *Id.*

<sup>10</sup> Although there have been no exceedances of the 24-hour PM<sub>10</sub> NAAQS at the mines themselves, BLM acknowledges that exceedances of the standard have occurred in the region around the mines, indicating that PM<sub>10</sub> levels are already a problem in the PRB region. AR 2291 (“From 2001 and 2006, there were 29 monitored exceedances of the 24-hour PM<sub>10</sub> standard at seven operating mines and in 2007 a total of 11 exceedances were reported at six mines.”). EPA also expressed concern about these exceedances at other mines, requesting that BLM put measures in place to ensure compliance with the 24-hour PM<sub>10</sub> standard once activity begins on the Leases. AR 4018 (EPA comments on the South Gillette Draft EIS).

disclosure that mining activities on the Leases are likely to increase PM<sub>10</sub> emissions because of lease characteristics different from current conditions at the mines:

The acquisition and mining of the LBA tracts by the applicant mines could result in an increase in particulate matter emissions per total of coal mined above current levels due to the increased volume of overburden that would have to be removed to recover the coal.

AR 1692. Moreover, BLM admits that it does not know whether development of the Leases will comply with the 24-hour PM<sub>10</sub> NAAQS because the agency has not performed the requisite analysis of direct impacts:

Current mining techniques. . . would be expected to continue for a longer period of time than is shown in the current approved air quality permits. . . If the Belle Ayr [and Caballo] mines acquire the LBA tracts, they will have to amend their current air quality permits to include the new leases before mining activities can proceed into the new lease areas. New air quality modeling would need to be conducted in support of that permit application demonstrating on-going compliance with all applicable ambient standards.

AR 1692. BLM appears to completely rely on the WDEQ air permitting process, performed well after BLM has made the decision to authorize the Leases, to do the analysis of direct impacts to air quality that BLM is required to do under NEPA before making its decision. By punting consideration of air quality impacts to the mining stage, BLM has undermined NEPA's purpose that the agency "take a hard look at [the] environmental consequences" of its proposed action before approving the action. *Robertson*, 490 U.S. at 350.

BLM cannot comply with its obligation to take a hard look at the direct effects of 24-hour PM<sub>10</sub> levels on PRB air quality by relying on state air quality permitting requirements that are intended only to ensure compliance with NAAQS pursuant to the Clean Air Act. By equating Clean Air Act compliance with a sufficient NEPA analysis, BLM violates NEPA's requirement to disclose all of the project's impacts on air quality. The NAAQS are intended to establish compliance standards for the Clean Air Act, not to serve as a benchmark for NEPA impact assessments. *See, e.g., Calvert Cliffs*, 449 F.2d. at 1123 (stating that an agency cannot abdicate

its responsibilities under NEPA “to other agencies’ certifications” because doing so “neglects the mandated balancing analysis.”); *Edwardsen v. U.S. Dep’t of the Interior*, 268 F.3d 781, 789 (9th Cir. 2001) (“[T]he fact that [an] area will remain with compliance with the NAAQS is not particularly meaningful. . . .A more relevant measure would be the degree to which [the Federal action] contributes to the degradation of air quality.”). Thus, current air quality around the Belle Ayr and Caballo Mines cannot be used to determine the degree that the area’s air quality will be degraded when the Leases are developed.

Moreover, even under current air quality permits monitored PM<sub>10</sub> levels are exceeding the NAAQS. AR 2291 (discussed in fn. 10 above). These monitoring data demonstrate that state air quality permitting requirements do not always prevent exceedances or violations of the NAAQS. Given that exceedances of the 24-hour PM<sub>10</sub> standard are already occurring under existing air permits, there is no support for BLM’s position that future air permits will ensure compliance with the NAAQS for PM<sub>10</sub>. Finally, BLM’s cumulative impacts analysis unequivocally demonstrates that development of additional coal leases will result in exceedances of the NAAQS for 24-hour PM<sub>10</sub> levels:

For the Wyoming near-field receptors, the modeling projects maximum 24-hour PM<sub>10</sub> levels greater than 150 µg/m<sup>3</sup> ambient air standard for the 2015 lower and upper coal production scenarios at some receptors. For the 2015 upper development scenario, the modeled levels are above 150 µg/m<sup>3</sup> for several relatively small areas surrounding coal mines and [coal bed natural gas] operations in the Wyoming PRB. . . . [T]he maximum modeled PM<sub>10</sub> impacts from all sources for both the 2015 lower and upper coal development scenarios are over three times the 24-hour Wyoming AAQS standard.

AR 1966.<sup>11</sup> Even if the cumulative modeling results overestimate 24-hour PM<sub>10</sub> levels as BLM asserts, AR 1966, the monitoring data also show that exceedances of the 24-hour PM<sub>10</sub> standard

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<sup>11</sup> For both the 2015 lower and upper coal development scenarios, BLM estimates that the 24-hour PM<sub>10</sub> levels will be 512 µg/m<sup>3</sup>. AR 1965.

are occurring around the mines in the area of the Leases, and BLM expects particulate matter levels to increase when the Leases are developed, AR 1692. Accordingly, there is no support for BLM's claim that state air quality permitting requirements will assure future compliance with the 24-hour PM<sub>10</sub> NAAQS. BLM's arbitrary conclusion that state air permitting will take care of any potentially significant increases in short-term PM<sub>10</sub> emissions from Lease activities and the agency's complete failure to analyze the direct impacts of short-term PM<sub>10</sub> emissions to air quality violate NEPA.

**B. BLM Failed to Take a Hard Look at Climate Impacts.<sup>12</sup>**

BLM's consideration of climate impacts from its Leasing authorizations falls short in three ways. First, BLM failed to analyze direct impacts to climate from CO<sub>2</sub> emissions from coal mining activities on the Leases. Second, BLM failed to analyze impacts to climate from cumulative CO<sub>2</sub> emissions from coal mining activities on the Leases in combination with coal mining activities on 10 other Federal coal leases in Wyoming's PRB. Third, BLM failed to analyze the indirect impacts to climate from CO<sub>2</sub> emissions caused by combustion of the Belle Ayr North and Caballo West coal in combination with coal combustion from 10 other Federal coal leases. Instead, the agency attempted to excuse its lack of meaningful analysis on the basis of alleged complexities and uncertainties as to future regulation of CO<sub>2</sub> emissions and climate impacts. However, NEPA simply does not excuse analysis of environmental impacts on these bases.

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<sup>12</sup> Because Judge Kollar-Kotelly ruled that Plaintiffs did not have standing to pursue their claims related to climate impacts, she did not address Plaintiffs' arguments alleging that BLM failed to take a hard look at climate impacts and failed to analyze a reasonable range of alternatives to address climate impacts. *WildEarth Guardians*, 2012 WL 3065363 at \*7 (“[T]he Court concludes that Plaintiffs lack standing to pursue their climate change claims in this case.”).

Climate change is occurring and currently impacting natural resources, including those under the jurisdiction of the Department of the Interior. AR 2034. This is largely due to the release of greenhouse gases (“GHGs”) by humans, particularly from fossil fuel development.<sup>13</sup> AR 1919. “Continued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would be very likely to be larger than those observed during the 20th century.” AR 2036 (quoting report of Intergovernmental Panel on Climate Change (“IPCC”)). In the western United States, such impacts will include an increase in the amount and seasonal variability of precipitation; an expansion of some populations of plants, invasive species, and pests; an increase in the frequency, severity, and extent of fires; and an overall reduction in biodiversity and sensitive species, including in particular species relying on high-elevation habitats, for which extinction is probable. *Id.*

CO<sub>2</sub> emissions are the leading cause of climate change. AR 10853. Coal-fired power plants release nearly 30 percent of the nation’s total GHG inventory and 33 percent of all CO<sub>2</sub> released in the U.S., making coal the single largest source of CO<sub>2</sub> in the country. AR 11155. As the largest producer of coal in the U.S., coal mining in the PRB is linked to more GHG emissions than any other activity in the United States. *Id.* According to BLM, “Wyoming PRB surface coal mines were responsible for about 13.9 percent of the estimated U.S. CO<sub>2</sub> emissions in 2006.” AR 2038.

The Leases have the potential to yield just under 300 million tons of coal. When this coal is burned, it will release between 426 and 554 million tons of CO<sub>2</sub> into the atmosphere. AR

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<sup>13</sup> Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are recognized as GHGs. EPA most recently found that these “six greenhouse gases taken in combination endanger both the public health and the public welfare of current and future generations.” 74 Fed. Reg. 66,496 (Dec. 15, 2009).



11165. Together with 10 other Federal coal leases in Wyoming’s PRB, the Leases will contribute to the release of up to 10.6 billion tons of CO<sub>2</sub>—more than was released by all fossil fuel combustion in the U.S. in 2007. AR 11165-66. Accordingly, the Leases promise both to continue and exacerbate the PRB’s role as a key U.S. contributor to climate change.

**1. BLM Failed to Take a Hard Look at the Direct, Indirect, and Cumulative Impacts to Climate Caused by CO<sub>2</sub> Emissions from Coal Mining and Combustion.**

***a. Coal Mining***

Although BLM estimated the amount of CO<sub>2</sub> emissions from coal mining activities on the Leases specifically, and when combined with mining activities on 10 other Federal leases, BLM failed to analyze the impacts of these estimated emission levels to climate. BLM estimated that coal mining from all four of the proposed South Gillette leases (which include the two Leases challenged herein) would emit 1.1 million metric tons of CO<sub>2</sub> annually, representing 1.7 percent of the projected 2020 emissions for the State of Wyoming. AR 1922. BLM also estimated that coal mining from the Leases combined with coal mining on BLM’s 10 other pending lease applications would emit 4.2 million metric tons of CO<sub>2</sub> annually. AR 2042. Given that the South Gillette leases are intended to extend mining at the South Gillette mines for 10 years, AR 2044, BLM’s authorization of these leases will directly result in 42 million metric tons of CO<sub>2</sub> emissions from coal mining by 2020. However, these estimates alone without an analysis of the impacts to climate resulting from these emission levels do not comply with NEPA’s hard look requirement. *See Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1216 (9th Cir. 2008) (finding quantification of CO<sub>2</sub> emissions alone in violation of NEPA when the agency “[did] not discuss the *actual* environmental effects resulting from those emissions”) (emphasis in original). By failing to perform any analysis of impacts to

climate from coal production that would be “useful to [the agency] in deciding whether, or how, to alter the [proposed action] to lessen cumulative environmental impacts,” BLM violated NEPA.<sup>14</sup> *Natural Res. Def. Council v. Hodel*, 865 F.2d at 299.

***b. Coal Combustion in Coal-Fired Power Plants***

BLM also failed to analyze the indirect impacts to climate from CO<sub>2</sub> emissions resulting from burning the coal recovered from the Leases challenged herein, as well as the climate impacts due to burning coal from 10 other Federal leases. BLM’s hard look at the environmental impacts of the Leases requires a discussion of “indirect effects and their significance.” 40 C.F.R. § 1502.16(b). Indirect impacts “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). By mandating a hard look at the indirect effects of BLM’s leasing authorizations, NEPA obligates BLM to look beyond the direct impacts to climate from coal mining—and, in this case, to address the impacts of CO<sub>2</sub> emissions from coal combustion. See *Humane Soc’y v. Johanns*, 520 F. Supp. 2d 8, 22 (D.D.C. 2007) (“Indirect impacts need only to be ‘reasonably foreseeable’ to require an assessment of the environmental impact.”) (citation omitted).

Although burning coal mined from the PRB leases in coal-fired power plants will occur later in time, the record shows that BLM recognizes that coal combustion is a reasonably foreseeable consequence of authorizing the Leases. AR 2032 (Coal mined from the Leases would be “used by coal-fired power plants to generate electricity.”); AR 2034 (“It is further assume[d] that this coal will be sold to coal users in response to forecasts of demand for this coal.”).

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<sup>14</sup> This omission is further inexcusable given the duties set forth by Secretarial Order 3226, which require that Department of Interior agencies “shall, in a manner consistent and compatible with their respective missions ...[c]onsider and analyze potential climate change impacts when . . . making major decisions affecting DOI [Department of Interior] resources.” Because leasing of almost 300 million tons of coal is a major decision affecting Department of Interior resources, BLM had an affirmative obligation to meet this directive.

Indeed, BLM stated in its RODs authorizing the Leases that it believes that the Leases are “currently necessary in order to meet the nation’s energy needs.” AR 13, AR 58. BLM also recognized that coal mining on the Leases “would extend CO<sub>2</sub> emissions related to burning coal from the [South Gillette Mines] for up to just over 10 additional years beyond July 2008.” AR 2044. Yet BLM failed to analyze the climate effects of releasing these additional CO<sub>2</sub> emissions into the atmosphere over a 10-year period, and also failed to assess the significance of these impacts in accordance with 40 C.F.R. § 1502.16(b) of the NEPA regulations.

Although NEPA requires BLM to address the impacts of coal combustion on climate, the agency did not even attempt to estimate CO<sub>2</sub> levels resulting from burning the coal mined from the Leases or cumulative CO<sub>2</sub> levels from burning the coal mined from the Leases and BLM’s 10 other Federal leases. This omission is surprising given that BLM did estimate CO<sub>2</sub> levels from combustion of all coal produced by PRB mines in 2006. AR 2041. Moreover, BLM provided a formula for calculating CO<sub>2</sub> levels from PRB coal combustion, *id.*, yet failed to apply this formula to determine CO<sub>2</sub> levels from future combustion of PRB coal produced by the current lease applications. In their comments on the FEIS, Plaintiffs used BLM’s formula and did the calculations for the agency showing that CO<sub>2</sub> emissions from the leases would total over 550 million tons when the coal was burned. AR 4245. In its comments on the DEIS, even the EPA requested that “BLM should also include an estimate of the greenhouse gases emitted in the burning of the mined coal, as that is a logical consequence of mining the coal, and accounts for a large percentage of greenhouse gas emissions.”<sup>15</sup> AR 4021. Accordingly, BLM’s failure to take

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<sup>15</sup> Section 309 of the Clean Air Act, 42 U.S.C. § 7609 empowers EPA to review and comment on the environmental impact of Federal actions to air quality “from the standpoint of public health or welfare or environmental quality. . .” Thus, EPA’s concern with the lack of greenhouse gas estimates for emissions from burning the mined coal indicates that BLM should have done this analysis as part of its hard look at environmental impacts.

a hard look at the indirect effects of its Lease authorizations on climate violated NEPA. *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d at 1217 (“[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of the agency’s control does not release the agency from the duty of assessing the effects of *its* actions on global warming within the context of other actions that also affect global warming.”) (emphasis in original).

“The 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 v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d at 1217. Yet BLM failed to analyze how the direct, indirect, and cumulative CO<sub>2</sub> emissions associated with the Leases will impact climate change.<sup>16</sup> As BLM indicated in its ROD, it can be assumed that the release of CO<sub>2</sub> associated with the Leases will contribute to climate change. AR 2034. Despite this acknowledgement, BLM made no attempt to analyze such impacts and the magnitude of their contribution to climate change. Such “perfunctory references do not constitute analysis useful to a decisionmaker in deciding whether, or how, to alter [a project] to lessen cumulative environmental impacts.” *Natural Res. Def. Council v. Hodel*, 865 F.2d at 299.

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<sup>16</sup> In the FEIS, BLM outlined some of the general impacts of climate change to the American West including changes in stream flow and snowfall patters, increases in invasive species and pest populations, and increased fire frequency and severity. AR 2037-38. BLM did not analyze the contribution of greenhouse gas emissions from the Leases or the combined contribution of greenhouse gas emissions from 10 other Federal coal leases in maintaining and/or exacerbating these impacts.

**2. All of BLM’s Excuses for Failing to Analyze Climate Impacts are Arbitrary and Capricious.**

In the FEIS, BLM provides three excuses for failing to address climate impacts from excessive CO<sub>2</sub> emissions caused by the mining and burning of PRB coal. First, the agency asserts that it cannot estimate CO<sub>2</sub> levels from coal combustion due to “uncertainties” regarding “where and how the coal in the [South Gillette] LBA tracts would be used after it is mined.” AR 2044. BLM’s second reason for not analyzing climate impacts is that there are “uncertainties about what emission limits will be in place at that time.” *Id.* Third, BLM attempts to explain away its failure to analyze climate impacts by asserting that if it did not lease the coal, coal-fired power plants would simply get coal from somewhere else, and the same climate impacts would occur from production and combustion on non-PRB coal. AR 2044-45. All of these excuses lack merit because they are either directly contradicted by the record or the record lacks any evidence one way or the other to evaluate whether these excuses are reasonable.

***a. BLM’s assertion that it lacks certainty as to how coal from the Leases would be used after it was mined is directly contradicted by the record.***

BLM’s first excuse—regarding the uncertainty of how coal from the Leases would be used after it is mined—is unequivocally contradicted by the record. BLM explicitly acknowledged that the coal mined from the Leases would be “used by coal-fired power plants to generate electricity.” AR 2032; *see also* AR 2034 (“It is further assume[d] that this coal will be sold to coal users in response to forecasts of demand for this coal.”), AR 4021 (EPA’s comments on the DEIS stating that “burning of the mined coal. . . is a logical consequence of mining the coal. . .”). The only uncertainty about the coal from the Leases is as to which power plants in which states and/or countries will buy the coal. This type of uncertainty about who will buy the coal does not excuse BLM from analyzing climate impacts flowing from the agency’s leasing

decisions. *See Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549-50 (8th Cir. 2003) (noting that uncertainty about where power plants would be built or how much coal would be used did not excuse agency from taking a hard look at impacts because “[t]he nature of the effect . . . is far from speculative”). Regardless of who buys the coal and where it will be burned, coal combustion causes significant levels of CO<sub>2</sub> emissions that will significantly impact climate.

***b. The lack of an air quality standard for CO<sub>2</sub> does not excuse BLM from estimating CO<sub>2</sub> emissions from the burning of mined coal from the Leases alone and in combination with burned coal from 10 other pending Federal coal leases.***

BLM’s second excuse—that it cannot estimate CO<sub>2</sub> emissions from burning Belle Ayr North and Caballo West coal “due to the uncertainties about what emission limits will be in place” in the future—also fails when considered against what NEPA requires. NEPA does not mandate absolute precision and certainty as a precondition of taking a hard look at impacts. “Reasonable forecasting and speculation is . . . implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as ‘crystal ball inquiry.’” *Scientists’ Inst. for Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973). As discussed above, methods exist for estimating CO<sub>2</sub> emissions from coal combustion regardless of emission limits that may be in place in the future, and BLM has already estimated CO<sub>2</sub> emissions from mining the Leases. Moreover, this uncertainty about possible CO<sub>2</sub> emission limits that may be imposed in the future does not trump the certainty that exists today—that there are currently no limits on CO<sub>2</sub> emissions from coal-fired power plants and BLM’s pending lease applications are likely to lead to significant increases in CO<sub>2</sub> emissions. As discussed in Section II.B.1.b above, BLM had a method for calculating the amount of CO<sub>2</sub> emissions from burning the mined coal, so BLM could

have, at a minimum, provided this emissions estimate as part of its hard look at environmental impacts. Even if a standard for CO<sub>2</sub> emissions existed, this would not affect BLM's calculation of the level of emissions from its proposed action. An emission standard simply serves as a ceiling beyond which emission levels cannot go without violating Federal law. Thus, this perceived "uncertainty" about future regulation, which is only speculative at this point, does not absolve BLM of complying with its duties under NEPA using present conditions.

***c. BLM's assertion that climate impacts will still occur if it does not authorize the Leases because coal-fired power plants will get their coal from another source is not supported by the record.***

Finally, BLM erroneously believes that it is absolved from considering climate impacts from the Leases because:

It is not likely that selection of the No Action Alternatives would result in a decrease of U.S. CO<sub>2</sub> emissions attributable to coal burning power plants in the longer term because there are multiple other sources of coal that . . . could supply the demand for coal beyond the time that the [South Gillette mines] complete recovery of the coal in their existing leases.

AR 2044-45. In other words, BLM argues that if the Leases were not authorized, other mines outside the PRB would produce the same amount of coal, resulting in the same level of CO<sub>2</sub> emissions. The internal logic of this argument is faulty in and of itself; but, even if true, it fundamentally undermines the agency's duties under NEPA, which require a hard look at the direct, indirect, and cumulative impacts of the major Federal actions authorized by the Belle Ayr North and Caballo West RODs. Simply because another activity may pose similar climate change impacts does not release BLM from analyzing the impacts of its own actions. *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d at 1217.

Moreover, BLM presented no information or analysis to support its assertion that CO<sub>2</sub> emissions from burning the mined coal from the Leases would simply be "replaced" by other

coal sources outside the PRB if BLM did not authorize the Leases, especially in light of evidence in the record undermining this “replacement” argument. That is, the Caballo and Belle Ayr Mines are the sixth and seventh largest coal producers in the United States, and among the largest mines in the PRB. AR 10789. In 2008, the Caballo Mine produced over 31 million tons of coal, and the Belle Ayr mine produced over 28 million tons. *Id.* Only five other mines, all located in the PRB, produced more coal. *Id.* It is unclear how the production capacity of the Caballo and Belle Ayr Mines could be replaced given that, with the exception of only five other PRB mines, no other mine in the United States is producing as much coal as these two mines. Moreover, BLM itself recognizes that PRB coal is preferable to other sources of coal in several key ways, including low sulfur content, and that PRB coal production has increased at a more rapid rate than other domestic coal sources. AR 2042.

Further, BLM ignored that the significant decrease in coal supply resulting from a decision not to authorize the Leases, *i.e.*, choosing the “No Action” alternative, would necessarily raise the cost of coal from other sources. Such a cost increase could cause power producers to alter their decisions about what types of power plants to build or decommission, resulting in fewer coal-fired power plants and, consequently, a significant decrease in CO<sub>2</sub> emissions. This analysis is altogether lacking in the FEIS.

In short, none of these excuses absolve BLM’s leasing authorizations from NEPA’s requirement that the agency take a hard look at the direct, indirect, and cumulative impacts of its proposed actions. Accordingly, BLM violated NEPA when it failed to consider the direct, indirect, and cumulative impacts of its leasing authorizations on climate.



**C. BLM Failed to Analyze a Reasonable Range of Alternatives to Address GHG Emissions and Climate Change.**

Although the requirement to consider all reasonable alternatives to a proposed action lies at the heart of the NEPA process, BLM failed to consider any alternatives that would address the indirect and cumulative effects to climate from CO<sub>2</sub> emissions from mining and burning the coal from the Leases. Detailed consideration of reasonable alternatives provides all interested parties with an informed basis to question initial predispositions and “to rethink the wisdom of the action.” *Natural Res. Def. Council v. Hodel*, 865 F.2d at 296; *see also Lemon v. Geren*, 514 F.3d 1312, 1315 (D.C. Cir. 2008) (“The idea behind NEPA is that if the agency’s eyes are open to the environmental consequences of its actions and if it considers options that entail less environmental damage, it may be persuaded to alter what it proposed.”) (citations omitted). BLM’s hard look at the direct, indirect, and cumulative impacts of coal mining on the environment should inform its development of reasonable alternatives to the proposed action. However, BLM did not even consider environmental impacts in its alternatives development. Rather, all of BLM’s action alternatives primarily seek to maximize direct economic gain for the Federal government. *See* AR 1585 (“For NEPA purposes, BLM evaluates alternate tract configurations as alternatives to the proposed action.”). The result is that each action alternative varied only with regard to tract configuration as it related to competitive interest. *Id.* Thus, BLM failed to comply with NEPA’s requirement that the agency consider alternatives that would lessen environmental impacts. *Calvert Cliffs*, 449 F.2d at 1128.

To address climate impacts, Plaintiffs proposed alternatives that would reduce or eliminate GHG emissions while still allowing lease development. *See* AR 4256 (proposing an alternative that would require capture and sequestration of emissions, and require more efficient mine hauling trucks); AR 4255 (proposed an alternative that would require the leaseholder to

obtain carbon offsets before undertaking mining activity). BLM was required to consider these alternatives. *See* 40 C.F.R. §§ 1500.2(e), 1502.14, 1503.4(a); *Seacoast Anti-Pollution League v. Nuclear Reg. Comm'n*, 598 F.2d 1221, 1230 (1st Cir. 1979) (agencies “must look into other significant alternatives that are called to its attention . . . by the public during the comment period”). Plaintiffs’ alternatives are reasonable because they “fall within the purpose and need” as articulated in the FEIS.<sup>17</sup> *Theodore Roosevelt Conservation P’ship v. Salazar*, 744 F. Supp. 2d 151, 161 (D.D.C. 2010). Yet BLM failed to consider Plaintiffs’ proposed alternatives for limiting GHG emissions and addressing climate impacts from coal mining, and also failed to explain why it did not consider the proffered alternatives. Accordingly, “[t]he existence of reasonable but unexamined alternatives renders an EIS inadequate.” *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1065 (9th Cir. 1998) (citation omitted).

BLM’s rationale for such a limited alternatives analysis is that the agency is not the permitting authority for coal combustion. AR 3747 (BLM Response to FEIS Comments stating that “Measures to reduce GHG releases are best applied at the place where the coal is consumed. . .”). However, this does not excuse BLM from NEPA’s requirements regarding alternatives analysis. “BLM is the lead agency responsible for leasing Federal coal lands under the Mineral Leasing Act. . . and is also responsible for preparation of [the] EIS to evaluate the potential environmental impacts of issuing a coal lease.” AR 1571. Moreover, BLM had the authority to implement an alternative that would limit GHG emissions and still allow lease development because BLM possesses the authority to impose special stipulations on leases beyond the

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<sup>17</sup> BLM’s stated purpose and need was to lease tracts of Federal coal in the Wyoming portion of the PRB in response to four coal lease applications. AR 1568.

standard coal lease stipulations.<sup>18</sup> Because BLM had the authority to impose stipulations on the Leases to protect the environmentclimate from the impacts of the agency’s lease authorizations, BLM’s failure to consider an alternative that would reduce GHG emissions through the imposition of lease stipulations also violated NEPA.

By limiting its analysis to alternatives that only varied in terms of lease size and shape, BLM’s alternatives analysis fell short of the requirements of NEPA. *See* 40 C.F.R. § 1502.14 (alternatives should be presented so as to “sharply defin[e] the issues and provid[e] a clear basis for choice.”). Although there is no “magic” number of alternatives that must be considered to satisfy NEPA, the alternatives analysis must “contain sufficient discussion of the relevant issues and opposing viewpoints to enable the [agency] to take a hard look at the environmental impacts of the proposed [action] and its alternatives.” *Colo. Env’tl. Coalition v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999); *see also Oceana, Inc. v. Evans*, 384 F. Supp. 2d 203, 240 (D.D.C. 2005) (when defining alternatives, “an agency may not limit itself to only one end of the spectrum of possibilities.”). Consideration of alternatives that included measures to reduce GHG emissions from BLM’s lease authorizations, as suggested by Plaintiffs, would have provided the “hard look” required by NEPA. BLM’s failure to do so violated its obligation to “[r]igorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R § 1502.14(e).

### **III. BLM VIOLATED FLPMA**

The Federal Land Policy and Management Act (“FLPMA”) requires BLM to manage public lands “under principles of multiple use and sustained yield, in accordance with the land use plans” developed by BLM. 43 U.S.C. § 1732(a). Under FLPMA, BLM has the authority to

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<sup>18</sup> In fact, BLM imposed special stipulations “to avoid environmental damage or mitigate potential conflicts affiliated with cultural resources, paleontological resources, [and] threatened and endangered species. . . .” AR 32-37; AR 75-80 (listing special coal lease stipulations for the Belle Ayr North and Caballo West leases, respectively).

regulate “the use, occupancy, and development of the public lands.” 43 U.S.C. § 1732(b). Any land use authorization by BLM shall “[r]equire compliance with air and water quality standards established pursuant to applicable Federal or State law.”<sup>19</sup> 43 C.F.R. § 2920.7(b)(3); *see also* 43 U.S.C. § 1701(a)(8) (the public lands shall be “managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values”). BLM’s applicable land use plan—the Buffalo Resource Management Plan (“RMP”)—explicitly provide for such compliance.<sup>20</sup> BLM is required to follow the directives in the RMP. *See* 43 C.F.R. § 1610.5-3 (a) (all “resource management authorizations and actions” must conform to the applicable land use plan); 43 U.S.C. § 1732(a) (mandating that the Secretary “shall manage the public lands . . . in accordance with the land use plans”); *Norton v. S. Utah Wilderness Alliance*, 542 U.S. 55, 69 (2004) (BLM cannot take actions that are “inconsistent with the provisions of a land use plan.”).

Although the relevant RMP requires BLM to comply with applicable air quality standards and minimize emissions that could result in Clean Air Act violations, the agency has failed its legal obligations under FLPMA in two critical ways. First, BLM has not done the requisite analysis to determine whether its leasing authorizations will comply with the ozone NAAQS. This failure is inexcusable given the evidence in the record (discussed in detail above) that ozone concentrations were at or above unhealthy levels in the area at the time BLM was preparing the South Gillette FEIS. Yet, as discussed in Part II.A.1 above, BLM deliberately ignored the

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<sup>19</sup> The Clean Air Act is designed to clean up areas of unhealthy air and to prevent degradation of clean air. *See* 42 U.S.C. §§ 7401, 7470. While EPA and the states set air quality standards, BLM shares responsibility for achieving and maintaining these standards.

<sup>20</sup> The Buffalo RMP states that BLM will “minimize emissions that could result in acid rain, violations of air quality standards, or reduced visibility,” and that the Agency will ensure that its decisions are “conditioned to avoid violating Wyoming and national air quality standards.” AR 135.

evidence in the record and provided no analysis of impacts to air quality from increased ozone emissions caused by mining the Leases. Without analyzing ozone emissions from lease development and assessing whether emissions levels will comply with the ozone NAAQS, BLM cannot support its conclusion that activities on the Leases will comply with air quality standards.

Second, BLM cannot authorize the Leases knowing that PM<sub>10</sub> emissions from mining the leases will result in exceedances of the 24-hour PM<sub>10</sub> NAAQS. As discussed in Part II.A.2 above, PM<sub>10</sub> modeling results and monitoring data show that the cumulative impacts of the Leases would lead to additional exceedances of the 24-hour PM<sub>10</sub> NAAQS. Thus, BLM has not met FLPMA's requirement that the agency follow the RMP directives mandating compliance with air quality standards simply by relying on WDEQ's requirement that new mine operations obtain an air quality permit. To ensure compliance with PM<sub>10</sub> standards, BLM must either impose pollution controls on the Leases or limit lease size to reduce PM<sub>10</sub> emissions. BLM considered neither of these options. Consequently, the agency's authorization of the Leases violated FLPMA.

In *WildEarth Guardians*, 2012 WL 3065363 at \*13, the court held that a requirement in the lease that the Lessee comply with all air quality standards fulfilled BLM's FLPMA duty. However, adding language to a lease requiring a non-governmental party to comply with Federal law does not satisfy FLPMA's substantive requirement that BLM's actions, as the entity authorizing the Leases, must be consistent with directives in the RMP. Because the Buffalo RMP requires BLM to minimize emissions that could lead to air quality violations, and the record demonstrates that the Leases will contribute to violations of the 24-hour PM<sub>10</sub> standard, BLM has the legal obligation to impose concrete emission-reduction measures on the Leases so that its leasing decisions are consistent with the requirements of the RMP. Moreover, as

discussed in Section II.A.2 above, 24-hour PM<sub>10</sub> monitoring data from 2001 through 2007 revealed exceedances of this standard at several mines, demonstrating that simply procuring an air permit from WDEQ does not guarantee that air quality violations due to coal mining will not occur. BLM has a substantive duty under FLPMA to follow the dictates of the RMP, rather than passing its responsibility on to a lessee and the WDEQ.

The record demonstrates that BLM has not complied with FLPMA's requirements. BLM failed to analyze whether and to what degree coal mining activities on the Leases would comply with the ozone NAAQS. BLM also ignored monitoring and modeling data showing that future coal mining on the Leases, combined with coal mining on 10 other Federal leases in the PRB, would lead to exceedances of the NAAQS for PM<sub>10</sub>. Accordingly, BLM violated FLPMA when it authorized the Leases without ensuring that mining activities would comply with Federal air quality standards for ozone and PM<sub>10</sub>.

### **CONCLUSION**

For the reasons stated above, Plaintiffs respectfully request that this Court (1) declare that BLM has violated NEPA and FLPMA, and (2) vacate BLM's authorization, sale, and issuance of the Belle Ayr North and Caballo West leases until BLM has complied with NEPA and FLPMA.

Respectfully submitted on this 13th day of December 2012.

/s/ Samantha Ruscavage-Barz  
Samantha Ruscavage-Barz (Bar No. CO0053)  
WildEarth Guardians  
516 Alto Street  
Santa Fe, New Mexico 87501  
(505) 988-9126 x.1158 (office)  
ruscavagebarz@wildearthguardians.org

/s/ James J. Tutchton  
James J. Tutchton (Bar No. CO0054)  
WildEarth Guardians  
6439 E. Maplewood Ave.  
Centennial, Colorado 80111  
(720) 301-3843 (office)  
jtutchton@wildearthguardians.org

*Counsel for Plaintiffs*

### **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing PLAINTIFFS' MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT was served on all counsel of record through the Court's ECF system on this 13th day of December, 2012.

/s/ Samantha Ruscavage-Barz  
*Counsel for Plaintiffs*