

**UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF HEARINGS AND APPEALS
BOARD OF LAND APPEALS**

WILDEARTH GUARDIANS and)	IBLA No. 2011-
SIERRA CLUB)	
)	Notice of Appeal of the Record of Decision
Appellants)	for the North Porcupine Coal Lease by
)	Application, WYW173408, Campbell
)	County, Wyoming
)	
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NOTICE OF APPEAL AND PETITION FOR STAY

Pursuant to 43 C.F.R. §§ 4.21, 4.410, and 4.413, WildEarth Guardians and the Sierra Club (hereafter “Appellants”) file with the Interior Board of Land Appeals (“IBLA”) this Notice of Appeal and Petition for Stay of a decision made by Bureau of Land Management (“BLM”) Wyoming High Plains District Manager, Stephanie Connolly. Ms. Connolly’s decision authorizes the sale and issuance of the North Porcupine Coal Lease by Application, WYW173408 (hereafter referred to as “North Porcupine” or the “North Porcupine coal lease”) for sale and issuance. This decision is documented in a Record of Decision (“ROD”) signed on October 17, 2011, notice of which was published on October 20, 2011. *See* 76 Fed. Reg. 65209 (Oct. 20, 2011).

The North Porcupine ROD adopts Alternative 2 as documented in the Wright Area Coal Lease Applications Final Environmental Impact Statement (hereafter referred to as the “FEIS” or “Wright Area FEIS”). The BLM presumes that the applicant for the lease, in this case BTU Western Resource, Inc., a subsidiary of Peabody Energy, will be the successful bidder, meaning the ROD essentially authorizes the expansion of the North Antelope Rochelle coal mine. *See* ROD at 1.

I. INTRODUCTION

Appellants challenge the North Porcupine ROD on the basis that it fails to adequately analyze and assess climate change impacts pursuant to the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321, *et seq.*, fails to adequately analyze and assess air quality impacts pursuant to NEPA, and fails to

ensure protection of federal air quality standards in accordance with the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1701, *et seq.*

Adding to our concern is that there does not appear to be any legitimate need for the North Porcupine coal lease. According to the ROD, even if the lease is rejected, “Other national coal producers have the capacity to produce coal and replace the production from this existing mine.” ROD at 9. The BLM further notes in the ROD that even if the lease is rejected, the North Antelope Rochelle coal mine would continue operating for 9.9 years. *See id.* The only purported need for issuing the lease appears to be to buttress the competitiveness of the North Antelope Rochelle coal mine—not to meet any domestic energy needs.¹

Critically, the BLM’s decision inappropriately dismisses taking any reasonable action to address the foreseeable impacts of global climate change caused by dramatic increases in greenhouse gas emissions, in violation of NEPA. This is disturbing in light of the fact that Interior Secretary Ken Salazar proclaimed, “[t]he realities of climate change require us to change how we manage the land, water, fish and wildlife, and cultural heritage and tribal lands and resources we oversee.”² The Secretary is not alone in his concern over the impacts of global climate change, nor in his call for greenhouse gas reductions. On October 5, 2009, President Obama, responding to concerns over global climate change, called on all federal agencies to “measure, report, and reduce their greenhouse gas emissions from direct and indirect activities.”³

¹ In fact, Peabody Energy, the owner of the North Antelope Rochelle coal mine and applicant for the North Porcupine coal lease, has announced that it is expecting to increase exports of Wyoming coal to Asia. *See* Tomich, J., “Peabody planning Asian coal shipments through Washington,” *St. Louis Post-Dispatch* (March 11, 2011), available at http://www.stltoday.com/business/local/article_45e1b38e-44ef-5cf9-bea9-2f05b3c1fe04.html (last accessed Nov. 20, 2011). This article is attached as Exhibit 1.

² Interior Secretary Ken Salazar, Secretarial Order No. 3289, “Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources,” Section 4(b) (Sept. 14, 2009), available at <http://www.doi.gov/climatechange/SecOrder3289.pdf> (last accessed Nov. 20, 2011).

³ President Obama, Executive Order No. 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, Section 1 (Oct. 5, 2009), available at <http://edocket.access.gpo.gov/2009/pdf/E9-24518.pdf> (last accessed Nov. 20, 2011).

Despite recognitions that global climate change is a real environmental threat, and despite calls from the President of the United States to reduce greenhouse gas emissions, the BLM did nothing to address the global climate change impacts associated with the North Porcupine coal lease. This was not a minor oversight. The lease includes approximately 721,154,828 tons of recoverable coal. *See* ROD at 7. This coal will be sold and burned in power plants, leading to the release of massive amounts of carbon dioxide (“CO₂”)—the greenhouse gas most responsible for fueling global climate change.⁴ ***All told, the amount of coal slated to be mined as part of the North Porcupine coal lease will lead to the release of 1,196,395,860 metric tons of CO₂.***⁵ This amount of CO₂ is not insignificant—it equals 20 percent of all CO₂ emissions released in the United States in 2009.⁶

However, this oversight is even more significant in light of the cumulative role the Powder River Basin plays in fueling the United States’ contribution to global warming. Already, the electricity generation sector is the largest source of greenhouse gases in the U.S., largely due to CO₂ emissions.⁷

⁴ According to the U.S. Environmental Protection Agency (“EPA”), “six greenhouse gases taken in combination endanger both the public health and the public welfare of current and future generations.” 74 Fed. Reg. 66496 (Dec. 15, 2009). The Administrator expounded:

The body of scientific evidence compellingly supports this finding. The major assessments by the U.S. Global Climate Research Program (USGCRP), the Intergovernmental Panel on Climate Change (IPCC), and the National Research Council (NRC) serve as the primary scientific basis supporting the Administrator’s endangerment finding. The Administrator reached her determination by considering both observed and projected effects of greenhouse gases in the atmosphere, their effects on the climate, and the public health and welfare risks and impacts associated with such climate change. The Administrator’s assessment focused on public health and public welfare impacts within the United States. She also examined the evidence with respect to impacts in other world regions, and she concluded that these impacts strengthen the case for endangerment to public health and welfare because impacts in other world regions can in turn adversely affect the United States.

Id. at 66496, 66497. Among the six greenhouse gases that the Administrator of the EPA found endangered public health and welfare: ***carbon dioxide***.

⁵ According to the BLM, every ton of coal burned releases 1.659 metric tons of CO₂. *See* FEIS at 4-140.

⁶ According to the EPA’s most recent greenhouse gas emission inventory, CO₂ emissions in the United States equaled 5,505.2 million metric tons. *See* U.S. EPA (2011), “Inventory of U.S. Greenhouse Gas Emissions and Sinks: Fast Facts,” available at <http://epa.gov/climatechange/emissions/downloads11/GHG-Fast-Facts-2009.pdf> (last accessed Nov. 20, 2011). This fact sheet is attached as Exhibit 2.

⁷ *See* U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2009*, EPA 430-R-11-005 (April 15, 2011), at 3-1 available at http://www.epa.gov/climatechange/emissions/downloads10/US-GHG-Inventory-2010_Report.pdf (last accessed Nov. 20, 2011). The Executive Summary and Chapter 3 of this report are attached as Exhibit 3.

The EPA reports, “The process of generating electricity is the single largest source of CO₂ emissions in the United States, representing 39 percent of total CO₂ emissions from all CO₂ emissions sources across the United States.” *Id.* at 3-10. Coal-fired power plants release more than eighty percent of all greenhouse gases from the electricity generation sector, including more than 1.747 billion metric tons of CO₂—nearly thirty percent of the nation’s total greenhouse gas inventory and thirty-three percent of all CO₂ released in the U.S. *Id.* at 3-8. ***This makes coal-fired power plants the largest single source of CO₂ in the country.***

As the largest producer of coal in the United States, ***coal mining in the Powder River Basin is therefore linked to more greenhouse gas emissions than almost any other activity.*** The BLM does not deny this. According to the BLM, “Coal production from the Wyoming PRB [Powder River Basin] represented approximately 43.4 percent of the coal used for power generation in 2008, which means that combustion of Wyoming PRB coal to produce electric power was responsible for about 12.8 percent of the estimated U.S. CO₂ emissions in 2008.” FEIS at 4-137. This amounts to forty percent of all CO₂ released by U.S. coal-fired power plants. No other activity in the United States contributes as much CO₂.

This is not the end of it. According to the BLM, ***CO₂ emissions associated with coal mining in the Powder River Basin are expected to increase by more than 20 percent by 2020***, under both low and upper-production scenarios. *See* FEIS at 4-138.⁸ Ultimately, the Powder River Basin could be responsible for 956 million metric tons of CO₂ emissions because of expanded coal mining facilitated by the approval of new coal leases. Indeed, not only is the BLM proposing to offer the North Porcupine coal lease, but there are also 14 other coal leases in the Wyoming Powder River Basin that have either recently been issued or are pending that collectively threaten to lead to the release of 11.37 billion metric tons of CO₂.⁹

⁸ A chart displaying this increase is attached as Exhibit 4.

⁹ *See* Exhibit 5, “BLM Recently Issued/Proposed Coal Leases in the Powder River Basin,” spreadsheet prepared by WildEarth Guardians (Nov. 21, 2011).

The BLM comes up with a number of creative excuses to avoid addressing CO₂ emissions connected with the North Porcupine coal lease, but ultimately these excuses are nothing more than illegal punting. The fact is that the BLM was obligated to address the potentially significant impacts of the CO₂ emissions associated with the coal lease. There was no valid reason for ignoring such a duty.

II. APPELLANTS ARE PARTIES WHO ARE ADVERSELY AFFECTED

Appellants must demonstrate that they can maintain an appeal. *See* 43 C.F.R. § 4.21(a)(2). To maintain an appeal, Appellants must (1) be a party to the case; and (2) be adversely affected by the decision being appealed. 43 C.F.R. § 4.410(a).

WildEarth Guardians is a registered non-profit corporation whose purpose is the conservation of natural resources. With more than 4,500 members in the United States, WildEarth Guardians' mission is to protect and restore the wildlife, wild places, and wild rivers of the American West. WildEarth Guardians is headquartered in Santa Fe, New Mexico, but has offices in Denver, Colorado and Phoenix, Arizona. Through its Climate and Energy Program, WildEarth Guardians works to safeguard the climate, clean air, and communities of the American West by promoting a sensible transition to renewable energy.

The Sierra Club is a national nonprofit organization of approximately 1.3 million members and supporters dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club's concerns encompass climate change, air quality impacts, water quality, wildlife, and other environmental concerns. The Wyoming Chapter of the Sierra Club has approximately 1,029 members in the State of Wyoming.

A. Appellants are Parties

To be a party to the case, a person or group must have actively participated in the decision-making process regarding the subject matter of the appeal. *See* 43 C.F.R. § 4.410(b). Here, WildEarth Guardians and the Sierra Club submitted comments to BLM regarding the Wright Area EIS during the public comment periods provided by the Agency. WildEarth Guardians submitted comments on the Draft

Environmental Impact Statement (“DEIS”) on August 25, 2009. *See* FEIS at Appendix I. WildEarth Guardians, together with the Sierra Club, also filed comments on the FEIS on August 30, 2010. *See* BLM, “Analysis and Response of Public Comments Received on the Wright Area Coal Final Environmental Impact Statement” (March 2011) at 1.

B. Appellants are Adversely Affected

To demonstrate that it will “be adversely affected by the decision being appealed,” a party must demonstrate a legally cognizable “interest” and that the decision appealed has caused or is substantially likely to cause injury to that interest. *Glenn Grenke v. BLM*, 122 IBLA 123, 128 (1992); 43 C.F.R. § 4.410(d).

Attached as Exhibit 6 is the declaration of Jeremy Nichols. It shows he is a member and employee of WildEarth Guardians and a member of the Sierra Club. His declaration shows he personally uses and enjoys lands that are a part of and adjacent to the North Porcupine coal lease, as well as areas and resources that will be affected by the leases, for recreational, aesthetic, and conservation purposes, and that he intends to return to these areas for enjoyment. Mr. Nichols’ declaration establishes that the BLM’s decision to sell and execute the North Porcupine coal lease will adversely affect his recreational, aesthetic, and conservation interests, which are legally cognizable, in the area through increased air pollution and other environmental impacts. Mr. Nichols’ declaration establishes that WildEarth Guardians and the Sierra Club will be adversely affected by BLM’s decision authorizing the North Porcupine coal lease.

III. REQUEST FOR A STAY

Pursuant to 43 C.F.R. § 4.21(b)(1), Appellants respectfully request the IBLA grant its request for a stay of the ROD issued by Wyoming High Plains District Manager, Stephanie Connolly, and the sale of the North Porcupine coal lease. As argued below, Appellants are likely to succeed on the merits, the Appellants will suffer immediate and irreparable harm if the stay is not granted, relative harms to Appellants favors a stay, and granting a stay will serve the public interest. We begin by addressing the likelihood of success on the merits:

A. Appellants are Likely to Succeed on the Merits

1. The BLM Failed to Adequately Analyze and Assess Climate Change Impacts and Consider Alternatives to Address Such Impacts in Accordance with NEPA

Congress enacted NEPA to, among other things, “encourage productive and enjoyable harmony between man and his environment” and to promote government efforts “that will prevent or eliminate damage to the environment.” 42 U.S.C. § 4321. To fulfill this goal, NEPA requires federal agencies to prepare an EIS for all “major Federal actions significantly affecting the environment.” 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1501.4. The Agency must describe “any adverse environmental effects which cannot be avoided should the proposal be implemented.” 42 U.S.C. § 4332(C)(ii). Overall, an EIS must “provide [a] full and fair discussion of significant impacts” associated with a federal decision and “inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1.

In an EIS, the federal Agency must analyze and assess the significance of the direct, indirect, and cumulative impacts of a major Federal action. 42 U.S.C. § 4332(2)(C); 40 C.F.R. §§ 1502.16, 1508.7, and 1508.8. NEPA requires federal agencies, including the USFS, to include within an EIS “alternatives to the proposed action.” 42 U.S.C. § 4332(2)(C)(iii). The alternatives analysis is the “heart” of a NEPA document, and the statute’s implementing regulations emphasize an Agency’s duty to “[r]igorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.16.

In this case, the BLM failed to adequately analyze and assess the climate change impacts of consenting to the issuance of the North Porcupine coal lease and failed to consider alternatives to address these impacts. As explained already, this oversight is monumental. In issuing its ROD for over 721 million tons of coal, the BLM has in turn authorized the release of 1,196,395,860 metric tons of CO₂ resulting from the combustion of that coal, which is a significant amount by any measure. According to the EPA, this amount of CO₂ equals the amount of annual greenhouse gas emissions from 234,587,424

passenger vehicles or, put another way, the annual CO₂ emissions of 283 coal-fired power plants.¹⁰ The BLM has already disclosed that coal from the Powder River Basin as a whole is responsible for roughly 13 percent of the nation's CO₂ emissions, and that this amount is projected to increase 20% by 2020. *See* FEIS at 4-137—4-138. North Porcupine therefore promises to exacerbate the role of both the Powder River Basin cumulatively and the North Antelope Rochelle coal mine specifically as major contributors to global climate change in the United States. Despite this, the BLM made no effort to address these impacts under NEPA. In failing to adequately address these impacts, the BLM's ROD is fatally flawed.

a. The BLM did not Adequately Analyze and Assess the Impacts of Carbon Dioxide Emissions that Would Result from the North Porcupine Coal Lease

It is not disputed that the combustion of coal is a foreseeable impact of consenting to the North Porcupine coal lease. Indeed, the BLM asserts in its ROD that the lease is purportedly needed to meet the nation's energy needs. Furthermore, together with other past, present, and reasonably foreseeable impacts, these impacts are cumulative in accordance with 40 C.F.R. § 1508.7.

Under NEPA regulations, an EIS is required to include an analysis and assessment of impacts, including a discussion of "indirect effects and their significance." 40 C.F.R. § 1502.16(b). Effects include "cumulative impacts." 40 C.F.R. § 1508.8. In this case, however, although the BLM recognized that issuance of the North Porcupine coal lease would lead to the release of CO₂ emissions, the Agency did not adequately analyze these effects, nor assess their significance in accordance with 40 C.F.R. § 1502.16(b).

The Wright Area Coal FEIS does make qualitative statements regarding the potential CO₂ emissions from the North Porcupine coal lease, stating that "CO₂ emissions related to burning coal that is produced from the three applicant mines to generate electricity would be extended as a result of leasing and mining[.]" FEIS at 4-138. However, the FEIS then asserts that, "[i]t is not possible to accurately project the level of CO₂ emissions that burning the coal from the six WAC [Wright Area Coal] LBA

¹⁰ *See* EPA, *Greenhouse Gas Equivalencies Calculator*, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results> (last accessed Nov. 20, 2011).

tracts would produce due to uncertainties about what emission limits would be in place at that time or where and how the coal in these LBA tracts would be used if they are leased and the coal is mined.” *Id.* at 4-139. This supporting logic is confusing, to say the least. Although the FEIS may be uncertain “about what emission limits will be in place” in the future, this uncertainty does not overshadow the certainty that exists today, which is that there are currently no limits on CO₂ emissions from coal-fired power plants—a fact stated in the FEIS on page 4-143. This perceived “uncertainty” about the future does not absolve the Agency of complying with its duties under NEPA in the present. Further, the FEIS’s uncertainty about “where and how the coal” would be used is simply absurd. There is no question that the coal from the North Porcupine coal lease will be mined and burned in coal-fired power plants.¹¹

The BLM appears to rest its analysis on the belief that the CO₂ emissions from the North Porcupine coal lease would simply come from other coal sources. Ms. Connolly asserts in her ROD that if the leases are not authorized, other mines outside the Powder River Basin will simply produce the coal. *See* ROD at 9. The BLM also claims in the FEIS that “It is not likely that selection of the No Action alternatives would result in a decrease of U.S. CO₂ emissions attributable to coal mining and coal-burning power plants in the longer term[.]” FEIS at 4-141. Not only is there is no analysis or information presented or cited to support this assertion, but it appears contrary to reality.

The North Antelope Rochelle coal mine is one of the largest coal mines in the United States. In fact, it is not only the largest coal producer in the Powder River Basin, but also the largest producer in the United States.¹² In 2009 it was reported that the mine produced 98,279,377 tons of coal. *Id.* It is unclear how the production capacity of the North Antelope Rochelle coal mine could be replaced given that no other mines are producing as much coal. It is further difficult to understand the basis for the Supervisor’s

¹¹ In fact, annual fuel receipt data from the EIA specifically lists every single coal-fired power plant that burned coal from the North Antelope Rochelle coal mine. *See* Exhibit 7, EIA Form 923 Data for North Antelope Rochelle coal mine (2010), available at <http://www.eia.gov/cneaf/electricity/page/eia423.html> (last accessed Nov. 20, 2011). According to this data, there are at least 98 coal-fired power plants that fully or partially burned coal from the North Antelope Rochelle mine in 2009. Thus, it is clearly possible to reasonably ascertain where and how coal from the North Antelope Rochelle coal mine will be used, contrary to the BLM’s assertion otherwise. *See* ROD at 29.

¹² *See* Energy Information Administration (“EIA”), *Major U.S. Coal Mines, 2009* (2010), <http://www.eia.doe.gov/cneaf/coal/page/acr/table9.html> (last accessed Nov. 20, 2011).

assertion in light of the fact that the Powder River Basin produces more coal than any other region of the country and has for a number of years. In 2009, the region produced a record 455,503,000 tons of coal, 1.25 times more coal than the entire Appalachian Region of the United States and more than three times the amount of coal produced by the rest of Western United States.¹³ The North Antelope Rochelle coal mine produced more than twenty-one percent of the of the Powder River Basin's total coal production. It strains credibility to assume that more than twenty-one percent of the coal produced in the largest coal producing region in the country could simply be replaced.

The BLM's position is especially arbitrary because it ignores the cumulative effects of consenting to the North Porcupine coal lease together with other pending lease by applications in the Powder River Basin. Although the BLM asserts there 11 pending coal leases in the Powder River Basin of Wyoming that include approximately 30,462 acres and 3.292 billion tons of coal (*see* ROD at 4), the reality is there are actually 15 pending coal leases in the Powder River Basin (including the North Porcupine coal lease) that collectively include 61,534 acres and 6,850,680,336 tons of coal, and which collectively threaten to lead to the release of 11,365,278,677 metric tons of CO₂.¹⁴ On a cumulative basis, there is no way the BLM could reasonably assert that the coal from the North Porcupine coal lease, together with the 6.850 billion tons proposed through the 15 pending lease by applications in the Powder River Basin, would simply be "replaced" by coal from other regions. The total amount of coal—nearly seven billion tons—is more than 10,000 times the total amount of coal produced outside the Powder River Basin in 2009.¹⁵

Moreover, the BLM cannot ignore its duty to analyze impacts simply because of a "belief" that similar impacts may occur from other similar activities. This fundamentally undermines the Agency's

¹³ See EIA, *Coal Production and Number of Mines by State and Mine Type* (2010), <http://www.eia.doe.gov/cneaf/coal/page/acr/tables2.html> (last accessed Nov. 20, 2011).

¹⁴ See Exhibit 5.

¹⁵ According to the EIA, 618,790 tons of coal were produced outside the Powder River Basin in 2009. See EIA, *Coal Production and Number of Mines by State and Mine Type* (2010), <http://www.eia.gov/cneaf/coal/page/acr/table1.html> (last accessed Nov. 20, 2011).

duties under NEPA. Simply because another activity may pose similar impacts does not let the BLM off the hook. This is particularly true here, where, with the exception of the 15 pending coal lease by applications in the Powder River Basin, *there does not appear to be any single action likely to be responsible for more CO₂ emissions in the United States.*

Tellingly, the BLM's flawed logic is underscored by the fact that coal from the Powder River Basin of Wyoming produces more CO₂ emissions on average than virtually every other coal type mined in the United States. According to a report by the EIA, subbituminous coals from the Powder River Basin release on average 212.7 pounds of CO₂ per million Btus.¹⁶ Yet bituminous coals produced in the Appalachian and Interior coal producing regions, which according to the EIA is the primary coal type produced in these regions, release on average only a little more than 200 pounds of CO₂ per million Btus.¹⁷ For instance, bituminous coal from West Virginia produces on average 207.1 pounds of CO₂ per million Btus. Compared to coal from the Powder River Basin, other coal types produced in other parts of the country therefore produce fewer CO₂ emissions when burned. Indeed, based on the BLM's assessment that coal from the Powder River Basin averages 8,600 Btus per pound of coal (*see* FEIS at 4-136), a comparable amount (i.e., 721,154,828 tons) of West Virginia bituminous coal would release 1,165,206,189 metric tons of CO₂ when burned, nearly 30 million metric tons less than are projected to be released by coal from the North Porcupine coal lease.^{18, 19}

¹⁶ See Hong, B.D. and E.R. Slatick, "Carbon Dioxide Emission Factors for Coal," EIA, *Quarterly Coal Report, January–April 1994*, DOE/EIA-0121 (94/Q1) (Aug. 1994), available at http://205.254.135.24/cneaf/coal/quarterly/co2_article/co2.html (last accessed Nov. 20, 2011). This report is attached as Exhibit 8.

¹⁷ See EIA, *Coal Production and Number of Mines by State and Coal Rank* (2010), <http://www.eia.gov/cneaf/coal/page/acr/table6.html> (last accessed Nov. 20, 2011), Even other subbituminous coals, including subbituminous coal from Iowa, New Mexico, Oregon, Utah, and Washington produce fewer CO₂ emissions on a per million Btu basis according to the EIA report.

¹⁸ This assumes that the Btu content of West Virginia bituminous coal is the same as Powder River Basin subbituminous coal. However, the Btu content of bituminous coal is higher than subbituminous. See EIA, *Annual Coal Report, 2009*, DOE-EIA-0584 (2009) at 67 (noting average Btu content of bituminous coal in the U.S. is 24 million Btus per ton) and 72 (noting average Btu content of subbituminous coal in the U.S. is 17-18 million Btus per ton), available at <http://www.eia.gov/cneaf/coal/page/acr/acr.pdf> (last accessed Nov. 20, 2011). This means that fewer tons of West Virginia bituminous coal than Powder River Basin subbituminous coal are needed to generate the same amount of energy. This means that total CO₂ emissions on a per ton basis would actually be much lower for West Virginia bituminous coal, or any bituminous coal for that matter, than Powder River Basin subbituminous coal.

Thus, even if the North Porcupine coal, or even coal from all pending leases in the Powder River Basin, could reasonably be replaced, all indications are that such an outcome could actually produce fewer CO₂ emissions. Although there is no support for the BLM's assertion that coal production is as fluid as believed, even assuming the Agency may be correct, it fails to analyze the fact that Powder River Basin coal releases more CO₂ emissions when burned than other types of coal produced in the United States, in particular bituminous coals from the Appalachian and Interior coal producing regions.

The BLM's unsupported, and indeed contradictory, assertion that the CO₂ emissions simply would be "replaced" by other coal sources if the North Porcupine coal lease was not issued underscores the failure of the Agency to assess the significance of the CO₂ emissions. NEPA regulations clearly require not only an analysis of impacts, but also an assessment of the significance of indirect impacts. *See* 40 C.F.R. § 1502.16(b). Under NEPA, significance is defined in terms of "context" and "intensity." *See* 40 C.F.R. § 1508.27. In this case, the Wright Area Coal FEIS did not at all assess the significance of CO₂ emissions associated with the North Porcupine coal lease, further undermining the Agency's implication that CO₂ emissions from the lease do not matter.

The failure to assess significance is particularly troublesome in light of context and intensity of the CO₂ emissions associated with the North Porcupine coal lease. As already explained, the level of CO₂ emissions appears to be significant in a number of regards, both in terms of context and intensity. Although the FEIS asserted it was "not possible" to project potential CO₂ emissions, the FEIS does disclose that the North Porcupine coal lease will contribute to an increase in the amount of CO₂ emissions associated with the combustion of Powder River Basin coal. Coupled with the facts that the Powder River Basin is already responsible for more CO₂ emissions than any other region of the United States and that Powder River Basin subbituminous coal produces more CO₂ emissions when burned than other types of coal, this is certainly not an insignificant consequence.

¹⁹ 30 million metric tons is not insignificant. According to the EPA, this equals the total annual CO₂ emissions from 7.1 coal-fired power plants. *See* EPA, *Greenhouse Gas Equivalencies Calculator*, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results> (last accessed Nov. 20 2011).

The context of the associated CO₂ emissions bolsters our concerns and can be summed up this way: The North Porcupine coal lease would maintain the Powder River Basin as the leading source of coal for coal-fired power plants and the leading source of CO₂ in the United States. The significance of the coal lease was not assessed in this context, further demonstrating that the BLM failed to comply with NEPA. Ultimately, not only did the BLM fail to adequately analyze the CO₂ emissions associated with the North Porcupine coal lease, it also failed to assess their significance, in violation of NEPA. The failure to analyze and assess such impacts fatally flaws the ROD.

b. The BLM did not Analyze or Assess the Potential Climate Change Impacts

Our second concern is that the BLM failed to analyze and assess how the direct, indirect, and cumulative greenhouse gas emissions associated with the North Porcupine coal lease will influence global climate change. As the BLM indicates in the ROD, it can be assumed that the release of greenhouse gases associated with the coal lease will contribute to climate change. *See e.g.* ROD at 8. Furthermore, the Wright Area Coal FEIS does generally outline the effects associated with global climate change. *See* FEIS at 4-130 to 4-134. Unfortunately, the BLM made no attempt to analyze and assess such impacts in relation to the North Porcupine coal lease.

The Wright Area Coal FEIS asserts that, “given the state of the science, it is impossible to determine what effect any given amount of GHG [greenhouse gas] emissions resulting from an activity might have on the phenomena of global warming, climate change or the environmental effects stemming from it.” FEIS at 4-143. We are rightfully skeptical of this assertion, particularly in light of BLM statements that, “Reducing human-caused GHG [greenhouse gas] emissions would help to lessen any harmful effects that they may be causing to global climate.” ROD at 8. Indeed, the FEIS does not cite or present information or analysis demonstrating that the “state of the science” is such that an analysis of climate change impacts is impossible.

However, even assuming the BLM may be correct, this assertion does not satisfy NEPA’s disclosure requirements. NEPA’s implementing regulations require that the BLM to “evaluate reasonably

foreseeable significant adverse effects on the human environment,” even where information relevant to making this evaluation is “incomplete or unavailable.” 40 C.F.R. § 1502.22. If, as the FEIS asserts, it is “impossible” to analyze climate impacts, the BLM must clearly show that the information is “lacking” by providing what credible scientific information it does have on such reasonably foreseeable impacts and making an effort to analyze these impacts based on this information. *Id.* Specifically, even if it cannot obtain complete information about those effects, “the agency shall [still] include in the environmental impact statement”:

(1) A statement that such information is incomplete or unavailable; (2) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; (3) a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and (4) the agency’s evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.

40 C.F.R. § 1502.22(b). Under this section, reasonably foreseeable impacts “include[] impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.” *Id.*

Despite the BLM’s claim that it is unable to analyze and assess the climate change impacts associated with the North Porcupine coal lease, nowhere in the Wright Area Coal FEIS or the ROD is it apparent that the requirements of 40 C.F.R. § 1502.22 have been met. In fact, neither document references 40 C.F.R. § 1502.22. Of particular concern is that the Supervisor made no effort to evaluate climate change impacts using theoretical approaches or research methods generally accepted by the scientific community in accordance with 40 C.F.R. § 1502.22(b)(4). The BLM did not even prepare a qualitative assessment of global climate change impacts of the North Porcupine coal lease, which could have at least provided information to the public and the decisionmaker regarding the potentially significant impacts. Put simply, the BLM made no effort to evaluate climate change impacts using the credible scientific information available to the Agency in accordance with 40 C.F.R. § 1502.22.

c. The BLM Failed to Analyze in Detail a Range of Alternatives to Address Greenhouse Gas Emissions and Climate Change Impacts

In addition to failing to adequately analyze and assess global climate change impacts, the BLM also failed to analyze in detail a range of alternatives to address the indirect and cumulative CO₂ emissions and the likely climate change impacts of the North Porcupine coal lease. In particular, the BLM failed to consider alternatives to mitigate adverse climate change impacts in accordance with 40 C.F.R. §§ 1502.14(f) and 1502.16(h), including alternatives raised by Appellant WildEarth Guardians in comments on both the Wright Area Coal DEIS and FEIS.

The BLM responds to Appellant WildEarth Guardians' proposed alternatives in Comment Response 2 and, to a lesser degree, Comment Response 5. *See* FEIS, Appendix I at BLM Response to Comments, 2 and 4-5. This response to comments, however, does not actually specifically address any of the alternatives proposed by WildEarth Guardians. Instead, the BLM seems to proffer two extremely generalized arguments against any alternative that would address global climate changes impacts: 1) The Agency analyzed a range of reasonable alternatives and 2) BLM "does not regulate" GHG emissions. Both of these arguments fail to provide a rational justification for not considering in detail the alternatives proposed by WildEarth Guardians.

To begin with, BLM cites its Handbook at H-1790-1 as support for its assertion that it considered in detail a range of reasonable alternatives. The BLM's NEPA handbook, however, provides no justification for the Agency to violate NEPA with regards to considering a range of reasonable alternatives. In this case, BLM did not explain how Appellant WildEarth Guardians' proposed alternatives were speculative, unreasonable, or otherwise not consistent with the purpose and need for the proposed action.

With regards to regulating greenhouse gas emissions, Appellants nowhere asked the BLM to regulate greenhouse gas emissions. Instead, Appellants requested that the BLM consider imposing stipulations that would address the global climate change impacts of the North Porcupine coal lease. For example, WildEarth Guardians requested that the BLM limit the tonnage and acreage of the lease, an

action that BLM has complete authority to regulate. Thus, BLM grossly misconstrued WildEarth Guardians' comments and in doing so, overlooked reasonable opportunities to address greenhouse gas emissions associated with the North Porcupine coal lease.

In comments on the Wright Area DEIS, WildEarth Guardians requested, in detail and with ample explanation, that the BLM thoroughly analyze the following alternatives:

- Alternatives with varied tonnage and acreage limits to leases so that changes can be made in the future to respond to GHG emissions regulation
- An alternative that establishes a renewable energy fund to spur solar and wind development in Wyoming to mitigate carbon emissions and to create long-term jobs.
- An alternative that requires the coal lessees to purchase carbon offsets.
- An alternative that would require that all carbon emissions from Wright Area coal used for electricity generation be captured and sequestered geologically.
- An alternative that establishes a Renewable Energy Standard ("RES") for coal mine operators.
- An alternative that would require all mine vehicles to be run on alternative fuels.

WildEarth Guardians' Comments on Wright Area Coal DEIS at 12-14. Every single one of these alternatives is squarely within the authority of the BLM to implement. Indeed, BLM has a duty to impose any stipulations that are "deem[ed] appropriate." 43 C.F.R. § 3475.1. In light of the fact that the BLM has a nondiscretionary duty to reject any lease by application that "for environmental or other sufficient reasons, would be contrary to the public interest" (43 C.F.R. § 3425.1-8(a)(3)), it is clear that the Agency has broad authority to impose stipulations to safeguard the environment. This is underscored by the fact that the BLM has the authority to "prescribe additional terms and conditions [] to safeguard the public welfare." 43 C.F.R. § 3420.4-2(b). The alternatives proposed by WildEarth Guardians could have been adopted as lease stipulations to ensure greater protection of the Earth's climate, which clearly is a matter of environmental protection and public welfare. The BLM's failure to meaningfully analyze the merits of these alternatives, or to even accept that the Agency has a duty to safeguard the environment at the leasing stage, is a clear violation of NEPA. Thus, the BLM's response to comments is further indicative of a violation of NEPA and the ROD and the likelihood of Appellants' success on the merits.

2. The BLM Failed to Adequately Analyze and Assess Air Quality Impacts in Accordance with NEPA

The BLM further failed to adequately analyze and assess air quality impacts associated with the North Porcupine coal lease in accordance with NEPA and CEQ NEPA regulations. This oversight is significant given not only the public health and welfare ramifications of air pollution, but given the BLM's own disclosure that the North Porcupine coal lease would exacerbate adverse air quality impacts that already appear to be significant.

a. Ozone

Ozone is a harmful gas for which the EPA has established NAAQS in order to protect public health. *See* 40 C.F.R. § 50.15. The FEIS explains:

Potential health risks associated with inhalation of ground level O₃ [ozone] [] include acute respiratory problems, aggravated asthma, decreases in lung capacity in some healthy adults, inflammation of lung tissue, respiratory-related hospital admissions and emergency room visits, and increased susceptibility to respiratory illnesses, including bronchitis and pneumonia (EPA 2007b).

FEIS at 3-81. The Wright Area Coal FEIS states, "Ground level ozone is not emitted directly into the air, but rather is created by chemical reactions between NO_x [nitrogen oxides] and VOCs [volatile organic compounds] on the presence of sunlight." *Id.* at 3-49.

Currently, the NAAQS limit ozone concentrations to no more than 0.075 parts per million over an eight hour period (often referred to as the "8-hour ozone NAAQS"). According to the EPA, an exceedance of the standard occurs whenever ambient ozone concentrations reach 0.076 parts per million or higher and a violation occurs whenever the three year average of the fourth highest annual 8-hour ozone concentrations is 0.076 parts per million or higher. *See* 40 C.F.R. § 50.15.²⁰ However, the EPA has proposed to strengthen the ozone NAAQS by setting a limit of no more than 0.060-0.070 parts per million over an 8-hour period. *See* 75 Fed. Reg. 2938-3052 (Jan. 19, 2010).

²⁰ Contrary to BLM's assertion otherwise in its FEIS, an exceedance of the ozone NAAQS does not occur only when the fourth highest daily maximum value is above the standard. Anytime the NAAQS are exceeded is considered an exceedance. An exceedance of the NAAQS is considered to reflect poor air quality and as such, EPA requires that health warnings be issued to the general public whenever an exceedance occurs or is projected to occur. *See* 40 C.F.R. § 58, Appendix G, disclosing that an exceedance of the ozone NAAQS should lead to a categorization of "unhealthy."

In comments, Appellants raised concerns over the impacts of the North Porcupine coal lease to ambient 8-hour ozone concentrations in the region. Unfortunately, the BLM failed to prepare any analysis or assessment of the impacts of the North Porcupine coal lease to ambient ozone. The FEIS, in fact, seemed to imply that ozone is not an issue with regards to the coal lease. However, this is contradicted in a number of regards.

Indeed, the FEIS appeared to assert that the region where the North Porcupine coal lease is located is in compliance with the 8-hour ozone NAAQS, and therefore an analysis or assessment of direct, indirect, and cumulative impacts is not warranted. This assertion ignores the fact that numerous exceedances of the NAAQS have occurred in the region, and that the region is not only nearly violating the NAAQS, but will most likely violate new ozone NAAQS that have been proposed by the EPA.

Two monitors are in operation in Campbell County, one in the Thunder Basin National Grassland and the other in southern Campbell County. According to data from these monitors, ozone concentrations in Campbell County, Wyoming have exceeded the current 8-hour ozone NAAQS on 16 occasions since 2001.²¹ According to this data, 8-hour ozone concentrations have peaked as high as 0.088 parts per million. According to this data, the three year average of the fourth highest annual 8-hour ozone readings for the years 2008-2010 is 0.061 parts per million at the South Campbell County Monitor and 0.066 parts per million at the Thunder Basin National Grassland monitor.

In fact, just since 2005, EPA reports that there have been more than 200 days of “moderate” air quality based on 8-hour ozone concentrations monitored in Campbell County, Wyoming and seven days of air quality deemed “Unhealthy for Sensitive Groups” based on these same ozone concentrations.²² Not

²¹ A table displaying this monitoring data is attached as Exhibit 9.

²² See U.S. EPA, *Daily Ozone AQI Levels, 2005-2010, Campbell County, Wyoming*, available at http://www.epa.gov/cgi-bin/htmSQL/mxplorer/trend_tile.hspl?msaorcountyName=msacode&msaorcountyValue=-1&poll=44201&county=-1&msa=-1&sy=2010&flag=Y& debug=2& service=data& program=dataprog.trend_tile_dm.sas (last accessed Nov. 20, 2011). This data is attached as Exhibit 10.

surprisingly, even the EPA itself has commented that it is “concerned with measured ozone concentrations in the surrounding area.”²³

As Appellants stated in their comments, the likelihood of high ozone levels in the region is consistent with recent modeling prepared for the Western Regional Air Partnership (“WRAP”), which indicates that large areas of the Rocky Mountain West, including northeastern Wyoming, are projected to exceed and/or violate the ozone NAAQS by 2018. In 2008 presentation given at a WRAP Technical Analysis Meeting in Denver, Colorado, it was reported that the modeling “predicts exceedance of the 8-hour average ozone standard in much of the southwestern US, mostly in spring.”²⁴

The likelihood of high ozone in the area of the North Porcupine coal lease is also underscored by the projected emissions of NO_x. According to the BLM, NO_x emissions are estimated to be as high as 3,856 tons/year in 2017 at the North Antelope Rochelle coal mine. To put this into perspective, this as much NO_x pollution as is released annually by more than 201,884 passenger vehicles.²⁵

Although BLM may claim that the State of Wyoming will address any potentially significant direct, indirect, and cumulative ozone impacts, this claim is misplaced. To begin with, no modeling has been prepared by the State of Wyoming to assure compliance with the eight-hour ozone NAAQS. In fact, the State of Wyoming does not even require or otherwise prepare ozone modeling prior to issuing air permits for coal mining operations in the Powder River Basin. According to the Wyoming Department of Environmental Quality, coal companies only model their impacts to the annual particulate matter and

²³ See U.S. EPA, Comments on Wright Area Coal DEIS (Sept. 10, 2009) at 2, available at [http://yosemite.epa.gov/oeca/webeis.nsf/\(PDFView\)/20090209/\\$file/20090209.PDF?OpenElement](http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20090209/$file/20090209.PDF?OpenElement) (last accessed Nov. 20, 2011). These comments can be found in Appendix I to the FEIS.

²⁴ See Tonnesen, G., Z. Wang, M. Omary, C. Chien, Z. Adelman, and R. Morris, et al., *Review of Ozone Performance in WRAP Modeling and Relevance to Future Regional Ozone Planning*, presentation given at WRAP Technical Analysis Meeting (July 30, 2008) at unnumbered slide 30, available at http://wrapair.org/forums/toc/meetings/080729m/RMC_Denver_OzoneMPE_Final2.pdf (last accessed Nov. 20, 2011). This presentation was attached to Appellants’ comments on the DEIS.

²⁵ According to EPA, an average passenger vehicle releases 38.2 pounds of NO_x annually. See <http://www.epa.gov/otaq/consumer/f00013.htm> (last accessed Nov. 20, 2011).

annual nitrogen dioxide NAAQS prior to receiving an air quality permit.²⁶ No other air quality modeling or analysis is required. Thus the BLM would be incorrect to argue that the State of Wyoming will analyze and assess ozone impacts.²⁷

This is especially true where, as here, the air permit issued by the State of Wyoming for the North Antelope Rochelle coal mine lacks any limits on NO_x or VOC emissions.²⁸ In other words, the air permit for the coal mine fails to limit the very emissions that form ground-level ozone. Thus, the BLM would not only be mistaken, but completely off-base, to blindly defer to the State of Wyoming instead of performing its own independent assessment of ozone impacts.

It is true that violation of the 8-hour ozone NAAQS has yet to occur, but the duty to analyze and assess air quality impacts does not hinge upon an area falling into violation of ambient air quality standards. This duty is all the more imperative in the Powder River Basin in light of signs that the region could violate the NAAQS as a result of the North Porcupine coal lease. These signs include monitored exceedances of the NAAQS, the fact that the three year average of the fourth highest annual eight hour ozone concentrations at the Thunder Basin National Grassland ozone monitor is 0.066 parts per million, the fact that regional modeling projects exceedances and/or violations of the ozone NAAQS in the near future, and the fact that the region will likely violate the EPA's proposed revision to the ozone NAAQS. Even the EPA has commented that it is "particularly important [to use a] current state-of-science photochemical grid model [whenever elevated ozone levels are recorded]."²⁹ In this case, the BLM did

²⁶ See Wyoming DEQ, *PRB Coal Mine Permitting Guidance* (February 27, 2006), available at http://deq.state.wy.us/aqd/Oil%20and%20Gas/PRB%20Permit%20Guidance_4.pdf (last accessed Nov., 2011).

²⁷ We are further concerned with any claim that the State of Wyoming will adequately analyze and assess air quality impacts in light of the fact that NEPA does not apply to state actions.

²⁸ See Exhibit 11, State of Wyoming, "Air Quality Permit for North Antelope Rochelle Mine, Permit No. MD-6375" (Nov. 10, 2008).

²⁹ See U.S. EPA, Comments on Draft Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project, Sublette County, Wyoming (February 14, 2008) at 3, available at http://www.wyomingoutdoorcouncil.org/html/what_we_do/air_quality/pdfs/EPA%20EU3%20Letter%20on%20Revised%20Draft%20SEIS.pdf (last accessed Nov. 20, 2011). This comment letter is attached as Exhibit 12.

not even explain why a photochemical grid model was not necessary, even though elevated ozone levels have been recorded in Campbell County.

The point of NEPA is to address and avoid potentially significant impacts before they occur, not wait for them to occur before taking action. In light of this, the BLM's failure to analyze and assess the impacts of the North Porcupine coal lease to ambient ozone concentrations represents a fatal flaw in the agency's analysis and ROD and a fundamental violation of NEPA.

b. Nitrogen Dioxide

The BLM failed to analyze and assess the potentially significant impacts to the current NAAQS for nitrogen dioxide. On February 9, 2010, the EPA finalized revisions to the nitrogen dioxide NAAQS, supplementing the current annual standard of 53 parts per billion with a 1-hour standard of 100 parts per billion. *See* 75 Fed. Reg. 6474-6537 (Feb. 9, 2010). These NAAQS were originally proposed on July 15, 2009. *See* 74 Fed. Reg. 34404-34466 (July 15, 2009). These NAAQS became effective on April 12, 2010.

Nowhere did the BLM attempt to analyze the degree to which the North Porcupine coal lease would affect nitrogen dioxide concentrations on an hourly basis. Although the FEIS notes that in 2010, the EPA set a new 1-hour NO₂ standard, there is simply no analysis of impacts to concentrations of this harmful pollutant. This is disconcerting not only in light of what the NAAQS require, but in light of the FEIS's disclosure regarding the danger of nitrogen dioxide. As the FEIS states, "[N]itrogen dioxide (NO₂) [] is a highly reactive, reddish brown gas that is heavier than air and has a pungent odor. NO₂ is by far the most toxic of several species of NO_x." FEIS at 3-78. The BLM continues to note that nitrogen dioxide "may cause significant toxicity because of its ability to form nitric acid with water in the eye, lung mucous membranes, and skin," "may cause death by damaging the pulmonary system," and "may exacerbate pre-existing respiratory conditions, or increase the incidence of respiratory infections." *Id.* The BLM discloses, "there is concern about the potential health risk associated with short-term exposure to NO₂ from blasting emission." FEIS at 3-81.

The failure to analyze and assess impacts of the North Porcupine coal lease to 1-hour NO₂ concentrations is further troubling because according to the BLM, on a cumulative basis, there are violations occurring in the Powder River Basin that are projected to worsen. Modeling prepared for the BLM as part of the Powder River Basin Coal Review shows that background 1-hour NO₂ concentrations in Montana are at 217.43 parts per billion, already more than twice the NAAQS.³⁰ The modeling further shows that by 2020, these concentrations are expected to worsen to as high as 235.35 parts per billion.³¹ As the FEIS itself notes, “the modeling results indicate that the 1-hour NO₂ concentrations at Montana near-field receptors for 2020 would exceed EPA’s new 1-hour NAAQS (0.001 [parts per million] or 188.1 [micrograms/cubic meter].” FEIS at 4-48. Unfortunately, the FEIS makes no effort to analyze cumulative NO₂ impacts in the Wyoming portion of the Powder River Basin.

The BLM may assert that voluntary mitigation measures will address any potentially significant short-term NO₂ impacts from the North Porcupine coal lease, but there is no analysis, including any air quality analysis, or assessment to support such an assertion. Indeed, there is no assessment of the effectiveness of any mitigation measures, voluntary or otherwise, to address short-term nitrogen dioxide impacts in the context of the NAAQS. Furthermore, by all measures, any mitigation measures in the FEIS will fail. As the FEIS notes, on a cumulative basis, hourly NO₂ concentrations will exceed the NAAQS. Furthermore, to the extent that the FEIS relies on voluntary measures to address any potentially significant nitrogen dioxide impacts, such measures cannot serve to mitigate impacts given that they are unenforceable.

³⁰ See AECOM, *Update of Task 3A Report for the Powder River Basin Coal Review Cumulative Air Quality Effects for 2020*, Prepared for Bureau of Land Management, High Plains District Office, Wyoming State Office, and Miles City Field Office (Dec. 2009) at ES-6, available at http://www.blm.gov/wy/st/en/programs/energy/Coal_Resources/PRB_Coal/prbdocs/coalreview/task_3a-2020.html (last accessed Nov. 20, 2011). This report is referenced by the BLM in its FEIS and therefore should be a part of the administrative record for the North Porcupine coal lease.

³¹ See Powder River Basin Coal Review report at ES-6. Data for NO₂ is presented in the report in terms of microgram/cubic meter concentrations. For ease of comparison with the NAAQS, which are expressed in terms of parts per billion, the microgram/cubic meter concentration was converted to parts per billion. Additionally, the 1-hour NO₂ concentrations were only modeled for the Montana portion of the Powder River Basin.

Although the BLM may further claim that the State of Wyoming will address any potentially significant direct, indirect, and cumulative 1-hour NO₂ impacts, this claim is misplaced. To begin with, no modeling has been prepared by the State of Wyoming to assure compliance with the 1-hour NO₂ NAAQS. In fact, the State of Wyoming does not even require or otherwise prepare NO₂ modeling prior to issuing air permits for coal mining operations in the Powder River Basin. As explained already, the Wyoming Department of Environmental Quality only requires coal companies to model impacts to the annual particulate matter and annual NO₂ NAAQS prior to receiving an air quality permit. No other air quality modeling or analysis is required, thus it would be incorrect to assert that the State of Wyoming will analyze and assess 1-hour NO₂ impacts.

c. Fine Particulate Matter

The BLM failed to analyze and assess the potentially significant impacts to the current NAAQS for particulate matter less than 2.5 microns in diameter (“PM_{2.5}”). The current NAAQS limit annual PM_{2.5} concentrations to no more than 15 micrograms/cubic meter and 24-hour concentrations to no more than 35 micrograms/cubic meter. *See* FEIS at 3-50. This raises serious concerns that the BLM failed to adequately analyze and assess the public health impacts of the North Porcupine coal lease. As the Wright Area Coal FEIS discloses, the PM_{2.5} NAAQS were established “based on their link to serious health problems.” FEIS at 3-51.

We are particularly concerned that, although the FEIS in one section seems to imply that current PM_{2.5} concentrations are not exceeding the NAAQS, the cumulative effects analysis indicates that current background *PM_{2.5} concentrations are exceeding the 24-hour NAAQS and are projected to exceed both the annual and 24-hour NAAQS.* Contrast FEIS at 3-50 with FEIS at 4-47. Either way, nowhere in the FEIS does the BLM analyze the degree to which the North Porcupine coal lease will affect annual and 24-hour PM_{2.5} concentrations or assess the significance of these impacts.

The failure to analyze and assess impacts of the North Porcupine coal lease to annual and 24-hour PM_{2.5} concentrations is particularly troubling in light of the current and projected exceedances. Modeling prepared for the BLM as part of the Powder River Basin Coal Review shows that background 24-hour

PM_{2.5} concentrations are, on a cumulative basis, already at 87.6 micrograms/cubic meter, more than twice the NAAQS.³² Furthermore, the modeling shows that coal mines and coal-related activities are and will continue to be significant contributors to annual and 24-hour PM_{2.5} concentrations.³³

Finally, although it may again be claimed that the State of Wyoming will address any potentially significant direct, indirect, and cumulative PM_{2.5} impacts, this claim is misplaced for the reasons mentioned in our ozone and nitrogen dioxide discussions.

d. Fine Particulate Matter Increments for Class I Areas

The BLM failed to analyze and assess the potentially significant impacts to the current Class I increments for 24-hour PM_{2.5}. Increments are similar to the NAAQS, although they apply based on whether an area is designated as Class I or Class II. In this case, the EPA adopted Class I increments for 24-hour PM_{2.5} on October 20, 2010, limiting concentrations to no more than 2 micrograms/cubic meter. *See* 75 Fed. Reg. 64864-64907.

Despite this, there is no analysis or assessment of the impacts of the North Porcupine coal lease to the 24-hour PM_{2.5} increment. In fact, the FEIS does not even acknowledge the existence of the 24-hour PM_{2.5} increment. *See* FEIS at 3-50. This is disconcerting because again, modeling prepared for the BLM as part of the Powder River Basin Coal Review shows that background 24-hour PM_{2.5} concentrations are, on a cumulative basis, already exceeding the increment in three nearby Class I areas—the Northern Cheyenne Indian Reservation in Montana, Badlands National Park in South Dakota, and Wind Cave National Park also in South Dakota.³⁴ The modeling also shows that by 2020, background 24-hour PM_{2.5} concentrations are expected to worsen, with exceedances of the increment reported in all three Class I areas under both low and upper coal production scenarios. The modeling also shows that coal mines and

³² *See* Powder River Basin Coal Review report at ES-6

³³ *Id.* at 3-4.

³⁴ *See* Powder River Basin Coal Review report at ES-7.

coal-related activities are going to be significant contributors to annual and 24-hour PM_{2.5} concentrations.³⁵

e. PM₁₀ NAAQS and Increments

Particulate matter less than 10 microns in diameter, or PM₁₀, is a harmful pollutant for which the EPA has established NAAQS and increments in order to protect public health. *See* 40 C.F.R. §§ 50.10 and 52.21(c). The FEIS explains:

Particulates, especially fine particles, have been linked to numerous respiratory related illnesses and can adversely affect individuals with pre-existing heart or lung diseases (EPA 2007a). They are also a major cause of visibility impairment in many parts of the United States. While individual particles cannot be seen with the naked eye, collectively they can appear as black soot, dust clouds, or gray hazes.

FEIS at 3-55-3-66. Currently, the NAAQS limit PM₁₀ concentrations to no more than 150 micrograms/cubic meter, although Wyoming ambient air quality standards also limit annual PM₁₀ concentrations to no more than 50 micrograms/cubic meter. *See* FEIS at 3-50. The increments limit 24-hour PM₁₀ concentrations to no more than 8 micrograms/cubic meter in Class I areas.

In analyzing the impacts of the North Porcupine coal lease, the BLM concluded that the PM₁₀ NAAQS and Class I increments would be protected. This conclusion is specious and utterly contradicted by the FEIS. Importantly, there is simply no analysis or assessment to support it.

Indeed, contrary to the BLM's overarching assertion, the FEIS discloses that a number of exceedances of the 24-hour PM₁₀ NAAQS have occurred in the region of the North Antelope Rochelle coal mine. As the Agency states, "From 2001 through 2006 there were a total of nine exceedances of the 24-hour PM₁₀ particulate matter standard associated with the Black Thunder, Jacobs Ranch, and North Antelope Rochelle mines." FEIS at 3-55. The FEIS also discloses that the coal lease would contribute to future exceedances of the 24-hour PM₁₀ NAAQS. As the FEIS states, the cumulative impacts of the North Porcupine coal lease would include exceedances of the 24-hour PM₁₀ NAAQS, leading to concentrations as high as 624.1 micrograms/cubic meter, even under a low production scenario, more

³⁵ *Id.* at 3-4.

than four times the level of the NAAQS. *See* FEIS at 4-41. The FEIS finally discloses that exceedances of the 24-hour PM₁₀ increments are not only currently occurring in Class I areas, but are projected to occur on a cumulative basis in no fewer than three nearby Class I areas. *See* FEIS at 4-50.

The BLM seems to believe that, despite these disclosures, that compliance with State of Wyoming air quality permitting requirements would prevent exceedances of the 24-hour PM₁₀ NAAQS and increments. This is a dubious statement, to say the least. Even under current air quality permits, exceedances of the NAAQS are occurring. This is significant because BLM discloses that, “monitoring results have been used in lieu of short-term (24-hour) modeling for assessing short-term coal mining-related impacts in the PRB.” FEIS at 3-58. In other words, only monitoring, not modeling, has been used to ensure compliance with the NAAQS. In light of this, there is no indication that future permits will ensure compliance in light of monitored exceedances. This is underscored by the FEIS’s own cumulative effects analysis, which shows that exceedances of the 24-hour PM₁₀ NAAQS will occur, even at the same permitted production rates.

Furthermore, as the FEIS clearly demonstrates, exceedances of the 24-hour PM₁₀ increments are currently occurring on the Northern Cheyenne Indian Reservation and in Wind Cave National Park. *See* FEIS at 4-50. By 2020, exceedances are projected in these two Class I areas, in addition to Badlands National Park, even under a low coal production scenario. The tables below illustrate the increment exceedances that are occurring and are projected to occur.

The fact is that state air quality permitting requirements and rules are not preventing exceedances or violations of the NAAQS or increments. Comments from the EPA on the North Porcupine coal lease directly spoke to this fact. As the Agency stated, “*mine emissions or emissions from other area sources must be reduced* before PRB operations are expanded to realize the upper range of future coal production.”³⁶ The EPA further stated, “We recommend that the Final EIS add additional mitigation

³⁶ EPA Comments on Wright Area Coal DEIS at 1 (emphasis added).

measures to reduce fugitive dust emissions.”³⁷ In fact, the EPA pointed out that existing best available control measures for PM₁₀ were inadequate, stating:

[W]e are recommending that the Final EIS analyze more effective dust control measures than the current Best Available Control Technology (BACT) and Best Available Control Measure practices and require additional mitigation to reduce fugitive dust from mining the lease tracts and the cumulative effects of mining in the surrounding area.³⁸

This further exemplifies that there is no support for any claim that state air quality rules and permitting requirements will assure compliance with the 24-hour PM₁₀ NAAQS and increments. Absent “additional mitigation measures” or a demonstration that mine emissions will be reduced, the BLM has no basis for asserting that the FEIS adequately analyzes and assess impacts to the 24-hour PM₁₀ NAAQS or the increments.

f. Visibility

The Wright Area FEIS disclosed that visibility would be further impaired in a number of special areas, including Class I areas under the Clean Air Act and other sensitive Class II areas. Unfortunately, the BLM made no effort to assess the significance of these impacts in accordance with NEPA.

This oversight is significant, particularly in the context of Class I areas under the Clean Air Act. The Wright Area FEIS discloses that nationally, the Clean Air Act has set a goal of “prevent[ing] any future, and remedy[ing] any existing, impairment of visibility in mandatory Federal Class I areas that result from manmade pollution.” FEIS at 3-91. EPA regulations state that the term “visibility impairment” is defined as “any humanly perceptible change in visibility (light extinction, visual range, contrast, coloration) from that which would have existed under natural conditions.” 40 C.F.R. § 51.301. The regulations state that “[a] single source that is responsible for a 1.0 deciview change or more should be considered to ‘cause’ visibility impairment” and that “determining whether a source ‘contributes’ to

³⁷ *Id.*

³⁸ EPA Comments, Cover Letter at 1.

visibility impairment should not be higher than 0.5 deciviews.” 40 C.F.R. § 51 Appendix Y, Section III A. 1.³⁹

The FEIS discloses that, even under a low production scenario, the North Porcupine coal lease will increase the number of additional days in which visibility impacts will be greater than 1.0 deciview at 16 Class I areas, including Badlands National Park, Bridger Wilderness Area, Fitzpatrick Wilderness area, Fort Peck Indian Reservation, Gates of the Mountain Wilderness Area, Grand Teton National Park, North Absaroka Wilderness Area, North Cheyenne Indian Reservation, Red Rock Lakes, Scapegoat Wilderness Area, Teton Wilderness Area, Theodore Roosevelt National Park, UL Bend Wilderness Area, Washakie Wilderness Area, Wind Cave National Park, and Yellowstone National Park. *See* FEIS at 4-51. In the case of the Northern Cheyenne Indian Reservation and Badlands National Park, the number of additional days where visibility impacts will be greater than 1.0 deciview will be 59 and 44, respectively, under the low development scenario, the highest of any Class I areas.

Despite these disturbing disclosures, the BLM made no attempt to assess the significance of these projected visibility impacts, or to otherwise address such impacts through mitigation or other measures. It is as if the Agency simply disclosed the potential impacts, then did nothing more. This is utterly contrary to NEPA, which not only requires an analysis, but an assessment of the significance of impacts to ensure informed decisionmaking. *See* 40 C.F.R. §§ 1502.16, 1508.7, and 1508.8.

The failure of the BLM to assess visibility impacts arising from the North Porcupine coal lease is especially disconcerting in light of the fact that the State of Wyoming has done nothing to address such impacts. Indeed, the EPA has officially declared that Wyoming, among many other states, has failed to submit rules to address visibility impacts from sources of air pollution within the State. *See* Finding of Failure to Submit State Implementation Plans Required by the 1999 Regional Haze Rule, 74 Fed. Reg.

³⁹ The BLM explains a deciview is a “general measure of view impairment (13 deciviews equals a view of approximately 60 miles) caused by pollution. A 10 percent change in extinction corresponds to 1.0 dv.” FEIS at 7-3.

2392-2395 (Jan. 15, 2009). Thus, the BLM has no reasonable basis upon which to rely on the State of Wyoming to address visibility impacts under NEPA.

3. The BLM Failed to Protect Air Quality Standards in Accordance with the Federal Land Policy and Management Act

The BLM has a duty to ensure compliance with state and federal air quality standards under FLPMA. *See* 43 U.S.C. § 1712(c)(8). FLPMA specifically states that the BLM shall, “provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standard or implementation plans.” *Id.* Unfortunately, the BLM failed to ensure compliance with air quality standards in authorizing the sale and issuance of the North Porcupine coal lease.

FLPMA provides that BLM’s land use plans must “provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans.” 43 U.S.C. § 1712(c)(8). Here, BLM’s applicable land use plan—the Buffalo Resource Management Plan—explicitly provides for such compliance. The 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 its decisions are “conditioned to avoid violating Wyoming and national air quality standards.”⁴⁰ FLPMA and BLM’s regulations prohibit agency action that is inconsistent with the land use plan. *See* 43 U.S.C. § 1732(a) (mandating that the Secretary “shall manage the public lands ... in accordance with the land use plans”); *see also* 43 C.F.R. § 1610.5-3(a) (“resource management authorizations and actions” must conform to the applicable resource management plan).

Moreover, FLPMA and BLM’s own regulations explicitly provide for protection of air resources. 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 regulations mandate the “each land use authorization” shall “require

⁴⁰ BLM, APPROVED RESOURCE MANAGEMENT PLAN FOR PUBLIC LANDS ADMINISTERED BY THE BUREAU OF LAND MANAGEMENT BUFFALO FIELD OFFICE, (April 2001) (hereafter “Buffalo RMP”) at 3, *available at* http://www.blm.gov/pgdata/etc/medialib/blm/wy/programs/planning/rmps.Par.94672.File.dat/2001rmp_update.pdf (last accessed Nov. 20, 2011).

compliance with air and water quality standards established pursuant to applicable Federal or State law.”
43 C.F.R. § 2920.7(b)(3).

BLM’s actions in this case fell short of its legal obligations under FLPMA in two critical ways. First, BLM cannot fulfill its responsibility to ensure compliance with air quality protections without analyzing a critical part of the problem. BLM blindly approved the North Porcupine coal lease without even making the effort to analyze certain air quality impacts.

Second, BLM cannot approve the project knowing that its emissions when combined with existing and reasonably foreseeable emissions will result in significant deterioration of air quality and/or violations of Wyoming or national ambient air quality standards. In this case the BLM’s own analysis shows as a result of offering the North Porcupine coal lease for sale and issuance, a number of state and federal air quality standards will be exceeded, contrary to its duties under FLPMA. The BLM’s specific shortcomings are as follows:

a. Ozone

The BLM entirely failed to analyze or assess the impacts of developing the North Porcupine coal lease to ambient ozone concentrations, notwithstanding the fact that monitors in the region have detected numerous exceedances of the ozone NAAQS, that modeling indicates ozone levels will exceed and/or violate the NAAQS, and that emissions of NO_x from operations at the North Antelope Rochelle coal mine are expected to be significant. In failing to analyze or assess the impacts of the North Porcupine coal lease to ambient ozone concentrations, there is no support for any assertion that the BLM has complied with FLPMA.

b. Nitrogen Dioxide

Similarly, the BLM did not analyze or assess the impacts of developing the North Porcupine coal lease to the recently adopted 1-hour NO₂ NAAQS, at least in the Wyoming portion of the Powder River Basin, which is where the lease is located. To the extent that the FEIS analyzed impacts to the 1-hour NO₂ NAAQS in Montana, the FEIS shows that exceedances of the NAAQS will occur. As the FEIS

states, “the modeling results indicate that the 1-hour NO₂ concentrations at Montana near-field receptors for 2020 would exceed EPA’s new 1-hour NAAQS[.]” FEIS at 4-48. The failure to analyze and assess the impacts of the North Porcupine coal lease to the 1-hour NO₂ NAAQS in Wyoming, coupled with the fact that the FEIS clearly shows that the NAAQS will be exceeded in Montana, clearly indicates that the BLM has failed to ensure compliance with FLPMA.

c. PM_{2.5} NAAQS and Increments

Similar to the ozone and NO₂ NAAQS, the FEIS entirely fails to analyze and assess impacts to the 24-hour PM_{2.5} increments for Class I areas. This fact, coupled with the fact that the FEIS and modeling prepared by the BLM indicates that exceedances of the 24-hour PM_{2.5} Class I increments are occurring on the Northern Cheyenne Indian Reservation, in Badlands National Park, and in Wind Cave National Park, clearly indicates the BLM failed to comply with FLPMA.

Furthermore, as discussed earlier, the FEIS clearly shows that on a cumulative basis, the development of the North Porcupine coal lease will exceed the 24-hour PM_{2.5} NAAQS. Although the FEIS asserts there have been no “monitored” exceedances of the PM_{2.5} NAAQS, the FEIS also discloses that there are no PM_{2.5} monitors in operation at the North Antelope Rochelle coal mine, or any of the other mines applying for coal leases under the FEIS. *See* FEIS at 3-52—3-54. Indeed, although the FEIS asserts that background 24-hour PM_{2.5} concentrations were established based on “[d]ata collected at the Black Thunder Mine” (FEIS at 3-50), the FEIS show that there are only PM₁₀ monitors in operation at the mine. *See* FEIS at 3-52. Regardless, the BLM has an affirmative duty to protect federal air quality standards under FLPMA and the failure to ensure that development of the North Porcupine coal lease will prevent future exceedances of the 24-hour PM_{2.5} NAAQS is a violation.

d. PM₁₀ NAAQS and Increments

As discussed earlier, the FEIS shows that on a cumulative basis, the development of the North Porcupine coal lease will exceed the 24-hour PM₁₀ NAAQS and increments for Class I areas, and that numerous exceedances of the 24-hour PM₁₀ NAAQS have been recorded in recent years within the Powder River Basin.

The BLM does not seem to deny that exceedances of the 24-hour PM₁₀ NAAQS have been recorded, or that the FEIS projects exceedances of the NAAQS and Class I increments, but rather seems to do nothing about it. This omission is wholly misplaced in light of FLPMA's crystal clear and affirmative requirement that the BLM comply with federal air quality standards.

e. PM₁₀ NAAQS and Increments

As discussed earlier, the BLM's FEIS indicates that visibility will be further degraded in a number of Class I areas and sensitive Class II areas, including a number of National Parks, National Monuments, Wilderness Areas, Indian Reservations, and even Mount Rushmore National Memorial. *See* FEIS at 4-51. In authorizing these impacts, the BLM appears to be directly undermining the requirements of the Buffalo RMP and FLPMA.

Indeed, the Buffalo RMP is clear that BLM will "minimize emissions that could result in acid rain, violations of air quality standards, or reduced visibility."⁴¹ In failing to minimize emissions that the BLM discloses *will* contribute to reduced visibility, the Agency clearly violated both the Buffalo RMP and FLPMA.

B. Relative Harm to Appellants Favors a Stay

The relative harm in this case favors the granting of a stay of the sale and execution of the North Porcupine coal lease in accordance with 43 C.F.R. § 4.21(b)(1)(i). Not only will Appellants suffer harm, but those harms will far outweigh any harm that the BLM may suffer.

1. Appellants Will Suffer Harm

As established by the declarations of Mr. Nichols, Appellants will suffer harm to their interests. These harms will occur as a result of the increase in air pollution, adverse impacts to National Grasslands within and near the North Porcupine coal lease, and adverse impacts related to climate change that the BLM indicates are linked to carbon dioxide emissions, including emissions linked to coal mined from the Powder River Basin, including emissions linked to coal proposed to be mined through the North

⁴¹ Buffalo RMP at 3.

Porcupine coal lease. These harms are a “logical consequence” of selling and issuing the leases. The harm that Appellants will suffer is further bolstered by the BLM’s own environmental analyses.

a. Harm to Air Quality

The BLM itself discloses that, based on the use of “[a] state-of-the-art, guideline dispersion model” (FEIS at 4-45), federal and state air quality standards, as well as other important air quality thresholds, will be exceeded on a cumulative basis as a result of issuing the North Porcupine coal lease. For instance, using its “state-of-the-art” analysis, the Agency discloses in its FEIS that NAAQS and Wyoming Ambient Air Quality Standards for PM₁₀ will be exceeded as a result of the logical consequence of mining that will occur upon sale and issuance of the North Porcupine coal lease. *See* FEIS at 4-47. The FEIS also indicates visibility in nearby wild lands will be degraded on a cumulative basis as a result of the North Porcupine coal lease. *See id.* at 4-51.

As established by the declarations of Mr. Nichols, these impacts will adversely affect the interests of Appellants by eroding recreational, aesthetic, scientific, educational, and professional enjoyment of lands and resources that will be directly, indirectly, and cumulatively affected by the logical consequence of mining that will result from the sale and issuance of the North Porcupine coal lease.⁴² Mr. Nichols testifies that the logical consequence of mining that will occur as a result of the sale and issuance North Porcupine coal lease will increase the number of additional days in which visibility impacts will be greater than 1.0 deciview in areas that he has recreated within and plans to recreate within in the near future. For instance, Mr. Nichols testified that even under a low production scenario, the leases will increase the number of additional days in which visibility impacts will be greater than 1.0 deciview by 28 days in Wind Cave National Park and 5 days in Yellowstone National Park, both of which are Class I areas under the Clean Air Act. The leases will increase the number of additional days in which visibility impacts will be greater than 1.0 deciview by up to 47 days in the Black Elk Wilderness, 36 days in Jewel

⁴² *See e.g.*, Declaration of Mr. Nichols, Exhibit 6 at 2-5

Cave National Monument, 49 days in Mount Rushmore National Memorial, and 9 days in the Wind River Reservation.

These harms are made worse by the BLM's failure to adequately analyze and assess the air quality impacts of the North Porcupine coal lease and to ensure compliance with federal air quality standards in accordance with FLPMA. The BLM's failure to adequately analyze and assess the ozone impacts of the leases to ensure compliance with the NAAQS is particularly harmful in light of the fact that the region has already experienced numerous day of unhealthy air and has approached violating the current NAAQS. The North Porcupine coal lease could literally be the straw that breaks the camels back, pushing the region into violation of the ozone NAAQS and triggering greater federal oversight under the Clean Air Act and regulatory burdens on this region of Wyoming.

b. Harm to the Climate

“The harms associated with climate change are serious and well recognized.” *Massachusetts v. EPA*, 549 U.S. 497, 521 (U.S. 2007). The BLM confirms this, disclosing in its FEIS that:

The National Assessment of the Potential Consequences of Climate Variability and Change, an interagency effort initiated by Congress under the Global Climate Change Research Act of 1990, Public Law 101-606, has confirmed that climate change is impacting some natural resources that the Department of the Interior has the responsibility to manage and protect (DOI 2001).

FEIS at 4-130. The BLM further outlines the projected impacts of climate change, citing the recent IPCC Synthesis Report and stating:

According to the IPCC's synthesis report (Bernstein et al. 2007):

- “Global atmospheric concentrations of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values determined from ice cores spanning many thousands of years.”
- “Most of the observed increase in globally-averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations. It is likely there has been significant anthropogenic warming over the past 50 years averaged over each continent (except Antarctica).”

- “There is high agreement and much evidence that with current climate change mitigation policies and related sustainable development practices, global greenhouse gas emission will continue to grow over the next few decades.”
- “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.”
- “There is high confidence that by mid-century, annual river runoff and water availability are projected to increase at high latitudes and in some tropical wet areas and decrease in some dry regions in the mid-latitudes and tropics. There is also high confidence that many semi-arid areas (e.g., Mediterranean Basin, western United States, southern Africa and northeast Brazil) will suffer a decrease in water resources due to climate change.”
- “Anthropogenic warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilized.”
- “Anthropogenic warming and sea level rise could lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of the climate change.”
- “There is high agreement and much evidence that all stabilization levels assessed can be achieved by deployment of a portfolio of technologies that are either currently available or expected to be commercialized in coming decades, assuming appropriate and effective incentives are in place for their development, acquisition, deployment and diffusion and addressing related barriers.”

The BLM continued:

The National Academy of Sciences has confirmed these findings, but also has indicated there are uncertainties regarding how climate change may affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures are more likely than increases in daily maximum temperatures. Increases in temperatures would increase water vapor in the atmosphere, and reduce soil moisture, increasing generalized drought conditions, while at the same time enhancing heavy storm events.

FEIS at 4-132—4-133. The BLM also outlines the impacts of climate change to the American West, stating:

If global warming trends continue into the foreseeable future, Chambers (2006) indicates that the following changes may be expected to occur in the West:

- The amount and seasonal variability of precipitation will increase over most areas. IPCC (2001) climate model scenarios indicate that by 2100, precipitation will increase about 10 percent in summer, about 30 percent in fall, and 40 percent in winter. Less snowfall will accumulate in higher elevations, more precipitation will occur as rain, and snowmelt will occur earlier in the spring because of higher temperatures.
- Streamflow patterns will change in response to reduced snowpacks and increasing precipitation.

Peak flows in spring are expected to occur earlier and be of lower magnitude because of snowpack changes. Runoff from greater amounts of winter rainfall will cause higher winter flows. Summer flows will be lower, but with higher variability depending on the severity of storm events.

- Some populations of native plants, invasive species, and pests will expand. Increasing amounts of atmospheric carbon dioxide and precipitation during the growing season will provide favorable growth conditions for native grasses, perennial forbs, woody species, and invasive annuals such as cheatgrass. Insect populations also will likely increase because milder winter temperatures will improve reproduction and survival rates.
- Fire frequency, severity, and extent will increase because of the increased availability of fine fuels (grasses, forbs, and invasives) and accumulation of fuels from previous growing seasons. Higher temperatures will extend the length of fire seasons. Expansion of pinyon-juniper species and increasing tree densities could increase the number of high severity crown fires. Higher rates of insect damage and disease also may increase fuel accumulations.
- Sensitive species and overall biodiversity will be reduced. High-elevation habitats will shrink in area or disappear as lower-elevation plant communities expand. It is probable that some mammalian, avian, and other species that currently inhabit these high-elevation habitats may become extinct. Higher rates of disease and insect damage also may pose threats to other sensitive plant and animal species.

FEIS at 4-133—4-134. The declaration of Mr. Nichols indicates that these very impacts, particularly in the American West, are presently occurring, already posing harm to their recreational, aesthetic, and conservation interests, and in turn the Appellants.⁴³

The BLM states that, “Reducing human-caused GHG emissions would help to lessen any harmful effects that they may be causing to global climate.” ROD at 8. Clearly in authorizing the North Porcupine coal lease and extending the indirect and cumulative carbon dioxide emissions associated with the lease, the BLM is not reducing greenhouse gas emissions and therefore not lessening any harmful effects that they may be posing to the global climate, particularly as experienced in the American West, thereby harming Appellants.

2. The Balance of Harms Favors Granting a Stay

While WildEarth Guardians and the Sierra Club will be harmed as a result of the North Porcupine coal lease, the BLM will suffer little to no harm from the granting of a stay. In this case, the BLM clearly states in its ROD that the North Antelope Rochelle coal mine will continue operating for 9.9 years, even

⁴³ See *e.g.*, Declaration of Mr. Nichols, Exhibit 6 at 5-8.

absent approval of the leases. *See* ROD at 9. However, this presumes that the current operator of the North Antelope Rochelle coal mine will be the successful bidder. Given that the coal leasing process is purportedly competitive in nature, there is no guarantee that the operator of the North Antelope Rochelle coal mine will be the successful bidder. These operators do not have a right to the coal being offered for sale and issuance through the North Porcupine coal lease, thus any harm the operator would experience is entirely speculative at this point.

On the other hand, if the leases are sold, the BLM will execute the leases and transfer the rights to develop the North Porcupine coal lease, allowing the leases to be developed accordingly. Given that 43 C.F.R. § 3475.5 requires “diligent development” of any coal lease, this development could happen soon after the sale and execution of the leases. Although BLM notes that State of Wyoming permits for any mining will need to be obtained (*see e.g.*, ROD at 20), this permitting requirement will not require the State of Wyoming to comply with NEPA, FLPMA, or to otherwise comply with BLM coal leasing regulations prior to issuing any permit with regards to the issues raised in the likelihood of success on the merits section of this Petition for Stay. Indeed, these legal obligations fall squarely on the shoulders of the BLM. Furthermore, there is no indication that this process will limit activities that will lead to the emissions of harmful air pollutants, including greenhouse gases, which pose harm while Appellants’ appeal is being decided upon. In selling and executing the North Porcupine coal lease, the BLM will foreclose opportunities to address environmental obligations that fall on the Agency’s shoulders, as set forth in this Petition for Stay, not on the State of Wyoming or any other federal agency.

C. Appellants Will Suffer Immediate and Irreparable Harm if the Stay is not Granted

If Appellants’ petition for a stay is not granted, BLM will offer the North Porcupine coal lease for sale. Once the leases are sold, the BLM will immediately issue the leases in accordance with 43 C.F.R. § 3422.4 to the highest bidder and, upon receiving a completed signed lease form and associated payments, the BLM is obligated to execute the lease. Any lease will be issued for a period of 20 years in accordance with 43 C.F.R. § 3475.2.

In executing the lease, the successful bidder will be under an affirmative obligation to diligently develop the lease in accordance with 43 C.F.R. § 3475.5 and BLM will be obligated to not interfere with the operator's compliance with this duty. Appellants interpret this affirmative duty to mean that the successful bidder will be required to begin the operations analyzed and assessed in the Wright Area FEIS, including operations that will lead to the emissions of air pollutants, including greenhouse gases, and pose other adverse environmental impacts that, as noted by the declarations of Mr. Nichols, will irreparably harm their interests. After all, the BLM has stated that development of the North Porcupine coal lease is a "logical consequence."

Importantly, a stay of the sale of the North Porcupine coal lease is necessary to ensure that major legal deficiencies are fully addressed *before* the BLM hands over the rights to develop the leases. The ROD explicitly authorizes the BLM to offer for sale and to issue lease parcel WYW173408. *See* ROD at 21-22. The issuance of a lease confers a right that the BLM cannot abrogate upon issuance of the leases. This right is concisely expressed in the proposed leases, which state:

Lessor, in consideration of any bonuses, rents, and royalties to be paid, and the conditions and covenants to be observed as herein set forth, hereby grants and leases to lessee the exclusive *right and privilege* to drill for, mine, extract remove, or otherwise process and dispose of the coal deposits in, upon, or under the [leases]...together with the *right* to construct such works, buildings, plants, structures, equipment and appliances and the *right* to use such on-lease rights-of-way which may be necessary and convenient in the exercise of the *rights and privileges* granted, subject to the conditions herein provided."

See ROD, Appendix 2 at 8 (emphasis added).

Importantly, these leases contain no provisions providing for a reopening, or otherwise a modification, if the lease and the underlying ROD and FEIS are subsequently held to be legally insufficient upon review by the IBLA. In sum, once BLM issues a lease, according to the plain language of the lease itself, it surrenders all rights to modify the lease, even in the event of an adverse judgment. The proposed lease explicitly states that its terms and conditions, or stipulations, may only be "revised or amended, in writing, by the mutual consent of the lessor and the lessee at any time to adjust to changed conditions or to correct an oversight." *See* ROD, Appendix 2 at 2. Modification upon mutual consent hardly ensures that the BLM will retain its ability to ensure a legally sufficient lease.

Although the IBLA has asserted that “coal leases are subject to ‘the Secretary’s traditional administrative authority to cancel on the basis of pre-lease factors’” (Order, IBLA 2010-226 & 2020-227, *WildEarth Guardians, et al.* (Oct. 28, 2010) at 6), the Supreme Court decision cited by the IBLA with regards to this principal related to a noncompetitive leases. Indeed, the Supreme Court, in upholding the authority of the Secretary of Interior to cancel noncompetitive leases, expressly distinguished that authority with regards to competitive leases, noting:

In *Melish Consolidated Placer Oil Mining Co. v. Testerman*, 53 I. D. 205 (1930), the First Assistant Secretary of the Interior stated that the ‘lease once granted was beyond recall by the Secretary and is only subject to cancellation in the Federal courts (Sec. 31, act of February 25, 1920).’ This dictum, expressed with reference to a **competitive** lease, casts no doubt on the Secretary’s uniform course of decision regarding [] noncompetitive leases.

Boesche v. Udall, 373 U.S. 472, 483, Fn. 11 (1963) (emphasis added). Thus, while *Boesche v. Udall* clearly delineates the bounds of the Secretary’s authority with regards to noncompetitive leasing, it appears as if these bounds are less clear with regards to competitive leasing.

Therefore, if a stay is not granted and BLM issues the leases, any subsequent decision holding the North Porcupine coal lease to be in violation of NEPA, FLPMA, or any other legal responsibilities that Appellants allege to have been violated by BLM in issuing the RODs and the underlying FEIS, will force a breach of contract. Any breach of contract will likely force BLM to pay damages. In furtherance of the common-sense “look before you leap” approach, Appellants submit that the IBLA has ample reason to grant a stay due to the irreparable harm that is likely to occur in the event that the North Porcupine coal lease is sold and issued.

The declaration of Mr. Nichols clearly indicates that once diligent development of the North Porcupine coal lease begins, harm will be irreparable, particularly with regards to air quality.⁴⁴ Fundamentally, once air pollution, including greenhouse gases, is released, it cannot be put back. Furthermore, once air quality standards, such as PM₁₀, are violated, the impacts will be difficult to reverse. If a violation of the NAAQS occurs, the region will be designated nonattainment pursuant to

⁴⁴ See e.g., Declaration of Mr. Nichols, Exhibit 6 at 2-5.

section 107 of the Clean Air Act (*see* 42 U.S.C. § 7407(d)(1)(A)(i)), triggering a multi-year planning effort that will subject the State of Wyoming, coal mining companies, and other interests in the region to more stringent federal oversight and air quality control requirements pursuant to sections 172, 173 and 189 of the Clean Air Act. *See* 42 U.S.C. §§ 7502, 7503, and 7513a.

Furthermore, as the declaration of Mr. Nichols demonstrates, the harms associated with indirect and cumulative carbon dioxide emissions related to the South North Porcupine coal lease are likely to be irreparable, especially give the BLM's failure to ensure that these impacts were adequately analyzed and assessed and failure to consider alternatives that would address such impacts.⁴⁵ These impacts include loss of forests to fires and insects, reduced water supplies, diminished recreational opportunities and enjoyment, and increased air pollution. Once greenhouse gas emissions are emitted in conjunction with development of the North Porcupine coal lease, it will be impossible to capture and remove these greenhouse gases from the atmosphere and to prevent them from contributing to climate change. The adverse impacts of climate change are already occurring, as evidenced by the observations of Mr. Nichols and the BLM's. These adverse impacts are confirmed by the BLM's disclosure in the FEIS, as explained earlier. Thus, any additional greenhouse gases released as a result of the North Porcupine coal lease will only exacerbate the irreparable impacts already occurring to the American West and particularly with regards to the interests of the Appellants.

D. The Public Interest Favors Granting the Stay

The public interest favors granting a stay for a number of reasons.

To begin with, vindicating congressionally established environmental policies and standards, particularly as enumerated under NEPA and FLPMA, favors the requested stay. *See California ex rel. Van de Kamp v. Tahoe Regional Planning Agency*, 766 F.2d 1319, 1324 (9th Cir. 1985) (finding that public interest may be defined "by reference to the policies expressed in legislation") (citation omitted). In this case, it is clear that BLM fell short of meeting substantive statutory requirements under both

⁴⁵ *See e.g.*, Declaration of Mr. Nichols, Exhibit 6 at 5-8.

NEPA and FLPMA. In doing so, the BLM both failed to adequately disclose and assess the climate change and air quality impacts of the North Porcupine coal lease, but failed to ensure that such impacts would not jeopardize compliance with substantive air quality obligations under FLPMA and would not undermine opportunities to mitigate the impacts of climate change by reducing or limiting indirect and cumulative carbon dioxide emissions. Congress' purpose in passing NEPA was, "To declare a national policy which will encourage productive and enjoyable harmony between man and environment [and] to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man[.]" And in passing FLPMA, Congress declared that, "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values[.]" Issuing the requested stay will certainly advance Congress' policies enumerated in NEPA and FLPMA.

To this end, no energy development project—no matter how rich the resource involved—should be permitted to proceed at the cost of the health and welfare of people or the severe degradation of air quality. As Wyoming's own federal district court recently stated:

The Court is cognizant of the importance of mineral development to the economy of the State of Wyoming. Nevertheless, mineral resources should be developed responsibly, keeping in mind those other values that are so important to the people of Wyoming, such as preservation of Wyoming's unique natural heritage and lifestyle.

Wyoming Outdoor Council v. U.S. Army Corps of Engineers, 351 F. Supp. 2d 1232, 1260 (D. Wyo. 2005).

Finally, although BLM may claim that the granting of a stay will delay the recovery of lease bonus payments, lease royalty payments, and tax payments, this potential revenue will not be foregone. A stay will simply maintain the status quo, under which currently the United States, the State of Wyoming, and its affected counties receive no lease bonus payments, lease royalty payments, and other tax payments from the North Porcupine coal lease. The FEIS notes that the North Antelope Rochelle coal mine would continue to generate state revenues of \$1,744.5 million/year and federal revenues of 1,359.3 million/year. *See* FEIS at 3-304. In other words, total annual revenue related to the North Antelope Rochelle coal mine

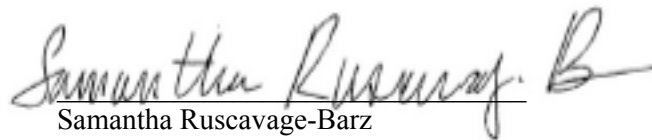
would continue to be more than \$3 billion annually. As the BLM clearly states in its FEIS, a stay would mean that State, local, and Federal revenues related to coal mining at the North Antelope Rochelle coal mine would continue; no loss would be endured. *See id.*

IV. CONCLUSION

Appellants simply ask that the BLM appropriately balance the need to safeguard the environment and welfare with any need to develop minerals. In this case, the BLM appears to have missed finding this balance.

For the aforementioned reasons, Appellants request that the IBLA grant a stay in this case. A stay is more than warranted in light of the fact that Appellants are likely to prevail on the merits of this appeal, in light of the balance of harms at issue in this case, in light of the fact that Appellants will suffer irreparable harm if a stay is not granted, and to protect the public interest. The issues raised in this Appeal are significant and warrant close review by the IBLA. A stay would not prejudice the BLM in this case, while it would provide important interim relief for Appellants as these significant issues are closely reviewed.

Respectfully submitted this 21st day of November 2011



Samantha Ruscavage-Barz
Staff Attorney
WildEarth Guardians
516 Alto St.
Santa Fe, NM 87501
(505) 988-9126 x 1158
Fax: (505) 213-1895
sruscavagebarz@wildearthguardians.org

Peter Morgan
Sierra Club
1650 38th St., Suite 102W
Boulder, CO 80301
(303) 449-5595 x 102
Fax: (303) 449-6520
peter.morgan@sierraclub.org

Attorneys for Appellants

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CERTIFICATE OF SERVICE

I certify that on November 21, 2011, I served this Notice of Appeal and Petition for Stay by certified mail, return receipt requested, upon:

Bureau of Land Management
Wyoming High Plains District
2987 Prospector Drive
Casper, WY 82604

U.S. Department of the Interior
Office of the Solicitor
Rocky Mountain Region
755 Parfet St., Suite 151
Lakewood, CO 80215

U.S. Department of the Interior
Office of Hearings and Appeals
Interior Board of Land Appeals
801 N. Quincy St.
MS 300-QC
Arlington, VA 22203
