

COMMENTS ON DRAFT EIS AND BLM RESPONSES



May 12, 2010

Bureau of Land Management  
Casper Field Office  
Attn: Teresa Johnson  
2987 Prospector Dr.  
Casper, WY 82604

RE: Draft Environmental Impact Statement Buckskin Hay Creek II Coal Lease Application

Dear BLM,

Thank you for this opportunity to comment on the Draft Environmental Impact Statement for the Buckskin Mine Hay Creek II Coal Lease Application (WYW-172-684). As always, we appreciate the tremendous amount of work that has gone into the DEIS, but still feel that key issues have been glossed over or ignored. Adequacy of environmental impact statements is not determined by the number of pages, but by the accuracy and clarity of the analysis.

We expect you to receive several other comment letters, so we will just raise some of the issues to emphasize or complement the concerns that others will be raising.

- 1) This should not be a Lease by Application process. The Powder River Basin is clearly the country's largest coal producing region and coal leases should be handled in accordance with 43 Code of Federal Regulations Subpart 3420. This case is particularly egregious due to the adjustments made by the applicant in the May and November 2008 (See page ES-1). } A
- 2) Throughout the Draft EIS it is assumed that mining will be followed by full reclamation. This is highly unlikely to happen and the EIS should be rewritten to make it clear what additional irretrievable loss of resources will occur if the mine is not fully reclaimed. } B
- 3) Once-a year surveys for Ute ladies tresses are not adequate as they can persist above or below ground without flowering. (See e.g. p I-16). Additional surveys should be } C

conducted at several times each year during the flowering period for 5 years before moving forward with the lease. This should have been done routinely starting in 2006 when the application was first filed. } C

4) The definition of Multiple Use specifies that this means management of the various resources: }

... without impairment of the productivity of the land, with consideration being given to the relative value of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output. (16 USC s. 531) } D

The entire EIS should be written within the context of the actual definition of multiple use—not with the distorted version that has become part of the federal land management agencies cultures. Multiple use is most definitely not an excuse for devastating the land—but rather an actual statutory definition that calls on the land management agency’s to use long term vision and to protect the productivity of the land for future generations. }

5) The Golden Eagle and raptor nests and roosting areas in and near the analysis area need to be protected and their existence clearly called out under the suitability criteria analysis. (See pages 3-111, 3-117 through 3-121 and B-2) } F

6) The EIS needs to be rewritten to properly acknowledge that coal is not an essential way to produce electricity. Past reliance does not lead to future reliance—any more than past reliance on typewriters meant future reliance on typewriters. There are weak statements throughout the DEIS that imply that despite the very serious environmental impacts that will occur, the federal government is incapable of making any decision other than to lease the coal due to past large reliance on coal. With thinking like that we’d all still be living in caves, because the future could never be different than the past. } F

7) The climate change section is much improved but needs to be updated with the recent science on climate change. I will attempt to send some of these studies but there is much that has come to light since the 2007 IPCC report and this should be summarized. } G

8) The large number of Leases pending (page ES-2) adds further urgency to the need to rewrite the EIS in light of the above as well as the comments that will be submitted by others. The cumulative impacts are very significant and the EIS needs to properly reflect that and not assume that the BLM has no option but to lease the coal. } H

Thank you for the opportunity to comment.

Leslie Glustrom for Clean Energy Action  
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## BLM RESPONSES TO COMMENT LETTER 1

### A) Lease by Application Process

Although the applicant modified the size of the lease application, the Bureau of Land Management (BLM) did not change the size of the study area. The applicant had modified their original application to a size, shape, and location that best allowed them to circumvent an area of sand influence that presented an increased hazard to employees. Due to delays in processing this Environmental Impact Statement (EIS), the applicant had to change the mine plan and requested that the BLM delineate a larger tract than the proposed action, but still within the BLM study area. The BLM identifies Alternative 2 in the final environmental impact statement (FEIS) as the Preferred Alternative. Under this alternative BLM delineated a tract for consideration from within the study area that is in the public interest and which considers the current mining situation.

Using the LBA process (43 CFR 3425) to maintain production at existing mines has been the practice since the Powder River Basin (PRB) Coal Production Region was decertified in 1990. Decertification recognized the area as a mature coal production region where the proper leasing mechanism was production maintenance leasing in order for the mines to replace reserves as available leased reserves were depleted. Decertification does not mean that the region is not a significant national coal producing region. Management of coal leasing in the PRB by this method has been an issue first raised in comments on the South Gillette Area Coal DEIS, and the issue was presented to the Powder River Basin Regional Coal Team (RCT) at the team's meeting in November 2009. At that meeting, a petition was made to the Secretary of Interior and BLM Director to recertify the Powder River Basin Coal Production Region. In January 2011, this petition was denied. The PRB RCT meetings are public and provide an opportunity for public comment and statements. You are welcome to present, in person or in writing, your issues to the team at any future meeting. The meetings are published in the Federal Register and a press release is posted on the BLM web site.

Processing the Hay Creek II LBA is consistent with the practice we follow in the decertified PRB coal region. This is a production maintenance tract; it has been reviewed by the Powder River Regional Coal Team, and is being reviewed under the LBA process (43 CFR 3425).

### B) Reclamation

The Surface Mining Control and Reclamation Act (SMCRA) is the federal law regulating surface coal mining. BLM has no authority under SMCRA to prescribe or enforce the reclamation of coal mined lands in Wyoming. The Wyoming Department of Environmental Quality (WDEQ), Land Quality Division (LQD) permits, regulates, and monitors coal mining and reclamation. Three acts regulate coal mining and reclamation in Wyoming: 1) Wyoming's Open Cut Reclamation Act of 1969; 2) Wyoming State Environmental Quality Act of 1973; and, 3) SMCRA. The state of Wyoming has the overall authority and enforces these federal and state acts through the WDEQ/LQD. Under the federal coal leasing program, BLM has primary authority to make decisions regarding the leasing of federal coal resources, ensuring receipt of fair market value, achieving maximum economic recovery of the coal resource, and evaluating coal tracts so those offered for lease are in the public interest.

The WDEQ statutory and regulatory requirements outline strict parameters for coal mine reclamation procedures, species composition, final land surface contour, and environmental sustainability. The SMCRA requires sufficient bonding to cover anticipated reclamation costs. When mining is permitted, the WDEQ/LQD sets the bond amount for reclamation of all disturbed lands, and the operator posts an acceptable bonding instrument for this amount with the state of Wyoming. The reclamation bond is not released until a minimum of 10 years have elapsed from the date of final seeding, and the WDEQ/LQD has determined that all reclamation verifications have occurred.

The WDEQ/LQD monitors monthly all lands within the mining permit boundary, and these lands must pass requirements set by state law. Until the mines terminate their permit, the WDEQ does not require them to complete final bond release as long as contemporaneous reclamation is proceeding at the required rate and to the required standards set by state and federal laws. A percentage assessment of lands that have been released from final bonding requirements is not an accurate assessment of contemporaneous reclamation.

In the interim period between initial reclamation and final bond release, the condition and status of the lands are monitored by the WDEQ/LQD, and that information is publically available from their Cheyenne office. Reclaimed lands, regardless of the bond release status, are used by wildlife and often grazed by livestock (regulated and monitored by the WDEQ).

The mines submit reclamation plans for approval by the WDEQ during the permitting process. These plans are based on the individual mining company's mining progression. The WDEQ approves or rejects these plans based on the mining progression of the individual mine and the space needed for long-term facilities, sedimentation reservoirs, haul roads, diversions, and topsoil stockpiles. The reclamation plan is evaluated against the individual mine progression by the WDEQ to ensure reclamation is directly following the mining extraction process.

Tables 4-2 and 4-3 in the FEIS (pages 4-11 and 4-12) summarize a detailed review and projection of actual and projected disturbance and reclamation through the year 2020. This review reflects the total disturbance (including land under active mining, mined but unreclaimed land, and disturbed land that is unavailable for reclamation as a result of being occupied by long-term structures or facilities) as well as areas permanently reclaimed. The trend is that the acreage including active mining and mined but unreclaimed is expected to increase slowly, less than 1% per year, as is the acreage of land disturbed but unavailable for reclamation. The rate of permanent reclamation will be more rapid (about 4% per year). The ratio of total land reclamation to total land disturbance was around 30% in 2003, and is expected to be 45% by 2010, and approaching 60% by 2020. As of 2008, the actual ratio of total land reclamation to total land disturbance was about 45% (29,100 acres permanently reclaimed out of a total disturbance of 64,100 acres) for the Wyoming PRB mines. Of the total unreclaimed disturbance, about 23,000 acres were unavailable for reclamation (stockpiles, facilities, and sediment control) and 35,000 acres were in active mining operations (active pits and haul roads).

It is important not to equate contemporaneous reclamation with final bond release. There is a difference between lands that are in various stages of reclamation and those that have been reclaimed and released from final bonding requirements. There are several phases of bond release that the mine operators may apply for that represents every task from replacing the backfill and achieving the approved contour, to placing topsoil and permanently reseeding the

area. Final bond release on reclaimed lands indicates that the reclamation meeting permit standards has been in place in accordance with permit standards for at least 10 years and that an application for final bond release was submitted to the WDEQ.

### C) Ute Ladies'-Tresses

Ute ladies'-tresses are addressed in the EIS section 3.9.3 and in appendix J. Because this species can persist below or above ground without flowering, single season surveys that meet the current US Fish and Wildlife Service (FWS) survey guidelines may not detect populations. Surveys in the general analysis area have been conducted during the last five consecutive flowering seasons (2006 through 2010). Six surveys were conducted for Ute ladies'-tresses in the general analysis area between 2004 and 2010. The surveys were completed consistent with current USFWS guidelines. No orchids were located during surveys conducted in appropriate habitats within the general analysis area in 2004 or annually from 2006 through 2010. Potential habitat for Ute ladies'-tresses is extremely limited throughout the general analysis area. No new potential Ute ladies'-tresses habitat has been added by the Proposed Action or by Alternative 2. It is BLM policy to consult on Ute ladies'-tresses with the USFWS. The consultation process was completed in August of 2010 and the USFWS stated that concurrence from the Service is not required as it was found that the leasing action would have no impact on this species.

### D) Interpretation of the BLM Multiple Use Mandate

As part of the Department of Agriculture's Organic Act of 1944, the Multiple-use Sustained-Yield Act of 1960 (16 USC §531(a)) which you cite, applies to "the management of all the various renewable surface resources of the national forests (emphasis added)...."

The BLM was established within the Department of the Interior (DOI) in 1946 with consolidation of the General Land Office (created in 1812) and the US Grazing Service (formed in 1934). The General Land Office oversaw surveying, platting, mineral leasing, and the sale of public lands, while the US Grazing Service managed the public rangelands.

The Federal Land Policy and Management Act of 1976 (FLPMA), considered BLM's organic act, defines multiple use as "management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." Thus, BLM lands are managed for such purposes as grazing and natural resource development. In the 2009 secretarial order 3289 the Secretary of the Interior Ken Salazar stated, "To fulfill our nation's vision for a clean energy economy, Interior is now managing America's public lands and oceans not just for balanced oil, natural gas, and coal development, but also – for the first time ever – to promote environmentally responsible renewable energy development."

The Mineral Leasing Act of 1920 called for leasing, exploration, and production of such minerals as coal, oil, and gas on behalf of the American public with revenue collected for the greater public good. Many of the responsibilities and functions of the General Land Office and the Grazing Service were retained in the BLM. Also within the DOI another agency was formed in 1916 - the National Park Service. This agency managed lands that were set aside to be preserved from settlement and natural resource development. The BLM and other federal agencies such as the National Park Service have many issues in common, but differ in their mandates and major functions.

The National Park Service mandate is more familiar to many people. The agency's fundamental purpose was "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Both agencies are part of the Department of the Interior. Both agencies manage national public lands. But the lands that each agency manages were set aside by the President of the United States and by Congress to serve different functions.

#### E) Golden Eagles, Raptor Nests, and Raptor Roosting Areas

The protection of raptors, raptor nest sites, and roosting areas is a functional responsibility of the WDEQ. That agency addresses the subject during the mine permitting process, which takes place after coal leasing by the BLM. The USFWS must approve a Migratory Bird Species of Management Concern in Wyoming Monitoring and Mitigation Plan which covers all raptors, including eagles, before the permit to mine is approved by the WDEQ.

#### F) Past, Present, and Future Reliance on Coal as an Energy Source

BLM prepared this EIS in response to a lease by application received by the agency under the precepts of the Mineral Leasing Act. The BLM leases federal coal to private interests which, in the case of the PRB mine operators, supply coal primarily as fuel used to generate electricity for the American people. The demand for electricity in the US is still rising annually. Other energy sources for electric power have been and continue to be developed, but are not developing to the extent necessary to replace coal as a fuel for electrical generation during the time the Hay Creek II tract would be sold and mined, if leased. The most recent energy projections by the Energy Information Administration (EIA) to the year 2035 show that although renewable energy production increases, in order to meet projected public demand for electricity, coal use is still expected. The Hay Creek II tract, if leased, is expected to be mined and sold over a two-year period between approximately 2012 and 2018, well within the period projected by the EIA for use of coal as an energy source.

#### G) Climate Change

The EIS estimates the direct emission of green house gasses (GHG) from the continued operation at the four mines as a result of proposed leasing. The EIS also estimates the potential GHG volumes resulting from the assumed use of this coal at electric generation facilities throughout the US. Policies regulating specific levels of significance have not yet been established for GHG emissions as mentioned in the EIS. Given the state of the science, it is not possible to associate specific actions with the specific global impacts such as potential climate effects. Since there are no tools available to quantify incremental climate changes associated with these GHG emissions, the analysis cannot reach conclusions as to the extent or significance of the emissions on the global climate.

The potential impacts of climate change represent the cumulative aggregation of all worldwide GHG emissions. The EIS provides a meaningful context and measure of the relative significance of coal use from the proposed LBA and overall projected PRB coal production on total GHG emissions, and the EIS recognizes the effects of historic warming on the western US.

We have assumed that existing land and resource conditions within the analysis area have been and will continue to be affected by climate change under all alternatives including the No Action

Alternative. Existing climate prediction models are not at a scale sufficient to estimate potential impacts of climate change within each analysis area. We have referenced available national and regional data, most recent being the report, *The Effects of Climate Change on Agriculture, Land Resources, Water Resources and Biodiversity in the United States* (US Climate Change Science Program 2008). A recent (June 2009) report defined the relative degree of climate change effects that could be experienced in the future in the various regions of the US (*Global Climate Change Impacts in the United States*, Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.), Cambridge University Press). The report uses two scenarios to bracket potential climate effects and is broken into regions which divide up the US.

#### H) Pending Leases, Cumulative Impacts, Climate Change, BLM Options

The EIS cumulative impacts section references available national and regional data, most recent being the report, *The Effects of Climate Change on Agriculture, Land Resources, Water Resources and Biodiversity in the United States* (US Climate Change Science Program 2008). The recent *Global Climate Change Impacts in the United States* (Karl et al. 2009) defined the relative degree of climate change effects that could be experienced in the future in the various regions of the United States. The report uses two scenarios to bracket potential climate effects and is broken into regions which divide up the US. The Wyoming PRB is in the Great Plains region, which is characterized by strong seasonal climate variations. Historically the area has been subject to prolonged drought followed by wetter conditions. Average temperature increases have been predicted in the region with the greatest changes being in the winter such that commonly very cold days would become less common and warmer wetter weather more common. Under the higher heat trapping emission scenario temperatures are projected to increase over the next 100 years more so than under the lower heat trapping emission scenario. The milder winters and longer growing season is expected to favor larger numbers of insects that appear earlier and persist longer into the season. The change in climate is expected to cause a shift in wild plant and animal distributions favoring those species which are better suited for the warmer wetter climates that both the lower emission and higher emission scenarios predict for the Powder River Basin. With increasing precipitation, soil erosion in drainages and sheet flow across the land surface is expected to increase.

In chapter 4, the contribution of the site-specific alternatives to cumulative effects on the environment is evaluated. To do this, we assume that coal mining will proceed in accordance with permit conditions. We further assume that this coal will be sold to coal users in response to forecasts of demand for this coal. Historically these users have been electric utilities in the United States, although there is potential for sales outside the US. This coal market is open and competitive, and users can buy from the most cost-effective suppliers that meet their needs.

In section 4.2.14.1 and section 4.2.14.2 of the final EIS, we estimated the amount of GHG emissions that could be attributed to coal production as a result of leasing federal coal reserves under the Proposed Action and alternatives, as well as from the forecast coal production from all coal mines in the Wyoming PRB. We assumed that all PRB coal was used for coal fired electric generation as part of the total US use of coal. This gives an upper estimate of the GHG resulting from use of the coal that would be produced from the proposed LBAs and for forecast total PRB coal production. The estimate was calculated by relating the portion of coal produced in the Wyoming PRB to national steam coal totals, and then applying that ratio to the total emission of GHG estimated in the US as a result of coal fired electric generation.

The options in the EIS of the No Action Alternative, the Proposed Action, and Alternative 2, represent a wide range of options for BLM to choose from. The BLM could lease none of the coal within the study area, all of the coal in the study area, or any amount in between contained within the study area. The BLM will choose the option which is deemed best for the public interest with environmental input from the EIS.

**1**

"McKenzie, Don" <dmcken@wyo.gov>  
03/18/2010 11:44 AM  
To  
"teresa\_johnson@blm.gov" <teresa\_johnson@blm.gov>  
cc  
  
bcc  
  
Subject  
Hay Creek II EIS

Teresa,

I have one comment on the EIS for Hay Creek II. On page 4-6, second to the last paragraph on that page, sentence number 8 within the paragraph:

"Operations at these sites are completed and the disturbed areas have been reclaimed, and monitoring of the reclaimed areas is no longer ongoing."

Wyoming is still monitoring the three permitted mine sites referenced via field inspections and groundwater monitoring at Ash Creek.

E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.

## BLM RESPONSES TO COMMENT LETTER 2

2

### A) Edit

The incorrect sentence on page 4-6, second to last paragraph, sentence 8 within that paragraph, has been corrected with the information you have provided. The sentence is now in the last paragraph on page 4-6 and reads: Operations at these sites are completed and the disturbed areas have been reclaimed. Nevertheless, the WDEQ continues to monitor all three mines with field inspections; Groundwater monitoring is also conducted at the Ash Creek Mine.

Thank you for reviewing the EIS.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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**MAY 21 2010**

Ref: EPR-N

Teresa Johnson  
Project Manager  
Bureau of Land Management  
Wyoming High Plains District Office  
2987 Prospector Drive  
Casper, WY 82604

Re: Draft EIS for Buckskin Mine Hay Creek II Coal  
Lease Application [CEQ# 20100069]

Dear Ms. Johnson:

The U.S. Environmental Protection Agency (EPA) has reviewed the Bureau of Land Management's (BLM) Draft Environmental Impact Statement (EIS) for Buckskin Mine Hay Creek II Coal Lease Application to assess the consequences of holding competitive sales within the study area on 1,883 acres of federally-owned solid minerals making available 269.7 million tons of surface-mineable coal in the Powder River Basin (PRB) of Wyoming. Our review and comments are provided pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(c) and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609.

The Draft EIS analyzes the no action alternative (Alternative 1), the proposed action (lease limited to just the tract proposed by the mining company for 419 acres and 77 million tons of coal reserve, and an alternative tract configuration (Alternative 2) that includes the tract for the proposed action along with additional coal reserves bounded by the BLM study area for this Draft EIS. Other alternatives were considered but not analyzed.

Air quality continues to be one of EPA's main concerns for the energy activities in the PRB. Large surface coal mines are significant particulate matter emission sources in the PRB and contribute to air quality degradation in the area. During many recent years and although the Buckskin Mine itself has not recorded high PM<sub>10</sub> events, air quality monitoring in the PRB area has shown exceedances of the PM<sub>10</sub> (particulate matter less than 10 micrometers in diameter, commonly referred to as fugitive dust) standards. Air quality modeling results from the PRB Coal Review for cumulative air quality impacts also predict additional increases in PM<sub>10</sub> emissions for the PRB mining area, including exceedances of the PM<sub>10</sub> National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments. Although the Wyoming Department of Environmental Quality (WDEQ) is the air permitting

authority for the area, in light of the considerable cumulative impacts, the Final EIS should consider additional mitigation measures for PM<sub>10</sub>, including more stringent dust control measures than those imposed by state permits, such as Best Available Control Technology (BACT) and Best Available Control Measure (BACM), and mitigation to reduce fugitive dust from mining the lease tracts and the cumulative effects of mining in other parts of the PRB area.

} A 3

EPA also has concerns about the impacts of nitrogen dioxide emissions from the proposed action and needs to see a demonstration of compliance with the new one-hour NO<sub>2</sub> standard. Blasting that is performed to remove overburden to gain access to the coal seams can result in emissions of several products, including NO<sub>2</sub>, because of the potential for incomplete combustion of explosives used in the mining process. Depending on the proximity of public exposure to fumes from blasting explosives, it may be appropriate to incorporate other mitigation measures into the terms of the leases. One control measure that has been successful at other PRB mines might be the use of smaller numbers of blastholes or blastholes loaded with reduced amounts of explosives to obtain more complete combustion or better control of this NO<sub>2</sub> generation process.

} B

The existing PRB Coal Review studies were used effectively in the Draft EIS discussion of the cumulative air quality impacts. We understand that an update to the PRB Coal Review air quality analysis was made in 2008 using a revised baseline year of 2004 with maximum emission levels projected for year 2015. This update is a proactive action by BLM that we support and we are always willing to provide assistance or participate in air quality working groups if needed. The results of such updated analyses might inform appropriate control measures or strategies to be developed to avoid any adverse future impacts.

} C

EPA's other main concern relates to the project's potential impacts on aquatic resources. The Draft EIS identifies 64 acres of wetlands in the BLM study area, 31 of which may be jurisdictional waters of the United States for purposes of the Clean Water Act (CWA). However, the U.S. Army Corps of Engineers (Corps) has not yet performed a CWA jurisdictional determination regarding the waters of the United States in the project area. This determination has been deferred until later in the CWA Section 404 permitting process and must be performed by the Corps. Pursuant to CWA Section 404 implementing regulations, the CWA Section 404(b)(1) Guidelines (40 C.F.R. Part 230), the Corps cannot issue a CWA Section 404 permit for the discharge of dredged or fill material into waters of the United States when there are other practicable alternatives to the proposed discharge that would have less adverse effects on the aquatic ecosystem. 40 C.F.R. § 230.10(a). Under the Guidelines, the Corps can issue the permit only for the least environmentally damaging practicable alternative (LEDPA). Based upon the very limited information presented in the DEIS, EPA believes that the preliminary preferred alternative, Alternative 2, likely does not represent the LEDPA for purposes of compliance with the Guidelines. According to the DEIS, less than half an acre of wetlands would be impacted by the proposed action whereas as much as 31 acres of noncontiguous acres of wetlands would be impacted by Alternative 2. EPA recommends coordination with the Corps in order to ensure the project complies with the Guidelines and the Corps can move forward with the CWA Section 404 permitting process.

} D

Consistent with Section 309 of the Clean Air Act, it is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. In accordance with our policies and procedures for reviews under NEPA and Section 309 of the Clean Air Act, EPA is rating this Draft EIS as EC-2 (EC - Environmental Concerns, 2 - Insufficient Information). This rating means that our review identified environmental impacts that should be avoided in order to fully protect the environment and the Draft EIS does not contain sufficient information or thorough analysis to fully assess the potential impacts of the project. In addition to EPA's detailed comments on the Draft EIS, a full description of EPA's EIS rating system is enclosed.

Please see the following detailed comments for our specific environmental and informational concerns. If you have any questions regarding our comments or this rating, please contact me at (303) 312-6004, or you may contact James Hanley of my staff at (303) 312-6725.

Sincerely,



Larry Svoboda  
Director, NEPA Compliance and Review Program  
Office of Ecosystems Protection and Remediation

Enclosure

**General Technical Comments**

**3**

Purpose and Need

- 1) The stated purpose of the proposed action is to provide a feasible method for the existing mine operator to avoid or bypass the Sand Channel Area to reach coal in the existing Spring Draw Lease. More information or a figure showing the sand channel area as a geological feature that affects the ability of the mining company to implement its approved mining plan would be helpful.

} E

Proposed Action and Alternatives

- 2) EPA does not understand the difference between the no action alternative and Alternative 4 (delayed lease sale).

} F

**Specific Technical Comments**

- 3) 1.1.3.4 Reclamation Activities, Page 1-12. The narrative language explaining the information in Table 1-3 has misplaced a decimal point in the percentage of land disturbance associated with long-term mining facilities ( 27.1% vs. 273%).
- 4) 2.2.3.1 Description of the BLM Study Area, Page 2-9. The Kiewit estimates of the BLM study area vary somewhat from the BLM estimates for the same coal reserve quantities. One explanation may be in the assignment of 56% as the recoverable factor for the in-place coal reserves when this number has been 70% historically over the life of the Buckskin Mine production. EPA recommends that this discrepancy be clarified in the Final EIS.

} G

} H

### General Technical Air Quality Comments

The DEIS for the Buckskin Mine Hay Creek II Coal Lease Application presented results for both project-specific and cumulative air quality impact results for most criteria pollutants and Air Quality Related Values (AQRVs). Ozone analysis was not conducted but we understand from coordination meetings we hold with the BLM Wyoming State Office that the next update to the PRB Coal Review air quality analysis will include quantitative ozone analysis. The project-specific analysis was conducted utilizing the ISCLT3 air dispersion model for near field impacts. The near-field results for the project-specific direct impacts for the mine were all less than the National Ambient Air Quality Standard (NAAQS) and Prevention of Significant Deterioration (PSD) standards.

Results of the cumulative analysis for the Powder River Basin (PRB) Coal Review (2008) were presented in Tables 4-11, 4-12 and 4-13 of the DEIS. The PRB Coal Review analysis was conducted utilizing the CALPUFF modeling system for sources throughout the PRB. EPA recognizes that the predicted adverse cumulative air quality impacts reflect conditions from all existing major permitted and unpermitted minor sources in the PRB region. The contribution to these predicted cumulative impacts from the proposed action is less readily apparent from the discussion in the Draft EIS.

The PRB Coal Review cumulative analysis predicted several adverse air quality impacts for the base case year of 2004 and future year of 2015 for the lower and upper reasonably foreseeable production scenarios.

- 1) For the 24-hour  $PM_{2.5}$  in Wyoming, the base case results for 2004 predicted  $88 \mu\text{g}/\text{m}^3$  and for the future years both lower and higher 2015 production scenarios were  $180 \mu\text{g}/\text{m}^3$ —well over the 24 hour NAAQS of  $35 \mu\text{g}/\text{m}^3$ .
- 2) For the 24-hour  $PM_{10}$  in Wyoming, the base case results for 2004 predicted  $250 \mu\text{g}/\text{m}^3$  and for the future years both lower and higher 2015 production scenarios were  $513 \mu\text{g}/\text{m}^3$ —well over the 24 hour NAAQS of  $150 \mu\text{g}/\text{m}^3$ .
- 3) For  $NO_2$  in Montana, the base case results for 2004 predicted  $409 \mu\text{g}/\text{m}^3$  and for the future years both lower and higher 2015 production scenarios were  $826 \mu\text{g}/\text{m}^3$ —well over the new 1-Hour  $NO_2$  NAAQS of 100 ppb ( $189 \mu\text{g}/\text{m}^3$ ). The 1-hour  $NO_2$  NAAQS was recently promulgated nationally and was not presented in the DEIS for Wyoming for either the direct or cumulative impact analysis.
- 4) For the  $PM_{10}$  PSD increment analysis, the base case result for Northern Cheyenne Indian Reservation and Wind Cave National Park indicated predictions ( $10 \mu\text{g}/\text{m}^3$  and  $11 \mu\text{g}/\text{m}^3$ , respectively) over the PSD allowable increment of  $8 \mu\text{g}/\text{m}^3$ . For the future years both the lower and higher 2015 production scenarios at the Northern Cheyenne Indian Reservation and Wind Cave National Park ( $14 \mu\text{g}/\text{m}^3$  and  $13 \mu\text{g}/\text{m}^3$ , respectively) were over the PSD allowable increment.

- 5) Table 4-13 presents multiple adverse visibility impacts (greater than 10% visibility impairment) occurring at Class I and Sensitive Class II areas, including 26 days of impairment at Badlands National Park, 32 days of impairment at Northern Cheyenne Indian Reservation and 18 days of impairment at Wind Cave National Park for the future lower production scenario of 2015.

EPA understands that BLM has undertaken further analysis for the PRB sources that includes addressing ozone impacts. EPA is very concerned with the cumulative impact analysis results indicating degradation of air quality conditions from the PRB sources in the region. While it is not clear from the 2008 PRB Coal review specifically which sources are contributing to these impacts, the BLM should ensure that sources that are within BLM jurisdiction and management authority and are contributing to these cumulative impacts are appropriately identified and mitigated during the permitting process. We recommend that BLM convene a stakeholder working group to address our concerns through the modeling protocol and subsequent analysis.

} C

Section 3.4.2.3 (Page 3-56) references the Memorandum of Agreement (MOA) between the WDEQ and EPA (January 24, 1994), which acknowledges that some limitations may exist in modeling short term PM<sub>10</sub> and that PM<sub>10</sub> monitoring should be used for compliance purposes. The control measures described in the Draft EIS Section 3.4.2.3 provide a significant level of point source and fugitive dust control and should be updated with cooperation from the WDEQ as appropriate and if exceedance of a standard occurs. A condition of the MOA is to continue PM<sub>10</sub> monitoring near the mine to ensure compliance with the 24-hour PM<sub>10</sub> NAAQS. BLM should ensure that the mine operators consult with the WDEQ on any monitoring site adjustments or new monitor locations to correspond with changes in the mining activity. Particular attention should be given to shifts in the location of the active mining areas and the placement of air monitoring sites in order to determine maximum impacts from the mine.

} I

**Specific Technical Air Quality Comments:**

- 1) Table 3.4-1 (Page 3-43) should include the newly promulgated 1-hour NO<sub>2</sub> NAAQS including appropriate background concentration.
- 2) Table 3.4-2 (Page 3-45) should be updated to reflect more current data through 2009.
- 3) Section 3.4.2.1 (Page 3-42) EPA notes that the new 1 hour NO<sub>2</sub> NAAQS was not addressed in the Draft EIS. We recommend that the 1-hour NO<sub>2</sub> direct impact analysis be included if reasonably possible from modeling already conducted.
- 4) Section 3.4.2.3 (Page 3-56) The EIS should provide an update that includes a discussion on the Exceptional Event Rule (40CFR Parts 50 and 51, 2007).
- 5) Section 3.4.3.1, (Page 3-58) The EIS should include a discussion on the newly promulgated NO<sub>2</sub> NAAQS in relation to NO<sub>2</sub> emissions from the facility.

} J  
 } K  
 } J  
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 } M

## BLM RESPONSES TO COMMENT LETTER 3

### A) Mitigation to Reduce Fugitive Dust

This EIS discloses the mitigation measures that are already in place through enforcement by regulation or which are already being done voluntarily by the operator as part of the current adjacent mining operation on existing leases. The National Ambient Air Quality Standard (NAAQS) is not as stringent as the Wyoming Ambient Air Quality Standard (WAAQS). Therefore, the state standard must be met. The Wyoming Department of Environmental Quality (WDEQ), Air Quality Division (AQD) permits for, regulates, and approves mitigation plans for air pollution. WDEQ has stated that they will not permit mining operations that do not comply with the WAAQS. The Bureau of Land Management (BLM) does not authorize mining operations by issuing a lease and does not regulate mining operations after a lease is issued. Mining activities and the air quality mitigation plan is part of the WDEQ permitting process, which is initiated after leasing by the successful bidder. Any LBA offered because of this EIS would have a condition placed on the lease requiring the lessee to comply with the Clean Air Act (CAA) and applicable regulations (see appendix E, coal lease form, part II, section 14).

### B) NO<sub>2</sub> Control Measure

Blasting by surface coal mines is conducted in accordance with chapter 6 of the WDEQ, Land Quality Division (LQD), Coal Rules and Regulations. Specific control measures for blasting would be developed during the permitting process, when mining operations are authorized by WDEQ/LQD.

Voluntary administrative controls are currently in place and are common components of the mines' operating procedures to mitigate and reduce blasting-related NO<sub>x</sub> emissions. The adjacent Buckskin Mine does not use cast blasts to move overburden; overburden removal is the most common source of the NO<sub>2</sub> clouds of greatest concern to local residents. The primary control measure for mitigating exposures to offsite residents is to avoid cast blasting when wind directions or atmospheric conditions are unfavorable. Weather and atmospheric conditions are closely monitored prior to the decision to detonate a blast. If unfavorable conditions prevail, Buckskin Mine's policy is to postpone the blast until conditions have become favorable. Blasting at the Buckskin Mine is permitted and regulated by the WDEQ.

Your suggested mitigation methods are included in section 3.4.3.3 of the EIS, which is comprehensive and has been reviewed by WDEQ/AQD.

As noted in response A above, BLM does not authorize mining operations by issuing a lease and does not regulate mining operations after a lease is issued. Section 1.3 of the EIS, discusses the fact that the WDEQ is authorized by the Secretary of the Interior to regulate surface coal mining operations on federal and non-federal lands within Wyoming.

### C) Air Quality Working Groups

The Powder River Basin Coal Review (PRCR) Air Quality Protocol Group is an interagency peer group initiated with the PRCR (and continued into phase 2 of the PRCR in 2010) which provides input and review for the PRCR air resources efforts. The Environmental Protection Agency (EPA) became involved with the Powder River Basin protocol group in 2004 for the first Coal Review reports. Currently the EPA, along with BLM and others, is part of the Phase II

Stakeholder Group for the air quality portion of the Phase II Powder River Basin Air Quality Coal Review. EPA, as well as other agencies, is looking at the new modeling effort for the analysis of ozone as well as the traditional air quality issues facing the PRB region. The analysis that EPA is currently reviewing and helping to design will be used to better define the cumulative effects of ongoing development activity in the Powder River Basin to the year 2030.

#### D) Coordination with U.S. Army Corps of Engineers to Ensure Compliance

This discussion is located in sections 3.7.1 through 3.7.4. If an action alternative is implemented, a wetland delineation will be completed according to approved procedures. This delineation will be submitted to the Corps for verification of the amounts and types of jurisdictional wetlands and other waters present. If a lease is offered and issued, the lessee would mitigate for all impacted jurisdictional wetlands in accordance with Section 404 of the Clean Water Act. Mitigation is required at a minimum one-to-one ratio for jurisdictional wetlands. The wetland replacement plan, which must be approved by the Corps, requires no net loss of wetland area and function.

Section 404 of the Clean Water Act does not cover nonjurisdictional wetlands; however, Executive Order 11990 requires that all federal agencies protect all wetlands. Mitigation for impacts on nonjurisdictional wetlands will be specified during the permitting process as required by the authorized state or federal agency (which may include the WDEQ/LQD and the Office of Surface Mining Reclamation and Enforcement (OSM)).

Text has been added to the Affected Environment (section 3.7.1) as further explanation. The last half of the paragraph now reads:

Based on the NWI maps, approximately 64.44 acres of wetlands (map 3.7-1) have been identified in the general analysis area. Of these, 30.7 acres were considered potentially jurisdictional wetlands based on field observations (table 3.7-1); the remaining 33.74 acres were either classified as potentially nonjurisdictional wetlands (e.g., borrow pits, old impoundments) or were not found to be present during the field visit (table 3.7-2). As described above, only the Corps, in conjunction with the EPA, can make an official determination of jurisdiction.

Text has also been added to section 3.7.3, Regulatory Compliance, Mitigation, and Monitoring. The first paragraph now reads:

Since the 2007 NWI-based wetland determination was completed, a portion of the general analysis area was formally delineated by ICF wetland biologists. The results of this study are currently being reviewed by the Corps and the issuance of an approved jurisdictional determination is pending. Because the jurisdictional status of the delineated wetlands and other non-wetland waters has yet to be determined, the results of the post-2007 delineation are not presented in this document.

If an action alternative is implemented, a wetland delineation will be completed for all areas outside of the area recently delineated. That report will be submitted to the Corps for verification and an approved jurisdictional determination will be requested. If unavoidable impacts on jurisdictional wetlands and other waters of the U.S. are proposed under either action alternative, a Section 404 Permit Application will be prepared. Kiewit will mitigate for all affected jurisdictional wetlands in accordance with Section 404 of the Clean Water Act.

Mitigation is required at a minimum one-to-one ratio for jurisdictional wetlands. The wetland replacement plan, which must be approved by the Corps, requires no net loss of wetland area and function.

#### E) Purpose and Need

The purpose of this EIS is to analyze and disclose the potential effects to the natural and human environment from the proposed leasing of a maintenance tract of federal coal in the Wyoming PRB. A mining operator applied to the BLM to lease a tract of federal coal in order to have sufficient coal reserves to continue to operate an already existing mine (see section 1.1.1 of the EIS). Although leasing this tract would not authorize mining operations, the potential impacts of mining the tract as a logical consequence of issuing the lease are evaluated (described in section 1.1.2 of the EIS). The EIS presents BLM's analysis of environmental impacts under the authority of the National Environmental Policy Act (NEPA) and associated rules and guidelines.

The original purpose and need of providing a feasible method of avoiding or bypassing a sand channel area to reach the Spring Draw lease has been modified because the time between the lease application and release of the FEIS was so great as to no longer offer a sand channel mining solution. Buckskin Mine has requested that BLM consider a tract delineation based on the configuration in the original application. The BLM study area that was analyzed under Alternative 2 fully encompasses the tract identified in the original application; therefore, the purpose and need statement has been only modified in the final EIS to delete the sand channel information.

#### F) Proposed Action and Alternatives

Under the No Action Alternative, BLM would determine not to offer the lease. This generally results in a rejection of the lease application and BLM closing the case; whereas, under Alternative 4, the BLM would offer a lease but delay the lease to a later date when resources or economics indicate a greater return to the American public. This alternative would result in impacts identical to those under the No Action Alternative during the period of delay. In the event that BLM later determined a sale was appropriate, including a determination that NEPA analysis is adequate, and provided that the lease application case had not been closed or withdrawn, a delayed decision to offer a tract could be issued.

#### G) Misplaced Decimal Point

Thank you for reviewing the draft EIS. The decimal point placement error has been corrected in the final document.

#### H) Nomenclature Used to Identify Coal Tonnage Estimates

BLM does not estimate the coal tons in the study area. BLM uses the coal ton numbers provided by the applicant for the estimated study area tons in the EIS. BLM will estimate the tons of coal in the preferred tract if a tract is offered for lease, and BLM will disclose this estimate of coal tons in the Record of Decision.

The coal tons estimated by the applicant are calculated based upon the physical characteristics of the study area. In-place coal, mineable coal, and recoverable coal calculations result in different number estimates because the amount of coal in each is different. Some factors that can affect the coal tons estimate are features such as geologic sand areas, roads, buildings, environmental

considerations, rights-of-way, and other things that fall into the unsuitability criteria (43 CFR 3461 and appendix B of the FEIS). The in-place coal tons number is highest because it is an estimate of how much coal is in the ground. The mineable coal number represents the amount of coal that can be mined economically using today's technology. The recoverable coal number represents the amount of coal that can be actually recovered from the mineable coal reserves and sold to market.

#### I) Air Quality Monitors

The EPA delegated authority to the WDEQ/AQD to implement federal programs of the CAA amendments of 1990. To ensure ongoing compliance, the WDEQ/AQD also implements an operating permit program that can require ongoing monitoring of emissions sources and/or source control systems. The Wyoming PRB mines are required by WDEQ/AQD to collect air quality data. The agency has, by statute, the authority and responsibility to require mitigation for air quality impacts.

As the delegated authority for implementing the CAA, WDEQ is best able to ensure proper placement of public or individual mine air quality monitors. Ambient air quality and air pollution emissions are regulated under federal and state law and regulations. WDEQ manages air quality through the WAAQS and regulations and the Wyoming state implementation plan.

The memorandum of agreement (MOA) of January 24, 1994 between EPA Region VIII and the State of Wyoming allows WDEQ/AQD to conduct monitoring in lieu of short-term modeling for assessing coal mining-related impacts in the PRB. This agreement remains in effect, and each coal mine is required to monitor ambient particulates according to conditions of their respective permits. The 1994 MOA also requires WDEQ/AQD to implement "Best Available Work Practice" mitigation measures at any mine where an exceedance of the PM<sub>10</sub> air quality standard has occurred (Federal Register, September 12, 1995, Volume 60, Number 176).

WDEQ/AQD monitors air quality through an extensive network of air quality monitors throughout the state. That agency uses the monitoring data to document the air quality at all of the PRB mines, and ensures that the coal mine network monitoring schedule is consistent with 40 CFR 58.12. Data from this monitoring network is also used to identify potential air quality issues and to calculate compliance with the NAAQS. With this information, the WDEQ/AQD can stop or reverse trends that negatively affect the ambient air quality.

The eastern portion of the PRB has an extensive network of PM<sub>10</sub> monitors operated by the mining industry due to the density of coal mines in the region. This network is sited to measure ambient air quality and to infer impacts from specific sources. Source-specific monitors may also be used for developing trends in PM<sub>10</sub> concentrations. Continuous PM<sub>10</sub> monitoring in the PRB began in 2001, and the number of continuous monitors has increased steadily since. In 2001, each mine monitored PM<sub>10</sub> for a 24-hour period every six days at multiple monitoring sites through the end of the year. This frequency was increased by the WDEQ/AQD to one in every three days at many sites beginning in 2002. As a result, the eastern PRB is one of the most densely monitored areas in the country (appendix G figure G-1 in the EIS). Table G-2 in appendix G of the EIS uses the annual arithmetic average of all sites to summarize these data.

#### J) NO<sub>2</sub> 1-hour standard

A discussion of the 1-hour NO<sub>2</sub> standard presented in table 3.4-1 has been added to the FEIS.

K) Table 3.4.2 PM<sub>10</sub>

The table, figure, and discussion have been updated between the draft EIS (data through 2007) and the final EIS (data through 2009).

L) The Exceptional Event Rule

A discussion of the Exceptional Event Rule has been added to the FEIS in section 3.4.2.1.

M) NAAQS for NO<sub>2</sub>

A discussion on the newly promulgated NO<sub>2</sub> NAAQS in relation to NO<sub>2</sub> emissions in the EIS general analysis area has been added to section 3.4.3.3.



WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006

Phone: (307) 777-4600 Fax: (307) 777-4610

Web site: <http://gf.state.wy.us>

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JERRY GALLES  
MIKE HEALY  
CLIFFORD KIRK

May 6, 2010

WER 320.03  
Bureau of Land Management  
Casper Field Office  
Draft Environmental Impact Statement  
Buckskin Mine Hay Creek II  
Coal Lease Application  
WYW-172684

Wyoming High Plains District Office  
Bureau of Land Management  
Attn: Teresa Johnson  
2987 Prospector Drive  
Casper, WY 82604-2968

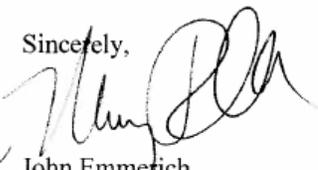
Dear Ms. Johnson:

The staff of the Wyoming Game and Fish Department has reviewed the Draft Environmental Impact Statement Buckskin Mine Hay Creek II Coal Lease Application WYW-172684. We have no terrestrial wildlife or aquatic concerns pertaining to this coal lease application.

} A

Thank you for the opportunity to comment. If you have any questions or concerns, please contact Scott Gamo, Staff Terrestrial Biologist, at 307-777-4509.

Sincerely,

*for*   
John Emmerich  
Deputy Director

JE: MF: sg

cc: USFWS  
Paul Mavrakis- WGFD, Sheridan  
Lynn Jahnke- WGFD, Sheridan

*"Conserving Wildlife - Serving People"*

## BLM RESPONSES TO COMMENT LETTER 4

Thank you very much for taking the time to review the Buckskin Mine Hay Creek II draft EIS.

4

Lesley Collins/CFO/WY/BLM/DOI

03/18/2010 04:45 PM

To

Teresa Johnson/CFO/WY/BLM/DOI@BLM

cc

bcc

Subject

Fw: public commentFW: no mountaintop explosions

Lesley A. Collins  
Public Affairs  
High Plains District  
Office: 307-261-7603  
Cell: 307-262-0716

----- Forwarded by Lesley Collins/CFO/WY/BLM/DOI on 03/18/2010 04:45 PM  
-----

jean public <usacitizen1@live.com>

03/18/2010 12:14 PM

To

<hay\_creek\_iii\_wymail@blm.gov>, <woinfo@blm.gov>, <casper\_wymail@blm.gov>,  
<foe@foe.org>

cc

Subject

public commentFW: no mountaintop explosions

on federal register - i ioppose the onstructoin of this mine. we should move to solar or wind  
power. not these mines.

} A

jean public 8 winterberry court, whitehouse station nj 08889

Date: Fri, 12 Mar 2010 03:36:33 -0800

From: jeanpublic@yahoo.com

Subject: no mountaintop explosions

To: usacitizen1@live.com

[Federal Register: March 12, 2010 (Volume 75, Number 48)]

[Notices]

[Page 11906-11907]

From the Federal Register Online via GPO Access [wais.access.gpo.gov]

[DOCID:fr12mr10-100]

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DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLWYP00000-L51100000-GA0000-LVEMK09CK380, WYW172684]

Notice of Availability and Notice of Hearing for the Buckskin Mine Hay Creek II Coal Lease by Application Draft Environmental Impact Statement, WY

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of availability.

-----  
SUMMARY: In accordance with the National Environmental Policy Act of 1969 (NEPA) and the Federal Land Policy and Management Act of 1976 (FLPMA), the Bureau of Land Management (BLM) has prepared a Draft Environmental Impact Statement (EIS) for the Buckskin Mine Hay Creek II Coal Lease by Application (LBA) and by this Notice is announcing a public hearing requesting comments on the Draft EIS, the Maximum Economic Recovery (MER), and the Fair Market Value (FMV) of the Federal coal resources.

DATES: To ensure comments will be considered, the BLM must receive written comments on the Hay Creek II Coal LBA Draft EIS, MER, and FMV within 60 days following the date that the Environmental Protection Agency publishes its Notice of Availability in the Federal Register. The public hearing will be held at 7 p.m. Mountain Standard Time, on April 22, 2010, at the Campbell County George Amos Memorial Building, 412 South Gillette Avenue, Gillette, Wyoming.

ADDRESSES: You may submit comments by any of the following methods:

E-mail: Hay\_Creek\_II\_WYMail@blm.gov. Please include ``Hay Creek II Draft EIS--Teresa Johnson" in the subject line.

Fax: 307-261-7587, Attn: Teresa Johnson.

Mail: Wyoming High Plains District Office, Bureau of Land

Management, Attn: Teresa Johnson, 2987 Prospector Drive, Casper, Wyoming 82604.

Written comments may also be hand-delivered to the BLM Wyoming High Plains District Office in Casper.

Copies of the Draft EIS are available at the following BLM office locations: BLM Wyoming State Office, 5353 Yellowstone Road, Cheyenne, Wyoming 82009; and BLM Wyoming High Plains District Office in Casper, 2987 Prospector Lane, Casper, Wyoming 82604. The Draft EIS is available electronically at the following Web site:

<http://www.blm.gov/wy/st/en/info/NEPA/cfodocs/HayCreekII.html>.

FOR FURTHER INFORMATION CONTACT: Teresa Johnson or Mike Karbs, BLM Wyoming High Plains District Office, 2987 Prospector Drive, Casper, Wyoming 82604. Ms. Johnson or Mr. Karbs may also be reached at (307) 261-7600 or by e-mail at [casper\\_wymail@blm.gov](mailto:casper_wymail@blm.gov).

SUPPLEMENTARY INFORMATION: The Draft EIS analyzes the potential impacts of issuing a lease for the Hay Creek II Federal maintenance tract, serial number WYW172684.

The BLM is considering issuing a coal lease as a result of a March 24, 2006, application made by Kiewit Mining Properties, Inc. to lease the Federal coal in the Hay Creek II Tract. The Hay Creek II LBA is located in Campbell County, Wyoming, northwest of the Buckskin Mine, approximately 12 miles north of Gillette, Wyoming.

Kiewit Mining Properties, Inc. applied for the tract to extend the life of the existing Buckskin Mine in accordance with 43 CFR part 3425. On two occasions, May 19, 2008, and November 28, 2008, Kiewit Mining Properties, Inc. modified the LBA. As a result of the second modification, the Hay Creek II Tract now contains 419.04 acres. The applicant estimates that the current tract includes approximately 54.1 million tons of recoverable coal underlying the following lands in Campbell County, Wyoming:

T. 52 N., R. 72 W., 6th PM, Wyoming

Section 19: Lots 5 (W  $\frac{1}{2}$ ), 6, 7, 10, 11, 12 (W  $\frac{1}{2}$ ), 13(W  $\frac{1}{2}$ ), 14, 15, 18, 19, 20 (W  $\frac{1}{2}$ ).

Containing 419.04 acres more or less.

Consistent with Federal regulations under NEPA and the Mineral Leasing Act of 1920 (MLA), as amended, the BLM must prepare an environmental analysis prior to holding a competitive Federal coal lease sale. The Powder River Regional Coal Team recommended that the BLM process the Hay Creek II LBA after it reviewed the tract at a public meeting held on April 19, 2006, in Casper, Wyoming.

Lands in the Hay Creek II Tract contain all private surface estate which overlies the Federal coal.

The Wyoming Department of Environmental Quality (WDEQ) and the Office of Surface Mining Reclamation and Enforcement (OSM) are cooperating agencies in the preparation of the Draft EIS.

The Buckskin Mine is adjacent to the LBA and is operating under an approved mining and reclamation plan from the WDEQ Land Quality Division and an approved air quality permit from the WDEQ Air Quality Division that

[[Page 11907]]

allows Kiewit Mining Properties, Inc., to mine up to 42 million tons of coal per year.

If the tract is leased to the existing Buckskin Mine, the new lease must be incorporated into the existing mining and reclamation plan for the mine. Before the Federal coal in the tract can be mined, the Secretary of the Interior must approve the revised MLA mining plan for the Buckskin Mine. The OSM is the Federal agency that is responsible for recommending approval, approval with conditions, or disapproval of the revised MLA mining plan to the Office of the Secretary of the Interior.

The Draft EIS analyzes and discloses to the public direct, indirect, and cumulative environmental impacts associated with issuing a Federal coal lease in the decertified Powder River Federal Coal Production Region, Wyoming. A copy of the Draft EIS has been sent to affected Federal, state, and local government agencies; persons and entities identified as potentially being affected by a decision to lease the Federal coal in this tract; and persons who indicated to the BLM that they wished to receive a copy of the Draft EIS. The purpose of the public hearing is to solicit comments on the Draft EIS, on the proposed competitive sale of the Federal coal lease maintenance tract, and on the FMV and MER of the Federal coal.

The Draft EIS analyzes leasing the tract as the Proposed Action. Under the Proposed Action, a competitive sale would be held and a lease issued for Federal coal contained in the tract as applied for by Kiewit Mining Properties, Inc. As part of the coal leasing process, the BLM is evaluating adding Federal coal to the tract to avoid bypassing coal or to prompt competitive interest in unleased Federal coal in this area.

An alternate tract configuration that BLM is evaluating is described and analyzed as a separate alternative in the Draft EIS. Under the BLM Preferred Alternative, a competitive sale would be held and a lease issued for Federal coal resources contained in a tract configured by the BLM from the lands included within the study area. The tract could be larger or smaller than the Proposed Action. The Draft EIS also analyzes the alternative of rejecting the application to lease Federal coal as the No Action Alternative. The Proposed Action and alternatives being considered in the Draft EIS are in conformance with the approved Resource Management Plan for Public Lands Administered by the BLM Buffalo Field Office (2001).

Requests to be included on the mailing list for this project, for copies of the Draft EIS, or to be notified of the dates of the comment period and public hearing, may be sent in writing, by facsimile, or electronically to the addresses listed in the ADDRESSES section above. For those submitting comments on the Draft EIS, please make the comments as specific as possible with reference to page numbers and sections of the document. Comments that contain only opinions or preferences will not receive a formal response; however, they will be considered and included as part of the BLM decision-making process.

Please note that public comments and information submitted to the BLM --including the commenter's name, street address, and e-mail address--will be available for public review and

disclosure at the above address during regular business hours (7:45 a.m. to 4:30 p.m.), Monday through Friday, except holidays.

5

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Ruth Welch,

Associate State Director.

[FR Doc. 2010-5257 Filed 3-10-10; 8:45 am]

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## BLM RESPONSES TO COMMENT LETTER 5

### A) Mountain-Top Removal

This environmental impact statement (EIS) is not evaluating a lease to a coal mine that uses mountain top removal to access coal deposits. Rather, the document presents an analysis of impacts that would result from leasing federal coal because mining is a logical consequence of issuing a maintenance lease to an existing operation

Section 1.1.3.3 of the EIS contains a full disclosure of the mining methods at the Buckskin mine. Note the dissimilarities between Powder River Basin surface coal mining and mountain top removal mining.

Chapter 3 of the EIS also describes the environmental consequences of mining the coal. The Powder River Basin (PRB) coal mines are surface coal mines which have some different issues than coal mines elsewhere in the country. Because of the topography and environment in northeast Wyoming, many of the public's concerns related to mountain top removal mining such as clear cutting, water pollution, flooding, cultural devastation, stream destruction, insufficient reclamation, and lack of good data collection and monitoring, do not directly correlate. The PRB area is semi-arid with primarily intermittent or ephemeral drainages such that surface water is not plentiful. The topography is generally rolling hills covered in open grass and sagebrush grassland plant communities. Reclamation bonding and monitoring by the Wyoming Department of Environmental Quality (WDEQ) requires that the bond be sufficient to cover the cost of full reclamation. Reclamation must be completed and self-sustaining before the bond is released. Drainages are reestablished; water quality monitored, topography returned to pre-mining contours with the exception of elevation, and cultural and socioeconomic evaluations are completed prior to bond release. According to the 2000 U.S. Census, human population density in Wyoming ranks second as the least populated state per square mile of land area with 2.3 humans per square mile. Mining and reclamation data is publically available through the WDEQ beginning in 1977 when Congress passed the Surface Mining Control and Reclamation Act. The Office of Surface Mining Reclamation and Enforcement Annual Evaluation Summary Report for the Wyoming Regulatory Program Administered by the Wyoming Department of Environmental Quality for Evaluation Year 2009 can be found at:  
<http://www.osmre.gov/Reports/EvalInfo/2009/WY09-reg.pdf>

Byron and Marge Oedekoven  
PO Box 605  
Gillette, WY 82717

SENT VIA FAX – MAY 12, 2010

May 12, 2010

Wyoming High Plains District Office  
Bureau of Land Management  
Attn: Teresa Johnson  
2987 Prospector Drive  
Casper, Wyoming 82604

RE: Hay Creek II Draft EIS

Dear Ms. Johnson:

The draft Hay Creek II EIS points out that the location of the Collins and McGee roads in the middle of the study area creates a conflict that will need to be addressed. It is apparent to us that any relocation of the roads would involve our property. The Campbell County Commissioners have demonstrated a willingness to relocate county roads for mine development when effected land owners and the public agree. We recognize that it is in our best interest to have early input and would welcome an opportunity to discuss and negotiate the re-routing of both roads.

}

Thank you for the opportunity to comment on this project.

Sincerely,

Byron Oedekoven

## BLM RESPONSES TO COMMENT LETTER 6

6

### A) Campbell County

Thank you for taking the time to review the Buckskin Mine Hay Creek II draft EIS. We have forwarded your letter to Campbell County Road and Bridge Director Gary Lowry.

**Powder River Basin Resource Council  
Center for Biological Diversity**

May 7, 2010

Teresa Johnson  
BLM, Casper Field Office  
2987 Prospector Dr.  
Casper, WY 82604  
Submitted via electronic mail to [Hay\\_Creek\\_II\\_WYMail@blm.gov](mailto:Hay_Creek_II_WYMail@blm.gov)

RE: Hay Creek II Lease Application Draft Environmental Impact Statement

Dear Ms. Johnson,

Thank you for the opportunity to submit comments on the draft environmental impact statement (DEIS) for the Hay Creek II LBA filed by Kiewit Mining Properties, Inc. (Kiewit). We submit these comments on behalf of our organizations and our members who may be impacted by the leasing of this coal and subsequent mining activities.

As acknowledged by the preparation of the Environmental Impact Statement, BLM's proposed action to lease the Hay Creek II Tract is a major action with significant environmental impacts. If BLM leases the Hay Creek II tract, it "would extend the life of the mine by approximately two years" at current production rates, DEIS at ES-4, and would "increase the recoverable reserves at the Buckskin Mine by almost 14.6%." DEIS at 4-13. The proposed action would lease 77.2 million tons of coal reserves underlying 419 acres of land in Campbell County. *Id.* at ES-5.<sup>1</sup> While the Hay Creek II tract may be smaller than some of the other LBA tracts BLM is in the process of leasing, there are still significant environmental impacts that must be properly analyzed. Importantly, BLM must comply with NEPA's requirements to consider a reasonable range of alternatives and mitigation measures. Only if impacts cannot be mitigated should they be allowed. Unfortunately, in many places of the EIS, BLM fails to look at alternatives or reasonable mitigation measures that are fully within the power of the agency. This failure creates an unacceptable risk to human health and the environment.

**BLM must demonstrate a true public purpose and need for this project**

BLM describes the purpose of the project as helping the nation to maintain a stable supply of energy. What this leaves out, of course, is that utilities across the country are switching from coal to other fuels and renewable energy and decreasing energy demand through energy efficiency improvements. There are a number of policies driving these actions, including the threat of future carbon regulation and renewable energy standards, but in all cases, utilities would not be making these choices unless there were cost-effective for consumers.

A

<sup>1</sup> BLM's Alternative 2 proposes to lease a greater amount of coal: 269.7 million tons of coal reserves underlying 1,883 acres. DEIS at ES-5.

According to the latest available figures, comparing April of 2009 with April 2008, U.S. coal-fired generation was down 14 percent compared to the previous year, while wind generation surged ahead by 35 percent during the same period.<sup>2</sup> Renewable energy now generates 11 percent of our nation's electricity, and rising.<sup>3</sup> The trend away from fossil fuels will likely continue and accelerate.<sup>4</sup>

**[Boardman plant which has contracts with Buckskin]**

Energy efficiency is widely recognized as the most important substitute for coal. The National Academy of Sciences, in a new report, finds that U.S. projected energy demands could be reduced by at least 15 percent by 2020 and 30 percent by 2050 through energy efficiency.<sup>5</sup> A detailed new report by global consulting firm McKinsey and Associates finds even more savings. Non-transportation energy use in the U.S., primarily electricity, could be reduced 23 percent from projected levels by 2020 with a net savings to the economy of about \$700 billion.<sup>6</sup> The efficiency measures employed only include those that save costs and do not even include a price on carbon. Yet another report finds that by employing efficiency measures, U.S. electricity consumption by 2050 could fall 30 percent below today's levels, despite significant growth in demand.<sup>7</sup> With committed employment of efficiency measures and continuing growth of renewable industries at current rates, all coal-fired plants could be shuttered within the next several decades, without any disruption to the U.S. electricity supply. In short, we continue to use coal by choice, not by necessity.

The important goals of the EPA Act that BLM discusses – promoting energy efficiency, ensuring secure, affordable and reliable domestic energy, and adding energy supplies from diverse sources – can best be met through the promotion of renewable energy and efficiency measures.

**BLM must minimize impacts to human health and the environment**

The Hay Creek II LBA tract is part of a northern cluster of mines in the Powder River Basin that are close to the city of Gillette, a city of approximately 25,000, and subdivisions. The lease tract

<sup>2</sup> EIA, *Electric Power Monthly* (July 2009) at [http://www.eia.doe.gov/cneaf/electricity/epm/epm\\_sum.html?featureclicked=3&](http://www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html?featureclicked=3&).

<sup>3</sup> *Id.*

<sup>4</sup> Early in the process of building a new power plant, a developer needs to enter into a "queue" for interconnection to transmission capacity. By looking at which types of projects have entered the interconnection queue, it is possible to see what sources of electricity are likely to come on line in the next few years. According to a new Department of Energy report, there are almost 300 GW of wind power projects in the queue. Coal has less than 50 GW of generation in the queue. Planned renewables far outpace all fossil fuel and nuclear sources of likely new power combined. U.S. Department of Energy, *2008 Wind Technologies Market Report* (July 2009) at 13, available at [www1.eere.energy.gov/windandhydro/pdfs/46026.pdf](http://www1.eere.energy.gov/windandhydro/pdfs/46026.pdf). And given that 100 coal-fired power plants have been cancelled since 2002, even the possible addition of 45 GW of new coal power is surely a gross overestimate of future increased generation. *Utah Coal Plant Scuttled, 100<sup>th</sup> in U.S. Since 2002*, Reuters (July 9, 2009) at <http://www.reuters.com/article/GCA-GreenBusiness/idUSTRE5684UN20090709>.

<sup>5</sup> National Academy of Sciences, *America's Energy Future: Technology and Transformation* (press release) (July 2009) available at <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12091>.

<sup>6</sup> Granade, H.C., et al., *Unlocking Energy Efficiency in the U.S. Economy*, McKinsey and Associates (July 2009) available at [http://www.mckinsey.com/client/service/electricpowernaturalgas/US\\_energy\\_efficiency/](http://www.mckinsey.com/client/service/electricpowernaturalgas/US_energy_efficiency/).

<sup>7</sup> Greenpeace International, *Energy Revolution: A Sustainable USA Energy Outlook* (March 2009) at 6.

is located a mere 12 miles from Gillette. DEIS at ES-1. Additionally, as the maps 3.4-4A and B show, there are several occupied residences, subdivisions, school bus stops, and other locations near the mine where air quality and noise impacts should particularly be minimized. Pursuant to CEQ regulations implementing NEPA, BLM must consider a reasonable range of alternatives and mitigation measures to minimize impacts to human health.

In particular, cumulative air emissions are of concern to our members who live in the area. As the EIS discloses, numerous coal mines, oil & gas operations, construction activities, railroads, and coal-fired power plants are located in the area, including the Dry Fork Station, which is a future source of major pollution currently under construction a mere 10 miles from the mine. Even if “the maximum modeled impacts from Buckskin and neighboring mines (including background) is about 80% of the NAAQS,” public health can still be impacted from all of the various point sources and fugitive emission sources in the area. In fact, there have been violations of the 24 hour PM10 standard at the mines in the area. Without “excused” as “uncontrollable natural events” or not, these violations are of great concern to our members. Additionally, the ozone monitor located at the Thunder Basin National Grassland north of Gillette demonstrates that the area is very close to being in noncompliance for ozone standards, and if the new standard proposed by EPA is adopted, the area would actually be in noncompliance.

Additionally, site specific and cumulative air quality impacts of the mine have environmental justice implications. The DEIS makes quick work of environmental justice issues by simply claiming that there aren’t any. However, the mine is close to the Northern Cheyenne Indian Reservation, a federally recognized Class 1 area. The Northern Cheyenne’s air quality has already been significantly impacted by industrial development in Wyoming, and will only continue to be under BLM’s current proposal. We urge BLM to engage in nation-to-nation consultation with the Northern Cheyenne and work with them to ensure their culturally-significant environment and public health are protected.

BLM should work with DEQ, EPA, and the operators themselves to ensure public health is protected. We expect a full discussion of enforceable and effective mitigation measures in the final EIS for this project.

**BLM must ensure contemporaneous reclamation before leasing new coal**

We appreciate the addition of new information in the reclamation activities section of the DEIS, including some mine specific reclamation and bond release status information. DEIS at 1-11 to 1-13. As we have discussed in previous comments to the BLM on coal lease proposals, BLM must consider mine-specific reclamation status, including whether the mine is currently meeting contemporaneous reclamation objectives and criteria, before deciding whether to lease new coal to the mines. Thus, this new information is a good start in that direction.

However, the new information is nowhere near sufficient and does not tell the full story of reclamation at the mine. For instance, it is unclear how BLM came to the conclusion that “the 2007 reclamation-to-disturbance ratio for the Wyoming Powder River Basin mines was approximately 80%” and “the remaining 20% of disturbance consists of long-term facilities and

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infrastructure such as coal storage silos and processing plants, roads, and rail lines.” DEIS at 1-11 to 1-12. First off, as BLM notes in the sentence immediately following these statistics, “the total acres listed as reclaimed for Wyoming coal mines likely includes a combination of areas that have been completely reclaimed and others that are in various stages of reclamation.” *Id.* BLM does not go further and explain what is meant by “various stages of reclamation.” For instance, would areas that have merely been re-graded be considered “reclaimed” under this broad definition? Additionally, if the remaining 20% consists of long-term facilities, some of the rest of the 80% of disturbed acres must undoubtedly contain areas undergoing current mining operations. Those acres have not even started to be reclaimed. Thus, the 80% number does not accurately depict how much land has actually been reclaimed to pre-mining conditions over the life of the mine. As discussed by BLM, only during Phase III bond release are the lands ensured to be re-vegetated to pre-mining conditions. As of the end of 2008, only 250 of 3,815 disturbed acres have achieved Phase III bond release. DEIS Table 1-3 at 1-13. That means 93.4% of the disturbed land has not yet obtained Phase III bond release and have thus not been properly reclaimed to pre-mining conditions.

Second, and more importantly, BLM does not connect this information to environmental impacts. Chapter 3 of the EIS, which is the chapter that covers “environmental consequences” of BLM’s proposed action, does not discuss reclamation status and how the lack of contemporaneous reclamation at the mine has contributed to problems, such as reduced air quality, the spread of noxious weeds, and reduced acreage for livestock and wildlife habitat.

In fact, BLM’s few cursory sentences in Chapter 3 that could be tied to reclamation are oversimplistic and inaccurate. BLM states that

- “Vegetation loss and subsequent reclamation would likely occur incrementally across the proposed tract, depending on the direction and rate of mining.” DEIS at 3-105
- “[R]eclamation, including revegetation, will immediately follow as mining progresses through the area” and
- “The reclamation plan for the final tract configuration will include steps to control invasive, nonnative plant species.” DEIS at 3-106.

BLM fails to give the issue of reclamation the “hard look” it deserves under NEPA. The final EIS for this proposed action must include detailed mine-specific information on reclamation status *and* a robust consideration of mitigation measures and alternatives, such as not leasing more coal to the company until previously mined lands are reclaimed.

**BLM must appropriately analyze and mitigate impacts to groundwater quantity**

BLM disclosed that “[u]nder the proposed Action, surface coal mining would permanently remove aquifers in the proposed tract (419 acres). Additionally, the Proposed Action would cause a long-term reduction in groundwater in aquifers beyond the proposed tract as a result of seepage into and dewatering from mine excavations.” DEIS at 3-76.

In Chapter 4, BLM says that “[m]onitoring data verify that recharge has occurred and is continuing in the backfill.” DEIS at 4-50. But BLM does take this analysis one step further and

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disclose just how much recharge has occurred at the Buckskin and nearby North Gillette mines and how mining the Hay Creek II tract may impact recharge rates.

Instead of presenting the necessary analysis in this EIS, BLM states that groundwater impacts will be considered as part of the WDEQ/LQD permitting process. DEIS at 4-51. In contrast to this statement, NEPA's main purpose is "to ensure that agencies make informed and considered decisions regarding an action's potential effects on the environment before it is too late to address such concerns." *Friends of the Columbia Gorge, Inc. v. Elicker*, 598 F.Supp.2d 1136, 1149-50 (D.Or. 2007), citing *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 993 (9th Cir. 2004). This necessitates that impacts analysis be pre-decisional, in other words "before any irreversible and irretrievable commitment of resources." *Conner v. Burford*, 848 F.2d 1441, 1146 (9th Cir. 1988). In other words, BLM cannot pass its responsibilities along to the DEQ to be fulfilled at a later date.

Even if DEQ permitting related to groundwater impacts of this new coal tract has occurred prior to BLM's analysis, which it has not, BLM cannot substitute the state permitting procedure for its own NEPA analysis. BLM has an independent duty to properly analyze impacts in the NEPA process: "[a] non-NEPA document—let alone one prepared and adopted by a state government—cannot satisfy a federal agency's obligations under NEPA." *South Fork Band Council, et al. v. Dept. Interior, et al.*, No. 09-15230 (9th Cir. Dec. 3, 2009); See also *Kern v. BLM*, 284 F.3d 1062, 1073 (9th Cir. 2002) (holding that "tiering to a document that has not itself been subject to NEPA review is not permitted, for it circumvents the purpose of NEPA"). Wyoming does not have a state NEPA equivalent and thus the mere issuance of a permit cannot serve as the functional equivalent of NEPA analysis by a federal agency.

Therefore, BLM must consider site-specific and cumulative impacts to groundwater and options to mitigate those impacts in this EIS.

#### **BLM must appropriately analyze and mitigate impacts to groundwater quality**

BLM states that "groundwater quality in the backfill aquifer on the proposed tract is expected to be similar to that measured in existing wells completed at the backfill at the mines...[and] [g]roundwater is expected to rise to similar levels as observed prior to mining..." DEIS at 3-76.

In drawing this conclusion, BLM does not analyze *any* information related to the Buckskin mine comparing pre-mining and post-mining water quality data. BLM states that "WDEQ/LQD calculated a median TDS concentration of 3,293 mg/L for the backfill aquifer in the east-central area of the PRB." DEIS at 4-53. First off, the Buckskin mine is not a part of the south Gillette group of coal mines. Second, this information does not disclose what pre-mining water TDS concentrations were. TDS concentrations commonly increase as a result of mining.<sup>8</sup>

Water quality in the backfill aquifer has been an issue of concern for state and federal agencies, as well as the public. The coal aquifer is an aquifer used for drinking water and livestock purposes so water should be restored to that quality.

<sup>8</sup> BLM, *Spring Creek Mine Expansion Coal Lease Modification EA* at 4-9: "

Please fully disclose all pre-mining and post-mining aquifer water quality data. If impacts are occurring, BLM must analyze mitigation options.

**BLM must appropriately analyze and mitigate climate change impacts**

Climate change is already changing weather patterns, intensifying drought, causing increased fire danger, melting Arctic sea ice, causing sea level rise and ocean acidification, and creating a host of additional dangers for people and wildlife.<sup>9</sup> Recent observations show greenhouse gas levels and effects on the environment that are generally at the upper bounds of, or even outstripping, recent projections.<sup>10</sup> Some of these impacts make clear that at today’s greenhouse gas concentrations we are already beyond the natural climate variability experienced over the last several thousand years, suggesting negative climate consequences of an unpredictable magnitude yet to come.<sup>11</sup>

Federal scientists understand that climate change is happening and that its impacts will continue to grow. Federal agencies have issued clear and forceful reports on the magnitude of the crisis, including in two recent documents: the Global Change Research Program’s June 2009 report, *Global Climate Change Impacts in the United States* (“GCRP Report”) and the Environmental Protection Agency’s April 2009 *Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act* (“GHG TSD”). These documents describe the impacts of climate change to human health, ecosystems, and the economy, including impacts that are already being documented in the U.S., and projections for impacts that will likely get far worse. These reports show that already, temperatures are warmer, temperature extremes have shifted upward, precipitation patterns have changed, sea levels have risen, oceans have become more acidic, and glaciers and Arctic ice have melted.<sup>12</sup> Indeed, much of Wyoming, the state where the proposed lease is located, has already experienced a 2 to 3°F increase in annual average temperature compared to the 1961-1979 average.<sup>13</sup>

The overwhelming weight of scientific evidence leaves little doubt that unless we rapidly and completely curtail greenhouse gas emissions – primarily from burning coal, oil, and natural gas<sup>14</sup> – the U.S. will continue to warm at an accelerating rate and greater than the global average, and experience greater-intensity heat waves more frequently as well as changes in precipitation patterns, more frequent and severe droughts, greater-intensity hurricanes, and accelerating ocean acidification.<sup>15</sup>



<sup>9</sup> For the most comprehensive and up-to-date statement of the impacts of climate change in the U.S., see U.S. Global Change Research Program, *Global Climate Change Impacts in the United States* (June 2009) (“GCRP Report”) available at <http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts>. For the most up-to-date statement of the impacts of climate change internationally, see Copenhagen Climate Congress, *Synthesis Report – Climate Change: Global Risks, Challenges and Decisions* (Mar. 2009) (“Copenhagen Report”), available at <http://climatecongress.ku.dk>.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> See, e.g., GHG TSD at ES2-ES3.

<sup>13</sup> See GCRP Report at 28.

<sup>14</sup> See *id.* at 9.

<sup>15</sup> See, e.g., GHG TSD at ES3-ES4.

Indeed, scientists are telling us that global greenhouse gas atmospheric concentrations are already too high, and that to avoid “severe, widespread and irreversible impacts,” levels of greenhouse gases must soon be stabilized no higher than levels already reached.<sup>16</sup> It cannot be over-emphasized that the Earth is already past the danger point. Even stabilizing at today’s atmospheric concentrations of greenhouse gases is no guarantee that severe, widespread, and irreversible climate impacts can be avoided.<sup>17</sup> The inescapable conclusion is that to assure a livable world we must bring greenhouse gas emissions down drastically, starting immediately. Further postponing action decreases the Earth’s chances of preventing catastrophic climate change and greatly increases the eventual costs of stabilization.<sup>18</sup> Inaction now inevitably means more suffering and even greater economic losses in the not-too-distant future.

Coal has the worst global warming emissions profile of any conventional fossil fuel.<sup>19</sup> Production of one million British thermal units (“BTU”) of energy from burning natural gas produces 117 pounds of CO<sub>2</sub>, while the same energy production from sub-bituminous coal mined in the Powder River Basin produces 213 pounds of CO<sub>2</sub>.<sup>20</sup> Thus, for no gain in energy output, coal from Wyoming over natural gas means 82 percent more greenhouse gases are pumped into the atmosphere.<sup>21</sup>

There can be no serious doubt that coal mined in the lease areas will be combusted for power generation. Therefore, the EIS is not complete without analyzing the impacts of burning that coal, including impacts on the climate. *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549-50 (8th Cir. 2003) (when the *nature* of the effect is reasonably foreseeable but its *extent* is not, we think that the agency may not simply ignore the effect”); *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008) (greenhouse gas emissions are “unquestionably subject to NEPA’s cumulative impacts requirements”). The first step in that analysis must be an inventory of emissions, and that inventory, once it is disclosed, will show significant amounts of CO<sub>2</sub> would be released as a result of this project, many more times than the DEIS admits. A substantively revised DEIS, with an opportunity for public comment, is therefore the only solution for addressing this

<sup>16</sup> GCRP Report at 23.

<sup>17</sup> *Id.*

<sup>18</sup> Copenhagen Report at 6.

<sup>19</sup> Processing oil from tar sands and from shale, which has been approved to occur in Colorado, Utah, and Wyoming by the Department of Interior and BLM, will have climate emissions portfolios worse than coal, and include significant additional impacts to air and water quality. See Hansen, J. 2008. Climate Threat to the Planet: Implications for Energy Policy and Intergenerational Justice. Bjerknes Lecture (slides), American Geophysical Union (stating that “...if we burn all the coal, there is a good chance that we will initiate the runaway greenhouse effect. If we also burn the tar sands and tar shale (a.k.a. oil shale), I think it is a dead certainty.”).

<sup>20</sup> EIA, *Official Energy Statistics from the U.S. Government*.

<sup>21</sup> On top of that, the U.S. coal industry does not efficiently use coal as a source of energy. For example, although coal is also the dirtiest conventional fossil fuel used in Japan, it is at least used more efficiently; a kilowatt-hour of coal-fired power produced in Japan creates 418 grams of CO<sub>2</sub>, in comparison to the 625 grams of CO<sub>2</sub> that are emitted to produce a kilowatt-hour of electricity in the U.S.<sup>21</sup> In the U.S., older coal-fired power plants can often avoid installing air pollution control equipment that is required on newer plants. For this reason, 145 of the dirtiest coal-fired power plants in the U.S. still in operation today were built in the 1940s or earlier. Pope, C., *The Clean Air Act story: back to the beginning*, Grist (Aug. 10, 2009) available at <http://www.grist.org/article/2009-08-10-the-clean-air-act-story-back-to-the-beginning/>.

otherwise unlawful omission.

Even when climate impacts are described in the DEIS, the best available science is not applied. For example, the DEIS asserts that, “[t]ools necessary to quantify incremental climatic changes associated with those factors for the projected development activities in the PRB are unavailable. Consequently, impact assessments of effects of specific anthropogenic activities cannot be performed.” DEIS at 4-107.<sup>22</sup> These are the same misleading incorrect assertions that were made about other air quality models a generation ago.<sup>23</sup>

Likewise, the discussion on greenhouse gas emissions in Chapter 4 never actually describes the cumulative environmental consequences of this action on climate change. Instead, the section is largely devoted to a description of the role that coal plays in electricity generation now, and how important that role will remain in the future. The section is largely used to argue that because emissions from this project are small relative to global emissions, PRB emissions are of no consequence. This is the opposite of disclosure and analysis of cumulative impacts, which is required under NEPA. *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d at 1217 (greenhouse gas emissions are “unquestionably subject to NEPA’s cumulative impacts requirements”). Additionally, BLM’s conclusion that “[i]t is not likely that selection of the No Action Alternative would result in a decrease of U.S. CO<sub>2</sub> emissions attributable to coal-burning power plants in the longer term,” DEIS at 4-117, is stunning. Where does BLM think greenhouse gas emissions come from if not mining coal and burning it?

The DEIS also excludes any and all consideration of combustion by-products like black carbon, or soot, which is generated (among other things) by combustion of fossil fuels including coal. Black carbon is a particulate that deposits to the surface of the Earth, often in Alaska, Greenland, or the Arctic Ocean, within about a week of its emission, which usually occurs in the northern hemisphere. Black carbon influences the climate both in the atmosphere and at the surface, before and after it is deposited; the contrast between black carbon, the darkest aerosol, and snow and ice, the brightest surfaces of the planet, causes black carbon to absorb sunlight and to warm the Arctic atmosphere by approximately the same amount as human-injected CO<sub>2</sub> in spring and summer, when snow and ice are most vulnerable to melting.<sup>24</sup> The DEIS must be revised and recirculated to include black carbon in its analysis of climate impacts.<sup>25</sup>

<sup>22</sup> See also “Because the tools necessary to quantify incremental climatic changes associated with these GHG emissions are presently unavailable, the analysis cannot reach conclusions as to the magnitude or significance of the emissions on climate change, or to associate specific actions with the specific climate impacts.” DEIS at 3-206

<sup>23</sup> As an example, we cannot say which people exactly will actually die from an increase in ozone precursors. We cannot say exactly how many additional lives will be lost from a given increase in emissions. Nonetheless, we clearly know enough to place controls on industrial processes known to emit these dangerous ozone-forming pollutants.

<sup>24</sup> Zender, C.S. 2007. Arctic Climate Effects of Black Carbon. Written testimony to the Oversight and Government Reform Committee, U.S. House of Representatives. See also Schwartz, J. 2007. Testimony for the Hearing on Black Carbon and Climate Change House Committee on Oversight and Government Reform United States House of Representatives.

<sup>25</sup> See *Half Moon Bay Fishermans’ Marketing Ass’n v. Carlucci*, 857 F.2d 505, 508 (9th Cir. 1988) (quoting *California v. Block*, 690 F.2d 753, 770-71 (9th Cir. 1982)) (“NEPA’s public comment procedures are at the heart of the NEPA review process” and “reflect ‘the paramount Congressional desire to internalize opposing viewpoints into the decision making process to ensure that an agency is cognizant of all the environmental trade-offs that are implicit in a decision.’” Thus, “[i]t is only at the stage when the draft EIS is circulated that the public and outside

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In yet another glaring omission, the DEIS also fails to note the effect climate change is already having on the project area environment. Chapter 4 of the DEIS claims that Chapter 3 of the DEIS does so, but it is not apparent where any such discussion may be found.<sup>26</sup> Significant changes to temperature and precipitation regimes, well documented by scientists, are completely ignored in the section of the DEIS devoted to describing climate in the area.<sup>27</sup> While the BLM acknowledges that, “[i]t is assumed that existing land and resource conditions in the general analysis area have been and will continue to be affected by climate change under all alternatives,” DEIS at 3-205, such a cursory description cannot satisfy BLM’s responsibility to disclose and consider climate change as part of the environmental baseline for the area. NEPA requires BLM to set forth such baseline environmental conditions, as there is no way to determine what effect on the environment the leases will have without doing so, and consequently, no way to comply with NEPA. *Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1998); see also *Robertson v. Methow Valley*, 490 at 349 (NEPA’s fundamental purposes are to guarantee that: (1) agencies take a “hard look” at the environmental impacts of their actions by ensuring that they “will have available, and will carefully consider, detailed information concerning significant environmental impacts;” and (2) “the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.”); *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1166 (9th Cir. 2003) (NEPA “emphasizes the importance of coherent and comprehensive up-front environmental analysis to ensure informed decision-making to the end that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.”)

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Some of the impacts of climate change on human health, species, and the natural environment, which BLM fails to analyze include:

- More frequent and intense heat waves
- Increases in smog
- More frequent and intense flooding and hurricanes
- More frequent and intense drought and wildfires
- Increased disease transmission
- Increased allergens
- Shrinking ranges for biological species
- Altered timing of natural events
- Rising insect epidemics
- Hotter and more acidic oceans with rising sea levels
- Impacts to polar ecosystems
- Earlier snow melt and threatened water supplies
- Unstable farming conditions

agencies have the opportunity to evaluate and comment on the proposal” and “[n]o such right exists upon issuance of a final EIS”); *id.* (“an agency’s failure to disclose a proposed action before the issuance of a final EIS defeats NEPA’s goal of encouraging public participation in the development of information during the decision making process”).

<sup>26</sup> DEIS at 4-110.

<sup>27</sup> See *id.* at 3-10 to 3-11.

- Socio-economic costs related to all of these impacts<sup>28</sup>

In the recent report of the U.S. Global Change Research Program, global temperatures in the year 2100 are predicted to be 2 to 11.5°F higher than they are today.<sup>29</sup> Temperatures in the U.S. will rise still higher than global averages.<sup>30</sup> As catastrophic as such increase in one century would be, temperatures could actually change much more quickly than that.

Ice core data from Greenland reveal that the end of the last ice age was triggered by a rapid and intense warming. Air circulation patterns over the planet shifted within a year or two. The warming that followed raised planetary temperatures 22°F in just 50 years.<sup>31</sup> That amounts to a total warming almost double the IPCC's and the GCRP's worst-case predictions, occurring in about half the time. Runaway climate change can happen, and it did, as recently as just before the dawn of agriculture and civilization, when humans still lived as tribal hunters and gatherers.

The climate system includes numerous positive, amplifying feedback loops and no one can say for certain what their full impact on climate change will be. For example, as reflective snow and ice cover melt, darker water and land revealed below absorb more heat from the sun, thereby leading to greater melting of snow and ice. As permafrost areas melt, CO<sub>2</sub> and methane previously trapped in soils leak into the atmosphere leading to further warming. Higher temperatures dry out forest soils, which increases forest fires, leading to greater emissions. Acidic oceans may produce less carbon trapping plankton. Desertification may cause soils to release stored carbon and plants to reduce their sequestration.

Few climate modelers have attempted to build such feedback loops into their models. Therefore, it is possible that these amplifying effects may prove all climate model estimates to be too low. Like at the end of the last ice age, climate change could happen very quickly and to a far greater degree than generally predicted. In the present case, though, the warming would not come during an ice age, but on top of a world climate already abnormally warmed – that is, at a time when the Earth is as hot as it has been in thousands of years.

The destruction from business-as-usual climate change that is outlined above could be catastrophic. But the effect of runaway climate change would be an existential threat to human civilization itself. Clearly it is the first responsibility of political leaders in this age to do everything in their power to avoid such an outcome. Best estimates of top scientists should figure prominently when setting policy that affects climate. But when judgment is called for, it would be foolish to ignore the distinct possibility that the climate problem might get very much

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<sup>28</sup> For a full description of all of these impacts, please see Center for Biological Diversity's comments on the Wright Area Coal Leases DEIS, submitted to BLM on Aug. 25, 2009.

<sup>29</sup> GCRP Report at 9.

<sup>30</sup> *Id.*

<sup>31</sup> Steffensen, J.P., K.K. Andersen, M. Bigler, H. B. Clausen, D. Dahl-Jensen, H. Fischer, K. Goto-Azuma, M. Hansson, S. J. Johnsen, J. Jouzel, V. Masson-Delmotte, T. Popp, S. O. Rasmussen, R. Rothlisberger, U. Ruth, B. Stauffer, M.-L. Siggaard-Andersen, A. E. Sveinbjörnsdóttir, A. Svensson, J. W. C. White, *High-Resolution Greenland Ice Core Data Show Abrupt Climate Change Happens in Few Years*, Science DOI: 10.1126/science.1157707 (2008).

worse, very quickly. Erring on the side of caution when setting climate and energy policy is clearly warranted.

Finally, BLM also fails to appropriately analyze, or consideration mitigation options related to, direct greenhouse gas emissions of mining operations. Specifically, as acknowledged by the DEIS, any methane in the coal seam that has not previously been developed by CBM operations, will be released to the atmosphere during mining. Methane is a potent greenhouse gas. Even if the amounts emitted are relatively small compared to total greenhouse gas emissions in Wyoming or the broader U.S., BLM has a duty to consider mitigation options. For instance, BLM should consider pre-mine drainage of methane. This technique is being conducted at the North Antelope Rochelle mine as part of a carbon credit system. It is a widely available technology that could easily be employed at the Buckskin Mine. This would not only reduce greenhouse gas emissions of the mine but would also prevent the waste of a much sought-after non-renewable resource.

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**BLM must also appropriately analyze impacts resulting from coal-burning, such as mercury deposition and coal combustion waste disposal**

A further, previously-hidden public health and safety threat from coal came to light in December 2008, when 300 million gallons of coal ash sludge burst from a dam and spilled into the homes of fifteen families in Tennessee.<sup>32</sup> Kingston is not the only community with its safety threatened by coal ash dumps. There are 1300 such dumps spread across the country, filled with coal ash, arsenic, lead, mercury and selenium.<sup>33</sup> More than one hundred million tons of such ash are being dumped every year with no federal regulatory oversight.<sup>34</sup> These dumps have already polluted drinking water in dozens of states, and there is no comprehensive plan to arrest the problem.<sup>35</sup> Lead, cadmium, chromium, arsenic, nickel, zinc and copper are all found to be over safe levels in drinking water near ash dumps.<sup>36</sup>

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Yet another impact on ecosystems from coal is from acid rain. Two-thirds of all U.S. sulfur oxide ("SOx") emissions and one-quarter of all NOx emissions come from burning coal.<sup>37</sup> The impacts of these acidic emissions on sensitive species and other wildlife is horrendous. Three quarters of lakes and one-half of streams surveyed in the U.S. have been acidified by these types of emissions.<sup>38</sup> Acidification is detrimental to aquatic life and frequently responsible for fish kills, especially in the Mid-Atlantic and Northeast States.<sup>39</sup> In many lakes, every single fish

<sup>32</sup> Dewan, S., *Coal Ash Spill Revives Issues of Its Hazards*, New York Times (December 24, 2008) available at <http://www.nytimes.com/2008/12/25/us/25sludge.html>.

<sup>33</sup> Dewan, S., *Hundreds of Coal Ash Dumps Lack Regulation*, New York Times (January 6, 2009) available at <http://www.nytimes.com/2009/01/07/us/07sludge.html>.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> See, e.g., Clean Air Task Force, *Impacts to Water Quality from Placement of Coal Combustion Waste in Pennsylvania Coal Mines*, available at <http://www.catf.us/publications/>.

<sup>37</sup> EPA, *What is Acid Rain?* (June 8, 2007) available at <http://www.epa.gov/acidrain/what/index.html>.

<sup>38</sup> EPA, *Effects of Acid Rain – Surface Waters and Aquatic Animals* (Dec. 1, 2008) available at [http://www.epa.gov/acidrain/effects/surface\\_water.html](http://www.epa.gov/acidrain/effects/surface_water.html).

<sup>39</sup> *Id.*

species has been completely killed off.<sup>40</sup> This then leads to fish-eating birds like loons, and mammals, like otters, abandoning lakes that no longer provide food.

Acid rain also affects forest ecosystems. Slower growth, brown needles and dead trees are legacies of acid rain left along mountain ridges from Maine to Georgia.<sup>41</sup> In addition to killing leaves and needles directly, acid rain is absorbed into forest soils, changing soil chemistry. Unfortunately, soil nutrients can be dissolved by acid rainwater and then washed away.<sup>42</sup> Other, toxic chemicals can be released from minerals by acid rain, further damaging trees.<sup>43</sup>

Air pollution presents a multi-billion dollar per year health crisis driven to a large extent by coal-fired power and mining. These billions are in addition to the economic loss associated with the tragedy of millions of children who are slow learners or mentally retarded because of pre-natal or infant exposure to coal-fired mercury emissions. The DEIS lack adequate analysis of externalized economic costs.

There is an estimate of lost workdays associated with particulate emissions from coal-fired power plants. More than 3,000,000 days of worker productivity are lost in this country each year due to this single pollutant from coal.<sup>44</sup> On top of the health costs and lost productivity in the workforce, coal-fired air pollution is also responsible for lost crop and forest productivity due to ozone, particulates and acid rain.

**BLM must analyze Kiewit’s proposed coal drying facility as a connected action**

Kiewit recently announced that they have entered into a partnership to build a coal drying facility near the Buckskin Mine. (See attached article). Please analyze cumulative impacts of this proposal with the mine expansion, including air quality impacts and other impacts caused by increased coal production, in the EIS for this project. According to White Energy Company North America, the company that is partnering with Kiewit on the coal drying facility, “WECNA continues to aggressively market its upgraded Buckskin coal. WECNA has been diligently responding to domestic and international RFPs in an effort to secure contracts with utilities for our coal. WECNA is expecting to respond to many more RFPs within the coming months as utilities gear up purchasing for deliveries in 2012.”<sup>45</sup>

BLM should consider the coal drying facility as a connected action to the coal lease proposal. At the very least, emissions of the coal drying facility should be included in the cumulative impacts analysis for the project. According to information submitted to the Department of Energy, a similar proposal associated with a coal mine in Montana will produce significant emissions, including 992 thousand tons per year of carbon dioxide, 158 tons per year of sulfur dioxide, 293

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<sup>40</sup> *Id.*

<sup>41</sup> EPA, *Effects of Acid Rain – Forests* (June 8, 2007) available at <http://www.epa.gov/acidrain/effects/forests.html>.

<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

<sup>44</sup> *Power Plant Emissions* at 6-2.

<sup>45</sup> See <http://www.whiteenergyco.com/projects/north-america/wec-north-america/index.php>

tons per year of nitrogen oxides, 36 tons per year of particulate matter, and .21 tons per year of mercury.<sup>46</sup> These emissions would subject the process to PSD permitting.

While BLM briefly discusses the possibility of “coal conversion technology” in Chapter 4 of the DEIS, BLM does not discuss the White Energy Company proposal.

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Miscellaneous Comments

1. In the discussion of the proposed DM&E railroad on page 4-14, please discuss recent status, including the withdrawal of the eminent domain suit by the company.<sup>47</sup>
2. Please add Wygen III to your list of power plants discussed on page 4-15.
3. Under a settlement agreement between the company and the DEQ, Two Elk Unit 1 must receive a modification to its air quality permit. Because of lack of construction status, this modification will be major and will essentially be the issuance of a new permit. We would urge BLM to take any information about Two Elk’s alleged construction or financing status, discussed on page 4-15 – now or probable in the future – with a large grain of salt.
4. Additionally, there is longer an application for Two Elk Unit II pending with DEQ, as discussed on page 4-16.

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Thank you for your time and consideration of these comments.

Sincerely,



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<sup>46</sup> Ambre Energy Coal Efficiency Project, Submission book for a Large-Scale Integration Project, submitted to the U.S. Dept. of Energy Loan Guarantee Program, Feb. 26, 2009.

<sup>47</sup> According to our members who are involved in the issue: On August 26<sup>th</sup> the DM&E Railroad dropped a condemnation suit against 14 Wyoming landowners, citing a relaxed construction schedule as the reason. They say they would need a favorable regulatory climate, available financing, a reasonable return on investment, and land rights in order to proceed. Fred Green, CEO of parent company Canadian Pacific, has stated in a letter to Pat Jacobs of Pierre, S.D. that C.P. has no plans to build the PRB project.



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<sup>48</sup> Many of these references were included as hard or electronic copy attachments to Center for Biological Diversity's comments on the Wright Area LBA Tracts DEIS. If BLM needs additional copies, please let us know.

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## Firm plans coal upgrade plant

By DUSTIN BLEIZEFFER  
Star-Tribune energy reporter

After several decades and many attempts, enterprises aiming to upgrade Powder River Basin coal have had only fleeting success. Now, there's another project in the works, and the developers say their plan will achieve commercial viability.

"What makes our product different is ours is stable and not prone to spontaneous combustion; second, it's not dusty; and third, our economics are competitive," said Judy Tanselle, president of White Energy Coal North America.

White Energy and Buckskin Mining Co. announced Monday an agreement to develop an \$80 million coal upgrading facility to be constructed at the Buckskin coal mine just north of Gillette.

The plan is to have the facility in operation sometime in the second quarter of 2010 with an annual output of 1.1 million tons of "binderless coal briquettes," according to the companies. The process involves heat and pressure to remove moisture from the coal, producing briquettes with a heating value 35 percent higher than raw Powder River Basin coal.

Tanselle said the company will target utilities that are not currently using Powder River Basin coal, noting that those customers of Eastern bituminous coals are looking for a cleaner product with a higher heating value.

"We see it as an expansion of the Powder River Basin coal market. Those already burning Powder River Basin coal have very little incentive to replace it," Tanselle said.

Evergreen Energy constructed a coal upgrading plant at the Fort Union mine north of Gillette in 2006. The "K-Fuel" process used two Sasol-Lurgi gasification vessels to heat and pressurize the coal, which reduced the coal's high moisture content. It also stripped some mercury, sulfur and nitrogen oxides, resulting in a lighter, drier coal with a higher heating value.

But the plant was quickly shuttered in 2007, and Evergreen is working to develop the technology in Asia and other parts of the globe.

White Energy Coal North America Inc. is headquartered in Maryland, and is a U.S. subsidiary of White Energy Company Limited, a Sydney-based company. The parent company is the exclusive worldwide license holder of the "Binderless Coal Briquetting" process.

Contact energy reporter Dustin Bleizeffer at (307) 577-6069 or [dustin.bleizeffer@trib.com](mailto:dustin.bleizeffer@trib.com)

## BLM RESPONSES TO COMMENT LETTER 7

### A) Purpose and Need—U.S. Energy Portfolio—Range of Alternatives

Section 1.2 of the final environmental impact statement (FEIS) clearly states the purpose and need of the document as well as the proposed action. The purpose of this EIS is to analyze and disclose the potential effects to the natural and human environment from the proposed leasing of a maintenance tract of federal coal in the Wyoming Powder River Basin (PRB). A mining operator applied to lease a tract of federal coal in order to have sufficient coal reserves to continue to operate an already existing mine (FEIS at 1.1.1). Although leasing this tract would not authorize mining operations on those lands, the EIS evaluates the potential impacts of mining because it is a logical consequence of issuing a lease for a maintenance tract of federal coal (FEIS at 1.1.2). The EIS presents BLM's analysis of environmental impacts under the authority of the National Environmental Policy Act (NEPA) and associated rules and guidelines.

The FEIS explains the extent of BLM's decision-making authority to lease coal on federal lands and our mission under the various mineral leasing laws, which is to encourage the development of domestic coal reserves and to reduce US dependence on foreign sources of energy.

The EIS is not intended to be an environmental analysis of the numerous technologies that are capable of producing electricity. We have revised the FEIS to include additional information regarding the projected electric generation portfolio of the United States. Studies have indicated that even with a considerably more optimistic projection for renewable sources, coal use continues to be projected as the largest portion of the domestic electric fuel mix until at least 2035.

The population in the US has increased by about 20 percent and energy consumption by a comparable 18 percent since 1990, with variations in energy use per capita depending on weather, the economy, etc. As population and activities have increased, carbon-based fuels (coal) have been used to provide for these additional energy needs.

As stated in chapter 4, ongoing scientific research is working to identify the potential impacts of greenhouse gases (GHG) on global climate. Our analysis recognizes that the addition of non-carbon fueled electric generation sources could reduce future GHG emissions. Further, the addition of alternate sources of electric generation would potentially help to conserve carbon-based fuels and provide a broader portfolio of electric sources. However, the environmental effects and impacts associated with the wide variety of renewable electric generation technologies are well beyond the scope of this EIS. Individual projects associated with alternative electric generation technologies would be evaluated and analyzed on their own merit separately under the NEPA process. In order for an alternative energy project to come to fruition, there must first be a valid proponent to propose, support, and fund the project.

BLM has wide discretion in determining the extent and identification of lands to consider offering in response to a coal lease application. The FEIS addresses a full range of alternatives to the lease by application (LBA) submitted by the applicant. The range includes an alternative which would represent all lands that include coal reserves that are comparable to those applied for, which may be efficiently recovered with the LBA, which may enhance competitive interest in the tract, and which could be bypassed if not leased. On the other end of the range is the No

Action Alternative. Under the No Action Alternative, ongoing mining activities would continue and no new coal reserves would be leased to Kiewit.

## B) Human Health and the Environment

In the FEIS, noise impacts are covered in section 3.14.2, Human health is covered in section 3.18.2, and environmental justice is covered in section 3.17.7.2.

BLM does not have expertise regarding conducting human health assessments. During preparation of the EIS, BLM contacted the Wyoming Department of Health/ Environmental Health Section and invited them to review and provide comment on the EIS. BLM has also contacted the Center for Disease Control and Prevention. Both agencies declined to participate.

The FEIS identifies both site-specific (i.e., specific to the Buckskin Mine) and cumulative impacts to air quality. This is done by including monitoring data for a variety of regulated air pollutants, as well as predictive models that estimate pollutant concentrations and other air quality parameters based on emission and climate models. The analysis discloses actual and modeled air quality impacts and is available to anyone wishing to see it.

Air pollution is controlled by state and federal air quality regulations and standards established under the federal Clean Air Act (CAA) amendments of 1990, administered by the Environmental Protection Agency (EPA). The EPA established the National Ambient Air Quality Standards (NAAQS) under the authority of the CAA. The Wyoming Ambient Air Quality Standard (WAAQS) for the PM<sub>10</sub> annual, the SO<sub>x</sub> annual, and 24-hour levels are more stringent than the NAAQS and are enforced by the Wyoming Department of Environmental Quality (WDEQ), Air Quality Division (AQD). State implementation plans are in place to ensure that proposed actions like coal mining comply with all associated air quality regulations and criteria. WDEQ/AQD issues permits to mine coal under the authority delegated to them by the EPA under the CAA. In Wyoming, mines in the PRB are permitted under the CAA as regulated emission sources. Permits issued by the WDEQ identify mitigation measures that the permittee must implement in order to comply with the permit. These measures, currently in place at the Buckskin Mine as well as other PRB mines, are described in section 3.4.2.3 of the EIS. The WDEQ/AQD is authorized to condition permits as necessary for mitigation, and they will not permit an activity that does not comply with the WAAQS.

Large surface coal mines in the PRB have the potential to become particulate emission sources contributing to air quality degradation. As stated in section 3.4.2.1 and section 3.4.2.3 of the EIS, the WDEQ/AQD requires the Wyoming PRB mines to collect air quality data. The eastern Powder River Basin is one of the most intensely monitored areas in the world for air quality. As explained throughout the EIS, WDEQ/AQD has, by statute, the authority and responsibility to require mitigation for air quality impacts.

Ozone is included in the EIS discussion regarding NO<sub>x</sub> emissions since NO<sub>x</sub> is one of the main components involved in the formation of ground level ozone. As previously discussed, EPA is the agency chiefly responsible for national air quality regulations and authorities concerning ozone, CO<sub>2</sub>, and the development of national standards.

Ozone monitoring is not required by WDEQ at the PRB coal mines; however, the agency has been monitoring ozone at sites in the PRB since 2001. An exceedance of the O<sub>3</sub> 8-hour standard

occurs if the fourth-highest daily maximum value is above the level of the standard. On January 6, 2010, EPA proposed to strengthen the NAAQS for ground-level ozone. The agency is also proposing to strengthen the 8-hour “primary” ozone standard to a level within the range of 0.060-0.070 ppm. Comments received on the proposed monitoring requirements are being accepted, and the WDEQ plans to issue a final rule in coordination with the final ozone standards by the end of July 2011.

Table 3.4-4 shows the O<sub>3</sub> standard has not been exceeded at the Thunder Basin National Grassland north ozone monitor (the monitoring site closest to the Buckskin Mine, about 20 miles northeast of the mine) when evaluated under the standard in place at the time the values were recorded. For the PRB region, exceedances of the current standard (75 ppm) have been recorded at Thunder Basin and some high values (greater than 65 ppm) have been recorded at the South Campbell County and Devils Tower stations in recent years. Although the northern PRB is still considered an ozone attainment area, there is potential for this area to be designated “non-attainment” if a new lower standard is established.

Determining if an area could be deemed “non-attainment” for ozone after the new standard is issued requires air monitoring results in the area to show that the three-year average of the fourth highest daily maximum 8-hour average exceeds the standard. This determination requires three years of monitoring data, documented exceedances of the standard, and the state designating a geographic area around the monitored area. EPA has to approve this geographic area, and the state would then prepare a SIP (state implementation plan) outlining how the area is to be brought back into compliance. The resulting SIP would outline regulatory measures that would pertain to all air quality permits in that area. If a new standard is issued, it would immediately become effective. Wyoming may adopt the new standard into its rules, but until it does, there would be two standards in effect (state and federal). Compliance would be determined in accordance with the more stringent standard.

The comment submits the statement that ozone levels in the PRB are very close to non-compliance. BLM cannot make that assertion based on the limited data that are currently available, both temporally and spatially, for the PRB. For example, the highest recorded value occurred in 2003, seven years in the past. Additional data from these two sites and preferably a larger ozone air quality monitoring network that covers more of the basin is needed before any trends can be clearly defined.

Section 3.17.7 in the EIS addresses environmental justice and the impacts related to the proposed leasing of the Hay Creek II tract. The cumulative visibility impacts resulting from projected development within the Powder River Basin would be no more acute for Native American populations than for the general public. The Northern Cheyenne have been included in the scoping and public review of this EIS.

### C) Contemporaneous Reclamation

Section 1.1.3.4 discusses reclamation activities, and table 1-3 provides a summary of land status acreage at the Buckskin Mine. Contemporaneous reclamation required by the state of Wyoming is also occurring at the mine. The Buckskin Mine meets or exceeds the reclamation requirements set forth. BLM is not aware of “the lack of contemporaneous reclamation at the mine,” or any documentation concerning the reclamation procedures leading to “the spread of noxious weeds and reduced acreage for livestock and wildlife habitat,” and “reduced air quality” due to

improper reclamation practices. The mine's annual Monitoring Report (on file with the WDEQ in Sheridan, Wyoming) goes into detail on stock and wildlife grazing areas and noxious weed control.

The Surface Mine Control and Reclamation Act (SMCRA) is the federal law regulating surface coal mining. BLM has no authority under SMCRA to prescribe or enforce the reclamation of coal-mined lands in Wyoming. The WDEQ, Land Quality Division (LQD) permits, regulates, and monitors coal mining and reclamation. Three acts regulate coal mining and reclamation in Wyoming: 1) Wyoming's Open Cut Reclamation Act of 1969; 2) Wyoming State Environmental Quality Act of 1973; and, 3) the federal act, SMCRA. The state of Wyoming has the overall authority and enforces these federal and state acts through the WDEQ/LQD.

As thoroughly detailed in the "Reclamation Activities" section of the EIS, the WDEQ statutory and regulatory requirements outline strict parameters for coal-mine reclamation procedures, species composition, final land surface contour, and environmental sustainability. The SMCRA requires sufficient bonding to cover anticipated reclamation costs. When mining is permitted, the WDEQ/LQD sets the bond amount for reclamation of all disturbed lands, and the operator posts an acceptable bonding instrument for this amount with the state of Wyoming. The reclamation bond is not released until a minimum of 10 years have elapsed from the date of final seeding, and the WDEQ/LQD has determined that all reclamation verifications have occurred.

The WDEQ/LQD monitors monthly all lands within the mining permit boundary, and these lands must pass requirements set by state law beyond the mine's termination of their permit. The WDEQ does not require the mines to complete final bond release as long as contemporaneous reclamation is proceeding at the required rate and to the required standards set by state and federal laws and reclamation has met permit standards. A percentage assessment of lands that have been released from final bonding requirements is not an accurate assessment of contemporaneous reclamation.

In the interim between initial reclamation and final bond release, condition and status of the lands are monitored by the WDEQ/LQD, and that information is publically available from their Cheyenne office. Reclaimed lands, regardless of the bond release status, are used by wildlife and often grazed by livestock (regulated and monitored by the WDEQ).

Tables 4-2 and 4-3 in the EIS summarize actual and projected disturbance and reclamation through 2020. The total disturbance (including active mining and mined but unreclaimed, as well as disturbed but unavailable for reclamation, due to being occupied by long term structures or facilities) as well as areas permanently reclaimed is displayed. The trend is that the acreage (including active mining and mined but unreclaimed) is expected to increase slowly, less than one percent per year, as is the acreage of land disturbed but unavailable for reclamation. The rate of permanent reclamation will be more rapid (about 4% per year). The ratio of total land reclamation to total land disturbance was around 30% in 2003, and is expected to be 45% by 2010, and approaching 60% by 2020. As of 2008, the actual ratio of total land reclamation to total land disturbance was about 45% (29,100 acres permanently reclaimed out of a total disturbance of 64,100 acres) for the Wyoming PRB mines. Of the total unreclaimed disturbance, about 23,000 acres were unavailable for reclamation (stockpiles, facilities, and sediment control) and 35,000 acres were in active mining operations (active pits and haul roads).

We believe the comment may be incorrectly equating contemporaneous reclamation with final bond release. There is a difference between lands that are in various stages of reclamation and those that have been reclaimed and released from final bonding requirements. Several phases of bond release the mine operators may apply for represents every task from replacing the backfill, to the approved contour, to placing topsoil, and permanent seeding. Final bond release on reclaimed lands indicates that the reclamation meeting permit standards has been in place for at least 10 years and that an application for final bond release was submitted to WDEQ.

Reclamation plans are submitted during the permitting process for approval by the WDEQ. These plans are based on the individual mining company's mining progression. The WDEQ approves or rejects these plans based on the mining progression of the individual mine and the space needed for long-term facilities, sedimentation reservoirs, haul roads, diversions, and topsoil stockpiles. The reclamation plan is evaluated against the individual mine progression by the WDEQ to ensure reclamation is directly following the mining extraction process.

#### D) Analyze and Mitigate Impacts to Groundwater Quantity

Water resources specific to the Hay Creek II study area are covered in section 3.5, with groundwater being specifically covered in section 3.5.1. The Buckskin Mine's annual report discusses water issues within the mine permit boundary. There is also a cumulative water modeling study, completed by BLM as part of the Powder River Basin Coal Review that provides further information on how surface and groundwater resources have been and would be affected by regional development activities. This report, completed in December 2009, can be found on the BLM Wyoming web site at

[http://www.blm.gov/wy/st/en/programs/energy/Coal\\_Resources/PRB\\_Coal/prbdocs.html](http://www.blm.gov/wy/st/en/programs/energy/Coal_Resources/PRB_Coal/prbdocs.html)

The SMCRA and Wyoming state law require that the surface coal-mine operator provide the owner of the affected water right with water of equivalent quantity and quality.

For the purposes of identifying and disclosing potential impacts, the FEIS assumes that: 1) the LBA is offered for lease, 2) that the successful lessee is the applicant mine, and 3) that the mine applies for, and is granted, a permit to mine the LBA in a manner similar to mining already permitted on other lands at the applicant mine. The EIS includes an evaluation of these potential impacts in chapter 3 (sections 3.5, 3.6, and 3.7) and in chapter 4 (sections 4.2.4.1, 4.2.5, and 4.2.6).

Under SMCRA and Wyoming law, a number of specific studies would be done. The results of those studies would be the deciding factor as to whether or not a permit to mine any lands that might be leased in the Hay Creek II LBA would be approved. At that time, the specific plan to develop the LBA would be known. The WDEQ/LQD would develop a cumulative hydrologic impact assessment (CHIA) to look at how mining the LBA, along with any other already approved mining, would affect groundwater and the recharge contribution. Also a system of wells to monitor groundwater would be specified. The management of surface water flows during mining, as well as the restoration of surface water flow systems post mining would be specified in any mining permit to develop the LBA, if leased.

The EIS includes a thorough evaluation of water resources in section 3.5, 4.2.4, and 4.2.5. Please review these sections, and in particular, see section 4.2.4.1 for the groundwater cumulative impact analysis which includes coalbed methane/natural gas development.

## E) Analyze and Mitigate Climate Change Impacts

The EIS discloses the potential effects to the natural and human environment from the proposed leasing of a tract of subsurface coal which will be used to maintain production at the Buckskin mine in the PRB of Wyoming. Although leasing this tract would not authorize mining operations on the tract, the EIS evaluates the potential impacts of mining because it is a logical consequence of issuing a lease for a maintenance tract of coal. The EIS assesses the site-specific impacts resulting from a range of alternative actions to the proposed action of leasing a specific tract of land. The EIS also assesses the cumulative impacts on the environment, which results from the incremental impact of the proposed LBA when added to other past, present, and reasonably foreseeable future actions that would add to the impact of the proposed action.

Climate change as it relates to coal mining is addressed in chapter 3 (section 3.18.3), and in chapter 4 (section 4.2.14.1) as it relates to coal mining and coal use. In chapter 4, the contribution of the site-specific alternatives to cumulative effects on the environment is evaluated. To do this, we assume that coal mining will proceed in accordance with permit conditions and that coal from the Buckskin Mine will be sold on the open market. We further assume that this coal will be sold to coal users in response to forecasts of demand for this coal. Historically these users have been electric utilities in the United States, although there is potential for sales outside the US. This coal market is open and competitive, and users can buy from the most cost-effective suppliers that meet their needs.

Section 4.2.14.1 and section 4.2.14.2 of the FEIS provide estimates of the amount of GHG emissions that could be attributed to coal production because of leasing the proposed LBA, as well as from the forecast coal production from all coal mines in the Wyoming PRB. We assumed that all PRB coal was used for coal-fired electric generation as part of the total US use of coal for electric generation. This gives an upper estimate of the GHG resulting from using the coal produced from the proposed LBA and for forecast total PRB coal production. The estimate was calculated by relating the portion of coal produced in the Wyoming PRB to national steam coal totals, and then applying that ratio to the total emission of GHG estimated in the US from coal-fired electric generation.

Additionally the EIS states that policies regulating specific levels of significance have not yet been established for GHG emissions. Given the state of the science, it is not possible to associate specific actions with the specific global impacts such as potential climate effects. Since there are no tools available to quantify incremental climate changes associated with these GHG emissions, the analysis cannot reach conclusions as to the extent or significance of the emissions on global climate. The potential impacts of climate change represent the cumulative aggregation of all worldwide GHG emissions. The EIS provides a meaningful context and measure of the relative significance of coal use from a lease under the Proposed Action and alternatives and overall projected PRB coal production on total GHG emissions.

The use of carbon-based fuels as a primary fuel for electric generation results in the release of a large quantity of CO<sub>2</sub>, a greenhouse gas, as estimated and disclosed in the EIS. A large portion of our existing domestic electric generating capacity is designed for carbon fuels. While there is presently substantial interest and potential public policy and regulation to move from carbon fuels for electric generation, the demand for electric power is not forecast to decrease.

Focus is on the amount of CO<sub>2</sub> resulting from the historic burning of PRB coal as though any continuation of PRB coal use would be a new impact, and thereby significant. The EIS states that the continued release of CO<sub>2</sub> for electric generation is uncertain, and depends on economics and future regulation of coal users. Further, the assumed mining and use of this coal in the future depends on sustained, but uncertain, demand for PRB coal and coal in general. The EIS applied published forecasts of coal use to establish the likely continuation of coal for electric generation into the foreseeable future. On this basis, it is forecast that there would be some reduction in coal-fired electric generation, which may or may not affect the historic ratio of PRB coal in the national or international market.

The EIS addresses the environmental effects of leasing coal and the logical result that the coal is mined by an operator of an existing, adjacent mine. The EIS further discloses the indirect emissions based on the presumption the mined coal is burned to produce electricity. The EIS does not address regulation of GHGs or set standards for carbon fuel use. In a regulatory structure where GHG control costs factor into electric generation costs, coal users would likely weigh these costs into capital and operating decisions. Electric generation activity is directly influenced by consumer demand. If electricity cannot be supplied to meet demand, power prices rise until the demand falls. Measures to reduce GHG emissions from coal burning are applied where the coal is consumed, because the coal consumer must comply with regulatory and price constraints, which will bear on fuel choices. Infrastructure, equipment availability, incentives, and cost also determine the potential for switching to noncarbon-based electric generation. Mining the leased coal and the continued operation of a Powder River Basin mine is not directly tied to any existing or proposed electric generation facility. Limiting one or even several points of fuel supply will not affect coal use because of the diverse group of national and international suppliers.

The effects of black carbon as a particulate are included in the discussion of the effects of particulates on air quality. State-enforced mitigation procedures for the effects of black carbon are already in place at coal mines and coal combustion facilities.

The FEIS recognizes the effects of historic warming on the western US. We have assumed that existing land and resource conditions within the analysis area have been and will continue to be affected by climate change under all alternatives including the No Action Alternative. Existing climate prediction models are not at a scale sufficient to estimate potential impacts of climate change within the analysis area. We have referenced available national and regional data, most recent being the report, *The Effects of Climate Change on Agriculture, Land Resources, Water Resources and Biodiversity in the United States* (US Climate Change Science Program 2008). A recent report, *Global Climate Change Impacts in the United States*, defined the relative degree of climate change effects that could be experienced in the future in the various regions of the United States. (Karl et al. 2009). The report uses two scenarios to bracket potential climate effects and is broken into regions which divide up the US. The Wyoming PRB is in the Great Plains region, which is characterized by strong seasonal climate variations. Historically the area has been subject to prolonged drought followed by wetter conditions. Average temperature increases have been predicted in the region with the greatest changes being in the winter such that commonly very cold days would become less common and warmer wetter weather more common. Under the higher heat trapping emission scenario temperatures are projected to increase over the next 100 years more so than under the lower heat trapping emission scenario. The milder winters and

longer growing season is expected to favor larger numbers of insects that appear earlier and persist longer into the season. The change in climate is expected to cause a shift in wild plant and animal distributions favoring those species which are better suited for the warmer wetter climates that both the lower emission and higher emission scenarios predict for the Powder River Basin. With increasing precipitation, soil erosion in drainages and sheet flow across the land surface is expected to increase.

BLM recognizes that methane or CBNG is a valuable energy resource, and has policies encouraging methane development, where economically feasible, in advance of coal mining. The analysis in the EIS (section 3.3.2.1) states that CBNG has been commercially produced in the PRB since 1989. The document goes on to say that coal seams were already substantially depleted of CBNG in the vicinity of the mines in 2000 as a result of mining. By 2005, drilling activity in the areas adjacent to the coal mines declined significantly, and little to no interest has occurred in this area since.

Methane was identified as a GHG in the section (4.2.14.1) on climate change and global warming. The potential release of methane as a direct result of mining and other activities in the PRB has been discussed. The EIS gives estimates of GHG emissions resulting from specific operations at the Buckskin Mine as projected under the proposed action and alternatives over the life of the lease. The projections reflect general mining activity in the PRB region and specific estimates derived by CO<sub>2</sub>e foot printing of the Buckskin Mine operation.

Surface mines vent methane to the atmosphere in varying amounts as the coal is exposed, depending on the amount of methane extraction that has occurred or is occurring in advance of mining. We have recognized that large volumes of methane have been recovered in advance of mining, and that by the time the coal is mined, methane in commercial quantities has been depleted. The calculated amount for methane release at the Buckskin Mine's exposed coal face is included in the FEIS CO<sub>2</sub>e calculations.

Pre-mining drainage of coal seam gas in front of surface mines in the Powder River Basin by CBNG operators is a common practice where the geology is favorable and gas is present in sufficient quantities. Less common is the pre-mine drainage of non-commercial methane and/or flaring of low quality gas as a part of emission reductions (ER) programs. Such programs might be supported by protocols adopted by a voluntary carbon market registry, like the voluntary carbon standard (VCS). A flaring project provides the benefit of destroying large volumes of potent greenhouse gas (methane) and releasing the much weaker by-product of combustion (carbon dioxide). The economics to sustain an ER flare project are solely based on the revenue received by the operator from the resulting sale of carbon offset credits in the voluntary market. Consequently, project financing is determined based on future market pricing for carbon credits. For example, estimates for a prospective flare ER project at the North Antelope Rochelle Mine require a price greater than \$4.00/ton CO<sub>2</sub>e, just to cover development and operating costs.

In order to qualify for carbon credits in the voluntary carbon market, among other things, a project must meet two essential requirements. First, the project must be voluntary (i.e. not be required by applicable law or regulation), and second the project must overcome one or more financial, technological, or institutional barriers to its implementation (as defined by the applicable carbon registry).

Several factors must be in place before a pre-mine drainage of non-commercial methane gas project (such as a flare project) can be implemented.

- The geologic conditions for eligible mining operations must favor the presence and retention of coal seam gas. At many of the active mining operations in the Powder River Basin, the major coal seams are interrupted by faulting, ribbon splits, or the presence of paleolithic sand channels which have removed part or all of the coal seam in limited zones in the active mine and proposed lease areas. At the Buckskin Mine, for instance, there are significant sand channels present within and surrounding the mine. These discontinuities in the coal seam have had the effect of “drying” the coal seam locally. This means that the methane was naturally released from the coal seam in the distant past, and there is little gas remaining to be captured from the impacted area. Where commercially recoverable methane did exist, it has already been removed by CBNG operators working the Hay Creek II LBA general analysis area and by methane operators working out in front of the mining operations in the PRB.
- If gas remains in sufficient quantities for flare project operations, the mine operator must be able to obtain land and mineral use authorizations for the remaining non-commercially recoverable methane.
- The quality and quantity of the methane gas within the coal seam must be considered. In some cases there is not enough methane gas remaining after CBNG operators have completed their operations to support flaring. Further, methane may be present in sufficient quantities to support an ER operation, but has been so contaminated by introduction of air (nitrogen) that it will not support combustion without assistance, making it costly and impractical to flare.

Oil, gas, and coal leases are subject to different regulations, depending on whether the leases are state, federal, or privately owned. Some action has been taken authorizing development and operation of flare ER projects on state regulated minerals. On federally regulated minerals, the regulatory framework necessary to support flare ER operations has not yet been developed.

Flaring is not reasonable at the Buckskin Mine, because:

- The federal gas leases on lands in the Hay Creek II LBA study area cannot be permitted for methane flaring. This condition, therefore, is not met.
- The Buckskin Mine must own the oil and gas rights associated with any methane under consideration and have the requisite infrastructure in place to operate a flaring project. This condition is not met.
- The Hay Creek II LBA does not contain state or fee coal.

At the Buckskin Mine, the requirements for flaring methane currently cannot be met.

Managers of coal and oil/gas (including CBNG) at the BLM Wyoming State Office and the Buffalo Field Office are aware of the issue regarding venting of methane vs. the flaring of methane in order to reduce CO<sub>2</sub>e on federal coal leases before mining.

#### F) Analyze Impacts from Coal Burning Such as Mercury and Combustion Waste Disposal

The EIS addresses mercury and combustion waste disposal in a cumulative context in chapter 4 (4.2.14.5). There is only one mine in the Wyoming PRB currently accepting coal combustion by-products from coal mined on site. The Buckskin mine is not permitted to dispose of coal combustion by-products and so does not accept them.

#### G) White Energy Coal Drying Proposed Project

White Energy Coal North America, Inc. (WECNA) a U.S. subsidiary of White Energy Company Limited based in Sidney, Australia has proposed the facility. Buckskin anticipates leasing property and an access right-of-way to WECNA. The mine also proposes to sell coal to the White Energy facility should they meet market value. Final negotiations have yet to be completed. Since the mine is not proposing the project, they are neither responsible for the permitting applications associated with the project nor do they have access to any of the data required to conduct an analysis of the proposed project for this EIS.

White Energy is responsible for all permitting associated with this project. The company is in the process of developing a CO<sub>2</sub>e footprint for the facility.

WDEQ received an application for the project on December 3, 2010. The White Energy project is solely under the jurisdiction of the WDEQ and information concerning it can be found through the WDEQ.

The proposed Ambre facility in Montana (if this is the facility referred to in the comment) is not similar to White Energy's proposal. The Ambre facility is a coal to liquids process, which is quite different from White Energy's proposal of a coal drying to briquettes process proposed at the Buckskin Mine.

The facility proposed by White Energy is not in any way connected to the Hay Creek II lease or dependent upon it. Regardless of whether the Hay Creek II tract is offered for lease, and regardless of the BLM preferred tract configuration should BLM offer a tract, the White Energy proposed facility is expected to succeed or fail of its own accord.

Correction: Kiewit does not have a proposed coal drying facility. White Energy Coal North America, inc. has proposed a coal drying facility on surface owned by Buckskin Mine. If such a facility is built it is proposed to be outside the mine's permit area.

#### H) DM&E Railroad

The paragraph in section 4.1.1.2 discussing the DM&E rail line is accurate. The decision is still contingent on the listed conditions. The eminent domain suit does not change the facts presented. No changes will be made to the paragraph.

#### I) Wygen III Addition to EIS

Wygen III has been added to the discussion in section 4.1.1.2.

#### J) Two Elk Unit #2

North American Power Group (NAPG) has had permits for Two Elk Unit #1 since 1997, but has yet to construct any facilities. Wyoming Power Company (a subsidiary of NAPG) has a proposal for Two Elk Unit #2, a new project. Some paperwork had been filed with the WDEQ/AQD,

which was returned in March 2010. We have found no further formal information available. The paragraphs on Two Elk units #1 and #2 have been modified in section 4.1.1.2 the final EIS to reflect currently known information. Thank you.

7



# United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services

5353 Yellowstone Road, Suite 308A  
Cheyenne, Wyoming 82009

MAY 03 2010

COPY

In Reply Refer To:  
ES-61411/WY10CPA0111  
Memorandum

To: Environmental Protection Specialist, Bureau of Land Management, High Plains District Office, Casper, Wyoming,

From: *for* Field Supervisor, U.S. Fish and Wildlife Service, Wyoming Field Office, Cheyenne, Wyoming *Scott Hecker*

Subject: Comments for the Buckskin Mine Hay Creek II Coal Lease Application Draft Environmental Impact Statement

Thank you for your letter dated March 3, 2010, received in our office on March 16, regarding the Draft Environmental Impact Statement (DEIS) for the Buckskin Mine Hay Creek II Coal Lease Application in northern Campbell County, Wyoming. This tract is located northwest and immediately adjacent to the existing Buckskin Mine. This DEIS assesses the environmental consequences of the competitive, sealed bid sale and lease for the federal coal reserves included in the proposed tract to Kiewit Mining Properties, Inc. The U.S. Fish and Wildlife Service (Service) previously provided scoping comments to the Bureau of Land Management on September 24, 2008, (WY08FA0200) on the Hay Creek II Lease Application. In response to your request for our review of the DEIS, the Service is providing the following comments.

### General Comments

The DEIS should be updated to reflect the current status of sensitive, threatened, and endangered species within the project area (see <http://www.fws.gov/wyominges/PDFs/CountySpeciesLists/Campbell-sp.pdf> for current species information).

Greater Sage Grouse: The Service has determined that the greater sage-grouse warrants listing under the Act (75 FR 13910). At this time, the development of a listing proposal is precluded by other higher priority listing actions. Candidates are reviewed annually to determine if they continue to warrant listing or to reassess their listing priority. Ideally, sufficient threats can be removed to eliminate the need for listing in which case sage-grouse would no longer be a candidate. If threats are not addressed or the status of the species declines, a candidate species can move up in priority for a listing proposal.

Greater sage-grouse are dependent on sagebrush habitats year-round. Please see our Federal Register notice on sage-grouse for detailed information concerning the status of the species (75 FR 13910). Habitat loss and degradation, as well as loss of population connectivity, have been identified as important factors contributing to the decline of greater sage-grouse populations rangewide. Therefore, any activities that result in loss or degradation of sagebrush habitats that are important to this species should be closely evaluated for their impacts to sage-grouse. If important breeding habitat (leks, nesting or brood rearing habitat) is present in the project area, the Service recommends no project-related disturbance March 15 through June 30, annually. Minimization of disturbance during lek activity, nesting, and brood rearing is critical to sage-grouse persistence within these areas. Likewise, if important winter habitats are present, we recommend no project-related disturbance November 15 through March 14.

} B

We recommend you contact the Wyoming Game and Fish Department to identify important greater sage-grouse habitats within the project area, and appropriate measures to minimize potential impacts from the proposed project.

} C

The Service recommends surveys and mapping of important greater sage-grouse habitats where local information is not available. The results of these surveys should be used in project planning, to minimize potential impacts to this species. No project activities that may exacerbate habitat loss or degradation should be permitted in important habitats.

} D

Mountain Plover: The Service has agreed to reopen the comment period in 2010 on the proposed rule to list the mountain plover as a threatened species (67 FR 72396, December 5, 2002) and to complete a new final determination on the proposal by May 1, 2011. Once the comment period is reopened and pending the completion of the new final determination, the mountain plover will be proposed for listing. Section 7(a)(4) of the Act, requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of any species proposed for listing. Federal action agencies may also request a conference on any proposed action that may affect a species proposed for listing.

We encourage project planners to develop and implement protective measures should mountain plovers occur within project areas. Measures to protect the mountain plover from further decline include: (1) avoidance of suitable habitat during the plover nesting season (April 10 through July 1), (2) prohibition of ground disturbing activities in prairie dog towns, and (3) prohibition of any permanent above ground structures that may provide perches for avian predators or deter plovers from using preferred habitat. Suitable habitat for nesting mountain plovers includes grasslands, mixed grassland areas and short-grass prairie, shrub-steppe, plains, alkali flats, agricultural lands, cultivated lands, sod farms, and prairie dog towns. We strongly encourage you to develop protective measures with an assurance of implementation should mountain plovers be found within the project areas.

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} E

## Specific Comments

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Chapter 3: Chapter 3 is missing a section for threatened, endangered, proposed, candidate, and BLM sensitive plant species, and therefore is missing a discussion of Ute ladies'-tresses (*Spiranthes diluvialis*), blowout penstemon (*Penstemon haydenii*), and BLM sensitive plant species.

F

Section 3.10.5.2 Raptors, Environmental Consequences (p. 3-118 and 3-119): This section states that the Buckskin Mine has a Service-approved raptor mitigation plan in place for the existing permit area and that the plan would be revised during the permitting phase to accommodate the proposed tract. We understand that the current Raptor Mitigation Plan for Buckskin Mine will expire in 2010, and that the new area has not been included in the Plan. Specifically, raptor nest locations and status should be updated, and the effective date should extend beyond 2010. Since the DEIS evaluates the consequences to nesting raptors and uses mitigation and protections from the Buckskin Mine Raptor Mitigation Plan, the Service recommends that the Raptor Mitigation Plan be updated as soon as possible, to adequately evaluate the effects to raptors in the area.

G

Section 3.10.10 Regulatory Compliance (p.3-147): The DEIS states "restoring sage-grouse habitat after mining including reestablishment of sagebrush and other shrubs on reclaimed lands and grading reclaimed lands to create swales and depressions...". At the end of the sentence, we recommend adding "consistent with the pre-mining topography."

H

Appendix I (p.I-4, p.I-17): Black-footed ferrets (*Mustela nigripes*) are no longer listed on the Campbell County Species List and would not need to be addressed in the Biological Assessment.

I

Appendix I (p.I-6): The DEIS refers to the "required use of raptor-safe power lines" and "minimizing electrocution hazards to raptors". We recommend adding the citation "APLIC (2006)" to refer the reader to the specific measures to avoid impacting raptors.

J

Thank you for the opportunity to comment on the Hay Creek II DEIS. We look forward to reviewing the EIS and biological assessment prior to finalization. Please feel free to contact our office at any time to discuss issues or concerns regarding this proposed coal lease. If you have any questions regarding this letter, please contact Pauline Schuette at (307) 684-1069.

cc: BLM, Threatened and Endangered Species Coordinator, Cheyenne, WY (T. Abbott)  
 WGFD, Statewide Habitat Protection Coordinator, Cheyenne, WY (M. Flanderka)  
 WGFD, Non-Game Coordinator, Lander, WY (B. Oakleaf)

**References**

Avian Power Line Interaction Committee (APLIC). 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA. 207pp.

Braun, C.E. 1998. Sage grouse declines in western North America: What are the problems? Proceedings of the Western Association of Fish and Wildlife Agencies 78:139-156

Wisdom, M.J., B.C. Wales, M.M. Rowland, M.G. Raphael, R.S. Holthausen, T.D. Rich, and V.A. Saab. 2002. Performance of Greater Sage-Grouse models for conservation assessment in the Interior Columbia Basin, USA. Conservation Biology 16: 1232-1242.

## BLM RESPONSES TO COMMENT LETTER 8

### A) Updated Species Status

The status of threatened, endangered, candidate, and proposed species has been updated in the final EIS as requested by biologist Pauline Schuette, U.S. Fish and Wildlife Service (FWS), Wyoming Ecological Services Field Office, Buffalo, Wyoming.

### B) Sage-grouse and Sagebrush

BLM understands and agrees that sage-grouse need to receive protection as set by the U.S. Department of the Interior and the state of Wyoming. Sections 3.10.6.1 (“Affected Environment”) through 3.10.6.2, (“Environmental Consequences”) in the final EIS contain a thorough discussion on upland game birds, particularly sage-grouse in the Hay Creek II LBA general analysis area. Given the dominant vegetation types in the general analysis area (upland grasslands and agricultural fields), and the lack of regular sightings over the last 26 years of monitoring, especially outside the breeding season, it is unlikely that either the sharp-tailed grouse or the sage-grouse is a yearlong resident.

### C) Wyoming Game and Fish Department

The Wyoming Game and Fish Department (WGFD) was contacted at the beginning of the EIS process and invited to be a cooperator but declined that opportunity. The agency was also contacted and consulted on this project during scoping, again during the draft document review process, and will be sent the final document for review. In a letter to the BLM, dated May 6, 2010, the WGFD stated that it has no concerns about terrestrial or aquatic species pertaining to the Hay Creek II LBA coal lease application.

### D) Surveying and Mapping Greater Sage-grouses Habitat

Greater sage-grouse habitats within the EIS general analysis area and for several miles outside the general analysis area have been mapped, plotted, reviewed, and analyzed for all vegetative communities, including sagebrush and other important habitats.. Please see section 3.10.6 (“Upland Game Birds”), and appendix J (“Biological Assessment”) for sage-grouse discussions.

Due to its proximity to the existing Buckskin Mine permit area, the southern third (33%) of the general analysis area was included in annual wildlife surveys for sage-grouse from 1984 through 2001. Approximately 95% of the general analysis area was surveyed annually from 2002 through 2006 in conjunction with a previous permit amendment at the mine. The entire (100%) general analysis area and additional lands within 2.0 miles of that area were included in targeted baseline surveys conducted for the Hay Creek II EIS from late 2007 through 2010. All baseline and annual monitoring reports for the Buckskin Mine are part of the public record and are available at the Sheridan WDEQ office. All such reports and surveys have been used in the sage-grouse evaluation in this EIS.

### E) Mountain Plover Protective Measures

Please see section 3.10.7.1 and section 3.10.10 of the EIS. No mountain plovers have been documented in the general analysis area during wildlife monitoring conducted for the Hay Creek II tract or the adjacent Buckskin Mine through 2010. Nevertheless, the existing Buckskin Mine permit document already includes species-specific protective measures for the mountain plover.

Should the mine acquire the Hay Creek II coal lease, all existing species-specific protective measures and monitoring and mitigation requirements for mountain plovers and other species of concern would automatically be applied to all newly leased and permitted lands.

The BLM does not issue permits for surface disturbance activity for coal mining, nor does the BLM manage mine operations or approve mitigation measures for animal species on private lands in Wyoming being considered for subsurface coal leasing. The WDEQ and the Office of Surface Mining Reclamation and Enforcement (OSM) issue permits and approve mitigation and monitoring measures for coal mining based on input from the FWS and WGFD. Therefore, assurance of implementation of species-specific protective measures and monitoring and mitigation requirements would be the responsibility of these agencies during their review of annual monitoring reports and periodic renewals of avian monitoring and mitigation plans. However, mountain plovers have been addressed in a memorandum from the FWS to BLM's Wyoming State Director (April 5, 2007), available at <http://www.blm.gov/style/medialib/blm/wy/wildlife/mtnplover.Par.50309.File.dat/finalMountainPlover.pdf> as well as in the Final Report: Mountain Plover (*Charadrius Montanus*) Biological Evaluation and the Species Assessment for Mountain Plover (*Charadrius Montanus*) in Wyoming (Smith and Keinath 2004) Both documents are available at <http://www.blm.gov/wy/st/en/programs/Wildlife/mtn-plover.html>.

#### F) Missing Sensitive Plant Species Discussion

A summary of the discussion in appendix K has been summarized as section 3.9.3 in chapter 3 of the final EIS.

#### G) Raptor Mitigation Plan for Buckskin Mine

The text for raptors in sections 3.10.5.2 (“Affected Environment”) and section 3.10.10 (“Regulatory Compliance, Mitigation and Monitoring”) has been revised to clarify that the current FWS-approved avian monitoring and mitigation plan for the Buckskin Mine would be updated. The update would incorporate mitigation measures to minimize impacts to nesting raptors prior to any new disturbance associated with new leasing actions, if the tract is offered for lease and if Buckskin mine is the lessee. This, of course, depends on whether the tract is offered for lease and if Buckskin Mine were the lessee Raptor mitigation would be addressed as part of a mine permit regardless of the lessee.

#### H) Edit

The sentence has been edited as requested.

#### I) Black-footed Ferrets

Although the black-footed ferret is no longer included on the Campbell County list of threatened and endangered species, it remains as a federally listed species. Therefore, this species is addressed in Appendix J (“Biological Assessment”) of the EIS, as per BLM policy.

#### J) Citation Recommendation

The citation “APLIC (2006)” has been added to page J-7 of the Biological Assessment (appendix J of the final EIS) and a full reference has been added to page J-37.

Brenda J Johnson <bjjohnso@usgs.gov>  
04/20/2010 08:53 AM  
To  
Hay\_Creek\_II\_WYMail@blm.gov  
cc  
Gary D Lecain <gdlecain@usgs.gov>  
bcc

Subject  
Wyoming Powder River Basin

Teresa Johnson,

The USGS has reviewed the Draft Environmental Impact Statement for the Wyoming Powder River Basin at the Buckskin Mine in Campbell County and has no comments.  
Thanks

Brenda

\*\*\*\*\*  
Brenda Johnson  
Environmental Management Branch (EMB)  
Administrative Assistant  
U.S. Geological Survey Mail Stop 440  
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## BLM RESPONSES TO COMMENT LETTER 9

Thank you very much for taking the time to review the Buckskin Mine Hay Creek II Draft EIS.

9



May 11, 2010

Wyoming High Plains District Office  
 Bureau of Land Management  
 Attn: Teresa Johnson  
 2987 Prospector Drive  
 Casper, WY 82604

**Re: Hay Creek II Coal Lease Draft EIS Comments**

Dear Ms. Johnson:

WildEarth Guardians submits the following comments on the Buckskin Mine Hay Creek II Coal Lease Application Draft Environmental Impact Statement ("DEIS"), which was prepared pursuant to the National Environmental Policy Act ("NEPA"). The DEIS analyzes the impacts of the Bureau of Land Management's ("BLM's") proposal to offer a coal lease-by-application ("LBA") that would allow Kiewit Mining to strip mine as much as 149.7 million tons of coal from the Powder River Basin of northeastern Wyoming (hereafter "Hay Creek II LBA"), leading to a number of environmental impacts, including the release of more than 273 million tons (248 million metric tons) of carbon dioxide ("CO<sub>2</sub>"), a heat trapping greenhouse gas that is fueling global warming, once the leased coal is mined and burned. See Table below.

**Proposed LBA Acreage, Tonnage, CO<sub>2</sub> Emissions,  
 and Mine Company Proponent.<sup>1</sup>**

Lease by Application	Acreage	Tons of Coal	Tons of Carbon Dioxide from Burning	Mine Company Proponent
Hay Creek II	1,883.1	149,700,000	273,834,234	Kiewit Mining Properties

The proposed action, particularly when combined with other coal leases in the Powder River Basin of Wyoming, is significant. Indeed, the BLM is offering to lease such a large amount of coal notwithstanding a growing body of knowledge pointing to human-caused releases of greenhouse gases, like carbon dioxide, as key drivers of global warming. Global warming is dramatically changing the climate, threatening economic stability, national security, public health, and natural ecosystems. In recognition of the need to confront global warming, a number

<sup>1</sup> Acreage and tonnage figures based on DEIS. CO<sub>2</sub> emissions based on BLM's methodology of calculating emissions using an emission factor of 212.7 pounds of CO<sub>2</sub> per million Btu and an average Btu value of 8,600 per pound of coal. See DEIS at 4-113.

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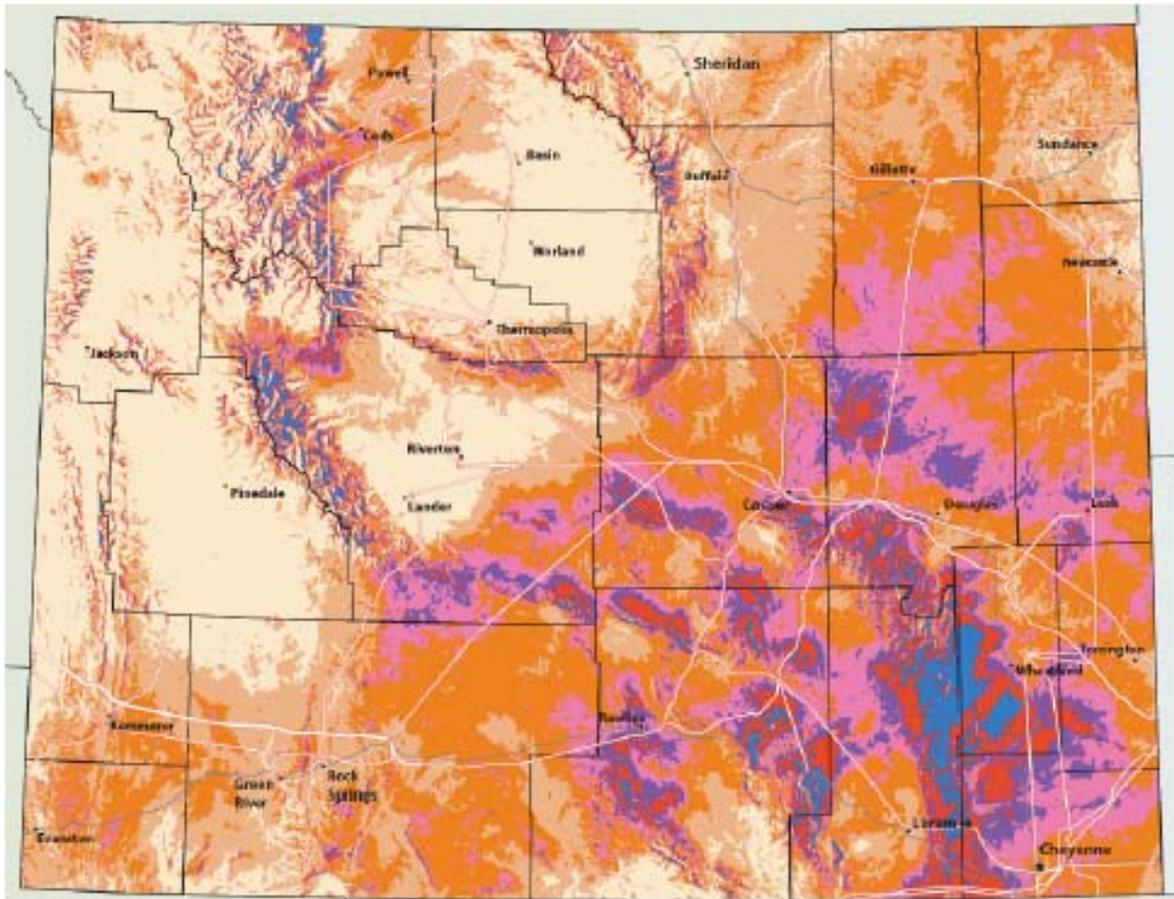
of states in the American West, including Colorado and New Mexico, have adopted ambitious greenhouse gas reduction goals.<sup>2</sup> Even the U.S. Environmental Protection Agency (“EPA”) has found that, “[G]reenhouse gases in the atmosphere may reasonably be anticipated to both endanger public health and to endanger public welfare.” 75 Fed. Reg. 66496, 66497 (Dec. 15, 2009).<sup>3</sup> In making its final determination that greenhouse gases, including CO<sub>2</sub>, pose an endangerment to public health and welfare, the EPA found, “that the body of scientific evidence compellingly supports this finding.” *Id.*

Not only that, but the BLM is offering to lease such a large amount of coal in a day of age where clean, renewable energy is becoming more affordable and widely available. Even Secretary of the Interior Ken Salazar has recognized this and directed that, “Encouraging the production, development, and delivery of renewable energy is one of the [Interior] Department’s highest priorities.” Secretarial Order No. 3285 (March 11, 2009). In the State of Wyoming, this direction could not be more imperative. The wind energy potential in Wyoming alone is estimated to be 883 million megawatt-hours/year (“MWh/y”), enough to more than meet the energy demands of the entire American West. *See* Figure below. Given that much of Wyoming’s wind energy potential located on public lands managed by the BLM, it is unbelievable that the BLM would propose lease more than 4 billion tons of coal in the Powder River Basin. At the least, it is unclear how the agency is addressing the Interior Secretary’s directive in Secretarial Order No. 3285 by proposing the Hay Creek II LBA.

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<sup>2</sup> *See* **Exhibit 1**, greenhouse gas reduction Executive Order signed by Colorado Governor Bill Ritter and **Exhibit 2**, greenhouse gas reduction Executive Order signed by New Mexico Governor Bill Richardson.

<sup>3</sup> *See* EPA, ENDANGERMENT AND CAUSE OR CONTRIBUTE FINDINGS FOR GREENHOUSE GASES UNDER SECTION 202(A) OF THE CLEAN AIR ACT; FINAL RULE (December 15, 2009), *attached as Exhibit 3*.



**Wind Energy Potential in Wyoming. Blue is "Superb," red is "Outstanding," purple is "Excellent," pink is "Good," and orange is "Fair."<sup>4</sup>**

The BLM's proposal appears wholly out-of-touch with the current state of science, the range of energy alternatives available, and with Interior Department policy. As such we do not support the proposed Hay Creek II LBA and urge the BLM to reject offering the proposed lease. We are very concerned that the agency is not fully addressing the global warming impacts of the proposed LBA, nor is the agency addressing the need for renewable energy. Further, we have serious concerns that the BLM is illegally leasing coal under the LBA process, thereby preventing the agency from fully analyzing and assessing the environmental impacts of regional coal leasing in the Powder River Basin and from providing the public a full opportunity to comment on regional leasing levels. We are further concerned that the BLM has not addressed serious air quality impacts, has not analyzed a range of reasonable alternatives, and has failed to address other impacts associated with the Hay Creek II LBA in the DEIS. In accordance with the BLM's notice regarding the availability of the DEIS (*see* 75 Fed. Reg. 11906-11907 (March 12, 2010)), these comments are timely submitted within 60 days of March 12, 2010, the date the

<sup>4</sup> Map from Renewable Energy Atlas of the Western States. *See Exhibit 4.*

notice of availability for the DEIS was published in the Federal Register by the EPA. *See* 75 Fed. Reg. 11882 (March 12, 2010) (EPA providing notice of availability of DEIS).

### 1. The Purpose and Need for the DEIS is Unclear and Appears too Narrow

An EIS is required to “briefly specify the underlying purpose and need to which the agency is responding in *proposing the alternatives including the proposed action*.” 40 C.F.R. § 1502.13 (emphasis added). Thus, the purpose and need drives the development of alternatives in an EIS. Consequently, it is imperative under NEPA that a stated purpose and need in an EIS be clear, not be so narrow as to preclude reasonable alternatives, and above all ensure well-informed decisionmaking that ensures compliance with applicable laws and regulations and full consideration of environmental impacts. Unfortunately, in the case of the DEIS for the Hay Creek II LBA, the purpose and need appears flawed in several regards.

#### a. The Purpose and Need is not Stated

The “Purpose and Need” section in the DEIS at pages 1-15—1-16 appears to fail to state the underlying purpose and need to which the BLM is responding in proposing the alternatives in the DEIS. The section is one page long simply does not identify the actual purpose and need to which the BLM is responding with the alternatives proposed in the DEIS.

#### b. The BLM Appears to Have Inappropriately Limited the Scope of its Decisionmaking Authority

Notwithstanding the lack of a clearly defined “Purpose and Need” section, it appears the BLM may believe the purpose and need is to “[respond] to the continued demand for coal in the U.S., primarily for the purpose of generating electricity.” DEIS at 1-15. If this is the case, then the “Purpose and Need” is wholly inappropriate and illegally constrains the agency’s decisionmaking authority.

Indeed, under BLM’s coal leasing regulations dealing with LBAs, the agency first and foremost has a nondiscretionary duty to ensure that any LBA “is consistent with the applicable regulations,” would not “compromise the regional leasing process defined in [43 CFR § 3420.3],” and, above all, “would not be contrary to the public interest” on the basis of environmental or other sufficient reasons. *See* 43 CFR §§ 3425.1-8(a)(1)—(3). Nowhere in the purpose and need are these overriding duties addressed. This raises serious concerns that the BLM has constrained its ability to reject the proposed LBA in accordance with 43 CFR § 3425.1-8, or at least failed to retain the ability to develop alternatives in order to fulfill the agency’s legal obligations.

We do understand that there is a general need to generate electric power for the public. However, there are a number of ways to generate electric power for the public, including through renewable energy development, through natural gas, through greater efficiencies, and through conservation of energy. By narrowing its focus on coal, the BLM has limited its ability to consider these other energy alternatives. Furthermore, by narrowing its focus on coal, the BLM

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has constrained its ability to adequately analyze and assess more cost-effective alternatives for generating electricity. As will be explained further in these comments, the cost of the CO<sub>2</sub> associated with burning the coal proposed to be leased through the Hay Creek II LBA could be as much as \$4,826,080,000. That's more than \$4 billion.<sup>5</sup> These potential costs indicate that if energy affordability is going to be a component of the BLM's purpose and need, the agency cannot limit itself solely to considering coal as a source of electricity.

Overall, if the BLM is going to develop a purpose and need that revolves around providing electricity to the public, the agency cannot limit its consideration only to coal. Not does such a narrow purpose and need prevent the BLM from fulfilling its legal obligations under 43 CFR § 3425, but it constrains the ability of the agency to develop a range of reasonable alternatives. Particularly in the context of the impacts of the environmental impacts of the proposed Hay Creek II LBA—including global warming, air quality, and other impacts—the agency must broaden the scope of its purpose and need and DEIS to ensure a range of alternatives is rigorously explored. As it stands, the only action alternatives proposed so far involve mining coal, a clear indication that the purpose and need is far too narrow.

## 2. The DEIS Fails to Adequately Analyze and Assess the Global Warming Impacts of the Hay Creek II LBA in Accordance with NEPA

We are concerned that the BLM has not adequately analyzed or assessed all direct, indirect, and cumulative greenhouse gas emissions ("GHG") emissions, nor analyzed and assessed the global warming impacts associated with these emissions.

### a. The DEIS Does not Quantify the Indirect CO<sub>2</sub> Emissions Associated with the Hay Creek II LBA

To begin with, nowhere in the DEIS does the BLM quantify the amount of indirect GHGs expected to be released as a result of burning the coal offered for sale through the Hay Creek II LBA. The DEIS states that the Buckskin Mine currently is responsible for 0.74 percent of all U.S. CO<sub>2</sub> emissions in 2006 and that these emissions would be extended for 14 years under the No Action Alternative, but there is no disclosure as to the actual CO<sub>2</sub> emissions associated with the action alternatives. This is a major oversight. Based on emission factors stated by the BLM in the DEIS, it appears that the Hay Creek II LBA could lease to the release of more than 273 million tons of CO<sub>2</sub>. This represents more than 4% of all the CO<sub>2</sub> released in the United States in 2008.<sup>6</sup> The BLM must accurately quantify indirect CO<sub>2</sub> emissions from the Hay Creek II LBA to ensure an adequate analysis and assessment of climate impacts.

<sup>5</sup> This dollar figure is based on the current spot price of carbon as established by the European Union (in U.S. dollars). As of May 11, 2010, the trading price of CO<sub>2</sub> in the European Union was 15.10 euros per metric ton, equivalent to US \$19.41 per metric ton. See EUROPEAN CLIMATE EXCHANGE, <http://www.ecx.eu/> (last visited May 11, 2010).

<sup>6</sup> According to the EPA, 2008 CO<sub>2</sub> emissions in the U.S. amounted to 5,921.2 million metric tons. See Excerpts of EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS (April 2010), Executive Summary and Chapter 3 attached as Exhibit 5.

**b. The DEIS Fails to Assess the Significance of the Direct, Indirect, and Cumulative GHG Emissions Associated with the Hay Creek II LBA**

GHG emissions from burning the coal authorized by the Hay Creek II LBA are a reasonably foreseeable consequence of this federal action, as the BLM has recognized. We appreciate the discussion of climate change in the EIS and the BLM's effort to disclose certain GHG emissions. However, the analysis is incomplete under NEPA and CEQ regulations because the BLM failed to assess the significance of the direct, indirect, and cumulative GHG emissions associated with the Hay Creek II LBA.

The DEIS does disclose the projected direct GHG emissions associated with the Hay Creek II LBA, and provides some indication as to the indirect and cumulative emissions. The DEIS also briefly discloses that global warming caused by human-released GHG emissions is contributing to a number of negative consequences, particularly in the American West. *See* DEIS at 4-106—4-111. Unfortunately, the DEIS ends there. While the DEIS discloses the GHG emissions associated with burning the coal proposed to be leased through the Hay Creek II LBA, the DEIS entirely fails to assess the significance of these emissions, or make any effort to analyze how such emissions are likely to contribute to the negative consequences of global warming. CEQ regulations clearly require that an EIS discuss “[d]irect effects and their significance,” “[i]ndirect effects and their significance,” as well as analyze and assess cumulative impacts. 40 CFR §§ 1502.16(a), (b) and (d).

In this case, it appears as if the GHG emissions associated with the Hay Creek II LBA will be more than significant. The proposal will make available up to 149.7 million tons of recoverable coal. Over the life of the leases, the coal, once burned, will emit more than 273 million tons of carbon dioxide.

Not only that, but the GHG emissions associated with the Hay Creek II LBA also appear significant in terms of the cumulative impacts of other pending coal leases in the Powder River Basin. Consider this:

- Already, CO<sub>2</sub> emissions make up more than 85% of the U.S.'s total greenhouse gas emissions;<sup>7</sup>
- Coal-fired power plants release more than 33% of total CO<sub>2</sub> emissions, more than any other source in the nation;<sup>8</sup>
- The Powder River Basin produces 42% of all coal burned in coal-fired power plants in the United States, more than any other region of the country (*see* DEIS at 4-111);
- When burned, coal from the Powder River Basin produce 13.9% of all CO<sub>2</sub> emissions in the United States, more than any other region of the country (*id.*); and

<sup>7</sup> *See* Exhibit 5.

<sup>8</sup> *Id.*

- The Hay Creek II LBA, in proposing to mine upwards of 149.7 million tons of coal from the Powder River Basin, would release more than 273 million tons of carbon dioxide, further contributing to the Powder River Basin's role as the largest source of all coal-fired power plant CO<sub>2</sub> emissions in the U.S.

To sum it all up, the Hay Creek II LBA would continue to mine large amounts of coal in the largest coal production region of the U.S., leading to the release of a significant amount of CO<sub>2</sub> in a region that is already responsible for the largest amount of coal-fired power plant CO<sub>2</sub> emissions, which are the largest source of carbon dioxide emissions in the U.S., within which CO<sub>2</sub> comprises the vast majority of all GHGs released.

In accordance with NEPA, the BLM must assess the significance of the direct, indirect, and cumulative GHG emissions associated with the Hay Creek II LBA and fully discuss climate change impacts to a degree commensurate with the significant impact of this coal lease.

### c. The DEIS Fails to Quantify the Cost of GHG Emissions

The NEPA requires that the BLM "identify and develop methods and procedures . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations." 42 USC § 4332(2)(B). The DEIS does not quantify the environmental effects of climate change, and in particular the cost of GHG emissions.

The Ninth Circuit held that it was arbitrary and capricious for a federal agency to not include a cost or benefit of carbon emissions in a NEPA document for car gas mileage standards. *Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1203 (9<sup>th</sup> Cir. 2008). The Court ordered the agency to include a monetized value of carbon emissions in the NEPA document, reasoning in part that "the value of carbon emissions reduction is certainly not zero." *Id.* at 1200, 1203. Here, the BLM has made the same error: it has omitted any monetization of the costs of carbon emissions that will result from the burning of coal to be mined under the Hay Creek II LBA. This omission is even worse here than the omission in *National Highway Traffic Safety Administration*, because the burning of the Hay Creek II LBA's coal will result in more than 273 million tons of CO<sub>2</sub>, or more than 4% of the nation's total greenhouse gas inventory. Therefore, the BLM must monetize carbon emissions associated with the Hay Creek II LBA and include those numbers in any EIS.

In *National Highway Traffic Safety Administration*, the court listed a number of possible values in dollars per ton of CO<sub>2</sub> emissions that are mitigated (i.e., not emitted). The dollar amounts ranged from a low of \$3 per ton to a high of \$50 per ton CO<sub>2</sub>. See 538 F.3d at 1199. As of May 11, 2010, the trading price of CO<sub>2</sub> in the European Union was 15.10 euros per metric ton, equivalent to US \$19.41 per metric ton.<sup>9</sup> The BLM could easily use these per ton prices as a starting point for calculating the present-day cost of CO<sub>2</sub> emissions that it will cause by leasing the Hay Creek II LBA. Using the above European Union carbon market price, the emissions from burnt coal have a present value of \$4,826,080,000.

<sup>9</sup> *Supra*. Note 5.

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#### d. The DEIS Fails to Adequately Analyze and Assess Global Warming Impacts

Also of concern is that the DEIS fails to analyze and assess how the direct, indirect, and cumulative GHG emissions will influence global warming. As the BLM indicates in the DEIS, it can be assumed that the release of GHGs associated with the Hay Creek II LBA will contribute to global warming. Yet the BLM makes no attempt to analyze and assess such impacts and the magnitude of contribution to global warming.

The failure to analyze and assess global warming impacts is particularly of concern in light of explicit direction from Secretarial Order No. 3226. Secretarial Order 3226, which was amended in January of 2009, requires that the BLM, “Consider and analyze potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, and/or *when making major decisions affecting DOI resources.*” Secretarial Order No. 3226A1, Sec. 4(a) (Jan. 16, 2009). Clearly the decision to lease up to 149.7 million tons of coal is a major decision affecting Department of Interior resources. Thus, the BLM has a duty to “[c]onsider and analyze potential climate change impacts.”

Unfortunately, the BLM did not do so. Instead, the BLM asserts that “Tools necessary to quantify incremental climatic changes associated with those factors for the projected development activities in the PRB [Powder River Basin] are presently unavailable. Consequently, impact assessments of effects of specific anthropogenic activities cannot be performed.” DEIS at 4-107. We are skeptical of this assertion. Indeed, the BLM neither references nor discloses any support for this assertion and does not appear to have made any attempt to ascertain whether there were, in fact, tools to assess climate change impacts associated with the Hay Creek II LBA.

At the least, one would presume that, in light of the fact that climate change is posing adverse environmental impacts, that any contribution of additional human-created greenhouse gas impacts, regardless of how significant, would exacerbate, or at least buttress, these adverse impacts. In light of this, the significance threshold would simply be whether the proposed action would lead to an increase in GHGs, or at least extent the length of time that GHGs will be created, thereby fueling climate change.

However, even if the BLM is correct in its assertion that tools are “unavailable,” the DEIS fails to comply with NEPA. The CEQ regulations require that an agency “evaluate reasonably foreseeable significant environmental effects on the human environment,” even where information relevant to making this evaluation is “incomplete or unavailable.” 40 CFR § 1502.22. If this is the case, the agency must clearly show that the information is “lacking” by providing what credible scientific information it does have on these reasonably foreseeable impacts and making an effort to analyze these impacts based on this information. *Id.* What information the agency must provide depends upon the costs of obtaining the information. *Id.*

For example, the agency must include “information relevant to reasonably foreseeable adverse impacts” even if it is “incomplete,” if it is “essential to a reasoned choice among alternatives and the overall costs of obtaining it aren’t exorbitant.” 40 CFR § 1502.22(a). Even

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where the costs are exorbitant, or the means of obtaining the information are unknown, the agency must still provide information on reasonably foreseeable adverse impacts. This information includes:

- (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 CFR § 1502.22(b). Under this section, reasonably foreseeable “includes 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 tools are unavailable to analyze and assess the global warming impacts associated with the Hay Creek II LBA, nowhere in the DEIS is it apparent that the requirements of 40 CFR § 1502.22 have been met. This is particularly troublesome given the apparent significance of the direct, indirect, and cumulative GHG emissions associated with the Hay Creek II LBA, as well as the BLM's general disclosure regarding the catastrophic impacts of global warming. As it stands, the DEIS fails to comply with NEPA with regards to the analysis and assessment of the global warming impacts of the Hay Creek II LBA.

**e. The DEIS Fails to Adequately Analyze and Assess the Cumulative Impacts of Department of Interior-authorized Activities**

The DEIS fails to analyze and assess the cumulative impacts of other actions undertaken by the Department of Interior on global warming. We are especially concerned that the Department of Interior is not programmatically analyzing its GHG emissions and global warming impacts of its operations and activities. Because the BLM is an agency within the Department of Interior, it is imperative that the DEIS fully analyze and assess the cumulative impacts of other Interior Department activities.

In fact, there are a number of projects that release GHGs and cumulatively contribute to global warming, that are under control by the Department of Interior, and that therefore must be addressed pursuant to NEPA *See e.g.*, 40 CFR § 1502.16 (an EIS “will include the environmental impacts of the alternatives including the proposed action”); 40 CFR § 1508.8 (effects include “ecological (such as the effects on natural resources and on the components of, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative”); and 40 CFR § 1508.7 (cumulative effects are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency

(Federal or non-Federal) or person undertakes such other actions<sup>79</sup>). The projects authorized or proposed to be authorized by the Department of Interior and its agencies include:<sup>10</sup>

- Numerous other coal leases proposed in the Rocky Mountain West, including the Dakota Westmoreland coal lease modification proposed in March of 2009 by the BLM in North Dakota,<sup>11</sup>
- The Greens Hollow coal lease proposed in 2008 by the BLM in the Price Field Office of Utah;<sup>12</sup>
- The Peabody Twentymile Coal Company Application for Coal Lease approved in 2008 by the BLM in the Little Snake Field Office of Colorado;<sup>13</sup>
- The Absaloka Mine South Extension Coal Lease approved in 2008 by the Bureau of Indian Affairs on the Crow Indian Reservation in Montana;<sup>14</sup>
- The Red Cliff coal mine proposed in 2009 for authorization by the BLM in the Grand Junction Field Office of western Colorado;<sup>15</sup>
- Tar sands and oil shale development proposed in 2008 by the BLM for Colorado, Utah, and Wyoming.<sup>16</sup>
- The Toquop coal-fired power plant in Nevada, which is proposed to be authorized by the BLM,<sup>17</sup> and
- The Desert Rock coal-fired power plant in New Mexico, which is proposed to be authorized by the Bureau of Indian Affairs.<sup>18</sup>

The BLM must consider the impacts of its proposal to authorize the Hay Creek II LBA cumulatively with other Department of Interior authorized activities that also contribute to global warming. Until such time as BLM analyzes the cumulative impacts of greenhouse gas emissions from other Department of Interior authorized activities, BLM cannot move forward with the Hay Creek II LBA in compliance with NEPA.

<sup>10</sup> Due to the large size of the following documents, we are unable to submit the following documents as electronic attachments.

<sup>11</sup> See Environmental Assessment available at [http://www.blm.gov/pgdata/etc/medialib/blm/mt/field\\_offices/north\\_dakota/Par.96662.File.dat/DWCea.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/mt/field_offices/north_dakota/Par.96662.File.dat/DWCea.pdf) (last visited May 11, 2010).

<sup>12</sup> See EIS available at [http://www.blm.gov/pgdata/etc/medialib/blm/ut/price\\_fo/Coal.Par.48515.File.dat/Greens%20Hollow%20DEIS.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/ut/price_fo/Coal.Par.48515.File.dat/Greens%20Hollow%20DEIS.pdf) (last visited May 11, 2010).

<sup>13</sup> See Environmental Assessment available at [http://www.blm.gov/pgdata/etc/medialib/blm/co/information/nepa/little\\_snake\\_field/2008\\_documents/Par.4735.File.dat/CO-100-2008-058EA.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/co/information/nepa/little_snake_field/2008_documents/Par.4735.File.dat/CO-100-2008-058EA.pdf) (last visited May 11, 2010).

<sup>14</sup> See Record of Decision available at [www.deq.state.mt.us/eis/Absaloka/ROD.pdf](http://www.deq.state.mt.us/eis/Absaloka/ROD.pdf) (last visited May 11, 2010).

<sup>15</sup> See DEIS available at [http://www.blm.gov/co/st/en/BLM\\_Programs/land\\_use\\_planning/rmp/red\\_cliff\\_mine/documents.html](http://www.blm.gov/co/st/en/BLM_Programs/land_use_planning/rmp/red_cliff_mine/documents.html) (last visited May 11, 2010).

<sup>16</sup> See EIS available at <http://ostseis.anl.gov/eis/guide/index.cfm> (last visited May 11, 2010).

<sup>17</sup> See DEIS available at [http://www.blm.gov/nv/st/en/fo/elv\\_field\\_office/blm\\_programs/energy/toquop\\_energy/toquop\\_draft\\_eis.html](http://www.blm.gov/nv/st/en/fo/elv_field_office/blm_programs/energy/toquop_energy/toquop_draft_eis.html).

<sup>18</sup> See DEIS available at <http://www.desertrockenergyeis.com/> (last visited May 11, 2010).

**f. The DEIS Fails to Consider Reasonable Alternatives to Address the Global Warming Impacts of the Hay Creek II LBA**

The range of alternatives “is the heart of the environmental impact statement.” 40 CFR § 1502.14. It is well understood that “NEPA requires that an agency ‘rigorously explore and objectively evaluate all reasonable alternatives.’” *Utahns for Better Transp. v. Dept. of Transp.*, 305 F.3d 1152,1168 (10<sup>th</sup> Cir. 2002) quoting 40 C.F.R. § 1502.14(a), modified on rehearing *Utahns for Better Transp. v. Dept. of Transp.*, 319 F.3d 1207 (2003). The alternatives discussed should provide different choices from which decisionmakers and the public can make an informed choice after considering the environmental effects of the alternatives. See *Westlands Water Dist. v. U.S. Dep’t of Interior*, 376 F.3d 853 (9<sup>th</sup> Cir. 2004). The range of alternatives should also “include reasonable alternatives not within the jurisdiction of the lead agency,” and “include appropriate mitigation measures not already included in the proposed action or alternatives.” 40 CFR § 1502.14. The alternatives discussed in the DEIS do not meet these requirements in the context of addressing GHG emissions and global warming impacts.

The DEIS must consider a wider range of reasonable alternatives. The proposed action is practically identical to Alternative 2. Because of this similarity, the EIS effectively considers only one alternative other than the proposed action, hardly a “range” under NEPA. What’s more, the alternatives are assumed to have practically identical environmental effects on global warming.

We strongly urge the BLM to rigorously explore and objectively evaluate the following alternatives in order to ensure to sharply define the issues and ensure a well-informed decision that mitigates significant environmental impacts:

- **The range of alternatives should include tonnage and acreage limits to leases so that changes can be made in the future to respond to GHG emissions regulation.** The DEIS discusses the relevance of potential GHG regulation under new legislation that may be enacted later this year. DEIS 4-116. Given the likelihood that some form of carbon regulation will be put in place before the coal from Hay Creek II LBA is mined, it would be prudent for the BLM to include upper limits in the lease agreements. These limits will create flexibility for the BLM in the future to change or modify leases in response to shifts in national energy policy towards lower-carbon, renewable sources. While BLM cannot predict what legislation will be enacted, flexibility would leave the door open for unpredictable changes without compromising current coal production. Rather than writing-in tonnage or acreage limits to the leases, the same alternative could be achieved by presenting an alternative that contains a coal quantity *less than* the quantity in the Proposed Action. This alternative is especially reasonable in light of the fact that the DEIS discloses that all three mines seeking leases have a remaining life of more than 10 years.
- **The range of alternatives should include the establishment of a renewable energy fund to spur solar and wind development in Wyoming to mitigate carbon emissions and to create long-term jobs.** To mitigate climate change impacts without

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compromising the national power supply, a renewable energy fund should be established based on a per-ton tax on coal from the Hay Creek II LBA. This fund should be used to spur development of wind and solar resources in the Powder River Basin and in Wyoming. It is a fact that Wyoming contains significant wind resources; significant solar potential exists, as well.<sup>19</sup> These resources have not been adequately developed, especially solar. Federal funding for wind and solar could help to diversify the local economies and create jobs that last indefinitely, because sun and wind will last forever. In contrast, coal mining jobs will disappear as soon as the coal runs out.

- **The range of alternatives should include a requirement that the coal lessees purchase carbon offsets.** Carbon offsets are stocks or shares that represent a certain amount of CO<sub>2</sub> emissions that have been prevented or mitigated. The mining companies are not currently paying the price for externalities caused by CO<sub>2</sub> emissions from burning coal. A 2008 report estimated those externalities cost society \$515 billion per year.<sup>20</sup> These externalities include all of the effects of climate change, as well as regional air and water pollution, and mining accidents. Mine companies can start to begin paying for the full cost of using coal for power generation by purchasing offsets to mitigate some of the damage that is being caused by emissions from coal.
- **The range of alternatives should include a requirement that all carbon emissions from the Hay Creek II LBA used for electricity generation be captured and sequestered geologically.** The vast majority of the coal to be mined as a result of the Hay Creek II LBA will be burned for power generation and carbon emissions will be released into the atmosphere. To mitigate this very significant amount of emissions, the range of alternatives should include a plan to require carbon capture and sequestration (“CCS”) of emissions equivalent to the amount produced by burning the Hay Creek II LBA’s coal. CCS could be required as a contract condition for all coal sold from the Buckskin mine. In the alternative, the BLM could set a per-ton tax on the coal and use the revenue to develop and implement a CCS project that captures an equivalent amount of carbon emissions as would be generated by burning the Hay Creek II LBA’s coal. BLM could site the CCS facility on BLM land, thus keeping the project within BLM jurisdiction. Even if the CCS project falls partially outside BLM jurisdiction, that fact does not excuse the BLM from considering in detail as an alternative. *See* 40 CFR § 1502.14.
- **The range of alternatives should include a Renewable Energy Standard (“RES”) for coal mine operators.** To reduce direct emissions from operations, the leases should include an RES that requires operators to rely on a certain percentage of renewable energy to power vehicles, machinery, and buildings. Many states will require that as

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<sup>19</sup> *Supra*. Note 4.

<sup>20</sup> GREENPEACE INTERNATIONAL, THE TRUE COST OF COAL (2008), <http://www.greenpeace.org/raw/content/international/press/reports/true-cost-coal.pdf> (last visited May 11, 2010). The report presents the cost as 360 billion euros. Converted to dollars as of May 11, 2010, that cost is \$462.73 billion.

much as 25 percent of all electricity is generated by renewable sources by 2025.<sup>21</sup> Taking some of this renewable power and using it to power the mines is a realistic and reasonable way to mitigate emissions without placing a large burden on the coal extraction industry. According to the DEIS, GHG emissions associated with electricity use at the mine could be as high as 69,007 tons of CO<sub>2</sub>e. *See* DEIS at 3-207. If renewable energy was used, these GHG emissions could be significantly mitigated. Additionally, employing renewable energy would improve local air quality.

- **The range of alternatives should include a requirement that all mine vehicles be run on alternative fuels.** Alternative fuels include hydrogen, biodiesel, natural gas, and electricity. Similar to the RES alternative above, an alternative fuels requirement for vehicles would reduce direct GHG emissions associated with mining activities, and simultaneously improve local air quality.

### 3. The DEIS Fails to Adequately Analyze and Assess PM Impacts

The DEIS fails to adequately analyze and assess the particulate matter impacts of the Hay Creek II LBA. In particular, the DEIS fails to provide information and analysis demonstrating that PM<sub>10</sub> mitigation measures will effectively limit concentrations to ensure compliance with the NAAQS.

#### a. It is Unclear how Background PM-10 Was Established and how it was Factored into the BLM's Analysis

The DEIS asserts that background 24-hour PM<sub>10</sub> concentrations are 54 micrograms/cubic meter in the Powder River Basin. *See* DEIS, Table F-1 at F-4. This background is apparently based on 2002 data gathered from the Eagle Butte Mine in Campbell County, WY.

It is unclear how this background level of PM<sub>10</sub> was assessed. For one thing, it is unclear why the BLM utilized 2002 data when more recent monitoring data exists. For another thing, it is unclear why the BLM utilized data from the Eagle Butte Mine and not one of the mines in the vicinity of the Hay Creek II LBA area. Finally, it is unclear how the BLM assessed background concentrations. Under federal regulations, the PM<sub>10</sub> NAAQS are attained whenever the number of days in a calendar year with a 24-hour concentration of 150 micrograms/cubic meter exceeds one. It is unclear how the assessed background 24-hour PM<sub>10</sub> concentration in the context of the NAAQS.

Adding to this confusion, it is unclear how the BLM factored background PM<sub>10</sub> concentrations into the agency's analysis of PM-10 impacts. While background levels are noted, it does not appear that the DEIS actually assessed any potential PM<sub>10</sub> increases in order to assess whether PM-10 NAAQS will be fully protected.

<sup>21</sup> *See* PEW CENTER ON GLOBAL CLIMATE CHANGE, RENEWABLE AND ALTERNATIVE ENERGY STANDARDS, [http://www.pewclimate.org/what\\_s\\_being\\_done\\_in\\_the\\_states/rps.cfm](http://www.pewclimate.org/what_s_being_done_in_the_states/rps.cfm) (last visited May 11, 2010).

We strongly urge the BLM to assess PM-10 impacts based on monitoring data from all sites within the vicinity of the Hay Creek II LBA. We request the BLM assess PM-10 impacts at each individual monitoring site to ensure compliance with the NAAQS across the area.

**b. The DEIS Fails to Provide Information and Analysis Supporting the Effectiveness of any PM<sub>10</sub> BACT Measures**

Also of concern is that the DEIS does not provide information or analysis demonstrating that best available control technology requirements, or BACT, for PM<sub>10</sub> will be effective at protecting the NAAQS. Our concerns are particularly salient in light of the fact that the BLM discloses that on a cumulative basis, the 24-hour PM<sub>10</sub> NAAQS are likely to be exceeded as a result of the Hay Creek II LBA. *See* DEIS at 4-41. The BLM must provide an analysis and assessment of mitigation measures to support any assertion that the 24-hour PM<sub>10</sub> NAAQS will be protected as result of the logical consequence of mining the Hay Creek II LBA.

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**4. The DEIS Fails to Adequately Analyze and Assess Ozone Impacts**

The DEIS fails to adequately analyze and assess ozone impacts to ensure compliance with the NAAQS.

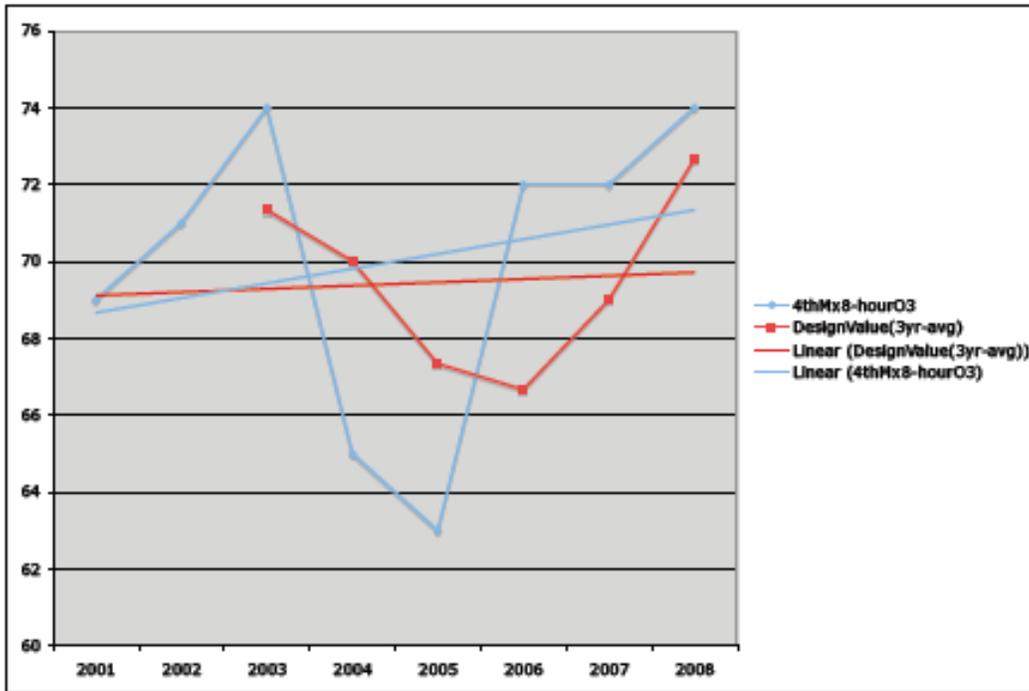
**a. The BLM is Inappropriately Assessing Impacts to the Ambient Air Quality Standards**

The BLM mistakenly asserting that the new ozone NAAQS of 0.075 ppm is not applied retroactively. *See* DEIS at 3-61—3-62. In other words, the agency is asserting that prior to May 2008, when the new ozone NAAQS was promulgated, impacts and compliance are assessed in the context of the old ozone NAAQS of 0.080 ppm. As a result, BLM does not seem to be addressing exceedances of the current NAAQS that occurred prior to 2008 in the context of analyzing and assessing impacts, and that bear on the status of air quality in the region.

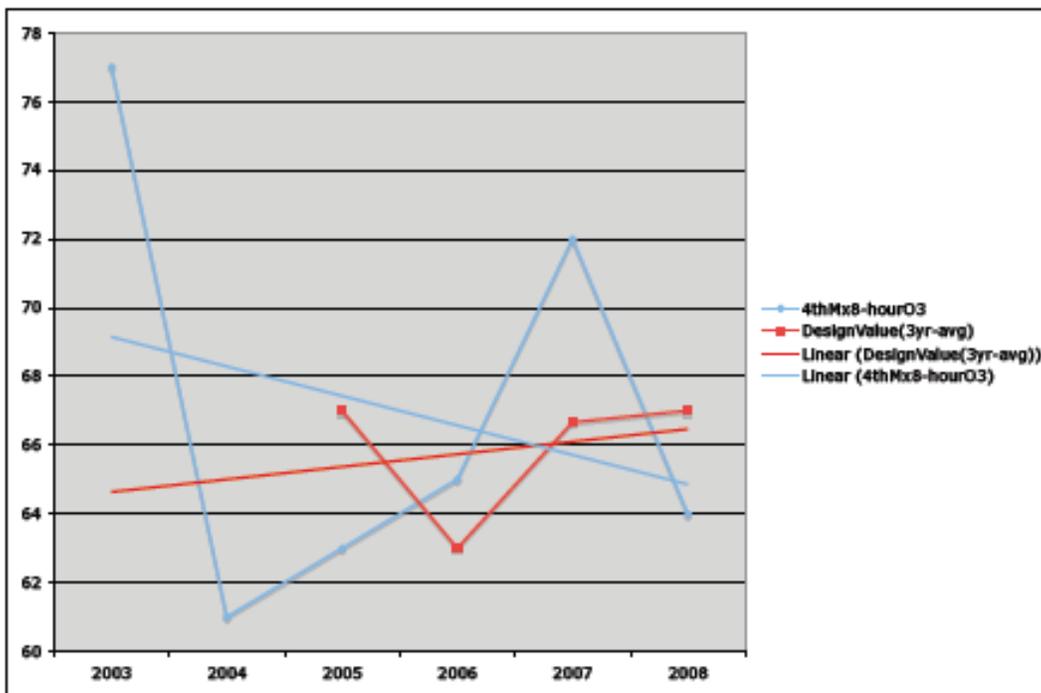
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To begin with, this is not only contrary to how the NAAQS are applied, but troublesome in light of what monitoring data is showing in the Powder River Basin. Since 2001, ozone levels have exceeded the 0.075 ppm standard on 16 days in Campbell County.<sup>22</sup> Not only that, but the three-year average of the 4<sup>th</sup> highest annual 8-hour readings, or the design value, at both Campbell County ozone monitors is trending upward. Although the Campbell County ozone monitors obviously have not been operating for very long, a trend seems to be emerging. Notwithstanding this, the BLM asserts that “no exceedances” of the current ozone NAAQS have occurred in the Powder River Basin. *See* DEIS at 3-62. This is flat out wrong.

<sup>22</sup> *See Exhibit 6.* Contrary to BLM’s assertion, an exceedance of the ozone NAAQS occurs anytime 8-hour concentrations exceed 0.075 parts per million. This is why the EPA monitoring data identifies 16 ozone exceedances at the Campbell County ozone monitors since 2001.



**4<sup>th</sup> Maximum 8-hour Ozone Readings and Ozone Design Values (three year average of 4<sup>th</sup> max.) from Thunder Basin Ozone Monitor (above) and S. Campbell County Ozone Monitor (below) (data from EPA).**



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**b. The DEIS Fails to Provide any Quantitative Assessment of Ozone Impacts**

The DEIS does not quantitatively analyze impacts to the current ozone standards. While the DEIS recognizes ozone as a harmful air pollutant, there is no actual analysis of impacts to ambient ozone concentrations. This is of particular concern given the state of air quality in the Powder River Basin. The current design value at the Thunder Basin monitor in Campbell County is 0.072 ppm—96% of the NAAQS. This is the highest the design value has been since the monitor went online in 2001.

Unfortunately, the BLM is claiming background ozone levels in the Powder River Basin are 70 micrograms/cubic meter (*see* DEIS at 3-43), which appears highly inaccurate. 70 micrograms/cubic meter amounts to only around 0.030 ppm.<sup>23</sup> Although the DEIS claims that the background concentration was established using data from 2002-2008 at the Thunder Basin monitor, this does not seem to be the case. In any case, the accurate design value for the region appears to be 0.072 ppm. This means that if the fourth highest maximum 8-hour reading in 2009 is 0.082 ppm or higher, there will be an actual violation of the NAAQS.<sup>24</sup> This seems more than possible, particularly given that 8-hour ozone concentrations have climbed as high as 0.088 ppm in Campbell County. The BLM must provide a quantitative assessment of ozone impacts in order to comply with NEPA and in order to ensure compliance with FLPMA.

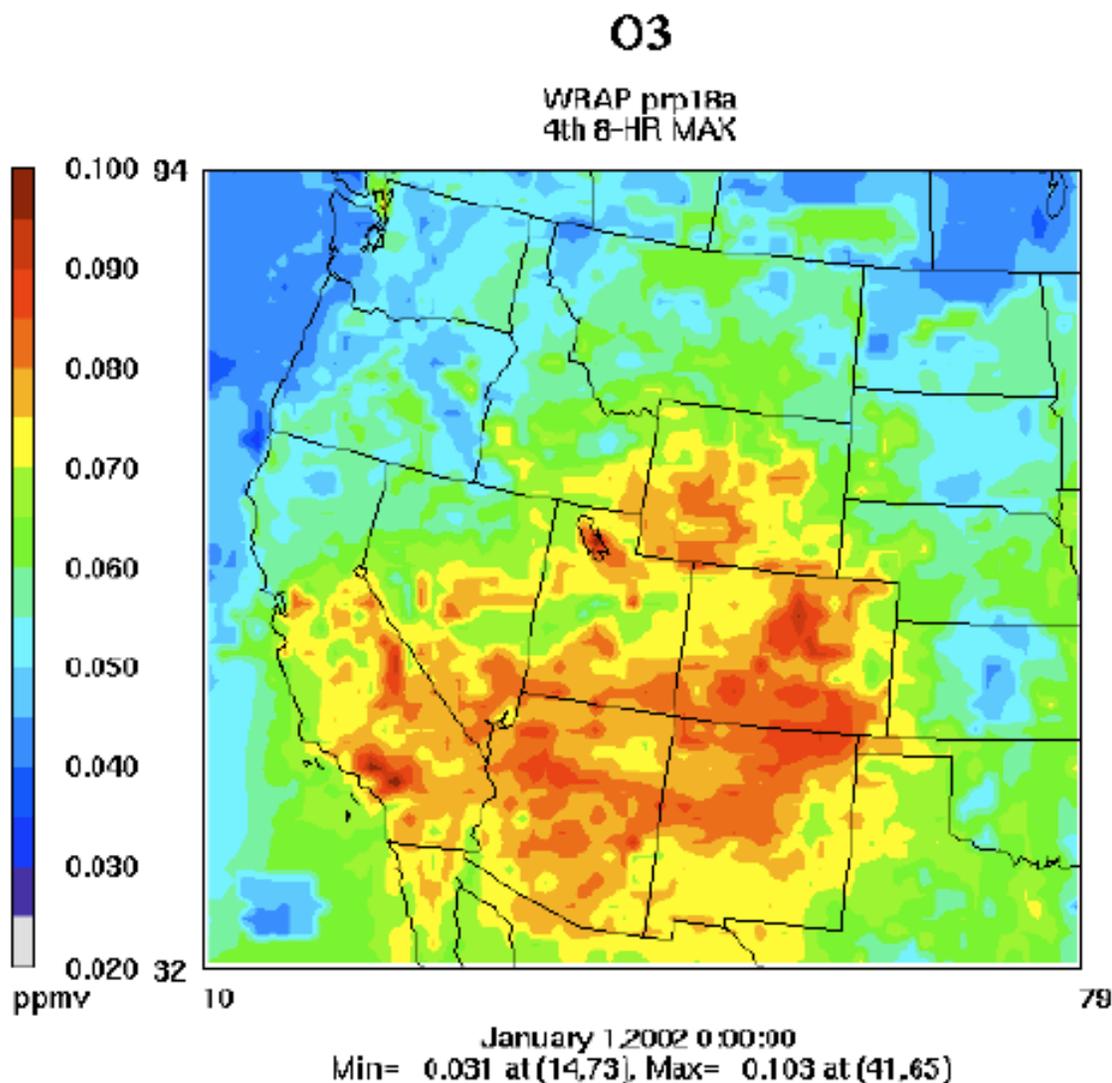
Also of concern is that the DEIS fails to address the results of modeling prepared for the Western Regional Air Partnership, which strongly indicate that attainment and maintenance of the 8-hour ozone NAAQS is at risk throughout the Western States, including in the Powder River Basin of Wyoming.<sup>25</sup> This modeling in fact shows that the annual fourth maximum 8-hour ozone concentration will exceed 0.075 ppm throughout much of Wyoming. *See* Figure below.

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<sup>23</sup> This also raises another concern, which is that the BLM analyzes ozone concentrations in terms of micrograms/cubic meter. However, the NAAQS is expressed as a “parts per million” concentration due to the fact that ozone is a gas, rather than a solid. In expressing ozone concentrations in micrograms/cubic meter, the BLM is not accurately analyzing or assessing ozone impacts.

<sup>24</sup> It is unclear whether 2009 data is publicly available yet.

<sup>25</sup> *See Exhibit 7.*



Projected 2018 annual fourth maximum ozone concentrations. Orange and red indicate exceedances and/or violations of the ozone NAAQS of 0.075 parts per million. See Exhibit 7 at unnumbered slide 28.

Clearly ozone is a serious problem in the Powder River Basin. Although a violation of the NAAQS has yet to occur, the BLM has an obligation to analyze and assess ozone impacts to ensure that violations do not occur in the future. The fact that exceedances are occurring, and that the current design value at the Thunder Basin monitor is within 96% of the NAAQS, strongly indicates the BLM cannot simply ignore the need to quantitatively analyze ozone impacts before authorizing the Hay Creek II LBA.

- c. **The DEIS Provides no Quantitative Data Showing that any NO<sub>x</sub> Reductions Will Lead to any Ozone Reductions**

The DEIS asserts that measures to reduce mine-related NO<sub>x</sub> emissions “should also” reduce the potential for the formation of ground level O<sub>3</sub> in the PRB.” DEIS at 3-75. There is no quantitative support for this statement. What’s more, even on a qualitative level, this statement is misleading and inaccurate. The direct NO<sub>x</sub> mitigation measures in Section 3.4.3.3 are designed primarily designed to keep the public away from clouds of NO<sub>2</sub>, not as a means to reduce NO<sub>x</sub> emissions from the coal mines. DEIS at 3-74, 3-75. The only mitigation that might reduce emissions is to reduce blast size, but that measure is voluntary and thus not enforceable and cannot be relied upon to demonstrate any NO<sub>x</sub> reductions will occur. *Id.* All of the other measures listed are voluntary, thus not enforceable even if a mine is causing an exceedance. Also, the DEIS does not mention any measures to reduce NO<sub>x</sub> emissions from vehicles and machinery on the mines. All of these NO<sub>x</sub> sources have the potential to lead to increased regional ozone concentrations.

**5. The DEIS Fails to Analyze and Assess Impacts to the Short-term Nitrogen Dioxide NAAQS**

The DEIS fails 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* Primary National Ambient Air Quality Standards for Nitrogen Dioxide, Final Rule, 75 Fed. Reg. 6474-6537 (Feb. 9, 2010). These NAAQS were originally proposed on July 15, 2009. *See* Primary National Ambient Air Quality Standards for Nitrogen Dioxide, Proposed Rule, 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 Hay Creek II LBA would affect nitrogen dioxide concentrations on an hourly basis. Although the BLM may assert that voluntary mitigation measures will address any potentially significant short-term nitrogen dioxide impacts, the DEIS provides 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, to the extent that the BLM relies on voluntary measures to address any potentially significant nitrogen dioxide impacts, such measures cannot serve to mitigate impacts given that they are unenforceable.

**6. Visibility Impacts are not Assessed**

The DEIS indicates that visibility will be further degraded in a number of Class I areas and sensitive Class II areas as a result of the Hay Creek II LBA. *See* DEIS at 4-44. Unfortunately, there is no assessment of the significance of these impacts. In light of the BLM’s duties to safeguard air quality, it appears that these impacts are significant and should be mitigated accordingly in accordance with NEPA.

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## 7. The BLM Fails to Demonstrate Compliance with FLPMA With Regards to Air Quality Impacts

As explained, the BLM has a duty to ensure compliance with the NAAQS in accordance with FLPMA. *See* 43 USC § 1712(c)(8). The DEIS unfortunately fails to demonstrate that the PM<sub>10</sub>, ozone, and nitrogen dioxide NAAQS in particular will be protected as a result of the Hay Creek II LBA, thereby indicating that the BLM may not meet its responsibilities under FLPMA. We are also concerned that in light of the visibility impacts projected, the agency may be further in violation of its responsibilities under FLPMA to minimize visibility impacts, particularly to Class I areas under the Clean Air Act.

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## 8. The Powder River Basin Was Erroneously Decertified as a Coal Production Region

The BLM has erroneously “decertified” the Powder River Basin as a coal production region. Because of this, coal leasing is done based on an application filed by a private company. The LBA process allows private coal company, and not the federal government, to design the tract of land subject to leasing. Because the Powder River Basin remains a decertified coal production region, leasing is done on an application filed by a private company. The LBA process allows private coal company, and not the federal government, to design the tract of land subject to leasing. In the Powder River Basin this has allowed each major coal producer in the area to submit applications for lease federal coal leases in areas and on tracts that they have designed. This raises significant concerns that coal companies are designing tracts in such a way as to preclude any meaningful competition. Indeed, in the last 20 years of coal leasing in the Powder River Basin, only 3 out of 21 leases have received more than one bid.

This raises concerns that the Federal government is failing to ensure fair market value of any privately designed and nominated lease tracts. Notwithstanding BLM’s duty to ensure fair market value, the fact that so little competition occurs for coal leases in the Powder River Basin indicates that any fair market value assessment is skewed. Indeed, with no actual competition for coal leases, any fair market value price could not possibly be based on an appraisal comparable to a situation where actual competition occurs.

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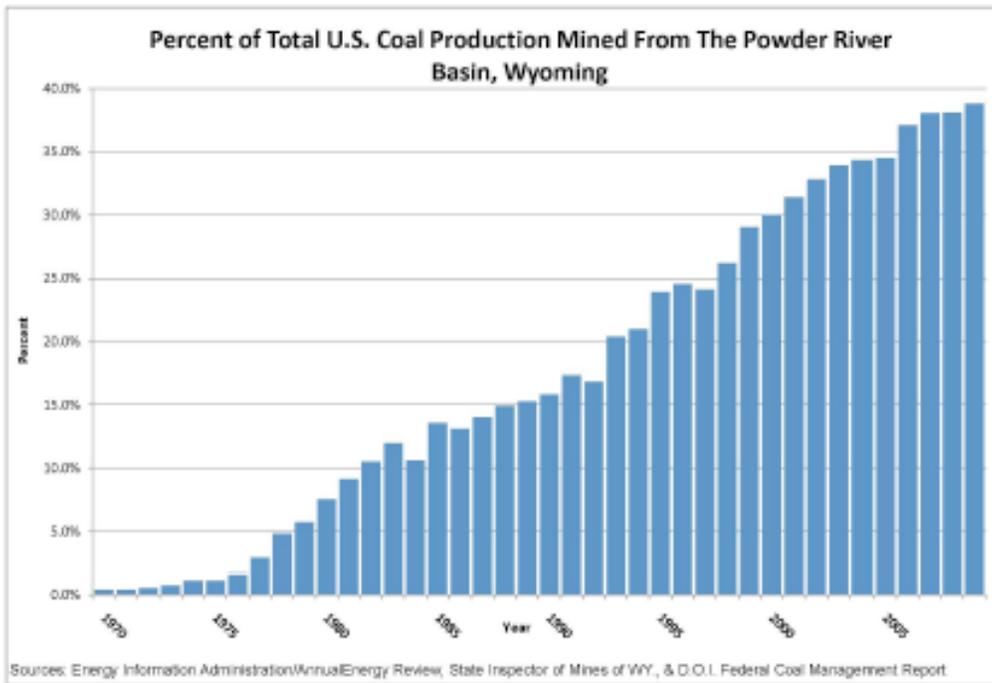
What’s more, the “decertification” and the LBA process has allowed the BLM to avoid establishing regional leasing levels based on a regional analysis of environmental impacts and public comment. As will be explained further, the “decertification” is preventing the BLM from fully analyzing, assessing, and addressing the regional environmental impacts of coal leasing in the Powder River Basin. For the reasons explained below, the BLM cannot move forward with the Hay Creek II LBA in light of the decertification.

### a. The Decertification was Arbitrary and Capricious and Contrary to BLM’s Coal Leasing Regulations

The Powder River Basin was “decertified” as a Federal coal production region coal production region in January of 1990. In other words, the BLM has asserted that the Powder River Basin is outside a coal production region in accordance with 43 CFR § 3400.5. This

“decertification” was made on the recommendation of the Powder River Regional Coal Team in October of 1989. This decertification was arbitrary and capricious, and contrary to BLM coal leasing regulations. As applied in the context of the Hay Creek II LBA it is blatantly illegal.

Although there is no definition of “coal production region” in BLM’s regulations, the common sense meaning of the word is that it refers to a region where coal is produced. This is exactly why the Powder River Basin was originally designated a “coal production region” in accordance with 43 CFR § 3400.5. Such a designation made sense, even in 1989. Indeed, even in 1989, the Powder River Basin produced nearly 15% of all coal produced in the United States. See chart below.<sup>26</sup> This hardly seems indicative of a region that was not producing coal, or that otherwise had no interest from the coal industry.



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The BLM has responded that decertification was needed to spur interest in coal leasing in the Powder River Basin. This is not supported by the record of that decision. In response to a March 2009 Freedom of Information Act request submitted to both the Montana and Wyoming BLM offices by WildEarth Guardians seeking all records supporting the 1989 decision by the

<sup>26</sup> This chart is available at [www.blm.gov/pegdata/etc/medialib/blm/wy/programs/energy/coal/prb.Par.5321.Image-1-1.1.gif](http://www.blm.gov/pegdata/etc/medialib/blm/wy/programs/energy/coal/prb.Par.5321.Image-1-1.1.gif) (last visited May 11, 2010).

Regional Coal Team to decertify the Powder River Basin, we received no records indicating that coal leasing interest had been waning, that decertification would actually lead to increased leasing interest, or any other information suggesting that the Powder River Basin was not a coal production region. What seems apparent is that the Powder River Regional Coal Team appeared to move to “decertify” the Powder River Coal Production Region so as to be able to utilize the LBA process. This is clearly an arbitrary and capricious reason to “decertify” the Powder River Basin as a coal production region.

Furthermore, although BLM may have discretion to “change” a coal production region or alter boundaries, the regulations are clear that coal production regions are to be used to identify, rank, analyze, select, and schedule lease tracts (i.e., activity planning) in accordance with 43 CFR § 3420.3-1. Logically, the only time the BLM would be allowed to “decertify” a coal production region is if activity planning was inappropriate, such as in areas that were determined to be unacceptable for further consideration for leasing through any land use planning prepared consistent with 43 CFR § 3420.1-4.

Did the BLM make a determination that the entire Powder River Basin was unacceptable for further consideration for leasing through any land use planning prepared consistent with 43 CFR § 3420.1-4? The answer appears to be no.

**b. Even if the Decertification was Appropriate in 1989, it is Now Inappropriate in Light of Current Production and Leasing Levels in the Powder River Basin**

Although it is seriously questionable whether the “decertification” of the Powder River Basin as a coal production region was appropriate in 1990, it is clear that it is inappropriate today. Indeed, coal production in the Powder River Basin region is significant and has increased substantially over the years. According to data from the BLM’s own website, coal production just in the Wyoming portion of the Powder River Basin has increased from 293 million tons to more than 419 tons in 2009. The region is currently producing more coal than anywhere else in the country.

Furthermore, the Powder River Basin region produces more coal than any other region in the United States. Currently, the Powder River Basin provides 42% of the nation’s coal, a figure that has grown substantially over the years. According to the Energy Information Administration, the Powder River Basin currently produces more coal than all the coal mines combined east of the Mississippi River. Indeed, in 2008, the entire Powder River Basin produced more than 495,000 tons of coal while mines east of the Mississippi produced 491,935.<sup>27</sup> This is a significant amount of coal to be produced from a single region.

Additionally, leasing interest has been very high in the Powder River Basin. Since 1990, 21 coal leases have been offered amounting to more than 5.8 billion tons of coal. Not only that,

<sup>27</sup> See <http://www.eia.doe.gov/cneaf/coal/page/acr/table1.html> (last visited May 11, 2010).

but the BLM has 12 coal leases pending—including the Hay Creek II LBA—that collectively have the potential to lead to the leasing of an additional 5.8 billion tons of coal.<sup>28</sup>

What’s more, in light of the fact that “decertification” has apparently spurred additional leasing interest in the Powder River Basin (as evidenced by the Hay Creek II LBAs), why hasn’t the BLM taken steps to “recertify” the Powder River Basin. If “decertification” is warranted in light of low interest in leasing, then certainly “recertification” clearly is warranted in light of the current high interest in leasing. Clearly the Powder River Basin is a coal production region and must be recertified as such in light of current leasing and production levels.

**c. The Decertification Means the BLM has Failed to Appropriately Assess Environmental Impacts and Appropriately Involve the Public in Regional Leasing**

Although the decertification of the Powder River Basin as a coal production region raises well-founded concerns that the BLM is unable to ensure fair market value through the LBA process, we are most concerned with the fact that the decertification has prevented the BLM from appropriately analyzing and assessing the environmental impacts of leasing, from setting appropriate leasing, or activity, levels, and from appropriately involving the public in regional coal leasing decision.

Indeed, BLM’s coal leasing regulations prescribe a number of requirements and procedures that are normally followed when leasing occurs in a “coal production region.” For instance, 43 CFR § 4320.2 requires, among other things, that regional leasing levels be established, that a regional leasing environmental impact statement be prepared, and that the Secretary of the Interior take into account the environmental effects when setting regional leasing levels. Further, activity planning at 43 CFR § 3420.3-1 requires that alternative leasing levels be analyzed in the regional leasing EIS, and that the tract ranking process at 43 CFR § 3420.3-4(a)(1) also requires consideration of environmental effects when the regional coal team sets tract rankings. The regulation states, “Three major categories of consideration shall be used in tract ranking: coal economics; impacts on the natural environment; and socioeconomic impacts.” If the Powder River Basin was a coal production region, the BLM would be required to prepare a regional lease sale EIS “on all tract combinations selected by the regional coal team for the various leasing levels” and consider “[t]he site-specific potential environmental impacts of each tract being considered for lease sale” and “[t]he intraregional cumulative environmental impacts of the proposed leasing action and alternatives, and other coal and noncoal development activities.” 43 CFR § 3420.3-4(c).

In other words, if the Powder River Basin was a coal production region, the BLM would not only be required to set regional leasing levels based on consideration of environmental impacts, but would prepare a much more comprehensive EIS addressing

<sup>28</sup> Based on the high development scenario alternatives for the Hay Creek II, South Gillette, West Antelope II, and Wright Area LBAs.

the impacts of all lease tracts, both individually and cumulatively, before moving to lease coal in the Powder River Basin.

Not only would environmental impacts be appropriately considered, but the public would have numerous opportunities to submit input not only on regional coal leasing levels, but on the regional leasing EIS as well. *See* 43 CFR §§ 3420.2 and 3420.3-4. The regulations give the public an opportunity to consider the environmental effects of regional leasing levels and of tract selections for leasing. By “decertifying” the Powder River Basin as a coal production region, the BLM has shut the door on the ability of the public to influence regional leasing levels and the selection of regional tracts for leasing. Currently, the public is simply forced to respond to LBAs proffered by coal companies.

The inability of the BLM to fully address the environmental impacts of regional coal leasing in the Powder River Basin and to fully involve the public in accordance with the competitive leasing requirements of 43 CFR § 4320, is especially problematic in light of the global warming impacts of coal leasing in the Powder River Basin. Put simply, the BLM has failed to establish regional leasing levels accordingly based on consideration of global warming impacts and failed to address the regional global warming impacts of coal leasing in the Powder River Basin. The agency has also denied the public the ability to influence regional leasing levels based on their concerns over global warming.

**d. The DEIS Cannot Serve as Functional Equivalent to a Regional Leasing EIS, Which Would Otherwise be Required**

Although the BLM may claim that the Hay Creek II DEIS fulfills the agency’s duties to consider regional leasing impacts and involve the public, this is not the case. Particularly in the context of global warming and GHG emissions, there is no possible way that the DEIS could serve as a functional equivalent.

While the DEIS presents some regional data regarding CO<sub>2</sub> emissions for the Powder River basin region, the public does not have an opportunity to comment on these regional impacts because the DEIS only deals with the question of leasing the Hay Creek II LBA. Thus, this DEIS cannot be a “functional equivalent” of a regional EIS because the action considered, as well as the alternatives considered, are limited in size and scope to the Hay Creek II LBA.

Moreover, the BLM emphasizes the limited scope of this NEPA analysis by asserting that the No Action Alternative would not result in fewer CO<sub>2</sub> emissions because other coal mines would supply just as much coal to the national market. Although this claim is spurious, to say the least, under a regional leasing level EIS, this would certainly not be true because the Powder River Basin is the United States’ largest sources of coal. A decision not to lease any coal in the Basin would undoubtedly significantly impact the nation’s coal supply and national CO<sub>2</sub> emissions. Under a regional EIS, the public would be able to comment on a No Action Alternative or various other action alternatives that could better address the need to reduce national CO<sub>2</sub> emissions in order to mitigate the impacts of global warming. Here, in contrast, the public may only submit comments on Alternatives that the BLM asserts will not impact climate change anyway. Thus, the LBA process does not provide the public with an opportunity to

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consider and comment upon the significant environmental effects caused by the tremendous amount of CO<sub>2</sub> emissions release by coal from the Powder River Basin region.

Regardless, the BLM cannot claim that the Hay Creek II DEIS fulfills the requirements of a regional leasing EIS, yet fail to adhere to other procedures under 40 CFR § 3420 regarding the establishment of regional leasing levels and activity planning, among other requirements.

**e. The Powder River Regional Coal Team is Illegally Operating**

We finally want to raise the concern that the Powder River Regional Coal Team appears to be operating illegally. Under BLM regulation, Regional Coal Teams are established only for coal production regions. *See* 43 CFR § 3400.4(a). Because the Powder River Basin has been “decertified” as a coal production region, the Regional Coal Team is not legally allowed to exist or function in any of the capacities set forth under BLM’s coal leasing regulations at 43 CFR §§ 3400 and 3420.

**9. Even if the Decertification of the Powder River Basin Remains Appropriate, the BLM Must Still Assess Whether the Hay Creek II LBA Would be Contrary to the Public Interest**

Under the LBA regulations, the BLM must reject any application that, on the basis of environmental or other sufficient reasons, would be contrary to the public interest. *See* 43 CFR § 3425.1-8. In this case, even if the BLM determines that the “decertification” of the Powder River Basin was appropriate, the agency must still provide a full and thorough assessment as to whether the Hay Creek II LBA is contrary to the public interest.

In this case, given the global warming impacts of the Hay Creek II LBA, it appears apparent that it would be contrary to the public interest to approve the LBAs. It is undisputed that anthropogenically generated carbon dioxide and other greenhouse gases present a substantial endangerment to the health of persons and the environment and that denial of the Hay Creek II LBA is necessary to protect the long-term health of the public, the environment, and the economy. As already discussed, and as the BLM has already disclosed, coal from the Hay Creek II LBA will be burned, generating massive amounts of carbon dioxide, fueling global warming.

Climate change is the most-serious threat to public health and the environment facing the world today. The evidence is that climate change, including dangerous increases in temperature, primarily attributable to human emissions of carbon dioxide and other greenhouse gases is occurring now, and has already caused harm to the health of persons and the environment. Unless effective measures to address climate change and its consequences are implemented in the immediate future, harm to human health and the environment of unprecedented severity and scope, including additional loss of human life and collapse of entire ecosystems may result.

WildEarth Guardians has submitted numerous pieces of scientific information and comments disclosing and discussing the effects of global warming and the need for the BLM to urgently address the problem. The BLM has similarly disclosed in the DEIS scientific

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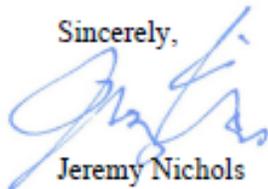
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information and analysis documenting the contribution of coal mining in the Powder River Basin and subsequent coal burning to greenhouse gas emissions and global warming. In light of the clear link between anthropogenic greenhouse gas emissions and global warming, as well as the massive impact Powder River Basin coal has on overall greenhouse gas emissions within the United States, the BLM has clear reason to reject the Hay Creek II LBA pursuant to 43 CFR § 3425.1-8.

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Thank you for the opportunity to comment.

Sincerely,



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May 12, 2010

Wyoming High Plains District Office  
Bureau of Land Management  
Attn: Teresa Johnson  
2987 Prospector Drive  
Casper, WY 82604

**Re: Hay Creek II Coal Lease Draft EIS Comments**

Dear Ms. Johnson:

In submitting our May 11, 2010 comments on the Hay Creek II Coal Lease by Application ("LBA") Draft Environmental Impact Statement ("DEIS"), we inadvertently left the Sierra Club off as a cosignatory and a party to those comments. Thus, for your records, the Sierra Club hereby joins WildEarth Guardians' as a party to the May 11, 2010 comments on the Hay Creek II LBA and DEIS. Their contact information is below. Thank you.

Sincerely,

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## BLM RESPONSES TO COMMENT LETTER 10

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### A) Purpose and Need

Please review Section 1.2; the BLM has stated the purpose and need of the EIS and the proposed action. The purpose of this EIS is to analyze and disclose the potential effects to the natural and human environment from the proposed leasing of a maintenance tract of federal coal in the Wyoming Powder River Basin (PRB). A mining operator made application to lease a tract of federal coal in order to have sufficient coal reserves to continue to operate an already existing mine (FEIS at 1.1.1). Although leasing this tract would not authorize mining operations on those lands, the EIS evaluates the potential impacts of mining the tract because mining is a logical consequence of issuing a lease for a maintenance tract of federal coal (FEIS at 1.1.2). The EIS presents the Bureau of Land Management's (BLM's) analysis of environmental impacts under the authority of the National environmental Policy Act (NEPA) and associated rules and guidelines.

Sections 1.3 and 1.4 of the EIS – immediately following the section on purpose and need – describe the regulatory framework and responsibilities for federal coal development, as well as enumerating BLM's relevant guidelines and regulations. These include compliance with the 43CFR 3400 regulations cited in the comment.

The final EIS explains the extent of BLM's decision-making authority to lease coal on federal lands and our mission under our various mineral leasing laws which is to encourage the development of domestic coal reserves and reduction of US dependence on foreign sources of energy.

The EIS is not intended to be an environmental analysis of the numerous technologies that are capable of producing electricity. The FEIS has been revised to include additional information regarding the projected electric generation portfolio of the United States. Studies have indicated that even with a considerably more optimistic projection for renewable sources, coal use continues to be projected as the largest portion of the domestic electric fuel mix until at least 2035.

BLM does have wide discretion in determining the extent and identification of lands to consider offering in response to a coal lease application. The FEIS addresses a full range of alternatives to the lease by application (LBA) submitted by the applicant. The range includes an alternative which represents all lands that contain coal reserves that are comparable to those applied for and which may be efficiently recovered with the LBA, an alternative which contains lands that may enhance competitive interest in the tract, and an alternative which contains lands that could be bypassed if not leased. On the other end of the range is the No Action Alternative.

### B) Global warming and GHG

Global warming, GHGs, and climate change were thoroughly discussed in chapters 3 and 4. In chapter 3, specifically section 3.3.2.1, there is a discussion of methane and CBNG. The EIS estimated direct emission of GHG because of continuing operations at the Buckskin mine in section 3.18.3 and table 3.18-2. The potential GHG volumes resulting from the assumed use of this coal at dispersed electric generation facilities was also discussed. Further, section 4.2.14.1 in chapter 4 of the EIS discusses GHGs and climate change in depth including the observed and projected effects of global warming, sea level changes, differential temperature changes, and changes to vegetation and habitat.

In chapter 4 (section 4.2.14.1 and section 4.2.14.2), we estimated the amount of GHG emissions that could be attributed to coal production from leasing the proposed LBAs, as well as from the forecast coal production from all coal mines in the Wyoming PRB. It was assumed that all PRB coal would be used for coal-fired electric power generation. This gives an upper estimate of GHG emissions resulting from use of the coal that would be produced from the proposed LBA and for forecast total PRB coal production. The estimate was derived by relating the portion of coal produced in the Wyoming PRB to national steam coal totals, and then applying that ratio to the total emission of GHG estimated in the U.S. from coal-fired electric generation.

The potential impacts of climate change represent the cumulative aggregation of all worldwide GHG emissions. The EIS provides a meaningful context and measure of the relative significance of coal use from the proposed LBAs and overall projected PRB coal production on total GHG emissions.

Additionally the EIS states that policies regulating specific levels of significance have not yet been established for GHG emissions. Given the state of the science, it is not possible to associate specific actions with the specific global impacts such as potential climate effects. Since there are no tools available to quantify incremental climate changes associated with these GHG emissions, the analysis cannot reach conclusions as to the extent or significance of the emissions on the global climate.

The EIS addresses the environmental effects of leasing federal coal and the potential mining of that coal. The EIS addresses the environmental effects of leasing and potentially mining federal coal. The document also discloses the indirect emissions presuming the coal will be burned at utility power plants. The EIS neither attempts to estimate the cost of GHG emissions from coal combustion at power plants nor does it assert that the cost of GHG is zero or any particular value, as there is no known threshold or context for this value. In a regulatory structure where GHG control costs factor into electric generation costs, coal users would likely weigh these costs into capital and operating decisions. Electric generation activity is directly influenced by consumer demand. If electricity cannot be supplied to meet demand, power prices rise until the demand falls. Measures to reduce GHG emissions from coal burning are applicable at the place where the coal is consumed because the coal consumer must comply with regulatory and price constraints and this will bear on fuel choices. Infrastructure, equipment availability, incentives, and cost also determine the potential for switching to non-carbon based electric generation. Mining the lease reserves and the continued operation of a Powder River Basin mine is not directly tied to any existing or proposed electric generation facility. Limiting one or even several points of fuel supply will not affect coal use because of the diverse group of national and international suppliers.

A number of broad alternatives such as mitigation funds, taxes, and specific conditions exist that could be applied to any coal mining operator. However, revenues from coal leases are dispersed in a fixed formula specified in the Mineral Leasing Act (MLA). The Department of the Interior (DOI) has no discretion in this dispersion. Specific lease conditions apply only to that lease and are not a workable mechanism to regulate mining operations. These proposals would be programmatic or legislative in nature, and while considered, are beyond the scope and authority of the coal leasing actions addressed in this EIS. Coal mining companies do not burn coal and so do not purchase carbon offsets for burning coal. Facilities that burn coal would be required to purchase carbon offsets if the state that those facilities are in, or the Environmental Protection Agency (EPA), requires such offsets to be purchased. In the US, such offsets are not required, although companies, individuals, and governments can purchase carbon offsets through voluntary programs. The Buckskin Mine voluntarily uses electric powered heavy equipment (such as haul trucks and shovels) whenever possible as part of their air quality mitigation

plans. All other vehicle standards are regulated by the Department of Transportation through which the EPA is taking measures to reduce greenhouse gas emissions from vehicles nationwide. Please see the following website for more information on vehicle emission standards:

<http://www.epa.gov/oms/climate/regulations.htm>.

BLM has estimated GHG emissions tied to the projected use of PRB coal as a fuel for electric generation. These emission levels are significantly large, but not new and not due to the proposed leasing of the Hay Creek II LBA, or presently proposed leasing cumulatively. Our analysis recognizes that the addition of non-carbon fueled electric generation sources could reduce future GHG emissions. Further, the addition of alternate sources of electric generation would potentially help to conserve carbon-based fuels and provide a broader portfolio of electric sources. The EIS discloses that the rate of consumption of coal in general, and PRB coal specifically, is not driven by leasing actions but is driven by future electric demand, regulatory frameworks, and relative costs and efficiencies of electric generation.

Please review the BLM National Environmental Policy Act (NEPA) Handbook H-1790-1 online at <http://www.blm.gov/wo/st/en/info/nepa.html>. As described in the handbook, proposed federal projects that are externally generated actions, like coal lease applications filed by a proponent, include the formulation of a range of alternatives encompassing denial of the request (No Action), approval of the request as proposed by the proponent, and approval of the request with modifications as made by BLM to the proponent's proposal. As exemplified in H-1790-1, the Buckskin Mine Hay Creek II coal EIS range of alternatives carry out the intent and spirit of NEPA.

The EIS is not an environmental analysis of the numerous technologies that are capable of producing electricity. The document was prepared pursuant to the NEPA and other applicable regulations and statutes to address possible environmental and socioeconomic impacts that could result from the Hay Creek II coal lease application. The environmental effects and impacts associated with the wide variety of renewable electric generation technologies are well beyond the scope of this EIS.

### C) Cumulative Impacts of DOI-authorized Activities

Regionally connected actions have been addressed in chapter 4. That chapter addresses current and planned development and describes cumulative development and environmental consequences of that development in the PRB. Both low and high production scenarios with projections to 2020 are discussed. Past, present, and reasonably foreseeable development and the cumulative environmental consequences of that development are also detailed. The years 2010, 2015, and 2020 were selected for the analysis of the direct, indirect, and cumulative impacts in chapter 4. This is the duration of the expected production as related to the LBA coal reserves.

This comment suggests that the EIS should examine a wide variety of actions with the only connection being that all the actions are under the jurisdiction of the DOI. The suggested approach in this comment does not recognize that each of these proposals are federal actions in their own right, and must be evaluated in light of the effects of that action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions.

The EIS addresses the environmental effects of leasing coal in the PRB and the logical result that the coal would potentially be mined by adjacent operating mines. The document goes on to disclose indirect emissions with the assumption that coal would be mined and burned to produce electricity. It is

beyond the scope of this EIS to analyze all the DOI-authorized projects and proposed activities that occur in the United States.

The BLM began a regional technical study in 2003. The Powder River Basin Coal Review is a dynamic, expanding body of information. Data is added continuously as it becomes available. The Review has been available to the public since 2006 and was the subject of an open house in May of that year to explain and demonstrate the modeling and report products. The Review is available online at: [http://www.blm.gov/wy/st/en/programs/energy/Coal\\_Resources/PRB\\_Coal/prbdocs.html](http://www.blm.gov/wy/st/en/programs/energy/Coal_Resources/PRB_Coal/prbdocs.html).

The intent of the review was to evaluate the current condition of environmental and socioeconomic aspects in the PRB for a base year, to project reasonably foreseeable development for future years, and to develop models as well as other quantitative and qualitative tools to estimate future effects on environmental and socioeconomic aspects. The PRB coal review is not a NEPA document. It is a planning tool, a set of environmental impact analysis tools, and, when maintained through the years, is a method to calibrate development projections and related estimations of effects.

The coal review products were delivered and posted for public access in 2005, 2006, and 2009. Many of the initial reports have been updated. For example, the 2010 air quality modeling report has been supplemented by adding 2015 modeling and, most recently, 2020 modeling. BLM has also tracked annual development activity and has updated that work through 2008; the 2009 data will be added as it becomes available. With the 2009 completion of the groundwater model and the 2020 air quality modeling work, the reports have been issued and incorporated into the Hay Creek II FEIS cumulative analysis.

Modeling and report updates and revisions are posted to the website as they are completed and used as a tool for cumulative impact analysis and planning. BLM recognizes that the PRB coal review is not the only source for cumulative impact analysis which is why land use plans, WDEQ's Cumulative Hydrologic Impact Assessments, and other sources and tools are used in addition to the Coal Review.

#### D) Background PM<sub>10</sub> (particulate matter measuring 10 micrometers or less in diameter) Impacts

The BLM neither permits, nor authorizes, mining operations and does not have the authority to regulate mining activities or mitigate air quality impacts. As discussed in detail in section 1.3 of the EIS, the WDEQ is authorized by the Secretary of the Interior to regulate surface coal mining operations and surface effects of mining on federal and non-federal lands within Wyoming.

It is stated in section 3.4.2.1 and section 3.4.2.3 of the EIS that the WDEQ/AQD requires the Wyoming PRB mines to collect air quality data. WDEQ/AQD has, by statute, the authority and responsibility to require mitigation for air quality impacts.

Air quality modeling for the Buckskin Mine is discussed in section 3.4.2 and appendix G. If the mine acquires the LBA tract, their current air quality permit will have to be amended to include the new lease before mining activities can proceed into the new lease area. New air quality modeling would need to be conducted in support of that permit application demonstrating on-going compliance with all applicable ambient standards.

The WDEQ conducts regularly scheduled mine inspections. The control measures identified as "best available control measure (BACM) that are employed at each of the mines are directed at transient problem areas or sites that are unique to the particular operation and are typically action measures rather than devices or installations. However, the actions employed by the mines during "natural events" can

be observed and noted during the agency's inspections. We describe Wyoming's natural events action policy (NEAP), including two lists of control measures designed to prevent exceedances during high wind events. Included in the lists are the measures that the mines can implement continuously so that they are in place before a high wind event occurs. These measures primarily address the principal mine-controlled sources of fugitive dust, which are large contiguous disturbed areas. The second list is an additional category of control measures that include actions that can be taken during a high wind event, depending on site-specific conditions. The implementation of best available control technology (BACT), BACM, and reactionary control measures assure that anthropogenic dust emissions from the coal mines in the PRB are controlled to the greatest extent possible. PM<sub>10</sub> regulatory enforcement, monitoring and control is regulated by the WDEQ by agreement with EPA.

#### E) Ozone (O<sub>3</sub>), Nitrogen Dioxide (NO<sub>2</sub>), National Ambient Air Quality Standards (NAAQS), and Wyoming Ambient Air Quality Standards (WAAQS)

Section 3.4.3 contains the discussion of ozone, NO<sub>2</sub> and NAAQS in the general analysis area. Section 3.4.3.3 contains the discussion of the new 1-hour NO<sub>2</sub> and NAAQS.

Section 4.2.3 continues the discussion of NO<sub>2</sub>, and appendix G at G-12 has additional discussion of NO<sub>2</sub>. Section 3.4.3.1 addresses the analysis and impacts of short-term NO<sub>2</sub> NAAQS.

The BLM neither permits, nor authorizes, mining operations and does not have the authority to regulate mining activities or mitigate air quality impacts. As discussed in detail in section 1.3 of the EIS, the WDEQ is authorized by the Secretary of the Interior to regulate surface coal mining operations and surface effects of mining on federal and non-federal lands within Wyoming.

Ground-level ozone is not emitted directly into the air; it but is created by sources of nitrogen oxide (NO<sub>x</sub>), which in the presence of volatile organic compounds (VOCs), reacts to form ground-level ozone. Therefore, the statement made in the EIS that measures to reduce mine-related NO<sub>x</sub> emissions should also reduce the potential for the formation of ground-level O<sub>3</sub> in the PRB is entirely reasonable.

Section 3.4.3 (Emissions of Nitrogen Oxides and Ozone) has been updated and revised in the FEIS. The EIS discloses all sources for these gas emissions and the monitoring efforts of the WDEQ in the PRB.

The WDEQ does not currently require the PRB coal mines to ozone monitor or model ozone. Therefore, the applicant mines' current air quality permits do not address impacts to the ozone standards, and ozone monitoring data for the eastern PRB are limited. BLM has disclosed the sources of ozone emissions from the mining operations and the environmental consequences related to it.

However, ozone levels have been monitored by WDEQ/AQD at its ambient air quality monitoring sites in the PRB since 2001. An exceedance of the O<sub>3</sub> 8-hour standard occurs if the fourth-highest daily maximum value is above the level of the standard. Table 3.4-4 shows that no exceedances of the O<sub>3</sub> standard have occurred at the monitoring site closest to the Buckskin Mine when evaluated under the standard in place at the time the values were recorded. The EIS discloses that BLM expects a stricter O<sub>3</sub> standard of between 0.06 and 0.07 parts per million (ppm) to be announced, and that such a standard could trigger non-attainment for ozone in the northern PRB.

The comment suggests that ozone levels in the PRB are trending upward. BLM cannot make that assertion based on the limited data that are currently available. Additional data from these two sites and preferably a larger ozone air quality monitoring network covering more of the basin are needed before any trends can be clearly defined. Based on data collected at WDEQ's Thunder Basin National

Grassland ozone monitoring site from 2005 through 2009, the background ozone level is estimated as  $134 \mu\text{g}/\text{m}^3$  (0.069 ppm). The Forest Service operates this monitor and reports to the EPA's national database (AQS), accessible through Air Explorer on the web at <http://www.epa.gov/airexplorer/>.

Note that on January 6, 2010, EPA proposed to strengthen the 8-hour "primary" standard NAAQS for ground-level ozone to a level within the range of 0.060-0.070 ppm. For the primary standard, ozone concentrations are averaged over 8-hour periods. The fourth highest 8-hour value at a particular monitor in the most recent year is averaged with the fourth-highest 8-hour values from the previous 2 years. This produces a 3-year average. To meet the standard, the 3-year average must be less than or equal to the level of the standard. In light of EPA's proposed ozone standard, additional ozone monitors would be needed in the PRB before a quantitative assessment of ozone impacts in the PRB could be made. Therefore, there is potential for this area to become designated non-attainment if a new lower standard is promulgated. Promulgation of a revised ozone standard has been delayed. The standard may now be issued sometime in 2011. If a new standard is issued, it would immediately become effective. Wyoming may adopt the new standard into its rules, but until it does, there would be two standards in effect (state and federal). Compliance will be determined in accordance with the more stringent standard.

An area could be deemed "non-attainment" for ozone after the new standard is issued, if air monitoring results in the area show that the three year average of the fourth-highest daily maximum 8-hour average exceeds the standard. This determination requires three years of monitoring data, documented exceedances of the standard, and the state designating a geographic area around the monitored area. EPA has to approve this geographic area, and the state would then prepare a state implementation plan (SIP) outlining how the area is to be brought back into compliance. The resulting SIP would outline regulatory measures that would pertain to all air quality permits in that area.

To date, the WDEQ air quality permitting process has not required Buckskin to perform short-term modeling of  $\text{NO}_2$  impacts. Therefore, no model outputs are currently available to assess the mine's compliance with the 1-hour NAAQS standard for  $\text{NO}_2$ . It is anticipated that short-term modeling will be required at a future date, pending incorporation of the new 1-hour  $\text{NO}_2$  standard in Wyoming's SIP and the Wyoming Air Quality Standards and Regulations (WAQSR).

Notwithstanding this deficiency, historical  $\text{NO}_2$  concentrations are available on an hourly basis at two monitoring sites in the northern PRB. These data afford a surrogate measure of compliance with the 1-hour standard in the general area of the Buckskin Mine. Table 3.4-5 summarizes hourly  $\text{NO}_2$  monitoring results for the Thunder Basin National Grassland (TBNG), and Belle Ayr Mine (BAM) sites. Based on the TBNG monitor, a background concentration of 11 parts per billion (ppb) can be compared to the NAAQS of 100 ppb, where both apply to the three-year average of the 98th percentile of the yearly distribution of 1-hour daily maximum  $\text{NO}_2$  concentrations. The BAM monitor shows a comparable three-year average of nearly 35 ppb (after omitting incomplete data years), roughly three times the background value but one third of the NAAQS standard.

#### F) Visibility Impacts

Visibility impacts are discussed in section 3.4.4 as well as in section 3.4.2 (Particulate Emissions). In addition, table 3.0-2 has entries on visibility. In chapter 4, visibility is covered in section 4.2.3 (Air Quality) with table 4-14 and table 4.13 showing modeled change in visibility impacts at class I and sensitive class II areas. Please see these sections.

Visibility is defined as the distance one can see and the ability to perceive color, contrast, and detail. PM<sub>2.5</sub> (particulate matter measuring 2.5 micrometers or less in diameter) is the main cause of visibility impairment. Visual range, one of several ways to express visibility, is the farthest distance from which a person can see a landscape feature. Without the effects of human-caused air pollution, a natural visual range is estimated to be about 140 miles in the western part of the U.S. and 90 miles in the eastern part. Visibility impairment is expressed in terms of deciview (dv). The dv index was developed as a linear perceived visual change. It is the unit of measure EPA uses in the regional haze rule to achieve the national visibility goal. This goal was established as part of the Clean Air Act (CAA) to prevent any future, and remedy any existing, impairment of visibility in mandatory federal class I areas that result from human-caused air pollution. The dv index is a scale related to visual perception that has a value near zero for a pristine atmosphere.

Sections 3.4.2.1 and 3.4.3.1 discuss that PM<sub>2.5</sub> is a major cause of visibility impairment, with secondary impacts from NO<sub>x</sub> emissions. Mitigation measures used to limit emissions of particulate matter are discussed in section 3.4.2.3, and NO<sub>x</sub> mitigation measures are discussed in section 3.4.3.3. Additional information is provided in appendix G.

Section 169 of the CAA addresses visibility protection. On June 15, 2005, the EPA issued final amendments to its July 1999 regional haze rule. These amendments apply to the provisions of the regional haze rule that require emission controls known as best available retrofit technology, or BART, for industrial facilities emitting air pollutants that reduce visibility. The nearest class I PSD (prevention of significant deterioration) areas to the general analysis area for this LBA are Wind Cave National Park (about 100 miles east), and the Badlands wilderness area (about 150 miles east). There are also five class II PSD areas 80 to 100 miles away from the LBA application general analysis area; all others are at least 100 miles away (table 3.4-8 of the FEIS). This EIS uses two tools to evaluate visibility impacts (regional modeling and visibility monitoring).

Regional modeling is used to estimate and disclose the change in the number of days that a change of 10% or more in extinction would occur by 2020, in relation to a baseline. Table 4-13 (FEIS) referenced in the comment portrays the results of this predictive modeling, estimating change to regional visibility over a 16 year period, based on all reasonably foreseeable projected regional activity. Additionally, on site monitoring at class I areas is included to show actual measured changes in visibility over the period of record (1989 to 2005). While monitoring results show annual variability in visibility impairment at two sites, the trend is stable overall with some slight lessening. PRB surface mines have not been subject to permitting under the PSD regulations because those mine emissions that are subject to PSD applicability levels fall below regulatory thresholds.

Visibility monitoring in Wyoming consists of both the WDEQ-sponsored Wyoming visibility monitoring network and the interagency monitoring of protected visual environments program (IMPROVE) program. The WDEQ has sited two visibility-monitoring stations in the PRB. The TBNG site is 32 miles north of Gillette and the Cloud Peak Wilderness Area site is 14 miles west of Buffalo (approximately 84 miles west of Gillette). Both sites include a variety of sophisticated monitoring equipment, as described in appendix G under "Existing Air Quality." These sites are used to characterize the extent, frequency of occurrence, and magnitude of impairments to visual air quality.

The Buckskin Mine ambient monitoring network consists of two low-volume Rupprecht & Patashnick Tapered Element Oscillating Microbalance (TEOM) PM<sub>10</sub> particulate continuous monitors. The monitors were installed in late October 2000 to replace two high-volume TSP (total suspended

particulate) monitors located at the same sites. The continuous monitors collect uninterrupted, hourly average concentrations of particulate matter. The TEOM monitors meet the EPA Automated Equivalency Method (EQSA 0495-100).

Air pollution is controlled by state and federal air quality regulations and standards established under the federal CAA amendments administered by EPA. EPA established the NAAQS under the authority of the CAA. The WAAQS for the PM<sub>10</sub> annual, the SO<sub>x</sub> annual, and 24-hour levels are more stringent than the NAAQS and are enforced by WDEQ/AQD. State implementation plans are in place to ensure that proposed actions like coal mining comply with all associated air quality regulations and criteria.

### G) Decertification

To be clear, the PRB Coal Production Region is a coal production region (PRBCPR). Leasing to maintain production at existing mines using the LBA process (43CFR3425) is the practice in the region. This has been the procedure since the region was decertified in 1990. Decertification recognized the region as a mature coal production region where the proper leasing mechanism was production maintenance leasing in response to identified needs of operating mines to replace reserves as available leased reserves were depleted. Decertification does not mean that the region is not a significant national coal producing region. Management of coal leasing in the PRBCPR by this method has been an issue first raised in comments on the South Gillette Area Coal DEIS, and the issue was presented to the PRB Regional Coal Team (RCT) at the team's meeting in November 2009. In November 2009, WildEarth Guardians petitioned the Secretary of Interior and the BLM Director to recertify the Powder River Basin Coal Production Region. In January 2011, BLM Director Robert Abbey denied the petition based on the following facts:

- All the mines in the PRB have been in place for decades;
- The LBA process provides coal reserves for leasing at a level approximately equal to the depletion by mining thereby assuring an optimum return to the public;
- The LBA process has effectively prevented speculation and bypass of Federal coal resources. The LBA process supports competition for Federal coal leases; and,
- The BLM has managed and continues to manage the LBA process consistent with the criteria and conditions that led to decertification of the PRBCPR in 1990.

The Powder River RCT meetings are open to the public and provide an opportunity for comment and statements. You are welcome to present, in person or in writing, to the team at any future meeting. The meetings are published in the Federal Register and a press release is posted on the BLM's web site.

The coal screening process was used to identify areas suitable for coal mining in the PRB. The Buffalo resource management plan update (2001), located on the BLM's Buffalo Field Office website at <http://www.blm.gov/wy/st/en/programs/Planning/rmps.html> contains a more detailed discussion in appendix E. The coal screening process consists of four steps: identify areas with coal development potential; apply the coal unsuitability criteria (20 criteria); assess multiple land use considerations; and, consult with surface owners concerning surface mining of federal coal under their private surface.

After step one of the coal screening process was applied, the BLM identified two areas with coal development potential: the Sheridan area was about 73,000 acres and contained 2.75 billion tons of mineable coal reserves. The Gillette area was around 494,000 acres with approximately 47.5 billion tons of mineable coal reserves. The results of step two (applying the 20 unsuitability criteria) are

covered in appendix B of this FEIS. Multiple land use considerations were assessed (step three), and it was determined that the existence of a coal lease will not preclude leasing other minerals for development with appropriate stipulations attached for simultaneous development. In the final step (surface owner consultation) 569 letters were sent with 317 responses received. About 20% of the private surface acre owners indicated an initial preference against mining.

You are correct that production of PRB coal has increased steadily since decertification. Part of this growth results from population increases, which in turn increases the demand for electric power and the related increase in demand for steam coal to fuel low-cost electric generation. There are also cost (mining and reclamation) advantages and sulfur compliance issues that have favored PRB coal over other domestic coal regions. The production increase has been made with no new mining operations opening since decertification; in fact, several of the operations have consolidated. As shown in figure 4-1 in the EIS, leasing under the LBA process has essentially occurred at the same rate as reserves existing prior to decertification were depleted. This level of leasing activity remains consistent with managing the coal production region under the decertification action.

Processing the Hay Creek II lease by application is consistent with the practice we follow in the decertified PRBCPR. These are production maintenance tracts, have been reviewed by the Powder River RCT, and are being reviewed under the LBA process in accordance with 43 CFR 3425.

Unsuitability for consideration for coal leasing is covered in appendix B. This determination is based on findings from the resource management plan (RMP) that encompasses the Buckskin Mine area. Appendix B in the EIS summarizes the findings of the RMP as well as a review completed as part of the EIS analyses to update and specify the acceptability for further consideration for coal leasing of lands within the general analysis area of the Buckskin Mine Hay Creek II EIS.

Like the regional leasing option under 43 CFR 3420, lease by application requires appropriate analysis and assessment of the environmental impacts of coal leasing. Lease by application also requires the opportunity for public participation. The NEPA process resulting in the Buckskin Mine Hay Creek II EIS achieves these requirements. Alternative regional leasing levels are not addressed in the LBA process because production maintenance leasing is the defined leasing level appropriate to a decertified coal production region. Coal leasing decisions under the lease by application process consider coal economics, both direct and cumulative impacts to the environment, and socioeconomic impacts.

The Buckskin Mine Hay Creek II EIS is not a regional EIS in the sense of the regulations at 43 CFR 3420. However, the EIS has been properly scoped to address direct, indirect, and cumulative impacts of the proposed leasing. BLM has chosen to address the currently pending LBAs in four separate EISs, some addressing groups of LBAs because of their geographical proximity, others as individual LBA EISs due to either no other LBAs in proximity or the fact that the EIS was already well underway prior to the nearby LBAs being filed. Each EIS is consistent in addressing the specific impacts of each LBA, in addressing the cumulative impacts of the specific LBA when added to other reasonably foreseeable activity, and in having complete public involvement at every step in the NEPA process.

The EIS is a disclosure document, not a decision document. The Record of Decision (ROD) is the decision document. Determination of public interest would be addressed in the ROD.