

Bureau of Land Management

Analysis and Response of Public Comments Received

on the

***South Gillette Area Coal Final Environmental Impact
Statement***

July 2010

TABLE OF CONTENTS

	Page
INTRODUCTION	1
ISSUES/CONCERNS RAISED	2
Climate Change, Greenhouse Gasses	2
Visibility, Air quality, Ozone	6
Select the No Action Alternative to Mitigate Climate Change	9
Reclamation	10
Purpose and Need	12
Leasing Inconsistent with Secretarial Orders	13
Wind Energy	14
Decertification of the Powder River Coal Production Region	15
Leasing Not in the Public Interest	17
Water/Hydrologic Balance	18
Alluvial Valley Floors	19
Section 7 Consultation	19
Ute Ladie's-Tresses	20
Raptors	21
Blowout Penstemon	22
Sage Grouse	22
Mountain Plovers	24
Migratory Birds	25
Cultural Resources	25
Mercury Contamination	25
Hazardous and Solid Waste	26
Public Health	26
Mitigation Options	27
Cumulative Impacts	27
Irretrievable Loss	28
Supplemental Information	28
Nonresponsiveness to Draft EIS Comments	29
Readability of FEIS	29
Multiple Use Mandate	29
New Coal Mines	30
Coal Use for Electric Generation	30
Coal Leasing Program/Fair Market Value	31
Alternatives to Coal	32

INTRODUCTION

The *South Gillette Area Coal Draft EIS (DEIS)* was available for public comment from October 24 through December 24, 2008. All comments received on the DEIS were addressed in the final EIS (FEIS). The Environmental Protection Agency (EPA) announced the availability of the FEIS in the *Federal Register* on August 14, 2009; parties on the distribution list were sent copies of the final EIS at that time. The comment period for the final EIS ended on September 14, 2009. As explained on the first page of the FEIS, the public review period was open for 30 days after the EPA's Notice of Availability published in the *Federal Register*. The final EIS was also made available in pdf form and was posted to the Bureau of Land Management (BLM) Wyoming public website.

Letters and emails were received from:

- Clean Energy Action
- Crook County Land Use Planning and Zoning Commission
- Dorsey and Whitney LLP
- Powder River Basin Resource Council and Center for Biological Diversity
- Rio Tinto Energy America
- WildEarth Guardians

Additionally, the BLM received 14,860 emails from individuals. The emails were versions of two form letters. The first version was received from 423 individuals and the second version was received from 14,427 individuals. Within version one, four individuals modified their email to include additional comments. Within version two, 665 individuals modified their email to include additional comments.

Three of the individual letters, Dorsey and Whitney LLP, Crook County Land Use Planning and Zoning Commission, and Rio Tinto Energy America, included clarifying information, editorial corrections, or were supportive of the proposed action. This information is acknowledged and will be considered in any decisions that are made based on the FEIS.

The remaining three letters, as well as the two form letters and variations to those form letters, raised a variety of issues and concerns. BLM specialists reviewed all comments received on the FEIS to determine if they identified any significant new circumstances or information relevant to environmental concerns that would warrant BLM to prepare a supplemental EIS. Most comments were raised during the public review of the DEIS, were similar to comments received on the draft DEIS, and were addressed in the FEIS. The issues and comments raised are summarized below, along with BLM's response.

Public comments received by the BLM on the South Gillette Area Final EIS are available in their entirety at

http://www.blm.gov/wy/st/en/programs/energy/Coal_Resources/PRB_Coal.html

Public comments and the formal hearing transcript are also on file and can be reviewed at the BLM Wyoming High Plains District Office in Casper.

ISSUES/CONCERNS RAISED

Climate Change/Greenhouse Gasses

WildEarth Guardians

- The FEIS Fails to Adequately Analyze and Assess the Global Warming Impacts of the South Gillette LBAs in Accordance with NEPA.
- The FEIS Fails to Assess the Significance of the Direct, Indirect, and Cumulative GHG Emissions Associated with the South Gillette LBAs.
- The FEIS Fails to Quantify the Cost of GHG Emissions.
- The FEIS Fails to Adequately Analyze and Assess Global Warming Impacts.
- The FEIS Fails to Adequately Analyze and Assess the Cumulative Impacts of Department of Interior-authorized Activities.
- The FEIS Fails to Consider Reasonable Alternatives to Address the Global Warming Impacts of the South Gillette LBAs.

Clean Energy Action

- Climate Change.

Powder River Basin Resource Council

- Climate Change.

Response

The purpose of this EIS is to disclose the potential effects to the natural and human environment from the proposed leasing of four tracts to maintain production at four currently operating coal mines in the Powder River Basin (PRB) of Wyoming. Although leasing these tracts would not authorize mining operations on those tracts, the EIS evaluates the potential impacts of mining the tracts because mining 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 impact on the environment which results from the incremental impact of the proposed LBAs when added to other past, present, and reasonably foreseeable future actions that would add

to the impact of the proposed action. In this EIS, cumulative impacts are discussed in chapter 4.

The EIS recognizes and discusses the issues of greenhouse gasses (GHG) and climate change in depth. The EIS estimates direct emission of GHG as a result of continuing the four operating mines as a result of proposed leasing. The EIS also estimates the potential GHG volumes resulting from the assumed use of this coal at dispersed electric generation facilities. 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 the proposed LBAs and overall projected PRB coal production on total GHG emissions, and the FEIS recognizes the effects of historic warming on the western US (FEIS at page 4-113&114).

The site-specific impacts analyzed in this EIS are based on the assumption that if the LBA tract is offered for competitive lease, a lease would be issued, and mining would be permitted. We further assume that the applicant would be the lessee, and the lease would be permitted as an extension of the current mining operations. In chapter 3, we have estimated the change to emissions of GHG under each alternative LBA configuration, including the No Action Alternative (please see table 3-20 in the FEIS).

*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. The Wyoming Powder River Basin 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 earlier and 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 in the FEIS, we estimated the amount of GHG emissions that could be attributed to coal production as a result of leasing the proposed LBAs, 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 use of the coal that would be produced from the proposed LBAs and for forecast total PRB coal production. The estimate was done 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 use of carbon-based fuels as a primary fuel for electric generation results in the release of a large quantity of CO₂, a greenhouse gas, as estimated and disclosed in the FEIS. 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.

Commenters focus on the amount of CO₂ 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 CO₂ for electric generation is uncertain, and depends on economics and regulation of coal users in the future. 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 used published forecasts of coal use to establish the likely continuation of use 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.

Regarding the comment that the EIS does not attempt to estimate the cost of GHG emissions; the EIS is addressing 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 coal is mined and burned to produce electricity. The EIS is not addressing regulation of GHGs or setting standards for carbon fuel use. The EIS does not assert that the cost of GHG is zero or any particular value, as there is no known threshold or context for this value. As stated in the comment, 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, 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 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.

The comment suggests that the EIS should examine a wide variety of actions with the only connection being that the actions are under the jurisdiction of the Department of the Interior. The suggested approach fails to 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 non-federal) or person undertakes such other actions.

The EIS addresses a full range of alternatives to the lease by application 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.

Other forms of addressing increasing electric demand are noted in this EIS. Ongoing scientific research has identified the potential impacts of GHG emissions on the global climate. The addition of noncarbon fueled electric generation sources could reduce GHG emissions. Further, the addition of alternate sources of electric generation would conserve carbon fuels, which are not renewable in the short term, and would provide a broader portfolio of electric sources. The EIS estimates likely long term electric generation portfolios. However, the specific environmental effects of the variety of alternative electric generation technologies are not in the scope of this EIS. These technologies would be evaluated under the National Environmental Policy Act (NEPA) as they are proposed to be permitted and built.

The FEIS does identify the potential release of methane, both as a direct result of mining based on an inventory at the existing Antelope Mine (FEIS section 3.18) and the cumulative release of methane from activities in the PRB (FEIS section 4.2.13). These

estimates reflect mining and oil and gas activity based on national data scaled to activity in the PRB region. Surface mines release methane into the atmosphere as the coal is exposed and loaded in small diluted volumes. Flaring is not feasible with surface mining operations since flaring requires the gas to be concentrated in quantities sufficient to burn, as might be possible in an underground mine. We did recognize that large volumes of methane have been put to beneficial use as a result of CBNG (coal bed natural gas) recovery in advance of mining, and that by the time the coal is mined, methane in commercial quantities has been depleted.

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. 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 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 applicant mines in the South Gillette area already voluntarily use electric powered heavy equipment, such as haul trucks and draglines, 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>.

Please see appendix I in the FEIS regarding the response to comments on the DEIS submitted by Leslie Glustrom for Clean Energy Action. We acknowledge the considerable volume of studies and articles she submitted for our consideration. These are included in our administrative record for this EIS, and where used in the EIS, have been cited.

Visibility, Air Quality, Ozone

WildEarth Guardians

- The FEIS Fails to Adequately Analyze and Assess Ozone Impacts.
- The BLM is Inappropriately Assessing Impacts to the Ambient Air Quality Standards.
- The FEIS Fails to Provide any Quantitative Assessment of Ozone Impacts.

- The FEIS Provides no Quantitative Data Showing that any NO_x Reductions Will Lead to any Ozone Reductions.
- The BLM Fails to Demonstrate Compliance with FLPMA With Regards to Air Quality Impacts.

Clean Energy Action

- Visibility.
- Air Quality.

Powder River Basin Resource Council

- Air Quality Concerns.

Form Letter 2

- Concerned about air quality.

Response

Ozone has been included in EIS discussions on emissions of NO_x since NO_x is one of the main ingredients involved in the formation of ground level ozone. Under the Clean Air Act (CAA), the EPA has set protective health-based standards for ozone in the air we breathe. Prior to May 27, 2008, the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone was 0.080 ppm (157 µg/m³). In May of 2008, the EPA revised the 8-hour standard to 0.075 ppm (147 µg/m³). According to the EPA's AirData website, ozone levels have been monitored in the Powder River Basin since 2001. An exceedance of the ozone 8-hour standard occurs if the fourth highest daily maximum value is above the level of the standard (0.08 ppm prior to 2008 and 0.075 ppm since 2008). There are two ozone monitoring stations available: one with data starting in 2001 and the other with data starting in 2003. The Thunder Basin National Grassland monitor read 0.074 ppm in 2003 and 0.074 ppm in 2008. All other values read at that monitor were below that level. The south Campbell County monitor read 0.077 ppm in 2003 and 0.072 ppm in 2007. All other values read at that monitor were below that level.

In the Federal Land Management Policy Act (FLPMA), criteria for development and revision, it says that the Secretary shall – (8) “provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans;...” The Wyoming Department of Environmental Quality (WDEQ) sets, regulates, and enforces the state of Wyoming air quality standards. The Wyoming Ambient Air Quality Standards (WAAQS) are more stringent than the NAAQS. The WDEQ, Air Quality Division (AQD) sets and enforces air quality regulations for both BLM actions and coal mining in the Powder River Basin. The

WDEQ will not permit any activity which is out of compliance with the WAAQS. Information on the FLPMA can be found at <http://www.blm.gov/flpma/> 43 USC 1712(c) Section 202 – Land Use Planning.

The NAAQS are established by EPA under the authority of the CAA. The WAAQS for the PM₁₀ annual, the SO_x annual, and 24-hour levels are more stringent than the NAAQS and are enforced by the 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 them by the EPA under the CAA. In Wyoming, mines in the PRB are permitted under the CAA as regulated emission sources, and the permits identify mitigating measures that the permittee must do to comply with the permit. These measures currently in place at the South Gillette mines, and typically in place at other PRB mines, are explained in the FEIS at section 3-4. The WDEQ/AQD is able to condition permits to provide necessary mitigation and has stated clearly that they cannot issue any permit that violates ambient air quality standards.

Visibility is addressed in the air quality sections, specifically 3.4.4.1 and 4.2.3. The discussion in chapter 4 addresses cumulative visibility effects. The EIS evaluates prevention of significant deterioration (PSD) in chapters 3 and 4. 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 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 3-10 of the FEIS). This EIS uses two tools to evaluate visibility impacts. 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 2010, in relation to a baseline. 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.

Cumulative impacts to air quality are analyzed in section 4.2.3. In this section the effect of foreseeable development in the PRB, added to the impacts of the continued operation of the four South Gillette mines, is analyzed. The final EIS has specific modeling results for cumulative impacts by year 2010, 2015, and 2020. In a comparison the Update of the Task 3A Report for the Powder River Basin Coal Review Cumulative Air Quality Effects for 2020, determined that the findings were consistent with the current version of the Coal Review's reported cumulative effects projections for 2020 with a few significant exceptions. The most notable exception was a recalculation

lowering and shifting CBNG development effects. Overall, the reported quantitative findings remained consistent for the year 2020.

Because the WDEQ/AQD requires the Powder River Basin mines to collect air quality data, which is discussed in section 3.4.2.3, the eastern PRB is one of the most intensely monitored areas in the world. According to the EPA's AirData website, in 2007 there were six total suspended particulate monitors, five $PM_{2.5}$ monitors, and 36 PM_{10} monitors in the Wyoming portion of the Powder River Basin. Data for total suspended particulates dates back to 1980; data for PM_{10} dates back to 1989. Approximately 57,000 total suspended particulate samples had been collected through 2004, and approximately 47,550 PM_{10} samples had been collected through 2007. Information about the regulatory framework, the monitoring network, and PM_{10} concentration trends since monitoring began are included in appendix H of the FEIS. Existing site-specific air quality information for this EIS is included in the supplementary information document available at:

<http://www.blm.gov/pgdata/content/wy/en/info/NEPA/HighPlains/SouthGillette.html>.

No exceedances of the 24-hour or annual PM_{10} particulate standards have been documented by the Belle Ayr, Coal Creek, Caballo, or Cordero Rojo mines through 2006.

Select the No Action Alternative to Mitigate Climate Change

Form Letter 1

- Coal mining is fueling global warming leading to the release of 13% of the nations Green House Gas. Strip mining the South Gillette LBAs... leads to the release of 1.5 billion tons of CO₂.

Form Letter 2

- ...Climate scientist Dr. James Hansen has stated that burning existing coal reserves would lead to catastrophic global warming. Now is the time to embark on a clean-energy future in which we reduce atmospheric CO₂ levels back to below 350 parts per million, as leading scientists tell us we must to avoid a dangerously destabilizing our climate system. New coal mines have no place in this cleaner, brighter future. I urge the Bureau of Land Management to choose the no-action alternative and begin immediately to phase out the use of coal.

Response

The demand for electric power is not forecast to decrease, and there is presently substantial interest, potential policy and regulation to move from carbon fuels for electric generation. However, the facilities and infrastructure to provide electric generation from non-carbon resources in sufficient amounts to meet current and future demand is not yet in place. The EIS, at pages 4-106-108, discloses the results of two studies of future scenarios for sources of electric generation, which anticipate carbon fuels will still

represent a significant part of the electric generation through 2030. The proposed leasing action in this EIS, as well as the other proposed leasing actions currently under consideration in the PRB, would extend current production at already existing mines from 2020 to about 2030, and would contribute to the energy portfolio necessary to meet public power demands.

The FEIS estimates that, according to the Energy Information Administration, about 33% of the US energy-related CO₂ emissions resulted from coal fired electric generation in 2006. In that year, Wyoming PRB coal was used to provide 42% of the fuel for domestic coal-fired electric generation. The use of carbon based fuels as a primary fuel for electric generation does result in the release of a large quantity of CO₂, a greenhouse gas, as estimated and disclosed in the FEIS. A large portion of our existing domestic electric generating capacity is designed for carbon fuels

Since neither mining the LBA reserves, nor the continued operation of a PRB mine without acquiring the proposed additional reserves, is specifically tied to any definite, existing or proposed electric generation facility, the result of a production maintenance leasing decision has no direct effect on the expected release of GHGs as a result of carbon fuel use in electric generating facilities. Electric generation activity is directly influenced by consumer demand. If electricity cannot be supplied to meet demand, power prices will rise until the demand falls. Measures to reduce GHG releases are best applied at the place 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. Limiting one or even several points of fuel supply will not affect coal use, because of the diverse group of national and international suppliers.

We would expect that so long as existing coal fired electric generators can operate in accord with the regulatory and cost factors in effect in the future, they would be able to acquire necessary supplies of coal from national and international coal markets. The expected result if the mines in the PRB are not able to produce into the coal market in the future is that there would be less PRB coal available, and more non-PRB coal would be used. The PRB coal has been favored in this market in the past because it is low cost and sulfur-compliant. Mined land in the PRB has been able to be reclaimed with high success and with little residual adverse land use effects compared to other coal producing areas.

Reclamation

Clean Energy Action

- Reclamation.

Powder River Basin Resource Council

- Reclamation.

Form Letter 2

- Concerned that reclamation is not keeping pace with coal mining nor is being done to proper standards for environmental protection.

Response

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 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. 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 (FEIS at 2-6).

Table 4-2 in the FEIS (pages 4-10 and 11) summarizes a detailed review and projection of actual and projected disturbance and reclamation through the year 2020. This review reflects 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. 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). An accounting of acres mined to acres reclaimed is discussed in chapter 3, section 3.0, pages 3-2 and 3-6 of the FEIS for each LBA application.

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.

We believe the commenter's 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. There are several phases of bond release the mine operators may apply for that 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.

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.

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.

In the interim period 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).

Purpose and Need

WildEarth Guardians

- The Purpose and Need for the FEIS is Unclear and Appears too Narrow.
- The Purpose and Need is not Stated.
- The BLM Appears to Have Inappropriately Limited the Scope of its Decisionmaking Authority.

Powder River Basin Resource Council

- Purpose and need.

Response

Simply stated the purpose for BLM preparing the FEIS is to consider coal leasing applications received on federal coal lands (FEIS at 1-18). The need for the proposal is to allow the extension of current operations in the PRB to ensure the continued supply of low sulfur compliance coal which will be mined and sold to power plants for the purpose of electric power generation (FEIS at 1-19).

The FEIS 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 (FEIS at 1-20).

The EIS is being prepared in response to four coal lease applications received by BLM under the authority of the Mineral Leasing Act. The section goes on to explain BLM's discretion under the Act, in addressing these applications. It explains that the EIS is done to evaluate and disclose impacts that would result depending on BLM's decision in response to the action. Finally, the section describes the general purpose and need for the BLM coal leasing program, in which BLM is to manage publicly held coal reserves in a manner consistent with the public interest and law, policy and regulation.

The EIS is not a review or analysis of electric generation, or a justification for the continued use of this coal for any purpose. BLM recognizes that issuing a federal coal lease grants the lessee the exclusive right to obtain a mining permit, which would allow coal mining on the leased tract, subject to the terms of the lease, the mining permit, and applicable state and federal laws. The BLM leases the coal but does not permit mining or surface disturbance. The WDEQ and the Office of Surface Mining Reclamation and Enforcement (OSM) complete the permitting process. BLM's leasing action would not guarantee that the coal mining or coal burning will be permitted, or that the coal market for PRB coal will continue to be economically viable. These permitting and market uncertainties are reflected in the interest of private parties applying and competing for coal leases, if offered. The purpose and need for the action narrative includes this explanation.

Leasing Inconsistent with Secretarial Orders

WildEarth Guardians

Concerns that the Department of Interior Secretary Ken Salazar's management directions are not being implemented by the BLM coal leasing program.

Response

In Secretarial orders 3285 and 3289, Secretary Salazar is recognizing the importance of renewable energy development on BLM lands across the nation. Mr. Salazar acknowledges that the climate change situation requires a change in management. Secretarial Order 3285 "...establishes the development of renewable energy as a priority for the Department of the Interior and establishes a departmental Task Force on Energy and Climate Change." Secretarial Order 3289 establishes "...a Department-wide approach for applying scientific tools to increase understanding of climate change and to coordinate an effective response to its impacts on tribes and on the land, water, ocean, fish and wildlife, and cultural heritage resources that the Department manages." In a speech given at the Great Plains Energy Expo in Bismarck, N.D. in November 2009, Secretary Salazar said that, "The fact remains that oil and gas and coal are a very important part of our energy portfolio now and they will continue to be an important part of our energy portfolio in the future." He also said that more ways to burn coal that do not release as much carbon dioxide into the atmosphere must be found, and that renewable energy sources must be developed and the infrastructure built to transmit the renewable energy. The speech can be found at: http://www.farmandranchguide.com/articles/2009/11/18/ag_news/regional_news/news2.txt

Wind Energy

WildEarth Guardians

Concerns that the Department of Interior Secretary Ken Salazar's management directions are not being implemented by the BLM coal leasing program.

Form Letter 1

Develop Wind Power instead of Coal.

Form Letter 2

BLM should develop wind and other renewable energy instead of coal.

Response

Per our multiple-use mandate outlined in section 103 FLPMA, BLM does not per se, develop coal, wind, or any energy resource; but rather, manages the public lands and various resource values in a combination of balanced and diverse resource uses that take into account the present and future needs of the American people. In general, BLM responds to applications received from those interested in developing renewable and nonrenewable resources on public lands, consistent with our laws, statutes, regulations and policies.

The FEIS considers studies which look at future scenarios for sources of electric generation, and they both anticipate carbon fuels will still represent a significant part of the electric generation portfolio through 2030. Should PRB coal not be available for electric generation, other coal sources, whether foreign or domestic, would need to be secured to help meet the expected electrical generation demand. The air quality impacts from electric generation would be expected, at a minimum, to be the same regardless if PRB coal or other coal sources are used. As stated earlier the PRB coal has been favored for use in electric generation because of its low cost, and low sulfur and ash properties.

BLM Wyoming is in the process of considering several applications to develop wind energy resources. BLM has an active renewable energy program including a discrete organization (Renewable Energy Coordination Office) to facilitate the processing of renewable energy projects. The southeastern portion of the state has the areas of the fairest wind potential and there is much development in that area. In the areas of the state where BLM manages the surface estate and there is fair wind potential, BLM receives applications for wind developments and processes them under the same requirements as any other development. However, a large amount of surface in the state of Wyoming is privately owned. In the EIS general analysis area, private surface area is 96.8%. Those lands have marginal to fair wind potential, while the solar potential is better elsewhere in the state due to the seasonal variations in solar input. Wind and solar development in the PRB is at the discretion of the surface owner and the various Wyoming state permitting agencies.

Electric energy development projects depend on available transmission capacity from the development to the national grid. The transmission infrastructure and capacity in Wyoming is being developed to transmit more electricity to other areas of the nation. The Powder River Basin Coal Review estimated that by 2020, four major transmission lines would be constructed. Markets would dictate the size and location of such facilities, and these are not known as of this time. Six specific proposals for transmission lines have been identified; however, information is currently insufficient to analyze or assign likelihood of development by 2020.

Decertification of the Powder River Coal Production Region

WildEarth Guardians

- The Powder River Basin Was Erroneously Decertified as a Coal Production Region.
- The Decertification was Arbitrary and Capricious and Contrary to BLM's Coal Leasing Regulations.
- 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.

- The Decertification means the BLM has Failed to Appropriately Assess Environmental Impacts and Appropriately Involve the Public in Regional Leasing.
- The FEIS Cannot Serve as Functional Equivalent to a Regional leasing EIS, Which Would Otherwise be Required.
- The Powder River Regional Coal Team is Illegally Operating.

Clean Energy Action

- Lease by Application Process.

Response

This comment, in large part, was addressed in the FEIS. Please see volume 2, appendix I, comment letter 9, response A.

That response explained the operation of the PRB as a decertified coal production region. 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. The lease by application (LBA) process has met this demand in a balanced way since 1989 (figure 4-2, FEIS). The interpretation of the LBA process made by the WildEarth Guardians comment is incorrect, and it is not borne out by practice or results. The lease application is made to identify those lands that the applicant has identified as needed to maintain production at an existing mine. BLM identifies alternatives which include more lands than are included in the application. Under these alternatives, BLM is able to reconfigure the tract in the public interest to conserve coal resources, enhance competitive potential, and mitigate impacts. BLM has frequently (in almost every LBA application offered) delineated a preferred alternative smaller or larger than the application and containing some different lands than those applied for.

It is logical and prudent, and in most cases in the public interest, for the lease tracts to be adjacent to one or more existing mines. These are production maintenance tracts and, as such, are located so that existing operations can pass onto these tracts without gaps requiring the significant additional disturbance and cost required to open a new pit rather than extend an existing one.

BLM has offered coal tracts at several sales where multiple bids were received. There have been sales where the applicant was not the successful bidder. The sales are always competitive, even if there is only one bidder, because the BLM sets a fair market value and will not accept any bid that does not meet that value. These values are not disclosed, and bidders recognize that they need to bid a fair value or the bids will be rejected. BLM has rejected numerous bids that were the apparent high bid.

All of this evidence demonstrates that BLM's practice has ensured fair market values are received for LBA tracts that are designed by BLM to allow production to be maintained at already operating mines, with the coal resource being managed to avoid bypass, isolation, and to encourage competition.

The BLM properly established the Powder River Coal Production Region as required by 43 CFR 3400.5. The change to the region was published in the Federal Register on January 9, 1990 (55 FR 784-785). BLM has, and continues to manage the LBA process in conformance with the status of the Powder River Coal Production Region and the criteria and conditions for the change to a decertified coal region.

Processing the South Gillette area lease by applications is consistent with the practice we follow in the decertified Powder River Coal Production Region. These are production maintenance tracts, have been reviewed by the Powder River Regional Coal Team, and are being reviewed under the leasing by application process (43 CFR 3425).

The Powder River Regional Coal Team meetings are public and provide an opportunity for public comment and statements. BLM staff did provide the team a briefing of your concern at the team's meeting in November 2009. You are welcome to present your petition, either 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 web site.

The FEIS is not a regional EIS, in the sense of the BLM regulations at 43 CFR 3420. This is because the lease applications are LBAs under the BLM regulations at 43 CFR 3425, consistent with the operation of the PRB as a decertified coal region. 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 LBAs being filed nearby. 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.

Leasing Not in the Public Interest

WildEarth Guardians

- Even if the Decertification of the Powder River Basin Remains Appropriate, the BLM Must Still Assess Whether the South Gillette LBA's Would be Contrary to the Public Interest.

Response

This comment is correct. A Record of Decision (ROD) will be issued for each LBA addressed in this EIS. In this ROD, BLM will reach a decision as to whether to reject the

LBA or competitively offer a coal tract in response to the LBA. The ROD will address the public interest considerations made in the decision.

Water/Hydrologic Balance

Clean Energy Action

- Cumulative Hydrologic Impact Analysis.

Powder River Basin Resource Council

- Ground Water Drawdown.
- BLM should not lease new tracts without first ensuring compliance with SMCRA's hydrologic balance protection requirements.

Form Letter 1

- Water quality in the Powder River Basin.

Form Letter 2

- Concerned about how coal mining effects water quality in Wyoming.

Response

As noted in our response to comments on water impacts in the DEIS (appendix I in the FEIS), 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.

There are a number of specific studies under SMCRA and Wyoming law that would be done and would bear on the approval of a permit to mine any lands that might be leased because of the South Gillette LBAs. At that time, the specific plan to develop the LBAs would be known. A Cumulative Hydrologic Impact Assessment (CHIA) would be developed by the WDEQ/LQD to look at how the mining of the LBAs, along with any other already approved mining, would affect groundwater. The CHIA considers 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 off surface water flow systems post mining would also be specified in any mining permit to develop any of the LBAs, if leased.

For the purposes of identifying and disclosing potential impacts, the EIS assumes that the each LBA is offered for lease, that the successful lessee is the applicant mine, and that the mine applies for, and is granted, a permit to mine the LBA in a manner similar to the mining that is already permitted on other lands at the applicant mine. The FEIS

includes an evaluation of these potential impacts in chapter 3, sections 3.5.1, 3.5.2, and 3.5.3 and in chapter 4, sections 4.2.4, 4.2.5, and 4.2.6.

There is a cumulative water modeling study, completed by BLM as part of the Powder River Basin Coal Review to provide further information on how surface and groundwater resources have been and would be affected by regional development activities. This was completed in December 2009. It 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

Alluvial Valley Floors

Clean Energy Action

- Alluvial Valley Floors.

Response

Section 3.6.1 of the EIS addresses alluvial valley floors (AVFs) and the results of the studies that have been conducted to determine the presence of AVFs on each LBA.

It is BLM policy to not lease lands that could not be permitted for mining under section 510 of the SMCRA. For stream-laid deposits that could possibly be AVFs, we ask for comment from the WDEQ-LQD as to whether these areas could be mined and reclaimed in accordance with WDEQ-LQD and SMCRA regulations. If WDEQ provides a preliminary finding that the AVF is significant to farming and that protection of the AVF precludes mining, the lands are not leased. Neither the WDEQ nor OSM, both cooperating agencies on this EIS, identified additional areas as potential AVFs that would be unsuitable for mining.

Section 7 Consultation

Clean Energy Action

- Section 7 Consultation on Endangered Species.

Form Letter 2

- In addition, the project would further degrade public lands and resources -- contributing to the decline of greater sage grouse, black-tailed prairie dogs, and rare plants...
- Concerned about endangered species (unspecified species).

Response

Within the federal coal leasing program, BLM only has the authority to make decisions regarding the potential leasing of federal coal resources. BLM does not authorize surface mining operations by issuing a coal lease. As discussed in section 1.2 of the EIS, WDEQ is authorized by the Secretary of the Interior to regulate surface coal mining operations and surface effects of underground mining on federal and nonfederal lands within Wyoming. Mitigation and monitoring requirements, including wildlife, are developed as part of the mining and reclamation permit, which must be approved by WDEQ before mining operations can begin on leased federal coal lands.

The US Fish and Wildlife Service (FWS) is responsible for administration of the Endangered Species Act. FWS is the lead agency that manages threatened and endangered (T&E) species and, through the section 7 process, consults with other agencies in how proposed projects may impact and affect listed species. BLM prepared and provided the South Gillette Area Coal EIS, a biological evaluation for each LBA, and a biological assessment to FWS for their review. Comments that we received from FWS indicated that the EIS effectively addressed sensitive, threatened, and endangered species and migratory bird issues. The wildlife analysis was also reviewed by professional wildlife biologists in the Wyoming Game and Fish Department and BLM. The ROD for each LBA will include a letter of concurrence from the FWS.

The FWS has stated that, "This project should be re-analyzed if new information reveals effects of the action that may affect listed or proposed species or designated or proposed critical habitat in a manner or to an extent not considered in this consultation; if the action is subsequently modified in a manner that causes an effect to a listed species or designated or proposed critical habitat that was not considered in this consultation; an/or, if a new species is listed or critical habitat is designated that may be affected by this project." This requirement would be met prior to any surface disturbance as required by the Threatened, Endangered, Candidate or Other Special Status Plant and Animal Species Special Stipulation (appendix D, pages 2 & 3, FEIS)

There are no black-tailed prairie dog colonies in the LBA tracts or general analysis area. Outside one portion of the Maysdorf II tract, black-tailed prairie dogs have been seen. These animals are on the list of BLM sensitive species, are a species of management concern and consideration, and will remain so regardless of the recent December 2009 ruling by the FWS to not list them on the T&E species list.

Ute Ladie's-Tresses

Clean Energy Action

- Ute Ladies Tresses.

Powder River Resource Council

- Ute Ladies Tresses.

Response

As noted in our response to the WildEarth Guardians' comment on Ute ladies-tresses in the DEIS (appendix J in the FEIS), there were a number of surveys for Ute ladies-tresses done on the LBA tracts between 2005 and 2009. The surveys were completed consistent with FWS guidelines, and the survey results supported a finding that, if the tract is leased under either the proposed action or alternatives, mining of the tracts may affect, but is not likely to adversely affect, Ute ladies-tresses (FEIS, appendix E). The FWS has been consulted and has concurred in this finding.

A detailed discussion of Ute ladies'-tresses can be found in appendix E. Surveys for the orchid in the South Gillette area mines completed to date are:

<i>Belle Ayr North</i>	<i>2 surveys</i>	<i>August 2006 and 2007 by ESCO Associates</i>
<i>West Coal Creek</i>	<i>2 surveys</i>	<i>July 2007 by BKS Environmental, and 2009 by Knight Technologies</i>
<i>Caballo West</i>	<i>2 surveys</i>	<i>August 2007 and August 2009 with another planned in 2010 by BKS Environmental</i>
<i>Maysdorf II</i>	<i>2 surveys</i>	<i>August 2005 and 2006 by ESCO Associates</i>

Raptors

Clean Energy Action

- Eagles and Raptors.

Powder River Basin Resource Council

- Raptors.

Response

There were no bald or golden eagle concentration or roosting sites identified in our review based on the most recent environmental data, including the prior years of monitoring that have been done on the lands studied for potential leasing.

The occurrence of raptors and related nesting sites were evaluated in section 3.10.4 of the EIS. As is our practice, our review was based on the most recent environmental data, including previous years of monitoring that have been done.

We have identified that these areas are available for further consideration for coal leasing based on the following: 1) the application of the Service's special lease stipulation which was specifically developed by the FWS for the federal coal leasing program to address (c) Threatened, Endangered, Candidate or Other Special Status Plant and Animal Species (appendix D, pages 2 & 3, FEIS); and 2) the requirement that the coal company, in concert with the Service, will develop a FWS-approved mitigation plan that will address and mitigate wildlife issues before any surface-disturbing activities can occur.

The error on page 3-168 is acknowledged. The correct word is fifty-five.

Blowout Penstemon

Clean Energy Action

- Blowout Penstemon.

Response

In their comment letter dated December 19, 2008, on the subject of blowout penstemon, the FWS stated, "However, recent surveys have indicated that systematic surveys may be warranted in some lower elevations (below 6,700 feet) in Wyoming where active sand blowout features occur (BKM 2005, Fertig 2001)"

The Belle Ayr North, the West Coal Creek, the Caballo West, and the Maysdorf II lease application tracts are not within the documented historical range of the blowout penstemon. They are located approximately 150 miles northwest of the known occurrence area in Nebraska and approximately 150 miles northeast of the known occurrence area in Wyoming. No suitable sand dunes (whether stable or blownout) are present on the tracts within the vegetation general analysis area boundary. Typical suitable habitat on the tracts for this species is nonexistent. The BLM has therefore made a determination of "no effect" for blowout penstemon.

Consultation with the FWS has occurred. The response from the FWS concerning blowout penstemon follows.

"The Service acknowledges that the Bureau determined that the lease of Federal coal on the South Gillette tract will have no effect on the endangered blowout penstemon. When the Bureau makes "no effect" determinations, concurrence from the Service is not required, although, we appreciate receiving a copy of the data you used to make those determination for our records."

In the final EIS, the wording requested from the FWS was added as follows: "Any potential habitat that has not already been surveyed for blowout penstemon within the project area should be identified and surveyed prior to surface mining activities."

Sage Grouse

Clean Energy Action

- Sage Grouse.

Powder River Basin Resource Council

- BLM must discuss alternatives to mitigate impacts to greater sage-grouse populations.

Response

There are no known leks within the South Gillette general analysis area. Approximately 25 years of annual or biannual monitoring studies from 1982 to 2006 performed by an independent contractor and/or by the mines in the Gillette area documented that sage grouse are rare in the survey areas. Requirements to protect sage grouse during mining operations are addressed as part of the existing mining and reclamation plan for each individual mine.

The EIS predicts a short-term loss of potential nesting habitat and potential disturbance to breeding activities, especially when mining operations occur in proximity to sage grouse leks (FEIS at 3-183). In addition, following the completion of mining and reclamation, loss of nesting and winter habitat is predicted, until sagebrush returns to its pre-mining density (FEIS at 3-183).

Among other important habitat components, sage grouse require vast expanses of sagebrush-steppe communities with extensive mosaics of sagebrush of varying densities and heights. As stated in the EIS, there are no large expanses of contiguous sagebrush in the South Gillette general analysis area. A thorough discussion the potential impacts to greater sage grouse that could result from the leasing and eventual mining of these coal tracts are found in the EIS in the "Wildlife" section (3.10; 3.10.5.1) and in appendix E.

In 2007, Wyoming Governor Dave Freudenthal commissioned a Statewide Sage-Grouse Implementation Team. On March 17, 2008, the team preliminarily identified and mapped recommended sage grouse focus areas in Wyoming in an effort to better understand what types of habitat grouse prefer and what areas should be protected. The South Gillette applicant mines' general analysis areas are not located within any of the mapped focus areas as stated in section 3.10.5.1 of the FEIS. In section 3.10.5.1.2 in the "Affected Environment" there is a discussion of the focus area outside of and adjacent to the West Coal Creek LBA application. However, it is expected the WDEQ will review any federally leased lands and apply mitigation, as necessary to protect sage grouse, during the mine permitting phase.

In the event of a change to the sage grouse' status under the Endangered Species Act, the FWS has stated that, "This project should be re-analyzed if new information reveals effects of the action that may affect listed or proposed species or designated or proposed critical habitat in a manner or to an extent not considered in this consultation; if the action is subsequently modified in a manner that causes an effect to a listed species or designated or proposed critical habitat that was not considered in this consultation; an/or, if a new species is listed or critical habitat is designated that may be affected by this project." This requirement would be met prior to any surface disturbance as required by the Threatened, Endangered, Candidate or Other Special Status Plant and Animal Species Special Stipulation (appendix D, pages 2 & 3, FEIS).

Mountain Plovers

Clean Energy Action

- Mountain Plovers.

Response

Wildlife surveys conducted at the Belle Ayr, Coal Creek, and Cordero Rojo mines have failed to detect the presence of this species in their respective survey areas. The survey areas, which include the mines' permit areas and a ½-mile perimeter, are inventoried for suitable mountain plover habitat annually. One plover was observed in the vicinity of the Caballo West LBA tract. In August 1992, a migrant flock of 12 individuals was seen in saline grassland habitat within the LBA tract as applied for. No plovers have been documented in that area or elsewhere in the general South Gillette analysis area during the subsequent 17 years (through 2009) of annual monitoring.

Mountain plovers are addressed in the FEIS in sections 3.10.6, 3.10.6.2, appendix F, and in the supplementary information on the affected environment. The mountain plover was not a candidate species for the FWS at the time this EIS was written and currently is not a candidate species for the Service. The FWS proposed listing the mountain plover as a threatened species in February 1999, but in September 2003, the agency withdrew the proposal. The FWS continues to encourage provisions that would provide protection for this species, as it continues to be protected under the Migratory Bird Treaty Act and as a sensitive species under BLM policy (Bureau Manual 6840.06 E. Sensitive Species). The mountain plover is a species on the Coal Mine List of 40 Migratory Bird Species of Management Concern in Wyoming and so has been addressed in the EIS. It is BLM policy to treat proposed species the same as a listed species. Mountain plovers have also been addressed in a memorandum from the FWS to BLM's Wyoming State Director (April 5, 2007

<http://www.blm.gov/style/medialib/blm/wy/wildlife/mtnplover.Par.50309.File.dat/finalMountainPlover.pdf>), the Final Report: Mountain Plover (Charadrius Montanus) Biological Evaluation

(<http://www.blm.gov/style/medialib/blm/wy/wildlife/mtnplover.Par.18192.File.dat/finalMtnPloverBE.pdf>), and the Species Assessment for Mountain Plover (Charadrius

Montanus) in Wyoming (Smith and Keinath 2004 <http://www.blm.gov/style/medialib/blm/wy/wildlife/animal-assessmnts.Par.52645.File.dat/MountainPlover.pdf>) (please see <http://www.blm.gov/wy/st/en/programs/Wildlife/mtn-plover.html>). Due to a court decision, the FWS is currently re-evaluating the status of the mountain plover.

Migratory Birds

Clean Energy Action

- Migratory Bird Species of Management Concern.

Response

Migratory birds and priority habitat effects are discussed in some length in section 3.10.6 (beginning page 3-184) of the FEIS. As is our practice, we have reviewed these species based on the most recent environmental data, including the years of monitoring that have been done. Based on this review of unsuitability criterion 14, we have identified no lands unsuitable for coal mining within the study area. This finding is based on both the application of the special lease stipulation, (c) Threatened, Endangered, Candidate or Other Special Status Plant and Animal Species (appendix D, pages 2 & 3, FEIS) and the requirement of a FWS-approved plan for mitigation of priority habitat, which is a necessary prerequisite if habitat is included in a lease tract, if the tract is leased, and if the lessee applies for a permit to disturb these sites by mining.

Cultural Resources

Clean Energy Action

- Cultural Resources.

Response

Class III cultural surveys have been completed on all lease application general analysis areas. Tribal consultation, usually addressed during the permitting phase, was initiated by the BLM during the pre-leasing phase on May 29, 2008. This was done by the BLM before final tract delineation to identify if lands containing sites of cultural or tribal significance were within the area to be considered for lease sales. In the South Gillette general analysis area, no sites of cultural or tribal significance were identified. Native American consultation will continue in the permitting process stage and will be completed by the OSM prior to mine permitting and surface disturbance. Cultural resources are addressed in chapter 3 at 3.12 and in chapter 4 at 4.2.11.

Mercury Contamination

Form Letter 2

- Concerned about additional mercury contamination from coal burning.

Response

When burned, fly-ash resulting from combusted PRB coals contained approximately 39 times less mercury than fly-ash generated from combusted Appalachian and Illinois Basin coals (FEIS at 4-123). A detailed discussion of atmospheric mercury released from coal during combustion is located in section 4.2.14.2 (Mercury, Coal Combustion Residues, and Other By-Products) in chapter 4 of the FEIS. That section addresses mercury in the food web as well as mercury emissions from power plants burning Powder River Basin coal. A brief summary of that section is included below for your convenience.

The EPA (2006) estimated that 83% of the mercury deposited in the US originates from international sources, with the remaining 17% coming from the US and Canada. These figures include mercury from natural and anthropogenic sources. Over the past decade, addressing environmental and human health mercury risks has been a focus for the EPA (EPA 2006). Overall, US mercury air emissions have been reduced by 45% since 1990 (EPA 2006). The EPA estimated that mercury emissions from US coal-fired power plants account for about 1% of the global total (EPA 2009f). Coal-fired boilers are required to have control devices to reduce the amount of emissions that are released into the atmosphere (EPA 2007f). The use of air pollution control equipment at power plants has resulted in fewer emissions but has also increased the amount of solid residues.

Hazardous and Solid Waste

Powder River Basin Resource Council

- Hazardous and Solid Waste.

Response

Coal combustion waste is returned to the mine from which it came if that mine is permitted by the WDEQ to do so. The mines with applications in the South Gillette are not permitted to receive coal combustion waste and do not receive such byproducts.

The water quality section of the EIS accounts for the water quality changes that would be associated with an impoundment if a deposit were sequestered within the back fill. The EIS discusses what is done to isolate backfill material that would degrade recharge water quality in section 3.5.

Public Health

Form Letter 2

- Concerned about human health.

Response

Section 3.17.9.1 concerns human health impact assessments. Environmental health aspects of air quality and surface and water quality are both regulated by the WDEQ and addressed in the EIS at length.

BLM does not have expertise regarding conducting human health assessments. During preparation of the FEIS, BLM contacted the Wyoming Department of Health/ Environmental Health Section and invited them to review and provide comment on the environmental impact statement. BLM has also contacted the Center for Disease Control and Prevention. Neither agency has accepted cooperator status on this EIS.

Mitigation Options

Powder River Basin Resource Council

- Mitigation Options (to mitigate methane release and GHG emissions from manufacture of electric power used in mining operations).

Response

In the PRB, coal bed natural gas (methane) production in advance of coal mining operations has been ongoing for approximately 20 years. Large commercial production began in 1989 in the Rawhide Butte field near Gillette. The predominant order of progression has been from the east where the coal is shallowest to the west where the coals are deeper. Section 3.3.2.1.2 in the FEIS discusses CBNG development activities in the PRB. Because CBNG production operations occur in advance of the coal mines, measured methane gas content is minimal when present in the Wyodak-Anderson coal at locations near the surface coal mines. The remaining methane that is released from the coal during mining is accounted for in the calculations of total CO_{2e} in table 3-20 in section 3.18.2 of the FEIS. Many coal mines in the US and in other nations that have mitigation methods for reducing methane do not have methane production operations preceding them.

Wyoming does not have regulations requiring that some percentage of electricity come from renewable energy sources.

Cumulative Impacts

Clean Energy Action

- Cumulative Impacts.

Response

The Powder River Basin Coal Review is complete and available to the public and was used during development of this document. The Coal Review is updated and extended as forecasts and data become available and timely. The most recent updates were completed and made available December 2009. The report can be found at http://www.blm.gov/wy/st/en/programs/energy/Coal_Resources/PRB_Coal/prbdocs.html

Irretrievable Loss

Clean Energy Action

- Irretrievable Loss of Resources.

Form Letter 2

- BLM should transition out of coal leasing.
- Concerned that coal should be saved for future to use when we know how to use it more efficiently with fewer negative environmental consequences.

Response

The section identifying irreversible and irretrievable commitments of resources is on pages 3-270 and 271. The section describes those resources or values permanently lost due to mining impacts that are not restored through reclamation, restoration, protection, and other mitigation actions.

The BLM leases federal coal to private coal companies 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 not to the extent to replace coal as a fuel for electrical generation. There is not enough alternative energy sources developed at this time to fill the gap that would be left if all coal was removed as a fuel source for electrical generation and saved for the future. The most recent energy projections by the Energy Information Administration to the year 2035 show that although renewable energy production increases, coal use is still expected.

Supplemental Information

Clean Energy Action

- Supplemental Information.

Response

The supplemental information document was referenced in the DEIS cover letter, and was made available to provide additional in depth, tract specific information if desired by any reviewer. The supplemental information document became available to the public on October 17, 2008, on the same day the DEIS became available. An update of the supplemental information became available in August 2009, the same date as the FEIS became available. Both supplemental information documents have been available to the public from the time of their publication.

Nonresponsiveness to Draft EIS Comments

Clean Energy Action

- Failure to Respond to Ms. Glustrom's Comments on the draft EIS.

Powder River Basin Resource Council

- Omission of Written Comments.

Response

Ms. Glustrom's previous comments on climate change were included and addressed in the FEIS in volume 2, appendix I, comment letter 11.

The BLM regrets that we did not receive Powder River Basin Resource Council's comment letter on the DEIS. Your participation in the NEPA process is appreciated. We did have the oral comments provided by Shannon Anderson, on behalf of the council, at the public hearing on the DEIS. Those are included in appendix I of the FEIS. The BLM appreciates the December 17, 2008, comment letter that was included with the comments on the FEIS. Many of these comments were addressed in the FEIS, and all comments from that letter are addressed in this document, and will be considered in any decision on the proposed actions addressed in the EIS.

Readability of FEIS

Clean Energy Action

- Readability.

Response

This comment was addressed in the FEIS. Please see volume 2, appendix I, comment letter 11, response C.

Multiple Use Mandate

Form Letter 2

- Concerned about the BLM Multiple Use Mandate.

Response

The BLM manages the public lands and minerals under the policy and practice of multiple use. Multiple use provides for the best mix of a variety of uses on these lands by managing uses to be as compatible as possible with other uses. These uses and constraints, limits, and prescriptions on uses are developed through multiple use plans for BLM-administered lands. The EIS includes an evaluation of how the proposed actions are consistent with the land use plan, in this case the Buffalo Resource Management Plan. Section 1.5 in chapter 1 (page 1-22) contains this evaluation.

New Coal Mines

Form Letter 2

- ...This proposal to open up even more new coal mines in the Powder River Basin in Wyoming comes at a time when we desperately need to be transitioning away from business-as-usual energy dependency and reducing our greenhouse gas emissions...

Response

The four LBAs in this EIS are all leases requested to extend reserves for mines that are operating and have been for many years. BLM recognizes the possibility that if a tract is offered for lease, the leasing process is competitive and a lease could be acquired by a party other than the applicant. The EIS includes this possibility as an alternative that was considered but not analyzed in detail. A discussion on the analysis of a new mine start is discussed in the EIS in section 2.5.1.

Coal Use for Electric Generation

Form Letter 2

- BLM should stop all coal leasing and stop the use of coal immediately in electricity generating power plants across the nation.

- Concerned that BLM is approving the construction and development of new coal fired power plants.

Response

BLM prepared the EIS in response to lease by applications received by the agency under the precepts of the Mineral Leasing Act. We acknowledge that leasing is a discretionary action, but we are required at a minimum to evaluate these lease applications consistent with law, regulation, and policy. This EIS evaluates leasing four federal coal tracts. The BLM is not evaluating the development of new coal-fired power plants, nor do we have any authority to prescribe how these coal resources are used or distributed. The development, construction, and/or management of coal-fired power plants by private enterprise or by other federal and state agencies is not contingent or dependent on the actions proposed in this EIS.

BLM recognizes that coal leasing demand is a direct indication of electric generation activity which in turn is directly influenced by consumer demand. If electricity cannot be supplied to meet demand, power prices will rise until the demand falls. BLM manages coal leasing in the Powder River Basin as maintenance leasing to existing operations such that the coal reserves are leased at about the same rate as leased reserves are depleted. If national coal demand decreases, coal production will decrease and thus coal mining will decrease.

Coal Leasing Program/Fair Market Value

Form Letter 2

- Concerned about the validity of BLM's fair market value process.
- Concerned about government corruption on issues pertaining to coal leasing and coal development.
- Concerned that underground coal mining and mountain top removing coal mining practices are occurring in Wyoming.
- Concerned that American Tax dollars are being used to subsidize coal mining in the Powder River Basin, Wyoming.
- Concerned that the coal companies are gaining too much profit from federal coal that the BLM manages for the American people.

Response

The BLM coal leasing involves two concurrent processes. The first is the NEPA process which allows the public to participate at the initial scoping process, again at the draft EIS stage, again at a public hearing after the draft document has published and

time has been allowed for public review, and yet again when the FEIS publishes. BLM officials consider the EIS and the public comments when writing the ROD. Time is then given for the public to appeal the ROD. Issues that are of concern to the public are addressed at each stage of the process. Many public organizations and individuals participate in the development and review process of the EIS.

The second process is determining the fair market value of the coal in a lease. The details of this process are not public because much of this evaluation is done using commercially sensitive information, and the release of some of the information would provide potential bidders with insights that could limit competition. This ensures that potential bidders are treated equally, and that the public (through BLM) gets the maximum value for the public coal resources.

The BLM, not the applicant, designates a tract that will achieve maximum economic recovery; that is, a tract that includes all the coal that can reasonably be mined as part of the application, and that does not leave isolated coal reserves that would be unmineable in the future. BLM takes into consideration the reserves applied for, but does not include so much coal reserves as to provide natural resources far ahead of depletion rates, and which best creates a situation of competition for the coal reserves. During this process, the BLM uses exploration data to determine the extent and quality of the reserves, evaluates the costs of mining the coal, and the likely revenues in order to make an appraisal of the fair market value of the tract. This fair market value information is not made available to the public or to any of the applicants. For each lease sale that is held, a lease will be issued to the highest bidder only if a federal panel determines that the high bid meets or exceeds the fair market value of the coal as determined by BLM's economic evaluation. The Department of Justice determines that there will be no antitrust violations if a lease is issued to the high bidder. The sales are always competitive, even if only one bid is received because the BLM will not accept any bid lower than the fair market value. Bidders recognize that they need to bid a fair value or their bids will be rejected. BLM has rejected numerous bids that appeared to be the high bid, but did not meet BLM's estimate of fair market value.

When determining the fair market value of and setting a bid price, BLM uses the Economic Evaluation of Coal Properties Handbook (H-3070-1) which can be found on line under BLM Handbooks at:
http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/blm_handbooks.html.

The work that Wyoming BLM does in the coal leasing process is audited, evaluated, and inspected periodically by several oversight entities including the General Accounting Office under Congress, the Inspector General under the Judicial branch, and most recently by a Congressional Subcommittee on Appropriations in June 2009.

It is a misunderstanding that coal mining in the PRB receives federal subsidies from American tax dollars. Federal coal leasing in Wyoming's Powder River Basin has generated over 3.1 billion dollars, paid by coal lessees, since decertification of the

region in 1990. Coal lessees additionally pay a 12-1/2% of sale value royalty to the public when coal is mined from federal leases. Revenue generated from leasing federal coal in Wyoming is split 50/50 with the state of Wyoming. The federal government's share of the revenue goes into the national treasury. The state of Wyoming uses its share for roads, schools, and other public services.

The EIS describes the method of coal mining used by each applicant mine in chapter 2. The mines in the PRB are surface coal mines. Underground mining and mountain top removal mining are not used and would be impractical given the PRB's topography and the ratio of coal thickness to depth.

Form Letter 2

- BLM should choose other uses for its land surface than coal mining.
- Concerned that "Clean Coal" initiatives will not suffice in protecting the environment enough.
- Concerned that coal is the best form of CO₂ sequestration and should be retained as such.
- BLM needs to decrease America's electrical power demand.
- BLM needs to replace coal development in Wyoming with wood pellet development in Wyoming to be used for energy production.

Response

In much of the western US, BLM manages a large amount of the surface as public lands. The BLM surface-managed lands in Wyoming are primarily in the western and southern portions of the state. In the northeast portion of the state, the large majority of surface is privately owned. In the PRB in northeastern Wyoming, BLM manages much of the subsurface mineral rights but very little of the surface rights which are held in private ownership. This situation is called "split estate." The BLM has no authority over the surface above the federally managed subsurface minerals in split-estate situations. In the application area for the South Gillette area coal leases, 96.8% of the surface is privately owned. Where the surface owner lives on the land or makes their income from the land, BLM cannot lease the subsurface coal estate without the private surface owners consent.

Decisions on surface development belong to the surface owner. This would include wood harvest (for pellets). The BLM does not develop coal, wind, or any other energy resource; rather, BLM can lease BLM surface, BLM sub-surface minerals, or both, if under BLM management. This EIS evaluates leasing the subsurface BLM mineral

estate in an area of split-estate designation where BLM does not manage the surface estate.

BLM, as a land management agency, is not tasked with developing “clean coal” technologies. The Clean Coal Initiative is part of the Energy Policy Act of 2005 which states that, “the Secretary shall carry out a program of financial assistance to - facilitate the production and generation of coal-based power, through the deployment of clean coal electric generating equipment and processes...” (Sec. 3102) (Please see the Energy Policy Act of 2005, which can be found at http://www.epa.gov/oust/fedlaws/publ_109-058.pdf for more information). The issue of forms of carbon sequestration is under the jurisdiction of the DOE. That agency is investigating methods of carbon sequestration through the Clean Coal Initiative.

America’s electrical power demand results from electric use decisions made by individuals and businesses. This EIS concerns leasing four tracts of federal coal. The BLM leases federal coal to private coal companies which develop and supply coal primarily as a fuel which electric utility companies use to generate electricity in response to electric demand.