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September 7, 2011

Mr. Caleb Hiner
Bighorn Basin RMP Project Manager
Bureau of Land Management
101 South 23rd Street
Worland, WY 82401

Re: Bighorn Basin Resource Management Plan Revision Project Draft Resource Management Plan and Draft Environmental Impact Statement

Dear Mr. Hiner:

On behalf of Public Lands Advocacy (PLA), Natural Resources Growth Coalition (formerly CBNGA), Petroleum Association of Wyoming, Western Energy Alliance (formerly IPAMS), along with Legacy Reserves Operating, Marathon Oil Company, Merit Energy, Phoenix Production Company, Plains Exploration & Production Company (PXP), and Whiting Oil and Gas Corporation following are comments on the Bighorn Basin Draft Environmental Impact Statement/Resource Management Plan (DEIS). This ad hoc group has worked together diligently to review and prepare these joint detailed comments on the DEIS. We, therefore, request that each named party be recognized as commenters in this public review process.

INTRODUCTION

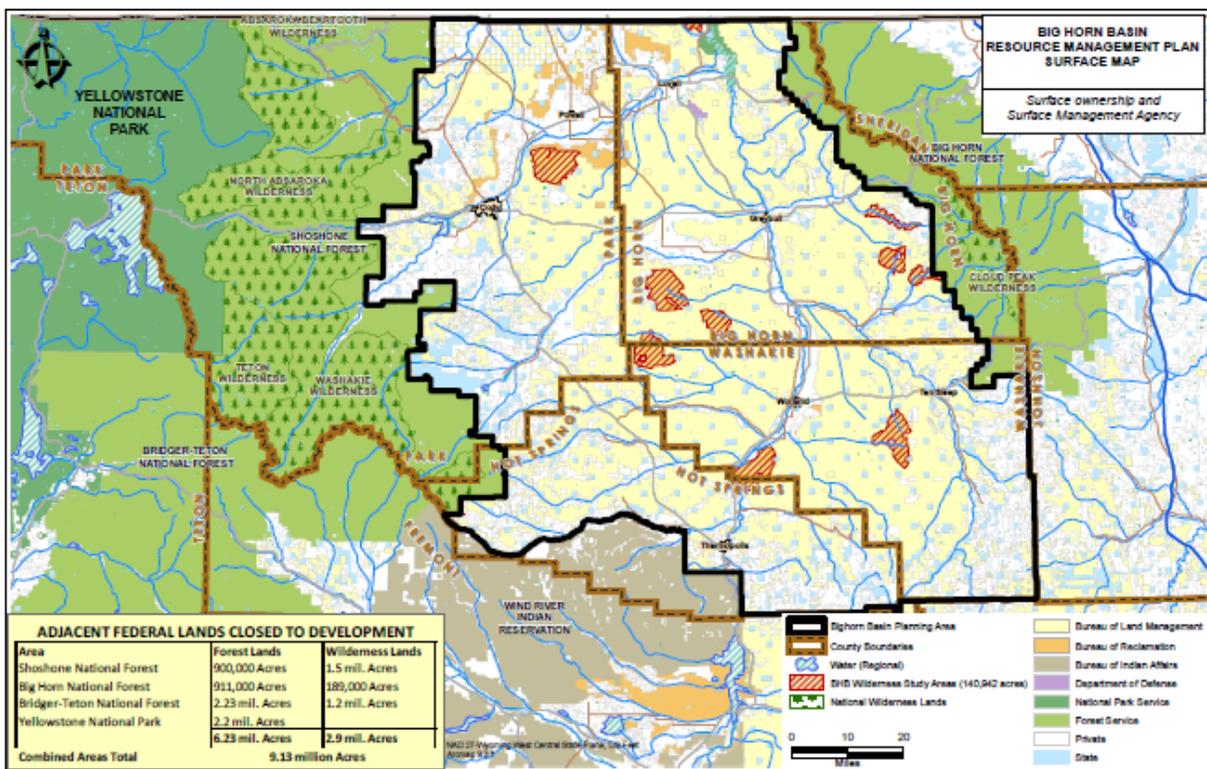
The Bighorn Basin planning area encompasses 5.6 million acres of federal, state and private land in four counties – Bighorn, Park, Washakie and Hot Springs – 76 percent of which are under the jurisdiction of the BLM. It is important to recognize that the Basin has been producing oil and gas for over 100 years and that this development is a primary economic driver in the region. As of 2009, the Wyoming oil and gas industry employed approximately 26,000 people with an annual payroll of over \$1.88 billion. According to recent economic figures, the total oil and gas property tax base in 2010 in these four counties exceeded \$1.2 million. In 2009 these tax payments comprised 85 percent of the tax revenue in Hot Springs County, 67 percent in Park County, 58 percent in Bighorn County and 49 percent in Washakie County. While development of domestic oil and gas is important to the energy industry, it is also extremely important to the social and economic well-being of the communities within the Basin.

Bighorn Basin, the largest producing basin in the Rocky Mountain region (2.6 billion barrels of oil as of 2007), generates nearly 40 percent of the oil found in Wyoming. While annual oil production amounted to approximately 55 million barrels per year in 1978, annual oil production in the Bighorn Basin dropped to approximately 15 million barrels by 2008. (It should be noted that despite this decline, tax revenue remained high due to higher oil prices.) Therefore, in the interest of sustained domestic energy production and the reliance upon direct and indirect revenue from these activities by local communities, the State of Wyoming, as well as the Federal Treasury, a major consideration within the BLM's planning process must be how to contend with this decline by providing for new exploration prospects, notably shale resources occurring in the planning area, with unbiased and balanced constraints as well as broad opportunities for Enhanced Oil Recovery (EOR) which could result in an additional 3.5 billion barrels of oil being produced.

It is also important to note that the Bighorn Basin is surrounded by 9.13 million acres of federally managed lands that have no or very limited mineral leasing or development, i.e., Yellowstone National Park, and the Shoshone and Bighorn National Forests, respectively. (See Figure 1) Therefore, it is crucial that BLM provide

for continued oil and gas development within the Basin as well as new exploratory opportunities, fully acknowledging the clearly visible demonstration that development of oil and gas resources and other uses, including maintaining and protecting aesthetic values, are not mutually exclusive and able to successfully co-exist.

Figure 1



DEIS FORMAT

Before moving forward with our resource-specific views and concerns, we are compelled to comment on the poor format of the DEIS. Many members of our review team have analyzed and commented on numerous environmental impact statements, both programmatic and project level. The Bighorn Basin DEIS is unnecessarily convoluted and disjointed. The purpose of a BLM planning document is to analyze and publicly disclose information related to a number of possible management options as well as the existing condition of surface and subsurface resources. Moreover, BLM has invited the public to review and provide comments regarding their resource issues of concern along with the management alternatives identified in the DEIS. Readers are forced to jump from chapter to chapter, section to section in order to understand BLM's proposed management by alternative. Along with seasoned reviewers, countless members of the public have expressed their frustration in trying to fully review the document. In the future, we strongly recommend that BLM select only those environmental contractors that have a proven track record in developing and finalizing a well-ordered and logically displayed planning document.

ALTERNATIVES ELIMINATED FROM DETAILED REVIEW

We strongly support BLM's decision not to carry forward alternatives which would:

- Require directional drilling
- Remove all stipulations from oil and gas leases

- Require phased leasing and development
- Refrain from issuing any new oil and gas leases
- Require the injection of all produced water

None of the above-listed proposed alternatives are practical or feasible management options. The National Environmental Policy Act (NEPA) requires the agency to limit its review to “reasonable” alternatives that meet its multiple-use mandate. None of the eliminated alternatives could be considered reasonable or within the required framework of multiple use.

VALID EXISTING RIGHTS

Page ES-1, 1.2.2 Purpose, et al., the DEIS indicates in that valid existing rights will be recognized.

Comment: We are concerned that no explanation of what constitutes valid existing lease rights and how they relate to new land use decisions has been provided. We recommend that BLM clearly state in the Final EIS that the new restrictions proposed in the Preferred Alternative will not apply to lands already under oil and gas lease. Moreover, it must be made clear that BLM has no authority to impose these new restrictions through Conditions of Approval (COA) on applications for permit to drill (APD) if they would abrogate the valid existing lease rights. These principles are particularly important given the fact that discussions about new protections for national historic trails and expansion of Areas of Critical Environmental Concern (ACEC) could very much impose significant limitations on existing leases that were not anticipated at the time the leases were acquired from the federal government in good faith. Such qualifiers are consistent with current rules and policies of the BLM and must be clearly disclosed in the planning documents. An acceptable example of appropriate language is included in the Rawlins RMP adopted in 2008, page 20.

Page 4, Chapter 4, Assumptions Common to All Analyses *“An oil and gas lease grants the lessee the “right and privilege to drill for, mine, extract, remove and dispose of all oil and gas deposits” in the leased lands, subject to the terms and conditions incorporated in the lease (BLM Form 3100-11, Lease for Oil and Gas). Because the Secretary of the Interior has the authority and responsibility to protect the environment within federal oil and gas leases, the BLM imposes restrictions on the lease terms.”*

Comment: We recommend clarification of this language to recognize the fact that lease stipulations are only subject to change prior to lease issuance. Once a lease has been issued, stipulations may not be legally modified absent voluntary agreement by the lessee. Therefore, in accordance with 43 CFR 3101 and federal court case law, we recommend that BLM clearly disclose its limited authority to add conditions of approval to a drilling permit, i.e., conditions must remain consistent with the terms of the issued lease.

LEAST RESTRICTIVE STIPULATIONS

Section 363 of the Energy Policy Act of 2005 requires federal land management agencies to ensure that lease stipulations are applied consistently and to ensure that the least restrictive stipulations are utilized to protect many of the resource values to be addressed. Specifically, we are concerned with the restrictions imposed in the proposed special designation areas, national historic trails, and unlisted wildlife species habitat because many are either closed or subject to highly restrictive stipulations, such as no surface occupancy (NSO). The DEIS ignores BLM policy that states *“the least restrictive stipulation that effectively accomplished the resource objectives or uses for a given alternative should be used.”* Therefore, it is necessary to demonstrate that less restrictive measures were considered but found insufficient to protect the resources identified. A statement that there are conflicting resource values or uses does not justify the application of restrictions. Discussion of the specific requirements of a resource to be safeguarded, along with a discussion of the perceived conflicts between it and oil and gas activities must be provided. Clearly, an examination of less restrictive measures must be a fundamental element of a balanced analysis and documented accordingly in the draft EIS.

REASONABLY FORESEEABLE DEVELOPMENT/ENHANCED OIL RECOVERY/SHALE RESOURCES

We are concerned that the Reasonably Foreseeable Development scenario (RFD) published by BLM May 6, 2009 relies in great part on the historic lack of exploratory drilling within the Basin and dated assumptions from the US Geological Survey (USGS). BLM needs to acknowledge that a major reason for this lack of drilling activity was due in large part to existing development which was based primarily upon easily discernable anticlines. Moreover, relatively few new leases were made available because most of the leases in the Basin were tied up in units and held by production until the early 1990's. With the advent of new plays and improved technology, lands previously unavailable for leasing are now available and of great interest. For example, new concepts related to stratigraphic traps are being developed which gives the Basin vast potential for new development. It is also crucial for BLM to recognize the potential for development associated with new horizontal drilling techniques and previously unforeseen resource potential within the wide variety of shale formations in the planning area.

The RFD acutely understates the potential oil and gas opportunities that could be available from shale resources and other previously untapped geologic formations through the application of new technologies and techniques. We recommend BLM utilize updated geologic data and recognize the future needs of increased exploration and development activities in the area before finalizing the planning document. Substantial exploratory work in the Mowry Shale and other areas of the Basin is currently underway by a variety of operators. While this exploratory work is still in the initial stages, every opportunity must be provided for full evaluation of the shale resource potential in the planning area. Initial test wells in the Mowry Shale for example have confirmed the presence of hydrocarbons. Additional exploration and refinement of drilling and production techniques in the Mowry Shale Fairway and other regions of the Basin could potentially lead to large scale economic production opportunities now that the presence of the resource has been confirmed. Much of this evaluation work is occurring on existing leases. In line with the first comment we offered earlier, these evaluation efforts would be prematurely and inappropriately impacted if BLM fails to recognize the importance of Valid Existing Rights.

The RFD also fails to contemplate and plan for the utilization of Enhanced Oil Recovery (EOR) via CO₂ injection that is anticipated to occur in existing oil fields within the BHB. The use of EOR/CO₂ injection is expected to occur in existing oil fields within the BHB over the next several years as some fields initiate tertiary recovery. Consequently, oil production in existing fields within the BHB is also anticipated to increase due to the efficiency of EOR. EOR is, and will be an important element of oil production in the BHB and should be properly accounted for in the BHB RMP.

Accordingly, we strongly recommend that BLM address the use of EOR/CO₂ injection techniques in the BHB RMP. Specifically, BLM needs to plan for pipelines and other infrastructure required to transfer adequate volumes of CO₂ into/out of oil fields located within the BHB, as well as pipelines and infrastructure necessary to transfer increased volumes of produced oil since existing pipeline ROWs may be inadequate to support the transport of increased oil production out of the BHB. Additionally, existing pipelines are not designed to transport CO₂. With this in mind, it is necessary for BLM to plan for the use of EOR/CO₂ injection within the BHB RMP.

OIL AND GAS MANAGEMENT AREAS (OGMA)

Page ES-8: *“Alternatives C and D establish Oil and Gas Management Areas (568,164 acres and 134,214 acres, respectively) allowing full development of known oil and gas resources in existing fields and exempting these areas from seasonal development and other restrictions, resulting in beneficial impacts to oil and gas exploration and development.” The RMP further states that “Alternative D delineates OGMA’s to be managed primarily for oil and gas exploration and development (Chapter 2, pg. 33).”*

COMMENT: We support BLM's establishment of Oil and Gas Management Areas (OGMA). Continuing to manage areas already experiencing oil and gas development primarily for oil and gas exploration and development is a practical approach that will protect existing development while limiting impacts on other land use values.

In addition to establishing OGMA in areas currently containing existing fields, we recommend that OGMA have the ability to expand in the future as existing fields expand and fields are further developed. We also recommend that a process for establishment of new OGMA also be identified. Future expansion of OGMA to include expanded areas of oil and gas development within the Bighorn Basin (BHB) Resource Management Plan (RMP) Area is consistent with BLM's intent to manage areas with existing fields primarily for exploration and development. Furthermore, as noted above, current evaluation efforts of the Mowry Shale underway could lead to the establishment of significant oil and gas developments that are not currently captured in current document. As such, we urge BLM to include language in the RMP that BLM will reevaluate the delineation/boundaries of OGMA as necessary (e.g. annually) and adjust OGMA boundaries to account for expansion of existing and addition of new oil and gas fields.

Page 2-16, Table 2-2: *"Acres of OGMA where some discretionary seasonal restrictions would be relaxed – Alternative C: 568,164 acres (for big game and sage grouse); Alternative D: 134,214 acres (for big game)."*

Page 2-57, Table 2-5, Record #2029: *"Alternative C: Delineate OGMA (Map 21) (568,164 acres) around intensively developed existing fields, using a buffer zone of up to 2 miles from the outer boundary of the existing field (Map 23); Alternative D: Delineate OGMA (Map 22) (134,214 acres) and manage these areas primarily for oil and gas exploration and development."*

COMMENT: As a result of how OGMA are delineated under Alternatives C (using a 2-mile buffer around boundary of the existing field) and D (a 2-mile buffer is not used), OGMA are significantly larger under Alternative C than under Alternative D (see Maps 21 and 22). Delineating OGMA boundaries using a 2-mile buffer around the outer boundary of existing fields is more practical and consistent with BLM's intent to manage these areas primarily for oil and gas exploration and development. Utilizing a buffer zone around existing fields would include areas with high potential for further exploration and development. Consequently, including these areas within the OGMA would allow operators to maximize the development of valuable oil and gas resources within the Planning Area and would allow for the greatest oil and gas exploration and development with the least additional impact on other land use values. As such, we recommend BLM delineate OGMA as provided under Alternative C (using a 2-mile buffer), rather than Alternative D (no 2 mile buffer).

Page ES-6: ***"Alternative C exempts OGMA and right-of-way (ROW) corridors from discretionary wildlife seasonal stipulations...Under Alternative C, BLM applies the same prohibitions (outside of OGMA and ROW corridors) on surface-disturbing and disruptive activities for occupied greater sage-grouse leks and the same timing restrictions for greater sage-grouse winter concentration areas as under Alternative A"*** [emphasis added].

Page ES-7: ***"Seasonal wildlife restrictions under Alternative D include avoiding livestock grazing in elk partition habitat during the birthing season but also exempting OGMA from discretionary big game seasonal stipulations. Alternative D extends greater sage-grouse seasonal restrictions for surface-disturbing activities, as well as lek buffers"*** [emphasis added].

Page 2-16, Table 2-2: ***"Alternative C: Acres of OGMA where some discretionary seasonal restrictions would be relaxed are 568,164 acres (for big game and sage grouse); Alternative D: 134,214 acres (for big game)"*** [emphasis added].

Page Q-1, Appendix Q: “It is the **intent** of BLM’s Cody and Worland Field Offices to obtain and maintain consistency between BLM’s Greater Sage Grouse Key Habitat Areas (KHA) identified in this RMP and EIS and the State of Wyoming’s Sage Grouse Core Areas (Core Areas) (Appendix Q-1).” Additionally, BLM has expressed a desire and intent to manage sage grouse and sage grouse habitat in Wyoming consistently with Wyoming EO 2011-5 (Greater Sage Grouse Core Area Protection), and BLM is currently in the process of creating a new Wyoming sage grouse policy Instruction Memorandum (IM) directed at establishing consistency with EO 2011-5.

COMMENT: Alternative C exempts OGMAs from discretionary **wildlife seasonal stipulations**, including big game and sage grouse stipulations. However, under Alternative D, OGMAs are only exempt from discretionary **big game seasonal stipulations**. Other wildlife stipulations (i.e. non-big game stipulations), such as sage grouse stipulations will still apply within OGMAs. As a result, under Alternative D, OGMAs located within Key Habitat Areas (KHA) will still be subject to KHA stipulations for sage grouse protection and other non-big game stipulations, which may be very limiting on existing oil and gas units. This is inconsistent with BLM’s intent to manage OGMAs primarily for exploration and development of oil and gas resources.

If BLM’s intent is to manage OGMAs primarily for exploration and development of oil and gas, then oil and gas operations within these areas should only be subject to necessary and required wildlife stipulations. For example, OGMAs should only be subject to sage grouse stipulations (e.g. sage grouse seasonal restrictions for surface disturbing activities and lek buffers) required by EO 2011-5. The application of KHA sage grouse stipulations within OGMA’s where OGMAs and KHAs overlap, will significantly limit exploration and development of oil and gas within OGMAs. As a result, limiting KHA sage grouse stipulations to those required by EO 2011-5 will allow for the greatest development of valuable oil and gas resources within OGMAs and is thus more consistent with BLM’s intent. This will also establish consistency between the BHB RMP and EO 2011-5, as intended by the BLM’s Cody and Worland Field Offices.

BLM defines OGMAs as areas containing **existing fields that are already disturbed by development**. EO 2011-5 states that “*areas already disturbed or approved for development within Core Population Areas prior to August 1, 2008 are not subject to new sage-grouse stipulations* with the exception existing operations may not initiate activities resulting in new surface occupancy within 0.6 mile perimeter of a sage-grouse lek (EO 2011-5, Attachment B, paragraph 11).” EO 2011-5 further states that “[i]t is assumed that activities existing in Core Population Areas prior to August 1, 2008 will not be managed under Core Population Area stipulations. Examples of existing activities include oil and gas, mining, agriculture...and other uses that were in place prior to the development of the Core Population Areas. Provided these activities are within a defined project boundary (such as a recognized federal oil and gas unit, drilling and spacing unit, etc.) they should be allowed to continue within the existing boundary, even if the use exceeds recommended stipulations recognizing that all applicable federal actions shall continue (EO 2011-5, pg. 2, Item 2).” As such, existing fields within the BHB Plan Area (including those within KHAs) that were disturbed or approved for development prior to August 1, 2008, must not be subject to sage grouse stipulations if BLM desires to achieve consistency with EO 2011-5. Application of KHA sage grouse stipulations to pre-2008 fields conflicts with EO 2011-5.

Exempting OGMAs from **all discretionary wildlife stipulations** (i.e. Alternative C), including sage grouse stipulations to the extent provided under EO 2011-5, rather than simply **discretionary big game stipulations** (i.e. Alternative D), is more consistent with BLM’s OGMA management objectives and is consistent with EO 2011-5. As such, we request BLM adopt an OGMA management approach consistent with Alternative C, with the caveat that OGMAs (including where OGMAs overlap with KHAs) will be exempted from sage grouse stipulations to the extent consistent with EO 2011-5.

For areas located outside of Core Areas, EO 2011-5 establishes the following regarding sage grouse stipulations: “For activities outside of Core Population Areas, no more than a one-quarter (1/4) mile no surface occupancy standard and a two (2) mile seasonal buffer should be applied to occupied leks. Incentives to enable development of all types outside Core Population Areas should be established (these

should include stipulation waivers, enhanced permitting processes, density bonuses, and other incentives)... It is recognized that some incentives may result in reduced numbers of sage grouse outside of Core Population Areas (EO 2011-5, pg. 3, Item 7)." Consequently, EO 2011-5 merely establishes a *maximum* NSO standard and seasonal buffer for occupied leks that may be applied outside of Core Areas. It does not mandate the application of any stipulations outside of Core Areas. Consequently, exempting OGMA's located outside of KHAs from **all discretionary wildlife stipulations** (i.e. Alternative C), including sage grouse stipulations, is consistent with EO 2011-5. As such, we request BLM exempt OGMA's from **all discretionary wildlife stipulations** (including all sage grouse stipulations) in areas where OGMA's do not overlap with KHAs.

SAGE GROUSE KEY HABITAT AREAS AND STIPULATIONS

APPENDIX Q

Appendix Q-1: "It is the **intent** of BLM's Cody Field Office and Worland Field Office to obtain and maintain consistency between BLM's Greater Sage Grouse Key Habitat Areas (KHA) identified in this RMP and EIS and the State of Wyoming's Sage Grouse Core Areas (Core Areas)." Additionally, BLM has expressed a desire and intent to manage sage grouse and sage grouse habitat in Wyoming consistently with EO 2011-5, and BLM is creating a new Wyoming sage grouse policy IM directed at establishing consistency with EO 2011-5.

Appendix Q, Figure Q-1: Sage grouse Core Areas and Key Habitat Areas in the Planning Area.

Appendix Q, Table Q-1: "BLM sage grouse Key Habitat Areas, Total Planning Area: 1,857,485 acres; State of Wyoming sage grouse core Areas-Version 3, Total Planning Area: 1,786,244 acres."

COMMENT: KHAs designated by BLM are inconsistent with the State of Wyoming's Core Areas. If the intent of BLM is to obtain and maintain consistency between KHAs and the State of Wyoming's Core Areas, then why are KHAs identified in this RMP different than Core Areas provided for in Wyoming EO 2011-5, Attachment A (Sage-Grouse Core Breeding Areas Version 3)? Figure Q-1 of the RMP clearly illustrates the discrepancies between Sage-Grouse Core Breeding Areas Version 3 and KHAs.

Furthermore, there are 71,241 more acres of KHA (1,857,485) than acres of Core Areas (1,786,244) located within the total planning area. What are the justification and scientific reasoning for expanding KHAs and changing KHA boundaries from Core Area boundaries? The Wyoming Sage Grouse Implementation Team (SGIT) conducted an extensive public process supported by the best available science to develop the Core Area strategy and the Core Population Areas provided for in EO 2011-5.

COMMENT: We support BLM's intent to manage sage grouse consistently with EO 2011-5 and believe consistent management across the state is a practical approach that will illustrate Wyoming's dedication to protecting sage grouse. However, sage grouse stipulations Under Alternative D are not consistent with stipulations provided for under EO 2011-5:

- Core Areas/Key Habitat Areas - Seasonal Use:
 - Leks:
 - Under EO 2011-5 - Activity will be allowed from July 1 to March 14 (i.e. not be allowed from **March 15 to June 30**) outside of the 0.6 mile perimeter of a lek in Core Population Areas where breeding, nesting and early brood-rearing habitat is present (EO 2011-5, pg. 9, Item 3).
 - Alternative D - BLM extends this seasonal use restriction by two weeks, placing TLS on surface disturbing activities on nesting/early brood rearing habitat from March **1 to June 30** (Table 2-5, pg. 2-84).
 - It is our understanding that BLM has chosen to start the TLS on surface disturbing activities on nesting/early brood rearing habitat two weeks earlier under the RMP than EO

2011-5 because sage grouse in the lower elevations of the BHB tend to start mating approximately two weeks earlier than leks at higher elevations in the BHB and other leks across Wyoming. We are not opposed to starting the TLS two weeks earlier to account for geographic differences in sage grouse behavior. A *one-size-fits-all* approach is not always preferred in wildlife management, and EO 2011-5 states that “adjustments to the stipulations may be necessary based upon local conditions and limitations.” However, in these low elevation areas we request that BLM also end the TLS two weeks earlier to maintain consistency of overall TLS duration. If sage grouse mating starts two weeks earlier in lower elevations, then it should also end two weeks earlier in these areas. If the Wyoming Sage Grouse Implementation Team (SGIT) has determined that a 3 ½ month TLS for nesting/early brood rearing is adequate throughout Wyoming, then it should also be adequate in the BHB. An overall expansion of TLS duration is not necessary to protect breeding sage grouse.

- Winter Concentration Areas:
 - EO 2011-5 – In areas used solely as winter concentration areas, exploration and development activity will be allowed March 14 to December 1 (i.e. will not be allowed **December 2 to March 13**) (EO 2011-5, pg. 9, Item 3).
 - Alternative D – BLM extends this seasonal use restriction by two weeks, placing a TLS to prohibit or restrict surface disturbing activities in winter habitat/concentration areas that support KHAs from **November 15 to March 14** (Table 2-5, pg. 2-84).
 - Again, we are not opposed to starting the TLS two weeks earlier to account for geographic differences in sage grouse behavior and biological requirements, if it is scientifically justified. However, if BLM is starting the TLS on winter concentration areas two weeks earlier to account for geographic differences, we request BLM end the TLS two weeks earlier to maintain consistency of overall TLS duration. If the SGIT has determined that a 3 ½ month TLS for winter areas is adequate throughout Wyoming, then it should also be adequate in the BHB.
- Outside of Core Areas/Outside of KHAs
 - EO 2011-5 – For activities outside of Core Population Areas, no more than a ¼ mile NSO standard and a 2-mile seasonal buffer should be applied to occupied leks. Additionally, incentives to enable development of all types outside Core Population Areas should be established, including stipulation waivers, even if it results in reduced numbers of sage grouse outside of Core Population Areas (EO 2011-5, pg. 3, Item 7). As such, EO 2011-5 merely establishes a *maximum* NSO standard and seasonal buffer for occupied leks that may be applied outside of Core Areas. It does not mandate the application of any stipulations outside of Core Areas.
 - Alternative D – BLM applies much more restrictive stipulations outside of Key Habitat Areas, including: CSU within ¼ mile of leks, TLS within ¼ mile of leks March 1 to May 15, and TLS in connectivity habitat or within 2-miles of any lek in nesting/early brood rearing habitat (Table 2-5, pg. 2-84, 2-85).
 - We request BLM limit sage grouse stipulations outside of KHAs to, at a maximum, ¼ mile CSU and a 2-mile seasonal buffer to occupied leks, to achieve consistency with EO 2011-5.

In light of the illustrated discrepancies between sage grouse stipulations under EO 2011-5 and Alternative D, we recommend BLM modify sage grouse stipulations such that they are consistent with EO 2011-5. This will ensure consistent management of sage grouse and habitat throughout Wyoming and illustrate that the State of Wyoming and the BLM are dedicated to protecting and preserving sage grouse to prevent listing under the Endangered Species Act.

ACRES OPEN TO OIL AND GAS LEASING WITH MAJOR/MODERATE CONSTRAINTS; ACRES ADMINISTRATIVELY UNAVAILABLE TO OIL AND GAS LEASING

Page 2-16, Table 2-2:

	Alternative A	Alternative D
Acres Administratively Unavailable for Oil and Gas Leasing – BLM Administered Mineral Estate	154,861	291,294
Acres Open to Oil and Gas Leasing with Major Constraints - BLM Administered Mineral Estate	1,399,490	117,968
Acres Open to Oil and Gas Leasing with Moderate Constraints - BLM Administered Mineral Estate	1,789,634	3,540,775
Acres Open to Oil and Gas Leasing Subject to the Standard Lease Form - BLM Administered Mineral Estate	863,564	257,512

Page 2-56, Table 2-5, Record #2025: “Alternative A: Approximately 1,789,634 acres of federal mineral estate are open to oil and gas leasing subject to the terms and conditions of the standard lease form, as well as moderate constraints. Alternative D: Approximately 3,540,775 acres of federal mineral estate are open to oil and gas leasing subject to the terms and conditions of the standard lease form, as well as moderate constraints.”

Page 2-56, Table 2-5, Record #2026: “Alternative A: Approximately 1,399,490 acres of federal mineral estate are open to oil and gas leasing subject to the terms and conditions of the standard lease form, as well as major constraints. Alternative D: Approximately 117,968 acres of federal mineral estate are open to oil and gas leasing subject to the terms and conditions of the standard lease form, as well as major constraints.”

Page 4-48: “**Moderate Constraints** – Any stipulations or COA which may restrict the timing or placement of oil and gas development, but would not otherwise restrict the overall development; include all TLS, CSUs, areas where surface-disturbing activity is avoided, and VRM Class II areas.”

Page 4-48: “**Major Constraints** – Any stipulations or COA which may restrict the timing or placement of oil and gas developments and may result in an operator dropping the development proposal; Include NSOs, areas of overlapping TLS that last more than 6 months, areas closed to surface-disturbing activity, areas where surface-disturbing activity is prohibited, and VRM Class I areas. Leaseholders have the right to explore, develop, and produce mineral resources from any valid, existing lease, even if the area containing the lease was proposed to be closed to future leasing.”

COMMENT: Based on the statistics quoted above, there are 136,433 more acres **administratively unavailable** for oil and gas leasing under Alternative D than Alternative A (i.e. under current management). However, no discussion or justification has been provided in the DEIS for this discrepancy. Increasing the acreage *administratively unavailable* will decrease management flexibility in the Plan Area. We strongly recommend that BLM re-evaluate the number of acres administratively unavailable for oil and gas leasing and consider opening these areas to potential leasing subject to the standard lease form and moderate/major constraints. There are numerous circumstances in which oil and gas development may be allowed subject to moderate or major constraints (e.g. wildlife stipulations, COA), while at the same time adequately protecting other land use values in the area (e.g. big game). Additionally, keeping acres open to oil and gas leasing and utilizing moderate/major constraints on oil and gas leasing to manage resources within those acres provides the BLM

with greater management flexibility. In this regard, it is in everyone’s best interest to limit the number of acres *administratively unavailable* to oil and gas leasing. As previously stated, full evaluation of exploratory opportunities in area would be prematurely curtailed through overly broad application of the administratively unavailable designation.

The number of acres open to oil and gas leasing subject to the terms and conditions of the standard lease form, as well as **moderate constraints** is much greater (1,751,141 more acres) under Alternative D than Alternative A; and, the number of acres open to oil and gas leasing subject to the terms and conditions of the standard lease form, as well as **major constraints** is much smaller (1,281,522 fewer acres) under Alternative D than Alternative A. In general, we support and commend BLM’s management approach to increase the number of acres open for oil and gas leasing with moderate constraints, while decreasing the number of acres open for oil and gas leasing with major constraints. This is an important consideration for the exploratory evaluation efforts that are underway in the Mowry Shale and other areas of the Basin. There are numerous circumstances in which oil and gas development may be allowed subject to moderate/major constraints (e.g. wildlife stipulations, COA), while at the same time adequately protecting other land use values in the area (e.g. big game). Additionally, keeping acres open to oil and gas leasing and utilizing moderate/major constraints on oil and gas leasing to manage resources within those acres provides the BLM with greater management flexibility.

Page 4-157, Table 4-9:

	Big Game Crucial Winter Range (Acres)	Big Game Parturition Habitat (Acres)	Sage Grouse Key Habitat Areas (Acres)
Oil and Gas Constraints - Closed	Alt. A – 45,855 Alt. D – 109,768	Alt. A – 2,495 Alt. D – 72,019	Alt. A – 37,933 Alt. D – 74,481
Oil and Gas Constraints - Moderate	Alt. A – 580,238 Alt. D – 1,622,938	Alt. A – 6,702 Alt. D – 89,373	Alt. A – 512,190 Alt. D – 1,423, 567
Oil and Gas Constraints - Major	Alt. A – 679,240 Alt. D – 46,387	Alt. A – 71,264 Alt. D – 5,435	Alt. A – 534,236 Alt. D – 21,789

COMMENT: Big game crucial winter range and parturition habitat acreage for all alternatives (Map 35) is inexplicably much greater than *Big Game Crucial Habitat Priority Areas* (CHPA) defined by the Wyoming Game and Fish Department (WGFD). WGFD *Big Game CHPAs* include “crucial winter ranges, parturition areas, and migration routes with a ½ mile buffer for bighorn sheep, elk, mule deer, pronghorn, moose, and mountain goat.” A comparison of big game crucial winter range and parturition habitat identified in the RMP to WGFD *Big Game CHPAs* reveals that the BLM’s habitat areas are much more expansive throughout the Project Area, especially along the eastern, western (including the Absaroka Front Management Area), and southern boundaries of the Project Area. We understand the value of protecting crucial wildlife habitat. However, in light of this discrepancy it is difficult to justify the extent of big game crucial winter range and parturition habitat under all alternatives in the BHB RMP. As such, we suggest BLM re-evaluate the designation of big game crucial winter range and parturition habitat locations, and reduce the size of these areas such that they are consistent with WGFD *Big Game CHPA*’s. A map and narrative description of WGFD *Habitat Priority Areas* in the Cody Region is available on-line at: <http://gf.state.wy.us/habitat/PriorityAreas/Cody/index.asp>.

Based on the statistics provided in Table 4-9, the total acreage closed to oil and gas leasing due to big game crucial winter range, big game parturition habitat, and sage grouse key habitat all increase under Alternative D as compared to Alternative A. Rather than closing these large areas to oil and gas leasing up front, we recommend BLM leave some of these areas open to *potential* leasing and apply major/moderate constraints on a case-by-case basis as warranted. For example, areas designated as big game crucial winter range and parturition habitat in the BHB RMP but not considered CHPA by the WGFD should be opened to oil and gas leasing subject to major/moderate constraints, which will still provide adequate protection of crucial wildlife

habitats. This will also provide BLM with increased management flexibility, rather than administratively limiting management options.

The total acreage open to oil and gas leasing subject to moderate constraints increases significantly for each of these habitat areas under Alternative D as compared to Alternative A; and, the total acreage open to oil and gas leasing subject to major constraints decreases significantly for each of these habitat areas under Alternative D as compared to Alternative A. In general, we support BLM's management approach to increase the number of acres open for oil and gas leasing with moderate constraints, while decreasing the number of acres open for oil and gas leasing with major constraints, and commend BLM for this approach. There are numerous circumstances in which oil and gas development may be allowed within these habitat areas subject to major/moderate constraints (e.g. TLS, COA, CSU), while at the same time adequately protecting other land use values in the area (e.g. big game, sage grouse). Additionally, keeping acres open to oil and gas leasing and utilizing major/moderate constraints on oil and gas leasing to manage resources within those acres, rather than administratively closing these areas to oil and gas leasing, provides the BLM with greater management flexibility.

BIG GAME STIPULATIONS

Page 2-77, Table 2-5, Record #4079: *Under both Alternatives A and D, "Apply a TLS to avoid surface disturbing activities within big game crucial winter range from November 15 through April 30, and from May 1 through June 30 within big game parturition habitat." [Under Alternative D, OGMAs are exempt from such discretionary big game seasonal stipulations].*

Page 2-78, Table 2-5, Record #4082: *Under Alternative D, "Apply wildlife seasonal protection for surface-disturbing activities to the maintenance and operation of developed projects on a case-by-case basis." [No similar action under Alternative A].*

Page 2-79, Table 2-5, Record #4087: *Under Alternative D, "Allow temporary closure of designated roads, trails or areas within big game crucial winter range and parturition habitat, depending on impacts to big game, weather, disturbance by humans." [No similar action under Alternative A].*

COMMENT: In general, we support BLM's approach under Alternative D to keep some areas (i.e. areas not already closed to oil and gas leasing/administratively unavailable) designated as big game crucial winter range and parturition habitat open for oil and gas exploration and development for a portion of the year, rather than closing them entirely. Utilizing a TLS is an effective way to minimize impacts to big game populations that depend on these habitats, while at the same time allowing for the development of valuable oil and gas resources located within these areas. It has been repeatedly demonstrated throughout the Basin that oil and gas exploration and development is not a deterrent to healthy big game populations.

Implementing a 4 ½ month TLS for crucial winter range and a 2 month TLS for parturition habitat will significantly, but unnecessarily, limit oil and gas development in these large areas. Consequently, we recommend that BLM limit the expanse of these habitat areas to the amount necessary for big game sustainability. We further recommend that BLM utilize WGFD *Big Game Crucial Habitat Priority Areas* (CHPA) as a guide for identification of these areas. *Big Game CHPAs* include crucial winter ranges, parturition areas, and migration routes with a ½ mile buffer for big horn sheep, elk, mule deer, pronghorn, moose, and mountain goat. Consequently, consistency with CHPAs will provide adequate protection of these important habitat areas. A comparison of big game crucial winter range and parturition habitat identified in the RMP (Map 35) to WGFD *Big Game CHPAs* reveals that the BLM's habitat areas are inexplicably much more expansive throughout the planning area, especially along its eastern, western (including the Absaroka Front Management Area), and southern boundaries. In light of this major discrepancy, it is necessary for BLM to re-evaluate its designation of big game crucial winter range and parturition habitat locations, and make them

consistent with WGFD *Big Game CHPA's*. A map and narrative description of WGFD *Habitat Priority Areas* in the Cody Region is available on-line at: <http://gf.state.wy.us/habitat/PriorityAreas/Cody/index.asp>.

Page 2-77, Table 2-5, Record #4080:

“Alternative A: Apply CSU stipulation for big game migration corridors (Map 31), narrow ridges, overlapping big game crucial winter range (319,522 acres of BLM administered surface land; 167,064 acres of federal mineral estate), and big game parturition habitat (81,770 acres of BLM-administered surface land; 465,664 acres of federal mineral estate).”

“Alternative D: Absaroka Front Management Area (130,895 acres of BLM-administered surface land; 253,159 acres of federal mineral estate): apply a mix of CSU (130,211 acres), TLS (23,096 acres), NSO (14,217 acres), and unavailable for leasing (85,634 acres) on the federal mineral estate (Map 30); areas available for leasing are open to geophysical exploration with stipulation specific resource protection.”

COMMENT: Based upon the identification of *Big Game Crucial Habitat Priority Areas* (CHPA) within the MA by the WGFD, the MA is much larger than necessary to protect big game populations. The total area defined as *Big Game Crucial Habitat* within the MA by the WGFD is significantly smaller than BLM's. In fact, the WGFD has only identified relatively small pockets of *Big Game Crucial Habitat* within the MA. In light of this discrepancy, we urge BLM re-evaluate the size and boundaries of the Absaroka Front Management Area such to include only habitat areas actually in need of special management, as indicated by WGFD *Big Game Crucial Habitat* designations. Additionally, this discrepancy clearly demonstrates that subjecting 130,984 surface acres to MA restrictions (e.g. CSU, NSO, and unavailable for leasing) is not justified.

SPECIAL STATUS SPECIES – CHAPMAN BENCH MANAGEMENT AREA

Page 2-88, Table 2-5, Record #4125:

Alternative A - Implement conservation measures, Biological Evaluations, and interagency coordination memorandums for the mountain plover.

Alternative B – Same as Alternative A, plus manage a portion of the Chapman Bench area (23,326 acres) as the Chapman Bench ACEC for the retention, enhancement, and success of the greater sage-grouse, mountain plover, and long-billed curlew. See ACECs for management of the Chapman Bench ACEC.

Alternative C – Apply a TLS to protect mountain plover identified breeding and nesting habitat from surface disturbing activities from April 10 through July 10.

Alternative D – Same as Alternative A, plus manage a portion of the Chapman Bench area as the Chapman Bench Management Area (3,425 acres of BLM administered surface ownership):

- *Manage for the retention and success of the mountain plover, long-billed curlew, and other sensitive species habitat;*
- *Apply a NSO restriction (Map 30);*
- *Open to geophysical exploration; prohibit mineral materials disposal;*
- *Pursue a withdrawal from appropriation under the mining laws;*
- *Renewable energy and ROW avoidance/mitigation area;*
- *Allow surface-disturbing activities consistent with other resource objectives;*
- *Allow and stipulate, where feasible, vegetative treatments, invasive and nonnative pest species control, fuels management, and maintenance of existing facilities.*

COMMENT: After a thorough review of all available scientific and commercial information, the U.S. Fish and Wildlife Service (USFWS) determined that the mountain plover is not threatened or endangered throughout all

or a significant portion of its range and does not warrant protection under the ESA. Consequently, on May 11, 2011, USFWS announced their withdrawal of the proposed listing of the mountain plover as a threatened species. The USFWS determined that the mountain plover did not merit listing because threats to the species are not as significant as earlier believed and currently available data do not indicate that the threats to the species and its habitat, as analyzed under the five listing factors described in section 4(a)(1) of the ESA. The USFWS estimates the current mountain plover breeding population to be over 20,000 birds, more than double the estimate cited in the USFWS's 2002 proposal to list the mountain plover as a threatened species. The mountain plover's geographically widespread breeding and wintering ranges and its ability to use a variety of habitats contributes to its security. Mountain plovers have adapted to many human activities, using crop fields for breeding and wintering, and benefitting from some cattle grazing practices. The USFWS has concluded that human land use changes, alone or in combination with climate change, are not likely to result in significant population-level impacts to the mountain plover in the foreseeable future.

Based on the USFWS's recent findings and determination regarding the mountain plover, the stipulations and protections imposed for the mountain plover under the Management Action #4125 and the Chapman Bench ACEC is no longer warranted or scientifically justified. The USFWS has determined that the mountain plover is not threatened or endangered, has widespread habitats, has adapted to many human activities, and likely will not be impacted by human land use changes in the foreseeable future. The common occurrence of mountain plover in existing oil fields indicates that this species has adapted well to oil field conditions. As a result, special management and protection of the mountain plover under Alternative D (implement conservation measures and manage for the retention and success of mountain plover), Alternative C (apply TLS to protect mountain plover habitat), Alternative B (implement conservation measures and manage Chapman Bench ACEC to protect mountain plover), and Alternative A (implement conservation measures for mountain plover) is not justified. Therefore, we advocate the elimination of special management and protection for the mountain plover as currently proposed under Management Action #4125 and the Chapman Bench ACEC.

Moreover, identification of the mountain plover as a "sensitive species" is no longer warranted in light of USFWS's recent findings and determination. By definition the "sensitive species" designation includes species that could easily become endangered or extinct in the state (BLM Manual 6840). Criteria for designating sensitive species include species: under status review, numbers are declining so rapidly that Federal listing may be necessary, populations are small or widely dispersed, or that inhabit ecological refugia or other specialized or unique habitats (BLM Manual 6840). The mountain plover does not meet any of these criteria. As such, it is essential for BLM to remove the mountain plover from the sensitive species list and eliminate protections afforded to the mountain plover in the BHB RMP based on its status as a sensitive species.

ACCESS TO EXISTING WELL LOCATIONS

Page 2-78, Table 2-5, Record #4082: *"Alternative D – Apply wildlife seasonal protections for **surface-disturbing and disruptive activities** to the **maintenance and operation** of developed projects on a **case-by-case basis** [emphasis added]."*

COMMENT: As proposed under Alternative D, BLM claims discretionary authority to prevent access to existing well locations for maintenance and operation during certain times of the year to protect wildlife (e.g. critical winter, breeding, or parturition seasons). Any such authority must be limited. In order to conduct safe and effective oil and gas operations, it is imperative that operators have, at a minimum, limited access to well locations year-round to perform inspections, maintenance and other obligatory operations. It is crucial for BLM to recognize that certain inspection and maintenance activities must be conducted regularly and cannot be delayed due to safety and operational obligations. We recognize that limitation on some disruptive

activities and access to well locations during critical seasons may be necessary, such as prohibiting construction activities (e.g. well pads, roads, pits) or limiting the number of trips allowed in the winter on big game crucial winter range when warranted. However, it would constitute an act of agency negligence that would likely result in major safety hazards if BLM moves forward with its stated intent to completely restrict all access for the maintenance and operation of developed projects. If BLM prohibits routine safety inspections and maintenance, it is plausible that all legal liability for accidents or other incidents will rest with BLM rather than the operator. Therefore, we strongly recommend that BLM modify this proposal under Alternative D such that BLM will allow reasonable access to existing well locations year-round for maintenance and operation of developed projects, even in wildlife sensitive habitats. Basic maintenance and operation activities necessary to maintain safe, effective, and environmentally sound operations must not be subject to overly restrictive seasonal limitations for wildlife.

Record #4082 allows BLM to apply discretionary seasonal wildlife protections “on a case-by-case basis.” As discussed above, some maintenance and operation of developed projects must not be subject to seasonal wildlife protections under any circumstances. The term “case-by-case basis” is used throughout the DEIS pertaining to the application of additional conditions or restrictions. As previously explained, under some circumstances (e.g. certain areas or certain activities) the application of conditions or limitations is not appropriate (e.g. Record #4082). As such, we recommend BLM specifically identify areas where BLM will be able to apply seasonal wildlife protections on a case-by-case basis, and limit the use of case-by-case determinations to areas where application of protections is warranted and appropriate.

GLOSSARY

Glossary-10: **“Disruptive Activity:** *Those activities that disrupt or alter wildlife actions at key times, during important activities, or in important areas (feeding, breeding, nesting, herd movement, winter habitat). Disruptive activities are those which can result in reductions of energy reserves, health, reproductive success, or population. Some examples of disruptive activities include geophysical (seismic), well plugging or workover operations that last 24-48 hours or longer, road reclamation, and wild horse grazing and management. Emergency activities, rangeland monitoring, recreational activities, livestock grazing and management, and other field activities are not considered disruptive activities.”*

Glossary-38: **“Surface-Disturbing Activities:** *These are Public Land resource uses/activities that disturb the endemic vegetation, surface geologic features, and/or surface/near surface soil resources beyond ambient site conditions. Examples of surface-disturbing activities include: construction of well pads and roads, pits and reservoirs, pipelines and power lines, and most types of vegetation treatments (e.g. prescribed fire, etc.). NOTE: some resource uses, commodity production and other actions that remove vegetative growth, geologic materials, or soils (e.g. livestock grazing, wildlife browsing, timber harvesting, sand and gravel pits, etc.) are allowed, and in some instances formally authorized, on the Public Lands. When utilized as a land use restriction (e.g. No Surface Disturbing Activities), this phrase prohibits all resource use or activity, except those uses and activities that are specifically authorized, likely to disturb the endemic vegetation, surface geologic features, and surface/near surface soils.”*

COMMENT: BLM cites the West Tavaputs Plateau Natural Gas Full Field Development Plan Draft EIS (2008), Glossary for the definition of disruptive activity in the BHB Draft RMP. However, disruptive activity is not defined in this document. What is the explanation for this incorrect citation?

The definitions of **surface-disturbing activities** and **disruptive activity** are important definitions that should be given adequate consideration. Both of these terms are used repeatedly throughout the BHB Draft RMP in various contexts. Most commonly they are used as land use restrictions (e.g. “Apply wildlife seasonal protections for *surface-disturbing and disruptive activities* to the maintenance and operation of developed projects on a case-by-case basis”). Consequently, the breadth and scope of these definitions will have a profound impact on land use activities proposed or conducted throughout the Plan Area.

The definitions for **surface-disturbing activities** and **disruptive activity** in the BHB RMP are overly broad in application. When used as a land use restriction (e.g. Table 2-5, Record #4082) these terms may be interpreted to completely limit all activities within an area. For example, the definition of **disruptive activity** includes “activities that disrupt or alter wildlife actions.” This language may be interpreted to include almost any minimal activity occurring on the land, including activities that do not have a negative impact on the energy reserves, health, or population of a species.

We are not opposed to limiting **surface-disturbing** and **disruptive activities** to a reasonable degree provided it can be scientifically justified. For example, prohibiting construction activities (e.g. well pads, roads, pits) or reducing the number of trips allowed in the winter on big game crucial winter range is reasonable. However, we are concerned BLM may endeavor to completely restrict all minimally disruptive activities under these definitions. Therefore, we call upon BLM to modify the definitions of **surface-disturbing** and **disruptive activities** to expressly exclude access to locations for the maintenance and operation of developed projects.

AIR QUALITY

Modeling

Comment: It is our concern BLM is receiving pressure from the Environmental Protection Agency (EPA) to prepare a quantitative model to address potential impacts of oil and gas development within the Bighorn Basin as part of the planning revision process. As BLM is aware, the Departments of Agriculture and Interior and EPA recently entered into a Memorandum of Understanding (MOU) regarding air quality analyses and mitigation for federal oil and gas decisions through the NEPA process (AQ MOU). However, the AQ MOU was not executed by the agencies until June 23, 2011. Therefore, pursuant to the terms of the MOU, it does not apply to the Bighorn Basin RMP/DEIS because it was issued well after BLM released the draft RMP/DEIS on April 22, 2011. See Air Quality MOU Section X, C.

Further, it is inappropriate for the AQ MOU to be applied to the Bighorn Basin Final EIS because it would not be cost effective or timely to do so. The MOU specifically allows for agencies not to comply with the lengthy and expensive modeling required by the MOU if it is not cost effective or timely to implement the MOU's procedures. From a practical standpoint, it would be unrealistic for BLM to gather the necessary data to develop a timely and suitable model. Additionally, given the considerable funding shortages being experienced by BLM – along with its numerous other responsibilities – it would be imprudent and unacceptable for BLM to attempt to comply with the AQ MOU as part of this planning process, particularly since the agency has no management authority over air quality.

Finally, as also recognized by the AQ MOU, the CEQ regulations implementing NEPA do not require agencies to develop information that is not reasonably available; see 40 C.F.R. § 1502.22. Rather, when faced with a situation where there is incomplete information, the agency is only required to inform the public of the unavailability of these data and explain why it would not be practical to develop such data as part of the planning process. Given the lack of emissions data or other information regarding air quality in the Planning Area, we recommend that BLM provide the public with the reasons it would not be appropriate to develop an air quality model at this time.

Cost to public and loss of revenue

Comment: Given current economic constraints, the federal deficit, anticipated budget shortfalls, and BLM's lack of adequate budget and staffing levels, it is both unacceptable and unsuitable for BLM to attempt to extend its oversight to include media that are already adequately regulated by other agencies and which effectively protect air quality.

BLM has proposed additional controls and programs which are intended to further protect the air quality of the planning area. However, the DEIS failed to address the costs associated with each proposed program in the alternatives. Specifically, the FEIS must disclose the cost associated with each alternative to implement the plan and the extent of additional manpower required to manage the proposed additional standards, monitoring, stipulations, modeling, closures, construction, reclamation, etc. BLM has also failed to address the loss of good-paying jobs, federal state and local tax revenue and royalties from the various industries that will occur with each alternative. The significant socio-economic impact of additional restriction, regulation, oversight, and enforcement of an air quality program that is already addressed by other agencies was not considered in the RMP/EIS.

It is necessary for BLM to assess and disclose the associated costs of each alternative and to solicit public comments. However, such an effort was not undertaken in the DEIS/RMP. We recommend that such an analysis be prepared prior to issuance of the FEIS.

EPA/DEQ vs. BLM jurisdiction

With respect to the State's responsibility to Air Quality implementation, **Title I of the Clean Air Act (CAA), § 107, 42 United States Code (U.S.C.), § 7407** states that : *"Each State shall have the primary responsibility for assuring Air Quality within the entire geographic area comprising such State by submitting an implementation plan for such State which will specify the manner in which national primary and secondary ambient Air Quality standards will be achieved and maintained within each Air Quality control region in such State."*

Comment: As provided by law, the State of Wyoming has accepted and already bears the responsibility to protect the quality of air throughout the State as primary implementers of the National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA) section 107, 42 U.S.C., § 7416, requires "...such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section." Therefore, as part of the State's delegated authority, its emission standards are as good as or more stringent than federal standards.

The State's responsibility is realized through comprehensive regulations administered by the Wyoming Department of Environmental Quality (WYDEQ) and with oversight of the Environmental Protection Agency (EPA). The State regulations which require the oil and gas industry to attain and/or maintain the air quality are accomplished through WDEQ/EPA oversight of oil and gas activities within the planning area. Consequently, we strongly object to the proposal contained in the DEIS/RMP whereby BLM is seeking to promulgate additional air standards that obviously duplicate existing state and federal laws through additional agencies.

To facilitate this process, the BLM currently implements a program to share emission source information with the Wyoming DEQ and other government agencies. This program would continue under all alternatives. In addition, the BLM would require implementation of BMPs within its authority to minimize impacts, such as fugitive dust emissions in proximity to high use roadways, populated areas, and resource-sensitive areas (Chapter 4, page 8)." We support the BLM continuing to share emission source information with the WDEQ and other government agencies. However, we do not support the BLM's Alternative B potential mitigation strategies for projects expected to approach or exceed emission standards at the project/RMP level (Chapter 2, page 43, Record #1005, Table 2-5).

We appreciate the fact that the DEIS recognizes the WDEQ's authority to: "implement emission controls for sources requiring air permits under Wyoming Air Quality Standards and Regulations and to ensure that these sources do not contribute to an exceedance of an ambient air quality standard". For this reason, the proposed actions of BLM to further regulate, monitor, or impose restrictions based upon their intent to avoid possible air quality impacts is a complete duplication of effort and waste of diminishing federal revenues; such action will only result in confusion, conflict, and possible litigation.

Sec. 3.1.1., "Air Quality" of the DEIS, claims, *"This section describes the climate and existing air quality in the region (emphasis added) that the four alternatives described in Chapter 2 could affect."*

Comment: The above statement is incorrect because this section failed to provide meaningful air quality information with respect to the Bighorn Basin, as illustrated in *Chapter 3, Tables: 3-1, 3-3, 3-4; Figures: 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-12, 3-13, and 3-14*. All of the data were gathered from outside the Bighorn Basin planning area. Specifically, data were collected from Sheridan, Thunder Basin National Grasslands, Cloud Peak National Wilderness areas, the BLM Pinedale Field Office, and Yellowstone National Park, WY. The analysis then unscientifically attempted to extrapolate this information to the planning area.

Of specific concern is BLM's application of distant monitoring stations to be representative of the Basin, which is in actuality vastly different from the data collected. Of particular importance is that the climate of the Basin is affected by high winds and significantly less snow cover in wintertime which diminishes the albedo effect. These Basin-specific conditions starkly contrast the climatic setting of Sublette County and the Pinedale Field Office. Furthermore, Sublette County hydrocarbon production has a much higher ratio of natural gas and condensate than the low gravity oil produced in the planning area. For this reason, ozone precursor (methane and volatile organic compounds [VOCs]) emissions are significantly less and as result of these conditions the ozone generation potential are greatly diminished in the BHB. Similar arguments apply to each of the distant monitoring data sets that BLM incorporated into the DEIS. Rather than relying upon this irrelevant information, BLM should have acquired its own air quality data during preparation of the draft plan. We are confident that had this been done the data would have clearly illustrated no air quality impacts are present, thus there would be no need for further monitoring, restrictions, or regulation.

The DEIS improperly reflects a single reference point, monitoring *Yellowstone National Park Carbon Monoxide (CO) levels*, during 2005, (Ref. Chapter 3, Table 3-3). It is incongruous that Yellowstone National Park was chosen to monitor CO emissions for the Bighorn Basin because conditions couldn't be more dissimilar. Additional questions that arise from the use of Yellowstone National Park for this data point: What time of year did this monitoring occur? Was it during winter time when automobile exhaust is nearly non-existent? Was it during the summer months when the Park has an estimated 3 million visitors and their associated transportations visit the park? Future air standards, alternatives, or future applications of monitoring must be based on actual science that includes statistically relevant, quantitative data obtained within the planning area itself.

Section 3.1.1 Air Quality, Subsection Hazardous Air Pollutants, states *"There are no federal Air Quality standards for HAPs (there are exposure thresholds), but some states have established "significance thresholds" to evaluate human exposure for potential chronic inhalation illness and cancer risks."* Additionally, p 3-24, regarding criteria pollutants, and greenhouse gas states, *"Existing sources of HAPs, criteria pollutants, and GHGs in the planning area include fossil fuel combustion that emits HAPs; oil, gas, and coal development operations that emit VOCs, NOx and hydrogen sulfide (H2S)."*

Comment: There are no scientific data compendiums in the form of graphs, tables, or otherwise within the proposed RMP/EIS to quantify or substantiate any data regarding HAPs in the planning area. The air pollution emissions listed therein are regulated by the WDEQ for oil and gas operators within the planning area.

According to EPA's own data, contiguous US Contribution of Source Categories to Total Emissions for all HAPS has shown a decrease in millions of tons of emissions per year (mtpy) between 1990/1993 to 2007 as having decreased from 6 mtpy to 3.5 mtpy. Clearly, levels of HAPS have substantially decreased nationally. Additionally, based upon data obtained from the EPA database, only one facility is a major source for HAPS within the entire planning area. Consequently, it is critically important that BLM limit its data to that which applies directly to the planning area so that limits and constraints proposed in each of the alternatives are based only upon relevant data.

Page 2-43, Table 2-5, Record #1005, Modeling

Comment: In addition to our previous comments regarding air modeling, we recommend that BLM continue with the current management as denoted in Alternative A, or, alternatively, adopt RMP Alternative C as the management action to “perform analyses of activities with expected effects to air resources.” However, modeling should be performed only on a case-by-case basis under the auspices of technical expertise of the WDEQ. The air quality analysis implied in Alternatives B and D “require quantitative air quality modeling. However, the RMP used methods and assumptions regarding impacts for all alternatives using “a qualitative emission comparison approach for this assessment (Appendix U, page 9). The RMP also stated that “estimates of emissions only, rather than any type of air quality modeling (Chapter 4, page 6)” was utilized. BLM over-reaches its statutory authority, disregards the excellent air quality of the existing environment, and ignores the scientific basis for potential threats to air quality by requiring “quantitative air quality modeling” in Alternatives B and D. Had BLM performed quantitative air quality modeling to support the plan analysis, the overly burdensome and irrelevant quantitative modeling requirements included in Alternatives B and D would have been eliminated. We suspect that BLM did not support the DEIS with such diligence for several reasons. First, insufficient data exists in the planning area to support quantitative modeling. Second, empirical evidence of excellent air quality coexisting with an active tourism and extractive resource industry does not drive WDEQ to require modeling. Finally, because these models have not been scientifically proven at this point and their applicability to the planning area has not been validated, it is illogical for them to be considered for scientific evaluation post RMP implementation.

In summary, the DEIS presented irrelevant monitoring data and failed to provide useful, quantitative observations or facts from the planning area itself to serve as a reference point for future observations or modeling. Consequently, we object to the over-extension of BLM authority and imposing any alternative management choices that are not scientifically supported within the planning area, and thus support air quality impacts analysis consistent with Alternative A. We suggest that the BLM first work in a unified manner with WDEQ to better characterize the existing climate and present peer-reviewed data that demonstrates a threshold is threatened before requiring industry to execute an expensive and time consuming modeling exercise.

RECLAMATION AND RE-VEGETATION

Page 2-45, Table 2-5, Record #1018:

Alternative A – *“Reestablish vegetation cover over disturbed soils within 5 years of initial seeding.”*

Alternative B – *“Require 50 percent pre-disturbance of desired vegetative cover within three growing seasons. Require 80 percent pre-disturbance vegetative cover within 5 years of initial seeding.”*

Alternative D – *“Interim and final reclamation will begin at the earliest feasible time. Successful final reclamation of the desired vegetative cover will be considered achieved if conditions equal to or better than pre-disturbance site condition.”*

COMMENT: We support BLM’s approach to interim and final reclamation in Record #1018 provided for under Alternative D and are opposed to the approach provided for under Alternatives A and B. Alternatives A and B establish rigid requirements for reestablishing vegetative cover based on years/seasons. Due to the variety of factors influencing reclamation implementation and success (e.g. climate, geography, soil conditions, vegetative types, topography, weather), establishing a hard time requirement (years or seasons) for reestablishing vegetation cover is not reasonable or practical in application. Under some circumstances, such

standards may be impossible to attain. Rather, the approach provided for in Alternative D is more reasonable and may be practically applied with some flexibility to fit site specific reclamation conditions. As such, we recommend that BLM adopt the approach outlined in Alternative D.

SURFACE DISTURBANCE

Page 2-69, Table 2-5, Record #4037:

Alternative A – *“Prohibit surface-disturbing activities within 500 feet of surface water and riparian/wetland areas (55,586 acres) except when such activities are necessary and when their impacts can be mitigated.”*

Alternative B – *“Prohibit surface-disturbing activities within ¼ mile of or within riparian/wetland areas (140,464 acres). Allow sediment reduction structures on a case-by-case basis.”*

Alternative D – *“Avoid surface-disturbing activities at least within 500 feet and up to ¼ mile if needed to protect sensitive resources, or waters of the state, perennial surface water, and riparian/wetland areas.”*

Glossary-35:

Sensitive Sites or Resources: *Sensitive sites or resources refer to significant cultural resources that are or may be eligible for nomination to the National Register of Historic Places. This category also refers to cultural resources that require management under the American Indian Religious Freedom Act, the Native American Repatriation Act or Executive Orders independent of the National Register of Historic Places.*

COMMENT: The protection for “riparian/wetland areas” has been unnecessarily and unjustifiably expanded under Alternative B. Administratively preventing surface-disturbing activities within a ¼ mile (as opposed to 500 ft under Alternative A) is not necessary to protect these areas from impacts under most circumstances. Rather, industry has repeatedly demonstrated that preventing surface-disturbance within 500 feet, in combination with the implementation of other BMPs and mitigation actions gives BLM the flexibility to provide adequate protection to “riparian/wetland areas” as needed. Alternative A provides adequate protection of these resources and the flexibility necessary to account for site specific circumstances. Administratively establishing a ¼ mile buffer free of surface-disturbing activities around these areas (i.e. Alternative B) unnecessarily restricts the possibility of conducting activities or utilizing resources within this acreage and eliminates management flexibility to account for site-specific conditions. We strongly oppose the language in Alternative B and urge BLM to adopt the language contained in alternative A.

Additionally, BLM unnecessarily expands the scope of protection provided for surface water and riparian/wetland areas under Alternative D, by adding protection for “sensitive resources, or waters of the state.” As defined in the Glossary, “sensitive resources” refers to cultural resources. Cultural resources are analyzed, accounted for, and protected via other policies, designations, and stipulations throughout the BHB RMP. As a result, it is neither justified nor necessary to address protection of cultural resources in association with the protection of surface water and surface-disturbing activities under this Management Action and should be addressed separately. As such, we recommend that BLM adopt the language provided in Alternative A and limit the scope of protection under this Management Action to “surface water and riparian/wetland areas.”

Similar to Alternative B, Alternative D unnecessarily and unjustifiably expands the extent of protection for “sensitive resources, or waters of the state, perennial surface water, and riparian/wetland areas” by allowing BLM to prohibit surface-disturbing activities up to ¼ mile around these areas. As discussed above, establishing a ¼ mile buffer free of surface-disturbing activities around these areas (i.e. Alternative D) unnecessarily restricts the possibility for conducting activities or utilizing resources within this acreage. We

strongly oppose the language under Alternative D which allows BLM to establish a ¼ mile buffer free of surface-disturbing activities and urge the agency to adopt language under alternative A.

On a related note, the National Historic Trail (NHT) protections proposed in Alternatives B and D require serious reconsideration because they are needlessly excessive and do not belong in BLM's final management plan. Alternatives A and C offer a far more reasonable framework for providing appropriate buffers and protections to the NHTs that occur within the planning area. It is also important to note that the ¼ mile buffers which form the basis of the protective measures in Alternatives A and C for NHTs are consistent with existing federal law than the exceedingly restrictive 3 and 5 mile buffer concepts identified in Alternatives B and D. The BLM's use of 3 and 5 mile buffers appears to be completely arbitrary and unjustified and do not take in to account site specific considerations where viewsheds would not be impacted by allowing a smaller buffer.

Imposition of such a broad buffer for NHTs would create serious access limitations on existing leases throughout much of the planning area. Exploratory evaluation of resources throughout the Basin, including the Mowry Shale, would be curtailed if strict limitations on motorized vehicles are imposed across what amounts to a 10 mile wide stretch of area along the entire corridor of any NHTs. Not only would this extreme a buffer impact new exploratory opportunities, it would greatly diminish the Valid, Existing Rights of the many leases that have been previously issued throughout the planning area. Many of these leases were issued within 5 miles of NHTs and were acquired when operators believed the limitations in the area would remain consistent with the ¼ mile buffer. As noted earlier, protection and consideration of the Valid Existing Rights are critical philosophical and legal principles the BLM must acknowledge in this RMP. At a minimum, we urge the BLM to adopt more reasonable buffers for the protection of NHTs and to rely on the use of site specific deviations as necessary and warranted to protect the resource and allow future development and evaluation of the mineral resources.

SOIL AND WATER

Chapter 4, Part 4.1.3, Page 4-14 *“Actions that create impervious surfaces (e.g., road construction) or new water sources (e.g., surface discharge of produced water) may increase runoff and erode soils.”*

COMMENT: Although surface discharge of produced water may increase runoff and erode soils if BMPs are not applied, discharge of produced water can decrease the erosion of soils due to development of riparian zones and wetlands associated with surface discharge of produced waters. Discharge of produced water in the Bighorn Basin has resulted in the creation of hundreds of miles of riparian zones and thousands of acres of wetlands. These riparian zones have stabilized stream banks on otherwise natural highly erosive ephemeral and intermittent drainages, thus reducing erosion of soils. Wetlands, created by produced water discharges, slow and filter natural runoff thus reducing soil transport and improving water quality. There are many examples of this in the Bighorn Basin, including Cottonwood Creek, Dry Creek Kirby Creek, and Gooseberry Creek to name a few.

Chapter 4, Part 4.1.3.1, Page 4-14 *Both the Disturbed WEPP and WEPP Road modules are limited to four soil textures (clay loam, silt loam, sandy loam, and loam). The WEPP analysis used a loam soil texture for all erosion predictions.*

COMMENT: Is loam soil the best soil texture to use for WEPPP modeling in the Bighorn Basin (BHB). Since most soils in the interior of the BHB contain a lot of clay (bentonite), should clay loam be used for modeling purposes rather than a loam soil?

Chapter 4, Part 4.1.3.1, Page 4-15 *Other assumptions used in this impact analysis include:*

- *“The WEPP model predicts little or no erosion on undisturbed rangelands and forestlands.”*

COMMENT: If the WEPP model predicts little or no erosion on undisturbed rangelands and forestlands, it is likely to dramatically underestimate the amount of natural soil erosion in the BHB. Many areas of the interior of the BHB also have naturally bare soils due to their clay nature and the steep grades of areas such as the McCullough Peaks and 15 Mile, or other relatively undisturbed badland areas (rangelands) in the BHB. One can see the Shoshone River become very sediment laden immediately after major precipitation or snow melt events. This is a common phenomenon in the BHB and occurs in areas with minimal human disturbance. Also, on the western side of the BHB, some areas have been highly influenced by volcanic deposits. These areas are also very susceptible to natural erosion. This is also expressed in the extremely high sediment loads carried during spring runoff and precipitation events in the Clarks Fork, North and South Forks of the Shoshone River, and the Greybull River drainages. The headwaters of these rivers and their tributaries drain primarily from designated wilderness and roadless areas. Yet they transport very high sediment loads during snowmelt and precipitation events.

Chapter 4, Part 4.1.3.3, Page 4-24 *“Under Alternative D, the projected amount of surface disturbed by activities associated with minerals development (24,896 acres) is greater than under Alternative B but less than under alternatives A and C.*

The predicted average erosion from surface disturbance would be 103,692 tons per year in the short term, reducing to 20,179 tons per year after reclamation and stabilization. Proper reclamation in accordance with an approved reclamation plan, stipulations, or measures, which are required under Alternative D would help improve reclamation success and reduce long-term impacts to soil.”

COMMENT: It is unclear whether the WEPP model, which is used to predict erosion rates and runoffs, is calibrated to account for installation and implementation of Best Management Practices required by the Wyoming DEQ under the Stormwater Construction Permitting Program, which essentially requires no discharge of pollutants (including soil) from the construction site.

It appears reclamation plans will be required under Alternative D for surface disturbing activities associated with minerals development. Will this require submission and approval of a reclamation plan, prior to APD approval? If so, we question the need for a reclamation plan for all oil and gas wells. Moreover, if a reclamation plan is necessary in certain areas with highly erosive soils and limited reclamation potential; it is necessary for BLM to have consistent standards and a formal review period with a mandatory approval/rejection timeline. We have heard the Rawlins BLM is struggling with these very issues, which have resulted in an unacceptable delay in APD approvals. Such problems should be avoided to the greatest extent possible. Operators need to know what is expected in a reclamation plan, when these expectations are met, and that they will receive timely approval of an APD. As an aside, we have found the reclamation plan guidance provided by the Worland Field Office helpful; but, reclamation plans must be limited to areas where they are clearly necessary.

WATER QUALITY

Chapter 3, Page 3-36, Paragraph 4 *“Oil and gas development can result in large volumes of produced water that can have beneficial and adverse effects on surface water and can reduce groundwater availability; however, water users in the Planning Area overwhelmingly view produced water as beneficial. The release of produced water can increase or extend the period of flow in drainages; such releases can provide valuable sources of water and are highly coveted by users in the Planning Area. However, discharges of produced water also can increase the total dissolved solids concentration of surface waters, result in increased survival and spread of invasive species adapted to the conditions created, and substantially increase erosion in ephemeral drainages (BLM, State of Montana DEQ, and MBOGC 2003; BLM 2009i).”*

COMMENT: We are pleased that BLM recognizes the beneficial impacts from produced water, including increased availability of surface water. We are also relieved that BLM recognizes that water users in the

planning area overwhelmingly view produced water as beneficial. However, BLM fails to recognize the beneficial impact of produced water discharges in stabilizing ephemeral and intermittent stream channels through creation of riparian zones, thus reducing natural erosion. Good examples of this phenomenon are very evident in the Cottonwood, Gooseberry, Kirby Creek, and Dry Creek drainages. We believe BLM has over-emphasized the potential erosion problems in ephemeral drainages caused by produced water. BLM has omitted the fact that, in most instances, the presence of produced water has actually stabilized stream banks on ephemeral and intermittent waters by creating and enhancing riparian zones and wetlands. Surface water discharges create thousands of acres of wetlands in the Bighorn Basin. These wetlands and riparian zones provide tremendous benefits to wildlife and waterfowl in the arid interior of the Basin.

Discharges of produced water can increase the total dissolved solids concentration in surface water. However, BLM fails to recognize that most of the streams receiving produced water discharges are naturally ephemeral or intermittent. Water users in the Bighorn Basin would rather have water with elevated levels of total dissolved solids that can be put to beneficial use than no water at all.

Chapter 4, Part 4.1.4.1, Page 4-27 *“Mineral development is the **principal activity** with a potential to impact shallow groundwater quality and quantity.”*

COMMENT: We do not agree with this assumption. Mineral development is one of many human activities as well as natural events that have the potential to impact shallow groundwater quality and quantity. There are many other activities which can impact shallow groundwater quality and quantity. To single out mineral development as the **principal activity** impacting ground water, is a biased assumption, particularly if the BLM has no scientific justification or data for making this assumption.

Shallow groundwater in many oil and gas development areas is naturally unsuitable for agriculture, industrial, or drinking water use. Many of these shallow aquifers contain water with extremely high Total Dissolved Solids. Groundwater in these areas may also be impacted by natural oil and gas seeps that have followed natural fractures and fissures to the shallow aquifer. The presence of surface oil seeps was one of the primary indicators on which early exploration was based, which subsequently lead to the discovery of significant oil fields in the Bighorn Basin and other areas of Wyoming.

Chapter 4, Part 4.1.4.1, Page 4-27 *“The state of Wyoming has primacy regarding water. This includes water quality standards and water rights. The BLM may use water as an indicator or management tool, but it does not directly manage water.”*

COMMENT: We appreciate that the BLM acknowledges the primacy of the state of Wyoming regarding water, and that the BLM does not directly manage water quality.

Chapter 4, Part 4.1.4.3, Page 4-30 *“In comparison, the WEPP model estimates that with no disturbance there would be only trace amounts of annual runoff.”*

COMMENT: The WEPP model estimate that with no disturbance there would only be trace amounts of runoff, seems to disregard the amount of natural runoff experienced in the interior of the basin during snow melt or precipitation events. The badland topography and the clay content of soils in the Bighorn Basin can result in significant amounts of natural runoff and erosion from areas like McCullough Peaks, 15 Mile and other badland areas of the basin, which have very minimal human disturbance. Millions of years of erosion have created the landscapes many people currently regard as wilderness or lands with wilderness characteristics.

Chapter 4, Part 4.1.4.3, Page 4-30 *“The scale of impacts from runoff is anticipated to vary by alternative based on the amount of surface disturbance anticipated under each alternative. Therefore, if there is more acreage of surface disturbance, there is more impact to water resources in the Planning Area.”*

COMMENT: While it is true that more surface disturbance can result in more impact to water, it does not hold true in many cases. Most surface disturbing activities associated with oil and gas occur very far away from any live water. Runoff from these disturbed areas would typically never reach live water, particularly with the BMP requirements mandated in Storm Water Construction permits. In some instances, BMPs installed at disturbed sites can actually decrease the rate of natural erosion from a site and promote stable vegetation establishment.

Chapter 4, Part 4.1.4.3, Page 4-30 *“Water management plans for surface discharges of produced water would include reclamation strategies, mitigation, and monitoring to track changes in receiving channels and to minimize adverse impacts to watershed health.”*

COMMENT: Does this statement mean that the BLM intends to start requiring Water Management Plans for WPDES discharges in the Bighorn Basin? If so, would this requirement be for existing surface discharges, or only for proposed new surface discharges?

Chapter 4, Part 4.1.4.3 Pages 4-30 and 4-31 *“The Wyoming DEQ permits surface discharges of produced water from oil and gas wells through a WYPDES permit that requires compliance with specific water-quality standards. The quality of produced water discharged on the surface must be suitable for designated uses, such as agriculture and livestock, and cannot result in a violation of water-quality standards in the receiving stream. Produced water discharged into streams generally is hotter than the naturally occurring surface water and, although it is subject to applicable Wyoming DEQ water quality standards, it can contain dissolved compounds that may affect water quality. Due to prolonged contact with the formations that contain oil and gas and contamination from chemical additives used in well drilling and production, this water may be more saline and contain higher concentrations of organic compounds (e.g., oil and other hydrocarbons) and various inorganic compounds than the receiving surface waters (Veil 2004).”*

COMMENT: Extensive water quality testing is required during the WPDES permit application process. Additional water quality monitoring and reporting are required during the life of the permit. This testing is required to determine that the effluent discharged from the facility is meeting the required permit limits and that downstream receiving waters do not become impaired as a result of the produced water discharge.

Produced water discharged from oil and gas operations is generally hotter than the naturally occurring surface water. However, most produced water discharges first enter a naturally ephemeral drainage that would otherwise not contain surface water. By the time the produced water does reach a perennial water, the temperature has cooled dramatically and there is little if any impact on the perennial water. One benefit of the increased water temperature in those ephemeral drainages is that it typically provides an unfrozen year round water source for wildlife and livestock. Also, in many cases the organic component of the produced water has naturally attenuated by the time it reaches live water.

Chapter 4, Part 4.1.4.3 Page 4-31 *“Adverse impacts on surface water quality from the introduction of these components of produced water would be minimized, but not eliminated, under all alternatives by following standard practices, BMPs, and guidelines for surface disturbing activities. The properties of produced water can vary depending on the location of the producing well and the oil and gas formation, which will influence the application of BMPs and other measures intended to safeguard water quality.”*

COMMENT: How does the BLM plan to minimize impacts on surface water quality from components of produced water? As previously stated the Wyoming DEQ permits WPDES discharges and promulgates and enforces water quality standards. It is not the duty, nor the legal authority of the BLM to set water quality standards or to issue WPDES permits.

Chapter 4, Part 4.1.4.3 Page 4-31 *“Produced water from oil and gas wells sometimes is discharged to surface waters, thereby contributing to surface water flows. Beneficial impacts from produced water*

discharges include increased availability of surface water, although there may be adverse impacts from altering natural flow regimes, such as increased channel erosion.”

COMMENT: We are glad the BLM recognizes that there are beneficial impacts from produced water, including increased availability of surface water. However, as stated above, BLM fails to recognize the beneficial impact of produced water discharges in stabilizing ephemeral and intermittent stream channels through creation of riparian zones, thus reducing natural erosion. Good examples of this phenomenon are very evident in the Cottonwood, Gooseberry, and Dry Creek drainages. Surface water discharges also create thousands of acres of wetlands in the Bighorn Basin. These wetlands and riparian zones provide tremendous benefits to wildlife and waterfowl in the arid interior of the Basin. For example, the presence of discharge water in the Cottonwood Creek drainage provides a water source to grow hundreds of acres of alfalfa. These alfalfa fields provide critical habitat to a large population of sage grouse in the interior of the basin. Without the presence of produced water discharges in the Basin, there would be significant negative impacts to wildlife populations in the basin.

Many ranchers in the Bighorn Basin have testified that the presence of produced water and the consequential increased availability of surface water helps to reduce stress on naturally occurring water bodies and their associated riparian zones, by dispersing animals away from natural water bodies. This in turn results in more grazing opportunity and improved range conditions by allowing animals access to forage that would otherwise not be viable for grazing activities due to the distance from a natural water source.

Chapter 4, Part 4.1.4.3 Page 4-31 *“Produced water from oil and gas wells and, potentially, coalbed natural gas (CBNG) would have the greatest potential to affect groundwater quality and quantity where the wells are in areas with shallow depth to groundwater. Water produced from future CBNG wells in the Planning Area is expected to be of essentially the same quality and quantity as produced water from conventional or deep oil and gas wells.”*

COMMENT: It is yet to be determined whether coalbed natural gas CBNG will ever be economically developed in the Basin. It cannot be expected that produced water from coalbed CBNG will be of the same quality and quantity as produced water from conventional or deep oil and gas wells. CBNG produced water in the Powder River Basin is not of the same quality as produced water from conventional oil and gas wells. CBNG water quality also varies greatly from one area to another in the Powder River Basin. Furthermore, CBNG development usually shows a dramatic reduction in produced water quantity/discharge over time, while conventional oil development results in increased produced water production/discharge over time. Both conventional and coalbed methane produced water quality can vary greatly from one producing reservoir to another.

Chapter 4, Part 4.1.4.3 Page 4-32 *“Stormwater Discharge Plans to reduce impacts; restoring healthy plant communities and vegetative cover after surface disturbance in a timely fashion; conforming BLM actions to Wyoming DEQ water quality standards, enforcement, and remediation; and participating in the development and implementation of local watershed management plans and/or total maximum daily loads (TMDLs) with interested stakeholders and the Wyoming DEQ.”*

COMMENT: What is meant by ‘conforming BLM actions to Wyoming DEQ water quality standards, enforcement, and remediation?’ As previously stated the Wyoming DEQ permits WPDES discharges and promulgates and enforces water quality standards.

BLM must acknowledge the fact that a review of the 2010 Wyoming Integrated Report and 303(d) list shows no water bodies in the Bighorn Basin are impaired for pollutants limited by the DEQ WPDES Permits for oil and gas surface discharges.

Chapter 4, Part 4.1.4.3 Page 4-37 “Disposal of produced water under Alternative D would be authorized for new activities where compatible with other resource objectives and in consultation with stakeholders. The impacts, both adverse and beneficial, from produced water disposals would be the same as those described under Impacts Common to All Alternatives and Alternative A.”

COMMENT: We agree with BLM that produced water discharges, both existing and new, will be allowed under Alternative D. We continue to believe that the beneficial impacts of produced water surface discharges far outweigh the adverse impacts. As stated above, beneficial use of produced water in the Bighorn Basin has a long positive history of benefits for agriculture, wildlife, and wild horses. Many agricultural producers are dependent on the presence of produced water and have tailored their operations to take advantage of this unique opportunity of increased water supplies. The additional riparian zones, wetlands, irrigated crop lands, and water supplies, created and sustained by produced water, have greatly benefited wildlife populations in the Basin’s arid interior.

Chapter 4, Part 4.1.4.3 Page 4-38 “Alternative D designates more acreage as ACECs than alternatives A and C, designates the Absaroka Front Management Area, and designates 52,485 acres of LWCs as Wild Lands, which would limit surface disturbance and adverse impacts to water in these areas.”

COMMENT: All references to Wild Lands must be removed from the planning documents in view of Congress’s 2011 Continuing Resolution which prohibited BLM from moving forward with designations of any Wild Lands.

SOCIO-ECONOMICS

First, it is important to note that the socioeconomic data is flawed due to the reliance upon the IMPLAN model. The data within the Bighorn Basin Draft RMP and Draft EIS would be more reliable with the use of a geographic model which would more clearly show the socioeconomics in the BHB within the next two decades. There is a multitude of evidence provided by the University of Wyoming Enhanced Oil Recovery Commission, individual oil and gas companies, as well as the USGS that show the future production potential in Bighorn Basin (through enhanced oil recovery and new technologies like horizontal/directional drilling in formations such as the Mowry Shale) will be **approximately 3 trillion barrels of oil equivalent. This possibility should be adequately studied and included in the RMP.** This additional or new production would have a tremendous socioeconomic impact to the Planning Area. Initial exploratory test wells that have been drilled outside the boundaries of the legacy oil producing fields have already confirmed the presence of hydrocarbons, lending further urgency for the BLM to reconsider the socio economic analysis in the RMP.

Throughout the Economic section, BLM severely understates the importance of oil and gas in the Basin – as many of the Alternatives severely limit the future of this industry. Therefore, it is important for each alternative to clearly and accurately disclose the costs and benefits of energy development to decision-makers. Additionally, the economic benefits derived from oil and gas is understated and should also be revised to better explain how important oil and gas is to the Basin. It is also crucial for BLM to detail the costs of mitigation and stipulations and their impact on current and future oil and gas development. For example, imposition of a 5 mile motorized vehicle restriction around NHTs that occur in the planning area would create seriously detrimental impacts to oil and gas opportunities in the Basin as well as recreational OHV opportunities. Both activities generate revenue that would be lost in light of an excessive buffer stipulation. The potential economic losses should be analyzed and conveyed to the public to help determine if a less restrictive approach is more warranted.

Without question, Alternative C will result in greater employment opportunities, enhanced economic opportunities and a greater tax base. All of these positive results combined will be of great benefit to the

communities of the Bighorn Basin as a whole, while also providing a stable revenue source for local government services, special district services and operation support for the K-12 educational system.

For nearly a century, oil and gas has a favorable history of responsible environmental operations that have been well-managed by both industry and the BLM – something in which the oil and gas community takes pride. Despite these efforts, the four alternatives for the RMP could result in moderate to drastic changes socially and economically. The Bighorn Basin Resource Alliance (BHBRA), an affiliate of the Natural Resource Growth Coalition (NRGC), as part of this coalition compiled detailed information to assist with determining the best alternative. The information produced by the BHBRA is contained in the Bighorn Basin Resource Alliance Economic Revenue Report (BHBRA-ERR) and comes mostly from the Wyoming Department of Revenue, the Wyoming Department of Employment and the U. S. Bureau of Labor Statistics. This report can be accessed here: [Bighorn Basin Resource Alliance Economic Revenue Report](#). By way of this letter, we formally incorporate the report in our comments by reference, and further request that the BLM review the report as part of the comments analysis process.

Whenever long-term public land resource management changes are proposed, many economic factors must be considered. The DEIS fails to adequately review the economic and social impacts that could result from changes in public land management. Therefore, because it does not adequately inform the public about the social and economic changes that would be incurred, the report is incomplete and inaccurate. Moreover, each alternative fails to include an implementation price tag – meaning how can members of the community comfortably choose an alternative to support when the BLM does not identify its costs to implement? This is a serious flaw. We, therefore, strongly recommend that the BLM adequately identify the implementation cost of each individual alternative. Failure to recognize and consider these socio-economic factors in the DEIS will result in BLM making land use decisions without the required tools need to make the correct choice.

During the past several months, while researching and completing this economic revenue report, one theme resonated above all others – oil and gas development and production is the lifeblood of the communities in the Bighorn Basin – and has been for multiple decades. For the sake of meaningful comparison we examined the last decade. The property taxes paid from oil and gas production is the primary and stable revenue source for local government services, special district services and for operational support of the K-12 educational system. In the last decade, Bighorn Basin counties received 54 percent of all collected property taxes from oil and gas production (BHBRA –ERR, Section 3, Chart #1). The quality of life for all citizens in the Bighorn Basin is enhanced by employment opportunities, many of which are found from public land use. The Coalbed Natural Gas Alliance (NRGC's predecessor) hired Moore Information in November of 2008 to better understand how Wyoming viewed oil and gas development. 400 registered Wyoming voters were sampled with a 95 percent confidence interval and a plus or minus 5 percent confidence ratio. Please click here to access the [CBNGA poll](#). By way of this letter, we formally incorporate the poll results in our comments by reference, and further request that the BLM review the poll results as part of the comments analysis process.

When asked what the most important issue currently facing Wyoming residents was, the top two responses were the economy at 19 percent and jobs at 11 percent. These issues were followed by energy at 6 percent. Environmental protection fell in last place at 3 percent. Fifty-five percent of respondents chose protecting jobs over strictly rigid environmental protection (26 percent). Seventy-nine percent of the people said oil and gas development was 'very important' to Wyoming's economy. Eighty-nine percent said they favored oil/natural gas exploration and development in Wyoming. When asked, "Do you think activities like grazing, mining and oil and natural gas exploration, and timber activities can be compatible with recreation, hunting, fishing and preservation OR are in conflict with recreation, hunting, fishing and preservation?" An overwhelming 85 percent said they were compatible. The extremely high percentages show citizens believe oil and gas CAN co-exist with conservation – it is happening in the Bighorn Basin today. The Bighorn Basin is a great example of how to create a thriving basin economically, while preserving it for top-tier tourism, fishing and hunting.

Section 2.3.8 Socioeconomic Resources states, "None of the alternatives considered and subsequently eliminated from detailed analysis specifically addressed socioeconomic resources. However, alternatives

considered but eliminated from detailed analysis, such as no livestock grazing, and alternatives analyzed in detail that limit or expand oil and gas, mineral materials, mining, recreation, and livestock grazing affect socioeconomic conditions.”

COMMENT: The economic impact of oil and gas permitting, exploration and development within the Planning Area, in both current and future production zones (e.g. Mowry Shale Fairway and other exploratory opportunities), should be identified. This omission unveils another complication with the RMP. We urge BLM to provide a detailed analysis of this resource. Such an analysis is critical in order to make an objective decision for resource management for the next 20 years. The range of alternatives cannot be seriously reviewed without these estimates.

Page 3-217, Paragraph 1: *“Because the BLM manages subsurface mineral resources in excess of the surface lands it administers, its decisions can have a potentially large effect on mining in the Planning Area ... From an economic perspective, mining is a key contributor to the economic well-being of the Planning Area, and therefore BLM’s management decisions in this area could have a potentially large effect on economic conditions.”*

COMMENT: Mining, specifically oil and gas production is the Bighorn Basin primary economic engine. Opportunities with EOR and future exploratory efforts in the Mowry Shale Fairway and other regions of the Basin could greatly expand the industry’s economic contributions. BLM decisions related to oil and gas leasing and permitting affect exploration, development and production, which in turn greatly affects the economic activity in the Planning Area. The BLM significantly understates the influence oil and gas has on the economic welfare of the Basin, once again minimizing the potential harm that would be inflicted on the Basin if oil and gas exploration, permitting, development and production were limited or altered.

Section 4.8.1 Socioeconomic Resources Paragraph 3: *“... BLM management actions have the potential to indirectly affect social conditions.”*

COMMENT: On the contrary, BLM management actions markedly and **directly** affect social conditions within the areas it manages. Consequently, any BLM decision to prohibit or limit future oil and gas exploration or leasing on BLM-administered mineral estate **would** most certainly have a **direct** effect on the social conditions within the Bighorn Basin.

Section 4.8.1.1 Methods and Assumption

COMMENT: The Impact Analysis for Planning Model (IMPLAN) is a model using regional analysis. However, the Bighorn Basin would be better analyzed using a more geographic specific approach. For example, in Table X-1, IMPLAN identifies regional oil and gas well numbers including coalbed natural gas. There has been very limited exploration and marketable sales from coalbed natural gas development in the Bighorn Basin. It appears the model may be using the entire state of Wyoming for a regional model. It is precisely because of the use of data like this that has no bearing on oil and gas development in the Bighorn Basin and makes the reported information and findings flawed. It would be much more prudent to use a more geographic specific model to measure and estimate socioeconomic impacts the Basin.

Page 4-457, Last bullet, Line 5: *“... the economic impact analysis—which influences the social impact analysis ... assumes a relatively constant rate of development.”*

COMMENT: The production volume of oil has decreased by 20 percent over the last decade. (BHBRA- ERR, Section 2 (b) Chart #1) Gas production has decreased by 41 percent during the same time period. (BHBRA – ERR, Section 2 (b) Chart #2) In 1978, 55 million barrels of energy equivalent (BOEE) were produced in the Basin. This fell to 13 million BOEE in 2010. Without further exploration and production, the economic health of the Bighorn Basin cannot be sustained. The primary reason oil and gas tax revenue continues to drive the

economy is because the price of oil and gas increased. The mission of public land management is multiple-use - sustained yield. Sustained yield is not currently being realized. Is this production decrease the result of outside forces or internal regulatory/permitting decisions by the BLM? Sustained yield for nonrenewable resources may be an unattainable goal. However, ongoing exploration using new technologies like horizontal drilling and enhanced oil recovery must be encouraged within the Bighorn Basin RMP. Only through such an approach could a sustained yield mission be accomplished. BLM must recognize that its management decisions have a direct impact on public land use and thus the economic and viability of the Bighorn Basin.

4.8.1.2 Summary of Impacts by Alternative

Page 4-457, Paragraph 3:

COMMENT: As stated in this paragraph, applying decreased restrictions on oil and gas development would have a positive economic impact with very little direct growth in population. If population growth does occur due to decreased restrictions, stable or increasing ad valorem and sales taxes from oil and gas production would offset any increased community service costs.

Page 4-459, Paragraph 3, Line 2: This paragraph purports to address the impact of “*industrial development that substantially alters visual characteristics of the landscape ...*” It falsely asserts that such development “... may, over time, result in a lower number of tourists visiting the area and spending money...” as well as lowering “*the satisfaction of local residents who value open space ...*”

COMMENT: It is important to note that the historical visual characteristics, or viewscape, of responsible oil and gas development in the Bighorn Basin has been very well-managed by both industry and the BLM, with very little, if any, negative impact. The statement referenced above is particularly troublesome as it is a subjective statement for which no foundation has been provided in the DEIS. Based on CBNGA’s survey, it is clearly evident a large majority of Basin citizens (89 percent) wants oil and gas development in their communities. The lack of evidence in such a subjective statement is a prime example of the RMP: subjective and only one agency’s opinion – versus available science and research. By spending more time prior to the release of the draft making it correct, the public saves precious time and money later. Moreover, our economy would be in dire straits if it had to depend on tourism alone. Section one of BHBRA’s economic report shows the average annual wage of those employed by tourism versus oil and gas jobs on a county by county basis. In all four counties located in the planning area the annual wage in the oil and gas industry is the highest of any private employment sector. The annual wage for the accommodation and food service industry is the lowest. According to the employment and wage comparison, for calendar year 2009 average wages were as follows: Oil & Gas - 133 employees per county with an annual average wage of \$85,488; Accommodation and Food Service, 687 employees per county with an annual average wage of \$12,197 (BHBRA-ERR Section 1, Charts #9-10, #16-17, #23-24 and #30-31).

Page 4-460, Paragraph-3, Line 2: states, “*The BLM has limited control over the pace of development of leases...*”

COMMENT: This statement is misleading. The BLM has considerable control over the pace of development through the permitting process of oil and gas exploration, development and enhanced production. BLM also controls the pace of development through land use decisions and regulations.

Page 4-461, Table 4-21: The data in this chart entitled “Comparison of Projected Earnings and Employment to 2008 Levels” shows that all of the alternatives would result in the same employment numbers, 37,221.

COMMENT: Total employment change based upon 2008 employment appears to be extremely high. This is probably again the result of the regional IMPLAN Model. Our findings show that total employment for 2008 in

the Bighorn Basin was approximately 23,000 (BHBRA- ERR, Section 1, Chart #2) and not 37,221 as shown in this Table.

Page 4-462, Paragraph 2, Line 4, states, “... residents generally support multiple-use of BLM lands ...”

COMMENT: In actuality, a **strong majority** of Bighorn Basin residents supports multiple-use of BLM lands. (Please refer to the [CBNGA survey](#) mentioned above for comments analysis purposes.) Those residents also strongly support the sustained yield of BLM lands. Sustained yield will require the BLM to encourage additional well exploration in areas like the Mowry Shale and application of EOR technologies to replace and revitalize those wells that have reached their economic longevity viability. Using enhanced recovery in existing oilfields and applying new technology, such as directional exploration and drilling, should be aggressively encouraged by the BLM. Failing to include technology already being used 50 miles away in Riverton and near Casper in Sand Draw is a serious flaw in BLM’s reasonably foreseeable development scenario. It is important for the application of these technologies to be reflected in the economic/socioeconomic section of the RMP specifically as it relates to impacts to population, quality of life and local culture. The USGS estimates approximately 3 billion barrels of energy equivalent could yet be recovered in the Bighorn Basin through the use of new technology that is happening to our neighboring towns. The resulting economic and social implications would be extremely positive, boosting the economy through job growth, spending, population and more. Absence of a properly completed RFD makes for serious flaws in the economic section.

Alternative C – Impacts on Population

Page 4-465: The DEIS states that greater job opportunities will be provided by Alternative C is discussed throughout this section through such statements as: “*Alternative C would result in an increase of 141 jobs*”, “*These job increases would be associated with increased development of oil and gas resources*”, and “*Alternative C would result in more job opportunities ...*”

COMMENT: Alternative C will provide greater job opportunities and is the best alternative for the economic/socioeconomic growth and wellbeing. It should be noted however that we believe the jobs benefits will exceed the 141 jobs cited if the BLM allows for proper exploration opportunities and utilization of horizontal drilling and EOR techniques.

Alternative C – Impacts on Housing and Community Services

Page 4-465, Paragraph 1, Line 2: states, “*Alternative C may result in increased population leading to higher demand for housing and community services compared to alternatives A, B, and D. Alternative C would result in a greater tax base for providing these services ...*”

COMMENT: The majority of the employment needed in the Bighorn Basin for oil and gas development would be supplied by the existing labor force. Some of those within the current oil and gas exploration and development labor force are commuting or have temporarily relocated beyond the Bighorn Basin for employment. Their families remain in the Bighorn Basin; therefore, an increase in population is expected to be minimal. Unquestionably, Alternative C would result in a greater tax base, which is a positive impact and, therefore, it should be the preferred alternative.

Page 4-466, Paragraph 2: “*An increase in population sometimes results in population growth that overwhelms the ability of town or county governments to provide services. This is not expected to occur as a result of the BLM’s actions under Alternative C, for several reasons.*”

COMMENT: Our findings are in line with this statement and because Alternative C would **not cause significant** (negative) impact on community services in the Bighorn Basin.

Page 4-466, Paragraph 1, Line 2: states, “Alternative C would increase economic opportunities in the Planning Area more than alternatives A, B, and D, which may result in beneficial impacts on quality of life.” However, Alternative C may also result in adverse impacts to air quality, wildlife, and other resources that improve quality of life related to natural characteristics.”

COMMENT: We agree with the statement that Alternative C **could increase** economic opportunities, however, it should also be noted that increased economic opportunities **would** result in beneficial impacts to the quality of life. Moreover, responsible oil and gas development will not adversely impact air quality, wildlife or natural characteristics. Oil and gas development in the Bighorn Basin has a very favorable historical record of responsibility for all environmental concerns. It is objectionable that the agency is sacrificing the growth of the Bighorn Basin by relying upon flawed assumptions that degradation will occur. These are serious allegations and BLM has not provided the science to back them up.

Page 4-476, Paragraph 2, Line 1: Under Alternative C, “Approximately 1.4 million acres, (44 percent of the BLM-administered surface in the Planning Area) would be open to renewable energy development.”

COMMENT: Because it would encourage renewable energy development in concert with development of known and yet to be explored salable minerals, Alternative C is the best alternative for this section. However, the BLM should include as part of that alternative a section explaining and encouraging the use of enhanced oil recovery and directional/horizontal drilling. Because the BLM did not adequately incorporate this development into the RFD, regional earnings will likely be much higher.

Page 4-476: “Alternative C would result in the greatest number of jobs compared to the other alternatives.”

COMMENT: Although the use of the IMPLAN model is producing some inaccurate information with regard to the Bighorn Basin, our findings also show Alternative C provides the best results with regard to higher employment numbers. Quality of life for all citizens in the Bighorn Basin is enhanced by increased employment opportunities. Once again, Alternative C is the best choice in terms of economic health.

Page 4-476: states, “Projected tax revenues for Alternative C resulting from oil and gas production on BLM-administered surface would average \$45.9 million per year for federal royalties, \$22.1 million per year for state severance taxes, and \$25.5 million per year for local ad valorem taxes.”

COMMENT: The annual ad valorem taxes collected from oil and gas production in the Bighorn Basin have been greater than 50 percent of the total property taxes collected in seven of the past eleven years. The four years where oil and gas production ad valorem taxes did not exceed 50 percent were: 41 percent in 2000; 42 percent in 2002; 42 percent in 2003; and 49 percent in 2004. (BHBRA- ERR, Section 3, Chart #3) The property taxes paid from oil and gas production is the primary and stable revenue source for local government services, special district services and operational support of the K - 12 educational systems. (BHBRA- ERR, Section 3, Charts #7, #15, #23 and #31)

CULTURAL RESOURCES

Pages 2-97 – 2-98, Record Nos. 5020 – 5027

Comment: BLM’s proposed management action under Alternative B for cultural resources is unwarranted and excessive specifically in regards to the proposed protection of NHTs as referenced earlier in this letter. Alternative D is not much of an improvement in that it proposes to limit surface disturbing activities within either three or five miles of cultural sites. The DEIS provides no information to justify the need for the excessive management proposed, especially since the BLM’s proposal greatly exceeds the ¼ mile buffers required by federal law. Specifically, no information is provided that demonstrates that past activities have

impacted such sites within the proposed 3-mile protection zone. Absent such data, we strongly object to this new highly restrictive approach to management and urge BLM to retain the management objectives found under Alternative A.

NATIONAL HISTORIC TRAILS AND OTHER HISTORIC TRAILS

Page 2-203-4, Nez Perce National Historic Trail, Records 7188-7195

Comment: Earlier comments in this letter address our concerns with the overly restrictive approach the proposed for protection of NHTs. Additional comments on this important topic follow. Under the current management described under Alternative A, BLM requires avoidance of surface disturbing activities within ¼ mile of the Nez Perce National Historic Trail and other trails not designated as historic by Congressional action. Not only does BLM propose to radically increase the avoidance zone under Preferred Alternative D to 3 miles for the Nez Perce Historic Trail; BLM also proposes the same management for trails that clearly do not meet the standards necessary to be designated historic. Of utmost importance, BLM has again plainly failed to demonstrate in the DEIS any need for this overly restrictive management and furthermore has failed to identify the impact this type of restriction would have on existing leases and future exploration opportunities in the planning area. While 3 miles may not appear to the casual observer as significant, in reality such a restriction would remove well over 1 million acres from multiple-use activities, including oil and gas exploration and development, in areas heavily populated and used by the public. Much of the land that would be withdrawn occurs within areas that could yield prospective future exploratory and development promise. We are strongly opposed to this proposed change in management because it will unnecessarily restrict all multiple-use activities in a huge portion of the planning area, including valid existing rights of oil and gas lessees and operators. Without substantiating information that supports such a drastic change in management, BLM must retain current management as described under Alternative A.

VISUAL RESOURCE MANAGEMENT

Page 3-139, Types of Intrusions The DEIS points out, “*Visual intrusions on BLM-administered lands in the Planning Area include oil and gas fields, bentonite mining, the network of roads and highways, powerlines and various facilities needed to support mineral development, recreation, range improvements, and other facilities and infrastructure. Overall, development in the Planning Area has left a small footprint and has not substantially changed the visual character of the area.*”

Page 2-103, Records 5052

Comment: Despite the “small footprint” left by the variety of development activities that have occurred within the planning area, BLM proposes to substantially revise its Visual Resource Management (VRM) categories to be excessively restrictive under Alternatives B and D. However, none of these proposed management changes are warranted as evidenced by BLM’s analysis summary noted above. While VRM management proposed under Alternative B is extreme since it would remove a sizeable portion of the Basin from multiple-use activities, Alternative D also proposes to significantly increase the use of VRM Class II from 339,205 acres under current management to nearly double the acreage of 638,929 acres under the Alternative D.

It is incomprehensible that the agency would attempt apply a VRM Class II to an area that was not historically subject to such constraints and which contains hundreds of oil and gas leases, producing wells, mines and other pre-existing facilities that all carry with them valid existing rights. We remind BLM in areas where leases have already been issued, the agency does not have the authority to change its mind or the terms of the lease. Nor can new visual restrictions be placed upon active development activities. It is our understanding that the VRM program is intended to identify manageable objectives that take into account existing structures and activities; clearly this view is not shared by BLM.

In addition to opposing VRM changes under Alternatives B and D, we also oppose such changes in light of the fact that many of the lands within the planning area are either private land or state lands. It is objectionable for BLM to propose placing the burden of attempting to retain scenic quality upon operators in the area. We also find it inequitable to literally force companies to meet objectives that could be significantly compromised by uses on non-federal lands.

RIGHTS-OF-WAY

Page 2-111, Record 6034, Manage 2,512,202 acres as ROW avoidance/mitigation areas

Comment: Under current management BLM identified 941,778 acres as ROW avoidance/mitigation areas. BLM proposes to increase these areas under all alternatives to current management, but most significantly under the Preferred Alternative D, increasing avoidance areas to 2,512,202 acres (approximately 50 percent of the planning area). We have found no analysis or justification in the DEIS that would support adoption of this extremely onerous change in management. Once again, it is obvious BLM failed to consider the impact of this proposal on existing uses and commitments, in particular the effect it would have on valid existing lease rights, including unitized areas and development. We, therefore, strongly urge BLM to reconsider its proposal to excessively limit future uses and develop a ROW plan that is more reasonable and capable of being implemented.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Pages 2-169-196, ACECs

Comment: We do not object to retaining current management of existing ACECs, e.g., Big Cedar Ridge, Spanish Karst, Brown/Howe Dinosaur, and Red Gulch Dinosaur Tracksite. We do not support the new restriction of surface activities (including ROW) and lease withdrawals proposed for the Sheep Mountain Anticline and Carter Mountain ACECs. We would further note that the expansion of these ACECs in some instances would impact valid existing leases that have been previously issued. Historically, the Sheep Mountain ACEC was open to oil and gas leasing with restrictions on surface disturbance limited to areas above caves and cave passages. Under the Preferred Alternative BLM will only “consider” allowing activities to proceed elsewhere in the ACEC provided it can be mitigated and its VRM class has been changed to Class II. We have found no justification for this change in the DEIS.

With respect to Carter Mountain ACEC, management proposed under Alternative D is confusing, inconsistent and unnecessary. On one hand, surface disturbing activities would be allowed provided they can be mitigated under Record 7054 while the area would be administratively unavailable to oil and gas leasing under Record 7058. Given the fact that surface activities would be allowed provided the alpine tundra can be protected and mitigated, there is no justification for withdrawing the area from mineral leasing.

We oppose the proposals in Alternatives B and D for unilateral withdrawals of the remaining ACECs from leasing or imposition of no surface occupancy stipulations, the expansion of these ACECs or the creation of new ACECs as these areas already receive adequate protection under current management. We recommend BLM retain existing management in these areas.

WILD HORSES

Page 2-93, Record 4153

Comment: Wild horses have habituated the Bighorn Basin for hundreds of years encroaching upon forage and water sources for native wildlife in the Basin. Nevertheless, the oil and gas industry has fully demonstrated its commitment to protecting wild horses through carefully designed operational practices, mitigation measures

and best management practices. Consequently, we strongly object to the adoption of seasonal restrictions on activities in both McCullough Peaks and Fifteen Mile Herd Management Areas from February 1 to July 31 because no need for this new restriction has been demonstrated in the DEIS. We object to BLM's intent to give priority status to wild horses over other uses in the Basin and recommend this new restriction proposed under Alternatives B and D be stricken.

GEOPHYSICAL EXPLORATION

Page 2-54, Record 2014, *"On lands with an NSO restriction, allow only casual use geophysical exploration."*

Comment: Acknowledging the fact that geophysical operations have very low to zero impacts on the environment, in August 2007 the Department of Interior included in its NEPA Manual a categorical exclusion (CX) for geophysical operations that do not involve road construction. All such geophysical activities are categorized as "casual use." This distinction should be clarified in the FEIS and provision should be made to grant CXs in these circumstances. In the event an EA may be necessary, BLM's Geophysical Handbook directs that the process must be kept commensurate with the anticipated impacts of the project.

Geophysical data acquisition must be recognized by BLM as a valued tool that allows the energy industry to more clearly focus on areas with high potential for petroleum resources. Hundreds of thousands of miles of geophysical data have been acquired throughout the Rocky Mountain region with virtually no resulting environmental disturbance or damage. In areas where this scientifically valid approach has been employed, it has been demonstrated that fewer wells were required to locate and produce the resource due to improved subsurface structure information. Obviously fewer wells result in less surface land being needed to develop energy resources. Moreover, advances in technology have evolved to the point where surface disturbance from 3D geophysical activity is nearly eliminated and any residual disturbance is certainly very short term in nature. With today's technology, few impacts are expected because no new roads or other facilities are required for completion of a geophysical project.

CONCLUSION

Upon completion of our review of the Bighorn Basin DEIS/RMP, it is evident that BLM has proposed many changes in management within the planning area that are unwarranted and will impede new exploration and development of domestic sources of oil and natural gas along with other multiple-use activities. We urge the agency to acknowledge the over 100 years of demonstrated compatibility of uses within the Basin where wildlife, cultural, air and water resources along with recreational and other aesthetic values have been protected while accommodating resource development without unnecessary impediments. We urge BLM to reconsider the management options contained in the Preferred Alternative by formulating a new alternative that recognizes the successes of current management while limiting new restrictions to those that can be fully justified.

We appreciate this opportunity to provide you with our comments and concerns. Please do not hesitate to contact us if you would like to discuss our concerns in even greater detail.

Sincerely,



Claire M. Moseley
On behalf of

Natural Resources Growth Coalition (formerly CBNGA)
Petroleum Association of Wyoming

**Western Energy Alliance (formerly IPAMS)
Legacy Reserves Operating
Citation Oil and Gas Corporation
Fidelity Exploration and Production Company
Marathon Oil Company
Merit Energy Company
Phoenix Production Company
Plains Exploration & Production Company
Whiting Petroleum Corporation**

Cc: The Honorable Matt Mead, Governor of Wyoming
Don Simpson, Wyoming BLM State Director