PUBLIC LANDS ADVOCACY

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Todd D. Yeager
Field Manager
Bureau of Land Management
Miles City Field Office
111 Garryowen Road
Miles City, Montana 59301
BLM_MT_MCFO_RMP@blm.gov

RE: MILES CITY FIELD OFFICE RESOURCE MANAGEMENT PLAN

Dear Mr. Yeager:

On behalf of the Montana Petroleum Association (MPA), Public Lands Advocacy (PLA) and Western Energy Alliance, following are comments in response to the Notice of Availability of the Draft Miles City Resource Management Plan (RMP) and Draft Environmental Impact Statement (DEIS) published in the *Federal Register* March 8, 2013. The signatories to these comments are all non-profit trade groups who represent the many facets of the petroleum industry. Our member companies have valid existing leases, current oil and gas production, and plans for future leasing, exploration, and production activities in the areas that will be directly impacted by the proposed revision of the Miles City Field Office (MCFO) RMP.

We preface these comments with frank criticism regarding BLM's lack of consideration for the public in this planning process. We ask how BLM believes interested parties have been afforded the ability to fully digest and provide coherent and substantive comments within a 90-day window on three major draft RMPs issued in Montana within a three week period. BLM's justification that it is under a strict schedule is wholly inadequate. We object to the limited public involvement opportunities provided in this process. It is unrealistic for BLM to expect the heavily affected oil and gas industry, not to mention the general public, to have the ability to conduct a complete review when they have been provided a very narrow window in which to review these three enormous documents. We are concerned BLM is making a rush to judgment without appropriate and accurate consideration of the impacts associated with the management considerations contained in the DEIS.

FAILURE TO COMPLY WITH NEPA

The purpose of analysis under the National Environmental Policy Act (NEPA) as well as BLM's planning process is for BLM to publically disclose the potential impacts of various management strategies under consideration by the agency. Specifically, the CEQ NEPA regulations at 40 CFR §1502.9(a) directs the agency to "*make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives*

including the proposed action." While BLM may have explained its management scenarios by alternative in the DEIS, it has omitted any useful explanation of potential impacts associated with each of the alternatives selected for detailed review in the document. The regulation at 40 CFR § 1502.14, requires presentation of the "*environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public*." Additionally, the regulation at § 1502.16 requires a "*scientific and analytic basis for comparisons*" of the information provided in accordance with § 1502.14 necessary to support the comparisons. The BLM's planning regulations similarly require the BLM to estimate the physical, biological, economic, and social impacts associated with each alternative in the RMP EIS. 43 CFR § 1610.4-6 Absent a sufficient description of the potential environmental impacts associated with each alternative, BLM has failed to meet both of the "twin purposes" of NEPA, understanding potential impacts and public disclosure of said impacts. See Baltimore Gas & Electric v. Natural Resources Defense Council, 462 U.S. 87, 97 (1983). For this reason alone, the BLM must prepare a revised draft environmental impact statement. 40 C.F.R. § 1502.9(a)

Further, BLM has failed to explain its rationale for selecting the Preferred Alternative. It is inadequate for BLM to simply identify a preferred alternative without providing detailed analysis that supports WHY such an alternative is in the best interest of the agency and public. According to the BLM's Land Use Planning Manual and Land Use Planning Handbook, II.A.7, pg. 22 (Rel. 1-1693 03/11/05), BLM must identify how the Preferred Alternative best meets the multiple use and sustained yield requirements of FLPMA. This lack of meaningful analysis constitutes a fatal flaw in the DEIS. Therefore, in accordance with 40 CFR 1502.0(a), we find the DEIS "*inadequate as to preclude meaningful analysis*" and recommend the agency prepare and circulate a revised draft which provides the analysis necessary to support each of the management alternatives, including the preferred alternative**.**

INADEQUATE MAPPING PROTOCOLS

The 1-Km resolution datasets and 1:2,000,000 scale maps used in the BLM planning process may be viable tools for multi-state or sub-continental planning efforts, but they become totally meaningless at field office or even county level. With respect to the Greater Sage-grouse, datasets and mapping at these scales grossly mischaracterize historic and potential habitat by including non-habitat as well as overlooking microhabitat characteristics, especially in diverse and fragmented landscapes. Likewise, threats to sage grouse are also entirely overestimated when using sub-continental scale mapping, such as that used by the MCFO planning effort, in particular for the Greater Sage-grouse.
Most of the conventional literature regarding sage-grouse starts with the assertion that ~60% of historic range has been lost. This is based on work done by Schroeder et al in 2004, and has become the cornerstone of mainstream sage-grouse research. It too is at a 1:2,000,000 scale and provides the basis for much of the USFWS and BLM policy regarding sage-grouse. Of great concern, however, is the fact that this scale provides wholly unsuitable data when conducting any analysis or planning at FO level.

The most recent paper by *Knick et al* concluded that sage-grouse lek abandonment will occur with as little as 3% human disturbance with a 3-mile radius of a lek. Unfortunately, their methods apply

cumulative human impacts over the past 100 years to a static snapshot of lek status (active or abandoned). In other words, no consideration was given to the timing of the human disturbance with respect to the status of a lek in question. It is assumed that any lek abandonment was due to cumulative human impacts. This approach is unacceptable and our comments address these concerns.

THE PLANNING AREA HOLDS IMPORTANT OIL AND GAS RESOURCES

The MCFO planning area encompasses both the highly productive Williston and Powder River Basins. It is acknowledged in the Fluid Minerals Appendix to the DEIS that these Basins hold critically important proven reserves of oil and natural gas resources because they contain the structural components required to successfully explore for and develop new oil and gas resources. To date, 12,412 total oil and gas wells have been drilled within the MCFO planning area. According to the Montana Board of Oil and Gas Conservation (MBOGC) more than 329,263,475 barrels of oil and more than 558,401,479 thousand cubic feet of gas have been produced within the MCFO as of August 2011.

The DEIS points out that there are currently 52 companies with active operations within 205 recognized oil and natural gas fields in the MCFO planning area in 29 federal units and 287 communitization agreements. It also notes that approximately 74 percent of the wells 3,253 (or 3,722 wells as indicated on Minerals Appendix Table 14) wells drilled and completed over the last 10 years are still currently producing. The Appendix also explains that new technologies will allow companies, if allowed, to target high quality prospects and improve well placement and success rates resulting in the likelihood that fewer drilled wells will be needed to find new resources while the total production per well is expected to increase (DOE 1999). Consequently, the advent of fewer wells will reduce surface disturbance and associated impacts.

The Reasonably Foreseeable Development scenario provides a baseline projection that between 3,500 and 7,600 wells could be drilled within the MCFO planning area over the next 20 years if only standard lease terms were applied. From those wells, it is projected that nearly 6 million barrels of oil (approximately 1.4 million barrels of BLM minerals) and nearly 6 trillion cubic feet of natural gas (approximately 1.3 trillion cubic feet of BLM minerals) could be produced. We question whether these figures have been updated to comport with recently revised resource estimates issued by the US Geological Survey. We have not found this information was incorporated into the draft RMP documents and recommend that appropriate revisions be made before adopting a new planning document.

CHAPTER 1 - ISSUES AND MANAGEMENT

Page 1-3 – BLM indicates that *"issues identified during scoping drive the preparation of this RMP."*

COMMENT: Given the scope of fluid mineral activity within the MCFO and the importance of the planning area to the oil and natural gas industry, it would be a reasonable expectation that these resources would be a key factor in the planning process. However, this was not the case. None of the seven planning issues, which BLM claims were identified by the public, address the concerns

raised in PLA's March 4, 2005 scoping letter, which called for oil and natural gas resources to be fully considered during this planning process**.** Specifically, PLA requested the following issues be included in the planning process:

- *Management options that would protect or enhance opportunities to explore for and develop oil and gas resources*
- *Management options for surface resource management that are compatible with oil and gas resource management objectives*
- *Reasonable mitigation measures designed to limit or avoid impacts to surface resources as a means to lessen restrictions on access to public lands for leasing*
- *Lack of oil and gas resource potential or current industry interest will not be used as a basis for closing lands or imposing constraints on exploration and development activities*
- *Socio-economic considerations and benefits from oil and gas activities will be included*
- *Recognition and protection of Valid Existing Lease Rights*

Likewise, BLM's nine internally generated *management concerns* are limited to air quality/climate change; water, cultural, and visual resources; hazardous materials; socio-economic considerations; and environmental justice (negative impacts to human populations). Once again, BLM opted not to include management of oil and gas resources as a significant management concern, despite the fact that it acknowledges receipt of industry's concerns in Chapter 4 of the DEIS.

Since it is obvious that oil and natural gas, along with coal bed natural gas, exploration and development are significant activities which take place within the MCFO, we ask that BLM fully explain in its "response to comments" how the agency arrived at its decision to ignore the issues raised by industry during the scoping phase and to exclude oil and gas from its management concerns. We also question why BLM failed to include a map depicting where existing leases are located within the MCFO along with a description of how many federal acres are currently under lease. We called the FO to obtain this information and learned BLM could not provide a map showing leased acreage. In order for both the industry and the public to fully evaluate the planning documents, this information is of significant importance and its omission from the DEIS, coupled with the agency's demonstrated lack of concern with respect to management, reflects an unacceptable approach to oil and gas resource exploration and development throughout this planning process.

VALID EXISTING RIGHTS

Page 1-3 - "*All decisions made in the RMP are subject to valid existing rights*."

Page 2-12 - "*Upon plan approval (ROD), valid existing rights would not be changed by the decisions in this document until a permit or lease expired; following this, the area would be subject to the decisions reached in this document*."

COMMENT: We support BLM's recognition of valid existing lease rights. According to the Federal Land Policy and Management Act (FLPMA), the Mineral Leasing Act (MLA) and BLM's Planning 1600 Handbook, BLM does not have the authority to impose new stipulations on leases after they have been issued. Nor does BLM have authority to impose mitigation measures, such as Conditions of

Approval (COA), that exceed the terms and conditions of previously issued leases. In sum, BLM cannot deprive operators of their rights to develop pre-existing leases in accordance with the terms under which they were issued. BLM is limited to negotiating existing rights owners if BLM wishes to impose newly developed restrictions.

Of concern is that the DEIS failed to include protection of valid existing rights as a management goal under all alternatives. While BLM acknowledges that stipulations developed during this planning process can only be imposed on newly issued leases, it is apparent in reviewing the DEIS that BLM believes it has the authority to apply the similar restrictions on existing leases through the use of permit Conditions of Approval (COA) or by imposing compensatory mitigation requirements. In our view, the combination of so-called COAs and proposed compensatory mitigation requirement is tantamount to new lease stipulations and must be eliminated in the final EIS/RMP.

ENERGY DEVELOPMENT IS A LEGITIMATE USE OF PUBLIC LANDS

Under the FLPMA, BLM is required to manage the public lands on the basis of multiple use and sustained yield. 43 USC § 1701(a)(7) (2006) *" 'Multiple use management' is a concept that describes the complicated task of achieving a balance among the many competing uses on public lands, 'including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and [uses serving] natural scenic, scientific and historical values*.' " Norton *v. Southern Utah Wilderness Alliance*, 542 U.S. at 58 (quoting 43 U.S.C. § 1702(c)). "*Of course not all uses are compatible.*" *Id.* We recognize the difficult task the BLM faces to manage public lands in the MCFO for multiple use. However, oil and gas development is a crucial part of the BLM's multiple use mandate and the agency must ensure that oil and gas development is not unreasonably limited in the RMP.

FLPMA clearly identified mineral exploration and development as a principal or major use of the public lands. (43 U.S.C. § 1702(l)) To that end, FLPMA requires the BLM to foster and develop mineral activities, not stifle and prohibit such development. It does not appear this was one of BLM's goals when preparing the MCFO DEIS. Rather, it appears the BLM is intent upon limiting what it considers to be a damaging presence on the federal lands. The BLM must reconsider its view of oil and gas development when preparing the final EIS/RMP.

COMPENSATORY MITIGATION

We categorically oppose the inclusion of compensatory mitigation in Alternatives B, C and D because it cannot be justified given the plethora of protective requirements with which industry must already comply to effectively reduce or eliminate impacts associated with oil and gas activities on public lands. Specifically, industry is already forced to conduct multiple resource surveys on behalf of BLM as well as to comply with numerous BMPs; COAs; restrictive regulatory thresholds; NEPA analyses; along with a host of additional federal agency and state requirements. We find it unconscionable that BLM states it intention to dig even deeper while failing to even disclose specific criteria, circumstances and the amounts when compensatory mitigation may be required. No clarification as to what constitutes a purported unacceptable level of change is provided in the DEIS. Further, what recourse will an operator have if it is believed such a requirement is excessive?

Absent specific guidance, resource specialists will be predisposed to requiring compensatory mitigation whenever it suits them, without regard for operator committed mitigation measures. The fact that a lease has been issued by BLM is clear evidence that certain levels of impacts are acceptable. When a lease is sold and issued by BLM, it contains specific stipulations designed to protect resource values during oil and gas operations. When the operator proposes an activity, it must comply with these stipulations. The Mineral Leasing Act, the regulations at 43 CFR 3101.1-2, as well as BLM's 1624 Manual, specifies that new stipulations cannot be applied to existing leases; this includes COAs or other measures that exceed the terms of a lease. Specifically, once a lease has been issued, BLM does not have the authority to prevent development unless the lease terms prohibit surface occupancy or development would result in "unnecessary or undue degradation," which could not be mitigated. Under 43 CFR 3101.2, guidance is provided detailing what authority the agency has to modify the parameters of the stipulations in order not to compromise valid existing lease rights granted by the lease.

BLM has previously cited as its authority to address the mitigation of impacts from FLPMA §102(a)(8), "…the public lands [will] be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archeological values…." However, we remind BLM that FLPMA §102(a)(12) also directs that "the public lands [will] be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970 (84 Stat. 1876, 30 U.S.C. 21a) as it pertains to the public lands." Moreover, while FLPMA §302(b) specifies "*the use, occupancy and development of public lands must be regulated by the Secretary through easements, permits, leases, licenses, or other instruments*," the agency must also fully acknowledge the rest of this section which clearly directs that "***these instruments include, but are not limited to, long-term leases to permit individuals to utilize public lands for habitation, cultivation, and the development of small trade or manufacturing concerns.***" [Emphasis added]

Compensatory mitigation directly conflicts with EPCA language which requires BLM to evaluate the extent and nature of any restrictions or impediments to the development of resources including: (B) post-lease restrictions, or delays on development for conditions of approval, applications for permits to drill, or processing of environmental permits. [See EPCA phase II, page xxi]. We view this new requirement as a gambit for BLM to capitalize on industry's willingness to work with the agency to ensure mutually beneficial energy projects can move forward.

BLM has evidently failed to acknowledge the extent of industry participation in and funding for partnership programs such as habitat improvement projects, public land restoration programs, which, in nearly all cases, were all entered into on a voluntary basis. Additionally, industry routinely pays for wildlife studies and inventories, such as wetlands, cultural, wildlife, and threatened and endangered species resources, and NEPA documents, in association with project permits. In light of the fact that BLM appears intent upon ignoring industry support and participation in partnership programs, direct support for resource surveys and NEPA documents that are properly BLM's responsibility, this new policy will likely severely curtail industry participation in partnership programs.

BLM is essentially establishing a new rule to require compensatory mitigation in areas it sees fit without consideration of lease rights. Moreover, it is evident that current commitments to operators with respect to APDs, rights-of-way or other projects could be modified as a result of this new policy. Contrary to FLPMA, such mitigation places more importance on aesthetic resource values over other uses, such as minerals and other commodity development. BLM must recognize that it is required to fully consider the need for mineral development along with the need for the protection of other resource values and that in some cases the need for mineral development may actually outweigh the need for the protection of other resource values. As such, BLM must comport with EPCA. Namely, "*public land managers [have a responsibility] to identify areas of high oil and gas potential and to evaluate the effectiveness of mitigation stipulations and conditions of approval in balancing responsible development of resources with the protection of other valuable resources in the area*." [pg xxiii]

We support BLM's decision not to require "compensatory mitigation" in the Preferred Alternative because it is bad policy, punitive, subjective and will likely lead to litigation.

ALTERNATIVES ELIMINATED FROM DETAILED ANALYSIS

P. 2-9 - *"These proposed actions and alternatives submitted by these organizations were determined to be substantially similar to those actions and habitat areas considered within the range of alternatives in this RMP."*

COMMENT: We support BLM's decision to eliminate from detailed analysis the *"Conservation Groups Alternative"* for the very reason stated by BLM. Moreover, the groups' proposal to would add additional conservation measures for greater sage-grouse that far exceed those identified in *A Report on National Greater Sage-Grouse Conservation Measures* produced by the Sage-grouse National Technical Team ("NTT Report"). The proposal to designate two additional habitat types is unreasonable as are the constraints in the NTT Report, which are also over-zealous and unsubstantiated.

ALTERNATIVES

Page 2-3 - *"Five alternatives (A through E) were developed to offer a range of management options for resolving issues. Each alternative provides for varying levels of compatible resource use and development opportunities and each is consistent with law, regulation, and policy."*

COMMENT: We strongly disagree with the assertion that any one of these alternatives would meet the overall vision and management goals and multiple-use mandate of the FLPMA and ask that BLM fully explain in the FEIS its rationale for its assertion. Despite FLPMA's direction that "*the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970*, all but Alternatives A and D constrain the agency's management options to those designed to drastically impede future oil and gas development throughout the planning area, even though portions of the planning are currently under lease. Furthermore, BLM's preferred management strategy will severely compromise industry's ability to develop future oil and gas resources because it dismisses advances in drilling and production techniques in favor of

overregulation and duplication of state and federal regulatory programs. The increase in the use of unnecessarily restrictive stipulations, COAs or so-call BMPs will significantly restrict regional earnings, jobs, and tax revenue.

In addition to FLPMA, § 363 of the Energy Policy Act of 2005 (EPAct) 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 the resource values to be addressed. The DEIS also ignores established BLM policy which requires that "*the least restrictive stipulation that effectively accomplished the resource objectives or uses for a given alternative should be used*." Moreover, BLM has failed 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 severe NSO restrictions.

In April 2003, the BLM directed field offices to comply with four Energy Policy and Conservation Act (EPCA) planning integration principles:

1) *Environmental protection and energy production are both desirable and necessary objectives of sound land management and are not to be considered mutually exclusive priorities.*
2) *The BLM must ensure appropriate accessibility to energy resources necessary for the nation's security while recognizing that special and unique non-energy resources can be preserved.*
3) *Sound planning will weigh relative resource values, consistent with the FLPMA.*
4) *All resource impacts, including those associated with energy development and transmission will be mitigated to prevent unnecessary or undue degradation (BLM 2003a).”*

Under EPCA BLM is required to identify impediments to oil and gas development. It was the intent of Congress that access to energy resources be improved as indicated in the Energy Policy Act and Conservation Act of 2000 and the Energy Policy Act of 2005. BLM recognized the intent of the both Phases I and II of the EPCA review when it issued Instruction Memorandum 2003-233, Integration of the Energy Policy and Conservation Act (EPCA) Inventory Results, into the Land Use Planning Process. Consequently, BLM Field Offices are now required to review all current oil and gas lease stipulations to make sure their intent is clearly stated and that stipulations utilized are the least restrictive necessary to accomplish the desired protection. Moreover, the IM directs that stipulations not necessary to accomplish the desired resource protection be modified or eliminated during the planning process.

Since the purpose of integrating the EPCA results into planning is intended to determine whether existing resource protection measures are inadequate, adequate or excessive, we recommend the MCFO reevaluate its management decisions accordingly and make requisite changes to the FEIS. If BLM decides not to reevaluate its decision, we specifically request a response from BLM in the Final EIS explaining why this was not done.

It seems BLM intends to adopt a new policy whereby multiple use activities, including oil and gas development, will be held subservient to other resource values considered in the planning process, echoing the obsolete belief that oil and gas development destroys air, water and fish/wildlife habitat. This is clearly the misguided basis for much of the document and the most of the alternatives, particularly the preferred alternative. Therefore, since the purpose of integrating the EPCA results into planning is intended to determine whether existing resource protection measures

are inadequate, adequate or excessive, it is even more crucial that the MCFO reevaluate its management decisions accordingly and make requisite changes to the FEIS. 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 along with an analysis of available mitigation measures. Clearly, an examination of less restrictive measures must be a fundamental element of a balanced analysis and documented accordingly in the FEIS.

We also point out that documentation of the need for change is required by BLM's 1601 Planning Handbook at § VI, *Determining if New Decisions are Required*, Part D, *Documenting the Determination to Modify, or Not to Modify, Decisions or NEPA Analysis, which directs* that "***it is important to document decisions to modify or not modify the land use plan or NEPA analysis when these decisions are reached as part of the formal land use plan evaluation process*** *(Section v). (Emphasis added)* We ask BLM to explain its rationale to exclude this requirement from the DEIS in final EIS.

When finalizing the MCFO RMP, we urge BLM to ensure its compliance with the FLPMA, EPAct, EPCA, and its own guidance and handbook by reducing rather than increasing impediments to federal oil and gas leasing and development. As currently presented, the BLM has failed to comply with this policy because it is proposing huge new impediments to domestic energy development, especially under Alternatives B and E.

ALTERNATIVE A

Page 2-2, "*would be the continuation of present management in the planning area and provide baseline information from which to identify potential environmental consequences when compared to the other alternatives. If selected, this management option would follow the existing RMPs. Key components of Alternative A include those described below*." [Emphasis added]

COMMENT: We strongly object to the No Action Alternative being used as the baseline for determining potential environmental consequences when compared to other alternatives. Alternative A is far from a baseline because it reflects already implemented prescriptive management decisions and restrictive lease stipulations. We question why BLM did not determine the effectiveness of the measures currently in place based upon the baseline data collected before current management was implemented. In so doing, BLM would get a picture of how current management is actually working. Clearly, BLM is utilizing this methodology to arbitrarily "raise the bar" in order to rationalize future management options that are in reality unjustifiable.

We ask BLM to clarify why the baseline provided by the Reasonably Foreseeable Development scenario was not used when determining what level of restrictions should be placed on current and future oil and gas exploration and development activities.

Moreover**,** the DEIS fails to provide any information or documentation regarding the purported inadequacies of current management of the MFCO. While we recognize that the RMP needs to be revisited on a somewhat regular schedule, all proposed changes need to be clearly articulated in the DEIS illustrate why any such change is necessary. This has not been done in the DEIS.

ALTERNATIVE B

As stated previously in these comments, we do not concur that Alternative B is consistent with the agency's multiple-use mandate. As described on page 2-3, this alternative would "*emphasize the improvement and protection of wildlife habitat and sensitive plant and animal species, improvement of riparian areas, and implementation of management actions that improve water quality and enhance protection of historic and cultural sites.*"

COMMENT: BLM has not provided any discussion that demonstrates current management practices have proven inadequate for improving or protecting wildlife and plant species. In addition to unnecessarily restricting multiple-use activities within the planning area, we seriously question BLM's ability to implement such an alternative due to current staffing and funding limitations. The National Environmental Policy Act (NEPA) at **§ 1502.14** requires a "reasonable range" of alternatives to be considered. One would expect that a primary aspect of reasonableness would have to be the ability of the agency to actually implement this management option within 10 to 20 year plan implementation window. Therefore, we ask BLM to explain the viability of Alternative B as a management option to be considered in detail.

COMMENT: We categorically oppose the concept of compensatory mitigation included in Alternatives B, C and D because it cannot be justified given the plethora of protective requirements with which industry must already comply to effectively reduce or eliminate impacts associated with oil and gas activities on public lands. Specifically, industry is already forced to conduct multiple resource surveys on behalf of BLM as well as to comply with numerous BMPs; COAs; restrictive regulatory thresholds; NEPA analyses; along with a host of additional federal agency and state requirements.

ALTERNATIVE C

Alternative C is described as allowing "*resource use (e.g., energy and mineral development and other commodity uses) while providing protection to sensitive resources. Alternative C would allow for greater production levels of minerals, greater development of public lands, and more livestock grazing than Alternative B.*"

COMMENT: The statement that this alternative is less restrictive than Alternative B does not explain why BLM it is an alternative. What was BLM's motivation for analyzing this alternative in detail in the DEIS? If it was simply to help provide a "reasonable range' of alternatives, BLM needs to explain how it would provide more appropriate levels of management and protection that are not currently being provided under current management.

ALTERNATIVE D

BLM describes Alternative D as providing "*the widest range of uses, emphasizing recreation, mineral, and energy development, and identifies areas most appropriate for these uses. Although similar to Alternative C, Alternative D proposes the least restrictive management actions for energy and commodity development but maintains protections to resources required by laws and regulations.*

With the exception of sage-grouse habitat management, restrictions to protect resources would be implemented to the extent necessary to meet legal requirements."

COMMENT: Alternative D provides the management options BLM needs to effectively accomplish its goals and desired future conditions within the planning area. Moreover, Alternative D more clearly recognizes the multiple use objectives established in FLPMA. Nevertheless, under this alternative, BLM would apply CSU stipulations to 5.3 million acres of the planning area, although no rationale has been provided. Despite the fact that no rationale has been presented for increasing restrictions over what is currently being implemented, the industry can more likely continue working under the parameters of this alternative because the need for continued exploration and development activities for oil and gas resources would not be as severely compromised as it would under alternatives B, C and E. Moreover, BLM has failed to describe how implementation of this alternative would not meet the resource needs of the planning area.

We also request an explanation regarding why geophysical exploration would be prohibited on 700,000 acres of BLM surface in the planning area, as depicted on Table 4-87. No explanation for this restriction is provided in the DEIS. BLM appears to have ignored that the fact that its own regulations were designed to ensure that virtually no surface damage is associated with geophysical activities. Specifically, BLM's 3150 Manual provides specific guidance and requires a site-specific mitigation/operating plan to be in place prior to commencement of seismic activities. In concert with these requirements, evidence of properly conducted seismic surveys fades rapidly, regardless of the technology used. Therefore, under no circumstances should geophysical exploration activities be prohibited regardless of which alternative is selected.

PREFERRED ALTERNATIVE E

Page 4-272 acknowledges that *"Restrictions applied to protect certain surface resources would prevent drilling of some BLM-administered wells…Large contiguous blocks of restricted mineral estate would inhibit oil and gas leasing and development in the planning area…Restrictions for disruptive activity (including noise) on existing and future development would inhibit drilling and development."*

COMMENT: Previous comments regarding the other alternatives also apply to the preferred alternative. While BLM may have identified the proposed changes in management and the impacts this new management would have on all other resource uses, there is no science-based documentation provided in the DEIS which informs the public such changes are needed or that justify such radical changes. This omission constitutes a major, fatal flaw in the DEIS which must be addressed in the FEIS. Therefore, we strongly oppose adoption of this alternative because it would impose unwarranted, overzealous restrictions on all uses, including oil and gas, within the planning area without proper justification.

SECTION SPECIFIC COMMENTS

Following are additional section specific comments on the DEIS which support our conclusion that BLM has failed to comply with the analysis requirements of NEPA.

AIR RESOURCES

GENERAL

We recognize that BLM has authority under FLPMA to "*manage lands in a manner that will protect the air quality and atmospheric values; and that BLM may manage the pace, place, density and intensity of leasing and development to meet air quality goals*." However, FLPMA does not grant BLM the authority to establish an air quality and management program separate from the State of Montana to regulate air quality. Since the air quality program is only within the State of Montana's purview, BLM's proposal constitutes an unauthorized, unnecessary duplication of effort and waste of diminishing federal revenues; such action will only result in confusion, conflict, and possible litigation.

Specifically, the BLM neglects to take into account, on several levels, that Montana Department of Environmental Quality (MDEQ) operates a fully approved air quality program. The program not only controls major sources of air pollutants, but operates a permit program that controls emissions from minor sources. These requirements are neglected in the accounting of emissions and the implementation of controls. The DEIS fails to acknowledge the US Environmental Protection Agency (EPA) approved air quality registration program for the oil and gas industry in which sources are required to control emissions and the State conducts compliance investigations to ensure that the requirements are met. As such, members of industry work closely with MDEQ to ensure the proper implementation of these program elements.

We are perplexed that while BLM acknowledges Montana's primary authority over air resources and the fact that the planning area has "good" air quality, BLM feels compelled to go beyond the authorities of both the State and Federal CAAs to regulate and mitigate oil and gas industry sources through the DEIS. Clearly, EPA is confident in the MDEQ's ability to monitor and protect the air quality in the state. Moreover, we intend to continue working with MDEQ to ensure that the oil and gas industry plays a role in maintaining the current status.

AIR RESOURCE MANAGEMENT PLAN - APPENDIX

EMISSIONS INVENTORIES

GENERAL

We disagree with the emission estimates used in the DEIS and are opposed to BLM's stated intention to obtain further emissions information for use in model evaluations. Emissions inventories are calculated in a number of different ways for a number of purposes. For example, BLM intends to require industry to calculate potential emissions to determine the applicability of the state's permitting program.

COMMENT: Industry already provides estimated annual actual emissions to the State for fee purposes. To determine valid modeling results, which conservatively estimate impacts, there must

be a clear understanding of the emissions data and an accurate accounting of these emission estimates. The DEIS documents BLM's intent to implement significant mitigation measures on individual facilities based on the results of the modeling. We object that BLM has failed to provide opportunities for operators to review the emission calculations that it plans to use in future modeling.

An example of overestimation is BLM's greenhouse gas (GHG) emission estimates. The emissions predicted by BLM are higher than actual because federally approved regulations that were already designed to reduce GHGs were not taken into account. Even with this conservative approach, no significant impacts were found even with the overestimated GHG emissions increases from the oil and gas industry. It is imperative for the DEIS to accurately document potential impacts.

MODELING

The DEIS discusses several different levels of modeling that have either been conducted or will be conducted in the future.

AREMOD Modeling

COMMENT: AERMOD modeling was performed and it was determined, even with this conservative analysis, that no violations of the National Ambient Air Quality Standards (NAAQS) are expected. It is worth noting that this modeling used emission estimates that are higher than the Preferred Alternative. BLM also analyzed the PSD increments. It is important to note that PSD increment analysis does NOT apply in this scenario. This analysis is inappropriate, is misleading, or, may have been misused. On page 4-8, BLM attempts to make a clarification to this analysis by stating, "*The following PSD analysis is not a regulatory analysis; its purpose is to provide context for evaluating potential air quality impacts*."

The numbers documented in the DEIS show exceedances of PSD increments. The analysis is not appropriate for evaluating air quality impacts and must be removed from the document. It is the responsibility of MDEQ to implement the PSD permitting program for major sources. It is inappropriate for this analysis to be applied on a wide scale using conservative estimates and producing what can be believed to be real impacts. This is an unsuitable use of this analysis process and is very misleading to all interested parties. Also, under any and all alternative scenarios, BLM concludes that current levels and any future potential increases in emissions are expected to comply with the NAAQS and MAAQS. We strongly recommend BLM revise its approach in the final EIS and ROD.

Future Modeling Photochemical Grid Modeling and Calpuff

P. 4-16 - *The DEIS states that "photochemical grid modeling (PGM) and CALPUFF modeling will be conducted in the future and that PGM is dependent on new emission inventories being created."*

COMMENT: Both of these projects are being conducted outside of the BLM's jurisdiction. Additionally, there is no indication that BLM will afford the public an opportunity to comment on

these future actions. We are extremely concerned that the oil and gas industry will be impacted by the results of these emission inventories and modeling exercises in the form of potential mitigation measures being imposed on lease agreements for individual operations. Again, the DEIS mentions collaboration with AQTW and MDEQ on development of protocols for future modeling; however, there is no mention of seeking industry involvement in this process. While there is mention of making results available to the public, BLM does not indicate it will solicit public participation when determining the methods of conducting the modeling. We strongly urge BLM to involve the affected parties, in particular the oil and gas industry, in determining the need for and scope of future modeling efforts.

While not clearly documented, it is our understanding that the 2011 emission inventory, that is being completed outside of the DEIS, is going to be extrapolated to 2015 with BLM's "understanding" of what new sources are or will be in existence. We acknowledge that BLM expects additional sources by 2015. However, these emissions estimates must take into account the amount of field electrification that is occurring. Moreover, gas sales on the upstream side of industry are expected to increase significantly as pipeline availability increases. For example, within the last year industry electrified hundreds of oil and gas wells and, as a result, no longer has natural gas lifting engines or gasoline-fired recycle pump engines. Furthermore, more gas is being sold from sites as the natural gas pipeline/processing infrastructure has been expanding, thus "actual" flaring data would not be representative to use in extrapolating for future predictions. The MCFO should also take into account the reduction in emissions associated with the New Source Performance Standards (NSPS) [1] and the National Emission Standards for Hazardous Air Pollutants (NESHAP) [1] also known as Maximum Achievable Control Technology (MACT) standards. Implementation of these regulations will reduce emissions in the planning area. All of these items lead to considerable concern about BLM's ability to accurately estimate emissions, and thus ambient impacts.

MONITORING

P. 4-16 - *All major pollutants of concern are being monitored throughout the area and have shown compliance with the NAAQS in the planning area. It is even stated that the purpose of the monitor is to determine ongoing compliance with the standards and to provide background information to be used in modeling.*

COMMENT: We question this approach because the PM_{10} monitors are not appropriately placed to measure PM_{10} as defined by MDEQ. The document even quotes MDEQ as stating that the Birney and Broadus sites' PM_{10} monitoring values are "not indicative or representative of general PM_{10} concentrations in the desired monitored area" (Page 10-ARMP). Therefore, these monitors would not provide a reliable measure of $PM_{10,}$ and, therefore, must not be used to implement mitigation measures associated with $PM_{10.}$ As shown in Table 3-2, page 3-13 of the DEIS there is already a significant amount of air quality monitoring that is ongoing for not only a variety of pollutants, but also wet deposition and visibility monitoring in this Montana planning area.

We strongly object to the agency's use of any newly created "mitigation design value." Because the Clean Air Act has already established extensive actions based on actual monitoring data, BLM should

[1] 40 CFR 60, *et seq.* and 40 CFR 63, *et seq.*

only use approved design values prior to implementing mitigation measures on sources in the planning area. More fundamentally, since MDEQ already has primacy over air, and an approved program along with the requisite expertise to handle the calculations of an appropriate design value, there is no need for BLM to develop a costly, separate program.

MITIGATION MEASURES

P. 4-15 - *BLM acknowledges that the planning area is an area of "good" air quality and states that it intends to use both monitoring and modeling data to "identify mitigation measures to address unacceptable impacts"*

COMMENT: We are disturbed that BLM has not included a definition as to what it believes constitutes "good" air quality and what "unacceptable impacts" would be. As such, it is impossible to provide comments in any meaningful manner when these terms are undefined and the information used to make these decisions has not and apparently will not be publically vetted.

P. 4-16 - *"The adaptive management strategy for oil and gas resources provides the flexibility to respond to changing conditions that could not have been predicted during RMP development. The strategy also allows for the use of new technology and methods that may minimize or reduce impacts."*

COMMENT: This vaguely defined strategy leaves a great deal of uncertainty for the industry in planning development because BLM fails to include assurances even after industry has followed all air quality regulations applied through MDEQ to comply with both the Federal and State Clean Air Act(s), that no further mitigation measures will be placed on individual minor sources.

The DEIS lists a number of initial mitigations that will require implementation measures upon signature of the ROD. Several of the measures deal with fugitive dust control. While the industry agrees fugitives should be controlled, it also believes that meeting State requirements (Administrative Rule of Montana 17.8.308)[2] clearly satisfies BLM's objectives. Therefore, these measures are unnecessary.

P. 4-7 - *Emissions inventory estimates were determined based on state and federal emission standards with one exception. Emission estimates for diesel drill rig engines are based on the use of Tier 4 non-road engine standards, which would be required by BLM as an initial mitigation measure.*

COMMENT: The State already successfully manages an EPA approved air quality program; and, it has been demonstrated the oil and gas activities with the planning area will not result in diminished air quality. Consequently, the requirement to implement Tier 4 engines is unnecessary, exceeds BLM's statutory authority and must, therefore, be eliminated.

The DEIS indicates in the initial mitigation measures that sources will be required to consolidate facilities to reduce fugitive emissions. Clearly, these consolidation determinations are both

[2] While this is a Montana rule, it is federally enforceable via the State Implementation Plan (SIP).

redundant and overly restrictive because emissions are already mitigated through existing regulations. No additional control is required of BLM.

We object to BLM's attempt to exceed both federal and state regulations by requiring compliance with a New Source Performance Standard (NSPS)[3]. What is BLM's justification for exceeding established programs? The NSPS standards were developed and applied at the national level only after considerable research and public participation. BLM's new requirement would be arbitrarily applied to sources where it is not applicable.

As noted above, BLM is basing its proposed mitigation measures on emission estimates and modeling that are outside the jurisdiction of the agency. The DEIS indicates that, with regard to oil and gas emission sources, emissions were estimated conservatively because they do not include more stringent emission controls mandated by USEPA on August 16, 2012, which will be effective prior to final issuance of the DEIS.

While the "*Monitoring-Based Mitigation"* process is clearly a deliberative process to determine cause or contribution, the proposed enhanced mitigation measures are excessive in light of that fact that the determination is made based on a single source contribution of a single exceedance at a single monitor. A single exceedance, even if the data proved to be accurate, does not constitute a violation of the standard and may not even be indicative of a trend or pattern. The potential enhanced mitigation measures themselves are inflexible and in only one instance would BLM take into account technical and economic feasibility. Also, the DEIS states that BLM can decide on any additional measures it chooses instead of deferring to the state's expertise and authority. Again, this is done with no involvement with the public or the regulated industry and is inappropriately based upon a single exceedance at a single monitor. The "*Determination of Enhanced Mitigation Measures after Photochemical Grid Modeling Completion"* section determines potential enhanced mitigation measure implementation based on reaching 85% of the design value. However, it BLM has failed to outline the process for identifying the facilities to which this would apply.

AIR QUALITY RELATED VALUES (AQRV) ANALYSIS

P. 4-14 - The DEIS discusses the fact that AQRV analysis will be fully conducted using the CALPUFF and PGM modeling results.

COMMENT: We object that there is would be no opportunity afforded the public to comment on this analysis. We also object that potential mitigations will be imposed based on the outcome of the analysis.

WATER RESOURCES

Page 4-55 - "*Left untreated, produced water discharge and infiltration or leaking produced water disposal pits would be **likely** (emphasis added) to reach stream channels via subsurface flow, which would decrease water quality*."

[3] 40 CFR 60, *et seq.*

Page 4-56 - "*Produced water spilled or treated in infiltration, unlined, or leaking evaporations impoundments (water disposal pits) would impact shallow groundwater aquifers and contain the potential to reach and contaminate surface water through groundwater interface.*"

COMMENT: The basis of the above statements is questionable; does BLM have site-specific monitoring data as justification? Produced water cannot be discharged to live surface water in Montana without treatment in conjunction with a Montana Pollution Discharge Elimination System (MPDES) permit. Effluent limits set by the DEQ for direct discharge ensure no degradation will occur. Discharge to impoundments within an ephemeral drainage would also require an MPDES permit and a non-degradation waiver for groundwater.

Further the guidance (2009) developed by the BLM, DEQ and MBOGCC prohibits infiltration pits within 500 feet of any stream feature (blue line) on a 1:24,000 scale map. This would typically restrict pits from being located within flood plains. In the event monitoring wells encounter alluvial material and the potential existed for water to migrate towards stream beds, additional monitoring wells and surface water monitoring is required by the guidance. If water is evidenced in a stream channel or monitoring well within the alluvium, the guidance clearly specifies the discharge would be terminated and reclamation commenced or a Montana Pollution Discharge Elimination (MPDES) permit must be obtained prior to renewed discharge.

The evidence in Wyoming conflicts with the statement that 1) "Infiltration from water disposal pits would be likely to reach stream channels…." and 2) "… would impact shallow groundwater …." Between August 2004 and December 2009, approximately 2,013 impoundments with nearly 2,300 associated monitoring wells or borings were evaluated for potential groundwater impacts. Of these, only 273 impoundments required permits and monitoring. In 2010, 170 of these wells were studied in three hydrologic settings, 72% exhibited stabled groundwater chemistry (no change), 12% show TDS and sulfate concentrations on an upward trend, 6% have flushed (increase with a decrease back to normal over time), and 6% exhibit an improvement in water quality. (Steinhorst 2010)

Given this information all references to surface and groundwater degradation being "likely" or "would occur" must either be removed or changed to "unlikely" or "may possibly occur".

Page 4-51, 1st paragraph, 3rd sentence , Page 4-58, 1st paragraph, 4th sentence – "*Although impacts from surface disturbance would typically be localized and short term, lasting until vegetation was reestablished, there would be the potential for severe and long-term effects to water quality and overall stream function (however, the beneficial uses would be maintained).*"

Existing BLM requirements, which are unjustifiably expanded under the preferred alternative (E), already limit activity on flood plains and provide for a buffer around water bodies and ephemeral streams. Drill pads must be re-vegetated and only primitive two track roads are to be used to access wells. We strongly recommend, therefore, that the adjectives "severe and long-term" be removed or specified for individual activities. Once vegetation is reestablished on most of the areas sited in the proceeding sentences, none of the impacts referenced, such as accelerated erosion,

increased overland flow, decreased infiltration and degradation of water quality through increased sedimentation, turbidity etc. etc…would occur.

CULTURAL RESOURCES

Cultural resource sites vary widely in quality of preservation, size, density relative to a geographic area (Chapter 3, Page 3-90 identifies the known site density at an average of one site per 100 acres in the planning area, with density on BLM administered lands at one site per 195 acres), contemporary cultural importance, and scientific value. While recognizing that prehistoric and historic sites are a finite resource, their management must also be afforded a level of flexibility and discretion as dictated by site analysis, and the mitigation measures employed to protect discrete sites must therefore vary according to their scientific or contemporary cultural significance. Some prior general knowledge as to how these mitigation measures might be employed is vital to planning purposes for other land uses.

Table 2.1**,** Action 13 (Surface Disturbing Activities**) -** Alternative E states, *"Surface-disturbing activities would be allowed in significant cultural sites as long as the activities would not affect or have an impact on the quality and setting of sites."*

COMMENT: This language is unacceptably vague regarding the parameters in which surface disturbing activities might be allowed to take place. Alternative D, on the other hand, details that site avoidance will be practiced when possible, but when avoidance cannot be achieved, the steps that will be taken to minimize any impacts are outlined. We recommend that BLM adopt the framework outlined in Alternative D in the final EIS and Record of Decision (ROD) because it is vital for planning purposes. It is crucial that BLM's management framework recognize that conflicts in land uses are inevitable and allow for project planning to recognize and meet the mitigation needs of individual sites.

Table 2.1, Actions 14 and 15 (Oil and Natural Gas Leasing): Alternative E indicates that oil and gas leasing will be offered in significant prehistoric/historic cultural sites, National Historic Landmarks (NHLs), and historic battlefields with a No Surface Occupancy (NSO) stipulation. Page MIN-49 in the appendices details significant sites as those meeting the criteria for allocation as scientific use, conservation use, traditional use, public use, and experimental use under the guidance of BLM Manual 8110, those eligible for inclusion on the National Register for Historic Places (NRHP), and those identified as Traditional Cultural Properties. An exception is possible if the lessee or project proponent can demonstrate that impacts can be avoided and provides the appropriate planning documentation.

COMMENT: Avoiding surface disturbance may certainly be warranted in some cases. However, Alternative E fails to account on the front end for variability among sites and provides little opportunity for management flexibility. Alternative D provides that discretionary framework outlined in Alternative E's exception clause in which each site can be analyzed to determine the appropriate mitigation measures to protect cultural and historic resources without potentially placing resources out of reach, and without having to petition for an exception to the management

rule. We recommend that BLM utilize the guidance outlined in Alternative D rather than the unnecessarily rigid approach contained in Alternative E in the final EIS and ROD.

Page MIN-50 of the appendices states that under the preferred alternative, the NSO stipulation for NHLs and historic battlefields "*also extends to the viewshed in which they occur*."

COMMENT: We strongly object to this blanket use of the NSO stipulation because does not account for the temporary nature of oil and gas developments. We recommend that BLM instead utilize a ¼ mile NSO buffer zone around NHL and historic battlefields because in so doing adequate protection would be provided the sites while not needlessly limiting exploration and development opportunities in the area. We remind BLM that the most visible equipment used for oil and natural gas development is on site for limited periods measured in weeks for wells that may be productive for many years. The remaining infrastructure at a well pad site is much easier to camouflage and mitigate any visual impacts. Since Alternative D offers a more common sense discretionary approach, we urge BLM to incorporate this direction in the FEIS and ROD.

Page 3-89**:** BLM states it is "*responsible for ensuring that lands leased for development (such as oil, gas, or coal development) are examined prior to allowing any development action to occur to determine the presence of cultural resources and to specify mitigation measures."* It further states that the requisite site identification surveys will be completed *"at the application for the permit to drill (APD) stage*."

COMMENT: We recognize that proper surveys are necessary to ensure compliance with the various federal statutes addressing cultural resource protection. We encourage BLM to provide assurances that these surveys will be completed expeditiously so as not to unnecessarily delay the ability of mineral lease holders to develop oil and natural gas resources.

PALEONTOLOGICAL RESOURCES

Similar to cultural, paleontological resources also widely vary in both density and scientific value. While many fossil remains are widespread and well-studied, others may be rare and poorly understood. Numerous resources undoubtedly remain undiscovered and may be of high scientific value. Management of this resource concurrently with others requires the ability to assess the fossil resources present and make common sense discretionary management decisions accordingly.

Table 2.1, Action 7**:** Both Alternatives D and E state that "*Surface-disturbing activities would be allowed as long as the activities would not impact the quality and setting of significant paleontological localities or areas that met the criteria for designation*." Page PAL-18 of the appendices describes a paleontological locality as a "*geographic point or area where a fossil or associated fossils are found in a related geological context."* Significant paleontological resources are described on page PAL-19 of the appendices as *"(a)ny paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils..."*

COMMENT: The appendix offers further specifics for "significant" paleontological resources, including rare or unknown species, high quality of preservation, previously unknown anatomical or other characteristics, etc., yet the initial definition including any fossil remains of "scientific interest" leaves the designation comparatively vague and open to inconsistent interpretation. We recommend that BLM provide specific parameters for determining which resources may be scientifically important.

Chapter 2, Action 8**:** Alternative E, the preferred alternative, imposes a No Surface Occupancy (NSO) stipulation in all paleontological localities.

COMMENT: First, this proposed action does not specify to what level of paleontological significance the NSO would apply, leaving open the option to apply this restriction on all localities regardless of their scientific value. Alternative D provides for a more discretionary approach to oil and gas lease stipulations, specifying that these would apply only to significant localities, and allowing for a Surface Use Plan of Operations (SUPO) to be applied for mitigation purposes rather than defaulting to an NSO stipulation in all cases. Second, we question why a controlled surface use stipulation wouldn't provide adequate protection of such resources. The CSU stipulation has been used historically by BLM throughout the public lands states to address Paleontological resources. What justification does BLM have to resort to a NSO stipulation in the MCFO?

VISUAL RESOURCES

Evidently, BLM has ignored the fact that oil and natural gas development impacts to viewsheds are characteristically temporary in nature. While certain infrastructure remains for longer periods, many of the more visible components of development, including drill rigs, well completion equipment, and most of the surface disturbance is quickly removed and progressively reclaimed relative to the life of the well. Vehicle traffic is heaviest on the front end of development, and levels drop off significantly relatively quickly. Remaining equipment and infrastructure can be camouflaged and blended into the landscape.

Table 2.1, Action 3**:** BLM states that the total acreage for Visual Resource Management Classes (VRM) I, III, and IV to be relatively comparable. For VRM Class II, Alternative B contains significantly higher acreage, due to its inclusion of the proposed Carter Master Leasing Plan (MLP) as a Class II visual resource.

COMMENT: A review of the maps indicates that the alternatives are similar in their designations of VRM Classes I, II, III, and IV, with the exception of Alternative B's inclusion of the proposed Carter MLP as Class II. The EIS also indicates that there are two Plans of Development (PODs) proposed within the MLP. Other interest in the area may arise in the future. As a larger proportion of the visible equipment and infrastructure associated with oil and natural gas will not permanently remain, incorporating this area as a Class II visual resource will unnecessarily inhibit the ability of these two projects or any future interests to move forward. As none of the other alternatives include the proposed MLP within their inventories of Class II viewsheds, we urge BLM not to include this as a VRM Class II area in the Final EIS and ROD. The temporary nature of most of the oil and

natural gas development and infrastructure ought to be considered for other VRM Class II and III areas as well.

FISH AND WILDLIFE, SPECIAL STATUS SPECIES

The species habitat delineations in the RMP/DEIS are wholly inconsistent with those identified by the Montana Department of Fish, Wildlife & Parks (FWP). We ask BLM to explain these discrepancies in the final EIS, particularly due to the fact that the State manages most of the species for which habitat is identified. Such discrepancies are highly problematic for operators who work on both State and private lands that may be adjacent to BLM public lands because two separate processes could be required for the same project in circumstances where projects cross jurisdictional boundaries. We strongly recommend that BLM work closely with State agencies to eliminate the discrepancies in wildlife data and spatial representations utilized by BLM in the draft planning documents.

Chapter 2 – NSO Stipulations, Timing Limitations, and other Restrictions in Alternative B

COMMENT: The restrictions for surface-disturbing activities, NSO stipulations, and timing limitations for future oil and gas leasing with respect to several wildlife and plant species under Alternative B throughout Chapter 2 are unreasonable and unjustified. Incorporating any of the restrictions in Alternative B into the proposed alternative will unnecessarily preclude, prevent, and delay oil and gas development and other responsible multiple users from economic activities on millions of acres in the planning area.

RECOMMENDATION: BLM must not incorporate any recommended NSO stipulations from into the proposed alternative in the proposed DEIS.

Table 2-1 Fish & Wildlife, Aquatics

Pages 2-27/28, Alternative E, Action 5 - "*Surface disturbing and disruptive activities would be avoided in and within 0.25 miles of designated sport-fish reservoirs and would only be approved with design features to mitigate impacts to fishery resources and the user experience (3,800 acres). Oil and gas leasing would be offered with an NSO stipulation in and within 0.25 miles of designated sportfish reservoirs (4,000 acres)"*

COMMENT: BLM has provided no justification for the requirement of an NSO stipulation for future oil and gas leases within 0.25 miles of sport-fish reservoirs and has failed to adequately demonstrate how or why oil and gas development within 0.25 miles of reservoirs would negatively impact water quality or fisheries in Chapters 3 or 4. Historic BLM buffers for oil and gas development around stream and river channels and banks have been limited to 300 to 500 feet and have proven to be a reliable mitigation measure to protect fish and water resources. In addition, BLM would allow oil and gas leasing subject to a CSU stipulation within 300 feet of riparian and wetland areas (DEIS, p. 2-23/24). What is BLM's rationale for not utilizing the same 300 foot CSU buffer as applied to riparian and wetland areas?

BLM has not demonstrated that a 300 foot CSU buffer would not provide adequate protection to reservoirs. Therefore, we recommend that BLM revise this action in the FEIS to offer oil and gas leasing with a CSU stipulation in and within 300 feet of designated sportfish reservoirs.

Table 2-1 Pallid Sturgeon

Pages 2-39/40, Alternative E, Action 14 - *"Oil and gas leasing would be offered with a CSU stipulation. Prior to surface-disturbing or disruptive activities occurring in or within 0.5 miles of river or stream shorelines identified as pallid sturgeon habitat, a plan to maintain pallid sturgeon habitat would be prepared by the proponent and implemented upon approval by the AO (24,000 acres)".*

COMMENT: We have been unable to determine in the DEIS whether the recommended 0.5 mile CSU buffer has been suggested by the U.S. Fish & Wildlife Service or has been developed by BLM. Therefore, we are unable to determine if BLM has properly consulted with USFWS in the development and subsequent utilization of this stipulation. In addition, BLM has not mapped areas with pallid sturgeon habitat in the maps section of the DEIS. Moreover, BLM has not explained the increase in the need for habitat protection from NSO on 500 acres under Alternative A to CSU on 24,000 acres in Alternative E

BLM must disclose in the FEIS the scientific justification for the proposed CSU stipulation, either through a reference to a recommendation by USFWS or by some other justification. We also encourage BLM to regularly work and consult with the USFWS to determine if portions of the stipulated area are no longer critical to the pallid sturgeon and may be modified. BLM must also clearly identify and map pallid sturgeon habitat in the maps section of DEIS.

Table 2-1 Big Game Crucial Winter Range

Pages 2-39/40, Alternative E, Action 9 - "*Oil and gas leasing would be offered with a CSU stipulation within Big Game Crucial Winter Range areas (2,500,000 oil and gas acres)."*

COMMENT: While BLM provides ample opportunities for waivers and modifications to oil and gas stipulations in Big Game Crucial Winter Range areas, no exceptions will be provided in accordance with the Minerals Appendix, page MIN-43. If the operator provides credible information that their entire leasehold no longer contains crucial winter range for big game species, either through the lack of winter presence of big-game species or the absence of resource values that define winter range, BLM must provide a process that can be used by operators to seek have the ability to grant an exceptions to this stipulation and thereby exempt the operator from preparing a plan to maintain crucial winter range habitats capable of supporting the long-term populations of wintering big game.

We strongly encourage BLM to add exception criteria to address situations where it is determined that the leasehold no longer encompasses crucial winter range for big game species. We also remind BLM that CSU stipulations may not be imposed on valid existing leases simply because a plan amendment has been prepared. Legally, restrictions on surface-disturbing and disruptive activities that are inconsistent with the original lease stipulations may not be applied to valid existing leases.

Table 2-1 Big Horn Sheep

Page 2-32, Alternative E, Action 12 - *"Oil and gas leasing would be offered with a CSU stipulation within Big Horn Sheep range."*

COMMENT: While BLM provides many opportunities for waivers and modifications to oil and gas stipulations in Big Game Crucial Winter Range areas, no exceptions have been provided according to page MIN-44 of the Minerals Appendix. Once again, if the operator is able to provide credible information that their leasehold no longer contains crucial winter range for Big Horn Sheep, either through the lack of winter presence of the species or the absence of resource values that define winter range, it is crucial for BLM to provide a process for operators to seek have the ability to grant an exceptions to this stipulation and thereby exempt the operator from preparing a plan to maintain bighorn sheep habitat will be prepared by the proponent and implemented upon approval by the AO..

We strongly encourage BLM to add exception criteria if it is determined that the entire leasehold no longer contains crucial winter range for Big Horn Sheep. We also remind BLM that any proposed CSU stipulations that may be applicable for future leases may not be imposed on valid existing leases simply because a plan amendment has been prepared. Further, restrictions on surface-disturbing and disruptive activities that are inconsistent with the original lease stipulations may not legally be applied to valid existing leases.

Table 2-1 Prairie Falcons and Special Status Raptors

Page MIN-45, Appendix - *"Surface occupancy or use is subject to the following special operating constraints: activities will be allowed in and within 0.5 miles of raptor nest sites active within the past 7 years if the habitat can be maintained so that raptors are not precluded from using the nest site."*

COMMENT: What is the scientific justification for a nest considered to be "active" if it has been used in the past seven years? Without a clear explanation for the seven year "active" definition, this restriction is unreasonable and arbitrary. For example, if a nest was used six and half years prior to a proposed surface disturbance and has not been used since, it is reasonable to assume that the nest either has been abandoned or no longer contains the resource values to attract falcons or special status raptors. Yet, it will still be considered "active" by BLM and would trigger the stipulations and restrictions identified in Chapter 2, even though the nest may never be "active" again.

In addition, BLM has not identified which nests within the planning area have been active within the past seven years and it is unclear whether the burden to demonstrate that a nest has or has not been active falls on the operator or the BLM. In order to demonstrate that habitat can be maintained so that falcons or special status raptors are not precluded from using nest sites, operators must have a well-defined understanding of the location of active nests and adequate justification that they have been in fact active sometime in the recent past. In addition, BLM has

failed to map active or inactive nests for prairie falcons and special status raptors in the map section of the DEIS.

BLM must clearly explain and justify the methodology used to define a nest as "active" in order to use the seven-year timeline in surface use restrictions and CSU stipulations for future oil and gas leases. If BLM ultimately decides that the standard by which a nest will be considered "active" is use within the last seven years or some other period of time, the agency must explicitly state that nest sites that have been inactive within the past seven years or some other period of time will not be subject to the surface disturbing and disruptive activities and lease stipulations identified in Chapter 2. BLM must also clearly identify and map Prairie Falcon and Special Status Raptor active and inactive nests in the proposed final EIS.

We also remind BLM that any CSU stipulations for prairie falcons and special status raptors that may be applicable for future leases may not be imposed on valid existing leases simply because a plan amendment has been prepared. Further, restrictions on surface-disturbing and disruptive activities that are inconsistent with the original lease terms may not be consistent with valid existing lease rights.

Table 2-1 Interior Least Tern

Page 2-37, Alternative E, Action 8 - "Surface disturbing and disruptive activities would be avoided in and within 0.25 miles of interior least tern habitat (9,300 BLM administered surface acres and 73,000 BLM administered mineral acres). Oil and gas leasing would be offered with an NSO stipulation in and within 0.25 miles of interior least tern habitat".

COMMENT: We are puzzled why the Piping Plover and the Interior Least Tern, both listed as endangered under the ESA, will receive different levels of protection in the RMP. Specifically, BLM has failed to demonstrate why surface disturbing and disruptive activities will be avoided and future oil and gas leases will be offered with NSO stipulations within 0.25 miles of Interior Least Tern habitat, while surface disturbing and disruptive activities will be allowed and oil and gas leases will be offered with CSU stipulations with 0.25 miles of Piping Plover habitat. This discrepancy has not been justified in Chapters 3 or 4 by any reference to guidance from the USFWS. If BLM wishes to pursue more restrictive management requirements for the Interior Least Tern, it must clearly demonstrate that those requirements are consistent with USFWS recommended protection measures for the species.

In addition, BLM has not provided maps which identify Interior Least Tern and Piping Plover habitat. Management restrictions for the Interior Least Tern should be consistent with those for the Piping Plover unless BLM can cite recommended guidance from USFWS that justifies the more restrictive management prescriptions for Interior Least Tern in the DEIS. In addition, BLM must clearly identify and map Interior Least Tern and Piping Plover habitat in the maps section of the final EIS.

RIGHTS-OF-WAY

Page 2-122, Alternative E, Action 9 – "*ROWs and other realty- related land use authorizations… would be avoided on approximately 1,300,000 BLM-administered surface acres (45%); excluded on approximately 16,000 BLM-administered surface acres (less than 1%); and allowed on the remaining 1,500,000 (55%) BLM-administered surface acres in the planning area. See Map 40 for ROW Exclude and Avoid areas under this alternative*."

Page 3-359**,** Alternative E **–** ***"****Avoiding ROWs…on approximately 2.2 million acres of BLM-administered acres in the planning area (80 percent) would increase the cost and time of proposed projects, reduce ROW and other land use authorization opportunities available for proposed projects in the planning area, or, in some cases, cause denial of the project (Table 4-136)"*

COMMENT: BLM is inconsistent when describing how much acreage it would require to be avoided for ROW activities and must provide the correct figure. However, regardless of how much acreage BLM intends to designate as ROW avoidance, both figures are excessive Moreover, the DEIS fails to provide adequate discussion, documentation or justification for the proposed prohibitions of ROW on immense portions of the planning area. This information is a key requirement of NEPA and its omission constitutes flaw in the analysis because it fails to consider the impacts such a decision would have on future oil and gas development, transportation, along with other activities which require ROW.

Additionally, the DEIS indicates in Appendix GLO-3, that proposed ROW must be "*compatible with the purpose for which the area was designated"* and "*not otherwise feasible on lands outside the avoidance area*." However, these statements are unacceptably vague and do not specify any standards by which such determinations will be made. We strongly recommend that BLM provide specific guidance that takes into account the short-term nature of construction disturbance and the minimal residual criteria associated with pipeline ROWs along with an analysis and full consideration of the economic impact of requiring an operator to move a route to an area outside an avoidance area.

BEST MANAGEMENT PRACTICES (BMP)

GENERAL

BLM fails to distinguish between what constitutes a BMP, Mitigation Guidelines, even what constitutes a regulatory requirement. As described on BLM's national webpage (BMPs) are described as "*state-of-the-art mitigation measures applied to oil and natural gas drilling and production to help ensure that energy development is conducted in an environmentally responsible manner*." Typically, BMPs are utilized by industry to provide added protections in areas where such measures are technically and economically feasible. Conversely, the DEIS states in the BMP Appendix that "*Mitigation Guidelines are a compilation of practices employed by the Bureau of Land Management (BLM) to mitigate impacts from various activities (e.g., operations stipulations, conditions of approval [COAs]). They apply to activities such as road or pipeline construction, range improvements, and permitted recreation activities*." In addition to the fact that not all of these

identified measures would be achievable or even appropriate mitigation in all cases, BLM has failed to acknowledge that in accordance with valid existing lease rights, many of the identified measures in the Appendix would abrogate such rights. Therefore, it is crucial for BLM to acknowledge it may be impossible to impose all these measures on every project, many of which would be inappropriate. We also strongly recommend that BLM clarify which of the measures are BMPs, which are to be used as COAs on drilling permits, and which are BLM identified mitigation measures, AND the circumstances which justify their use. Moreover, we strongly object to the inclusion of this Appendix in the final EIS unless BLM makes changes to ensure that valid existing rights are recognized and protected.

Page 2 - Item 3 *"the total disturbance area would be kept to a minimum and located in an area that would reduce environmental impacts as much as possible. Surface disturbances would be co-located where feasible; and sites would be located using existing roads and previously disturbed sites unless it would cause or aggravate an erosion problem. All linear facilities would be located in the same trenches (or immediately parallel to) and placed during the same period"*

COMMENT: While we understand the need to co-locate facilities, reasons other than erosion may make this infeasible. For example, different operators on adjoining leases may be unable to co-locate facilities due to different safety, operating practices or timing requirements, e.g., sweet gas and sour liquids. In addition, on split estate lands, surface owners may not be agreeable to co-locating facilities due to conflicts with their use of their land. We recommend this sentence be changed to read, "….*Surface disturbances would be co-located when safety will not be compromised, it is technically feasible and meets the preferences of the private surface owner*."

Page 2 – Item 3(b) "*plans of development would be required for renewable energy and minerals development (e.g., oil, gas, and coal). Such plans would include the use of centralized collection facilities"*

COMMENT: Please explain the context in which the term "Plan of Development" being used. Plans of Development can be an annual report required for a federal unit or it can mean a plan of development associated with an APD or multiple APD's. It has not been BLM's practice to require this amount of detail for an annual Plan of Development Associated with a federal unit. Therefore, we recommend that a phrase for development associated with an APD or multiple APD's be inserted for clarification.

Page 2 - Item 3(f) "*directional drilling, drilling multiple wells from the same pad, co-mingling, recompletion, or the use of existing well pads would be employed to minimize surface impacts from oil and gas development*"

COMMENT: We recognize the benefits of pad drilling and the use of existing pads to reduce the surface footprint of oil and gas activities. However, it must be noted that the "would" implies shall and that will not be possible in all cases. Shallower formations may not be conducive to directional or pad drilling. There could be downhole geologic constraints that do not allow an existing pad to be used or even pad drilling. Therefore, we recommend that the following phrase be added to this statement, "to the extent technically and economically feasible."

Page 2 – Item 3(i) "*remote telemetry would be used to reduce vehicle traffic (e.g., monitoring oil and gas operations)"*

COMMENT: While we understand why BLM believes this is a good practice; however, this technology may not be feasible for smaller operators due to the limited economic conditions associated with lower performing wells. We recommend that the following phrase be added to the end of this sentence, *"….unless the operator can demonstrate it is not economically feasible."*

Page 2 - Item 3(l) *"Interim and final reclamation would begin within 25 days of the disturbance. Interim reclamation would be completed to within a few feet of facilities."*

COMMENT: First, BLM has failed to recognize that the interim and final reclamation processes are not the same thing. Second, BLM must recognize that it may be literally impossible for numerous reasons for any type of reclamation activities, interim or final, to begin within 25 days of initial disturbance; well completion schedules, weather, soil or any number of other conditions may be controlling factors. Frankly, this schedule would be next to impossible even for linear projects. For oil and gas sites and facilities it is not even remotely possible. As stated by BLM, this approach would require reclamation to begin while drilling and/or completion activities are still ongoing. Reclamation procedures are logistically impossible with all the equipment on site during drilling or completion. Interim reclamation cannot begin until well testing is completed and production equipment is installed on the well pad, including flowlines, which could take months before drilling, completion and the wellsite equipment is installed. Having vegetation within 3 feet of a separator is a safety and fire hazard and needs to be reassessed by the MCFO and operators to determine the most appropriate set-back. Finally, the timeframe for beginning any type of reclamation must be changed to allow reclamation to begin within 6 months after production begins.

Page 2 - Item 3(m) *"For surface-disturbances, a mitigation monitoring and reporting strategy would be developed and implemented (see the Reclamation Appendix for further guidance)"*

COMMENT: We dispute the need to require an extensive plan to be written as outlined in the Reclamation Appendix. It is unreasonable for this requirement to extend to a small discreet surface disturbance, such as for maintenance on a small area which had been reclaimed, small pipeline repairs or small temporary construction projects. In such instances, using previously existing reclamation procedures would be appropriate. In some cases which involve larger disturbances, BLM needs to allow the project proponent to utilize pre-existing plans which are still current.

Page 2 – Item 3(d) "*Pitless or aboveground close-loop drilling technology would be used. Recycle drilling mud and completion fluids. Fluids, drilling mud, and cuttings would be disposed of in approved disposal areas (e.g., landfills)"*

COMMENT: While many companies use pitless/closed-loop drilling technology, BLM must realize that some rigs are not equipped for this practice. This would be particularly true of smaller rigs used for shallow formation development. Therefore, mandating closed systems is unacceptable for all projects. Further, we recommend that the requirement that fluids, drilling mud and cuttings must be disposed of in landfills be carefully reassessed. If the content of fluids, muds and cuttings are not an environmental concern, why shouldn't those constituents be managed onsite? There still

exists in the Resource Conservation and Recovery Act (RCRA) an exemption for drilling wastes as defined in the law and in EPA guidance. We see no need to haul benign material to landfills which will increase traffic on the road and present a safety risk and a hazard to wildlife. It is recommended that the term "would" be substituted with "may" and that only under certain circumstances would cuttings, fluids and mud be hauled offsite for disposal, such as when there is a question of applicability of the RCRA exemption.

Page 4 – Item 6(a) "*Impacts to air resources, air quality related issues, and atmospheric greenhouse gas (GHG) concentrations would be reduced…*"

- *"Restricting the extent of surface impacts during construction activities and ongoing operations by using directional drilling to reduce the number of well pads"*

COMMENT: While industry has generally increased its use of pad drilling, directional drilling is not always possible. In particular, BLM must recognize that it may be impossible to produce a well using a high angle wellbore in shallow formations. We recommend that this item be revised to add "… *when geologic and engineering considerations are compatible with the objective formation"*.

- *"Using two-track primitive roads whenever possible rather than developing a dirt road"*

COMMENT: BLM needs to recognize that primitive two-track roads maybe useable in certain cases, but certain activities require that surfacing be used for the type of traffic anticipated (such as heavy vehicular traffic) and for seasonal use. We recommend this item be modified to add "*using two-track primitive roads whenever possible and is compatible with anticipated traffic loads associated with the intended use...*"

<u>Page 4 – BMP Item 6(b)</u> "*Fugitive dust and vehicle exhaust emissions would be reduced by restricting vehicle trips by…"*

- "*Developing centralized liquid collection (water, produced water, and fracturing liquid) facilities and production (treatment and product storage) facilities to reduce the number and average distance of vehicle trips"*

COMMENT: This requirement must be qualified to recognize that such a practice would only be viable depending upon the economic feasibility of each individual project. Therefore, we recommend that the phrase "if economically and technically viable" be inserted into this item.

<u>Page 4 – BMP Items 6 (c) and (d)</u>

COMMENT: As discussed in our comments regarding air quality, it is clearly outside BLM's authority to attempt to mandate emission control strategies such as nonselective catalytic reduction or other program elements currently under the authority of the MDEQ and EPA. The agency must work with the MDEQ to coordinate any type of emission control strategy. Therefore, we have chosen not to respond to BLM's so-call BMPs and defer to, and incorporate by reference, the MDEQ's comments regarding its concerns with BLM's proposed air quality controls.

WATERBODY-CROSSING GUIDELINES

Page 4 – Item 3 "*Site reclamation measures would be initiated as soon as a particular area is no longer needed for construction"*

COMMENT: As discussed previously in these comments, this requirement may be impossible to meet for a variety of reasons and needs to be modified.

GREATER SAGE-GROUSE

We have included a separate section of comments regarding the Greater Sage-grouse following these comments on the BMP section. However, in addition to those comments, we have made observations and recommendations regarding the BLM's proposed management of the species in this section. One important point the DEIS fails to acknowledge is that many of the requirements, procedures or management practices put forth may not be applicable due to valid existing lease rights held by lessees. We urge BLM to acknowledge this limitation in the ROD.

Page 28 - **"***Noise can disrupt breeding rituals and cause abandonment of leks***".**

COMMENT: A lek cannot be abandoned unless it is "active." We recommend that BLM **rephrase** the term of "leks" to read "active leks" for both of the bullet points included under the above heading. Moreover, we recommend that BLM clarify how it classifies a lek as "active."

NESTING HABITAT

Page 37 – **"***A 1-day notice prior to any planned activity during March 1 through June 15 would be required so that the impacted areas and any undeveloped areas can be nest-dragged to determine the presence or absence of active nests. A second nest-drag survey would be required if activity begins more than 2 days after completion of pad construction."*

COMMENT: This requirement is too vague – what type of "planned activity" triggers these requirements? Is it any surface disturbance or specific operations? We recommend that BLM clarify its intent and describe the situations in which this requirement would apply.

BEST MANAGEMENT PRACTICES FOR FLUID MINERAL DEVELOPMENT

Page 41 – *Density and Amount of Disturbance*

- *If the lease is partially or entirely within priority habitat areas: Subject to topographic and other environmental constraints, require any development within priority habitat to be placed in the area least harmful to sage-grouse based on vegetation, topography, or other habitat features***.**

COMMENT: There are more than simply topographic or environmental constraints that must be involved in determining the location of a well or production facilities. The primary objectives are to economically find and produce oil or natural gas so and the well and facility site locations are very important aspects of this endeavor. As such, BLM must acknowledge that well pads and facility sites are designed and constructed to be economic while attaining specific geological targets. MBOG spacing orders must also be met. We strongly recommend that the above-stated qualifiers be added to this item.

- *"Within the Density and Amount of Disturbance category, the statement is made "To the extent possible and consistent with valid existing rights, limit disturbances to an average of one site per 640 acres on average, with no more than 3 percent direct surface disturbance in the analysis area."*

- *"NEPA analysis would disclose the impact of the addition to the surface disturbance total for the local population within the priority sage-grouse habitat. If that analysis shows anthropogenic disturbance crossing or above 3 percent for that area, then the analysis will include expected level of activity, types of use, and if there are expected population impacts will make demonstrate how additional, effective mitigation necessary will offset the resulting loss of sage-grouse habitat and population impacts."*

COMMENT: Wyoming has been effectively using the 5 percent factor with extensive experience. Upon what scientific evidence is this 3 percent disturbance factor based?

Page 42 **-** *"Require a 1-day notice prior to any planned activity from March 1 through June 15 so that the pad site and any undeveloped access route or pipeline can be nest-dragged to determine the presence or absence of active nests. Require a second nest-drag survey if drilling activity begins more than 2 days after completion of pad construction."*

COMMENT: As previously mentioned, BLM needs to define what constitutes "planned activity." Second, please define the term "nest dragged."

Page 42 **– "***Avoid sagebrush, but if disturbance is necessary, interim reclamation should include sage plantings or seedings or the use of minimum disturbance practices to protect sage on well pads and pipelines."*

COMMENT: We recommend the following qualifying statement be included, "*following well documented procedures for attempting to re-establish sage plantings should be considered*." Additionally, when split-estate lands are involved, BLM needs to consider the needs of the surface owner in determining whether to require re-establishment of sagebrush.

SAGE-GROUSE HABITAT – PROTECTION PRIORITY AND RESTORATION AREAS

Page 43 - "*Locate new compressor stations outside priority habitats and design them to reduce noise that may be directed towards priority habitat*."

COMMENT: It is crucial for the phrase "*to the extent technically feasible*" to be inserted at the beginning of this sentence. Compressor stations are carefully sited to optimize gas gathering taking into account a number of technical factors.

OPERATIONS

Page 44 **- "***Cluster disturbances, operations (fracture stimulation, liquids gathering, and other disturbances), and facilities".*

COMMENT: Clustering disturbances may not be possible due to surface disturbance limitations, landowner preferences and safety considerations. While clustering may make sense in certain situations, it is simply not achievable in every case. We recommend inserting "*to the extent possible*" to the beginning of this item.

Page 44 **- "***Use directional and horizontal drilling to reduce surface disturbance"***.**

COMMENT: As previously explained, directional and horizontal drilling is not technically feasible in all cases. This requirement must be revised to take such limitations into account.

Page 44 **- "***Apply a phased development approach with concurrent reclamation."*

COMMENT: If the term "phased development" means limiting well development and the life of wells through production before moving into new areas, this is not feasible due to federal lease terms along with other legal requirements. We strongly recommend that BLM delete any references to "phased development." in the final EIS and RMP.

Page 44 - "*Bury distribution power lines*"

COMMENT: This requirement is ill-conceived because it does not take into account safety, technologically-based logistics or project economics.

Page 44 - "*Cover (e.g., fine mesh netting or use other effective techniques) all drilling and production pits and tanks regardless of size to reduce sage-grouse mortality*".

COMMENT: It is virtually impossible to install fine mesh netting over larger pits. BLM must acknowledge that wind and snow considerably compromise the netting and that maintaining this type of netting in such situations is characteristically impossible. Therefore, the reference to drilling pits and evaporation ponds should be eliminated from this item.

Page 44 - "*Use only closed-loop systems for drilling operations and no reserve pits*".

COMMENT: As previously pointed out in these comments, it is imprudent for BLM to attempt to require only closed loop systems since not all drilling rigs are equipped with this feature.

Page 44 - "*Limit noise to less than 10 decibels above ambient measures (20 to 24 dBA) at sunrise at the perimeter of a lek during active lek season*".

COMMENT: This requirement is completely inconsistent with the previous background of 39 dBA background plus the 10 decibel threshold. There is no peer reviewed data that supports a background at dawn for a 20-24 background level. BLM needs to remove this item from the final EIS/RMP and replace it with the 39 dBA which is currently in use when assessing noise considerations in sage grouse habitat.

Page 44 - "*Require noise shields when drilling during the lek, nesting, brood-rearing, or wintering season."*

COMMENT: It is ambiguous with respect to what BLM believes constitutes a "noise shield". If this refers to a "noise wall," there are any number of safety and engineering design features which could limit industry's ability to install this type of wall, particularly during drilling. Further, there are no criteria regarding the distance to a lek when this would be required. This item should be removed from the final EIS/RMP.

GREATER SAGE-GROUSE

The NTT Report is not supported by the Western Association of Fish and Wildlife Agencies (WAFWA) as BLM's sole source of Sage-grouse management direction. In a letter sent to the Interior Secretary on May 16, 2013 WAFWA member states made it clear that they never endorsed the sole use of the NTT or any other scientific publication. Rather, they believe that a variety of peer-reviewed publications which collectively provide the best available science for sage-grouse should have been used by BLM as the basis for conserving the Sage-grouse, thereby avoiding a listing under the Endangered Species Act (ESA). They went on to recommend that management and regulatory mechanisms should be based upon the best available science which would provide the best strategy for near- and long-term management of sage-grouse and provides the best opportunity for precluding the need to list the species under the ESA.

Additionally, the Northwest Mining Association (NWMA) recently published a report "*BLM's NTT Report: Best Available Science or a Tool to Support a Pre-Determined Outcome?*" alleging that BLM failed to use best available science, ignored existing regulatory tools and adopted a pre-decisional Greater Sage-Grouse Conservation Policy. We share this view. The NWMA report questions the appropriateness of the NTT Report, because the USFWS' "warranted-but precluded" determination was based upon the conservation measures already contained in BLM Manual 6840 - Special Status Species Management. Moreover, the USFWS concluded that BLM needed to properly and consistently implement Manual 6840 in its Resource Management Plans and provide sufficient monitoring data to demonstrate the effectiveness of the resulting conservation measures.

Another major fundamental concern the signatories to this letter raise is the inherent flaw in BLM's basic assumptions, due in part to the flawed recommendations contained in the NTT report, which fail to recognize that the level of disturbance associated with a well is not constant throughout its life. The highest level of surface disturbance associated with oil and gas development occurs during

the construction, drilling and completion phases, which can last as little as a day or two up to a few months, depending upon the time it takes to complete the well. Once production ensues, these activities subside dramatically and only regular monitoring and maintenance of the well are required. Shortly after well completion, the operator normally begins interim reclamation to partially restore any impacted habitat. This partial reclamation will remain in effect until the well has been depleted. Upon conclusion of production activity, the operator will then move forward with plugging and abandonment procedures, which also includes final reclamation that will ultimately result in full restoration of the site and its return to productive habitat.

Given the above concerns, we object to the management and mitigation proposals contained in the DEIS because they demonstrate a plain lack of understanding of how the federal oil and gas program works as evidenced by ill-conceived measures that either impossible to implement or are unduly restrictive.

Another concern relates to the broad inconsistencies exhibited in selected management options for Sage-grouse habitat on public lands within the State of Montana. For example, how was the MCFO NSO stipulation of 2 miles around leks determined? By comparison, the HiLine DEIS provides for a 1-mile buffer around leks in general habitat. The differing buffers around leks between the HiLine and MCFO planning areas raises questions concerning how these values were determined and the scientific basis that caused each DEIS to arrive at different conclusions (proposed stipulations). Both planning areas are part of Sage-grouse Management Zone 1 and both DEIS documents cite virtually the same sources of data as justification for their individual (differing) conclusions. Are sage-grouse populations, habitat, and projections of impacts from energy development substantially different in the two BLM planning areas? Please explain the basis or scientific rationale that would justify discrepancies among the stipulations proposed as part of various DEIS documents currently available for public comment in Montana (i.e., MCFO, HiLine, Billings/Pompey's Pillar) when referenced data sources are generally the same.

Well-pad densities are cited in Chapters 3 and 4 as having an effect on sage-grouse and sage-grouse habitat. However, BLM has failed to provide an estimate of well-pad densities in general sage-grouse habitat within the preferred alternative (Alternative E). What are the well-pad densities assumed for the alternatives?

Under Alternative E, a CSU stipulation would be included for oil and gas leases in the Sage-Grouse Restoration Area. How would these stipulations be developed and what factors would be evaluated in determining the stipulations?

CHAPTER 2 - ALTERNATIVES

Page 2-10, Alternative B - *Even after avoiding and minimizing impacts, projects that will cause adverse impacts to resources typically require some type of compensatory mitigation. Compensatory mitigation refers to restoration, establishment, enhancement, or, in certain circumstances, preservation of resources for the purpose of offsetting unavoidable adverse impacts. The BLM will determine the appropriate form of compensatory mitigation required. Methods of compensatory mitigation include restoration, establishment, enhancement and preservation.*

COMMENT: On a project-by-project basis, how would BLM determine the appropriate form and amount of compensatory mitigation required for sage-grouse and their habitat that would be consistent with lease rights? Further, baseline conditions must be compared for each project with post-project conditions to determine actual, long-term impacts to sage-grouse. Some research has indicated that impacts to sage-grouse from a project may not be discernible until several years after project operation. Presumably, some form of monitoring would be needed to determine effects. Would monitoring be based on lek counts? If so, what mitigation measures have been shown to influence population levels based on lek counts (assuming leks reflect population levels)? If habitat losses are to be compensated, how will habitat functionality be assessed to determine losses or degradation from a project and adequate compensation for losses or degradation?

Establishment (creation) is listed as an option for compensatory mitigation. It may not be practicable to create sagebrush habitats where they do not currently exist. How would the functionality of such created habitats be evaluated for sage-grouse use and habitat value?

These measures appear to be based on the model established by the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency for wetland mitigation. To support wetland mitigation, numerous specific regulatory documents, scientific papers, and lawsuits have resulted in a complex and arcane functional assessment and mitigation methodology. The same complexity and need for specific policies and guidance would be required before any type of compensatory mitigation policy for sage-grouse and other sensitive species could be implemented. At what point in the RMP process will specific information be developed to guide assessments of habitat functionality, monitoring, and compensatory mitigation for sage-grouse and other sensitive species?

Table 2-1

COMMENT: As presented, the table is confusing and difficult to interpret in that it identifies actions which are attributed to each alternative but it does not appear that there is a complete accounting of all of the management actions that would be implemented for each alternative.

For example on Page 2-58, *Sage-Grouse Habitat Compensation (compensation would be for Sage-Grouse Habitat-General Habitat Areas, Protection Priority Areas, and Restoration Areas*); Alternative E, indicates that "*Habitat compensation would not be required*" for Action 1. However, Action 1 under *Management Common to All Alternatives* on Page 2-55 states: "*Where deemed effective, water developments would be managed to reduce the spread of West Nile virus (see Best Management Practices [BMPs] identified in the Fish and Wildlife Appendix)*".

Also, it does not appear that Action 1 is correctly addressed for Alternative B and C (see Page 2-58). Action 1 is described in the table as: *"For surface-disturbing activities that did not improve sage-grouse habitat, habitat compensation would be required"*. This description does not relate to West Nile Virus, but to general surface-disturbing activities in all levels of sage-grouse habitat.

We recommend revising Table 2-1 so that it clearly lists the proposed management actions specified for oil and gas leasing and development in the categories of sage-grouse habitat for the preferred alternative.

CHAPTER 3 - AFFECTED ENVIRONMENT

Page 3-2 - *This section contains a description of the existing biological and physical resources of the MCFO planning area.*

COMMENT: Throughout the Affected Environment discussion regarding sage-grouse, much of the information presented is based on studies of Sage Grouse Management Zone 1, which includes northeastern Wyoming and far western North and South Dakota. This broader scale may or may not be directly applicable to the MCFO planning area. It is crucial for the discussion to be refined to the MCFO planning area consistent with the direction provided on Page 3-2. Individual comments along this same vein are made below reflecting this concern as it applies to specific topics. Although analysis of Management Zone 1 would be appropriate as a study area for analysis of cumulative impacts to sage-grouse (see comments directed to Page 4-163 below), potential direct and indirect impacts to sage-grouse and sage-grouse habitat resulting from the RMP would more appropriately only address conditions and potential direct and indirect impacts within the MCFO planning area.

Page 3-73 – **"***In cooperation with MFWP, the University of Montana, and Adopt-A-Lek Program, the BLM is working toward gaining a better understanding of the genetic connectivity of groups of sage-grouse across their Montana range. Genetic testing from feather samples can be used to determine consanguinity or birds within and between lek complexes or designated core habitats."*

COMMENT: Please clarify whether (how) consanguinity affects management direction addressed in this DEIS. The Montana Sage Grouse Working Group (2005) indicates that Montana sage-grouse are representative of one population with good genetic diversity.

Page 3-74 – "*The BLM is an active participant in the Montana Sage Grouse Work Group, a cooperative membership of state, federal, tribal, and private entities and several individuals from the general public that developed the statewide plan."*

COMMENT: Under Executive Order No. 2-2013, Montana Governor Bullock mandated the establishment of a Greater Sage-grouse Habitat Conservation Advisory Council with the stated purpose *"to gather information, furnish advice, and provide to the Governor recommendations on policies and actions for a state-wide strategy to preclude the need to list the Greater Sage-grouse under the Endangered Species Act (ESA), by no later than January 31, 2014."* Will this advisory council supplant the Montana Sage Grouse Work Group or will both groups continue to address sage-grouse management? In addition, please clarify BLM's anticipated role in recognizing and/or adopting recommendations of the advisory council as part of revisions to the DEIS.

Page 3-74 – **"***Sage-grouse populations decline by 2 percent annually (Connelly, Knick, Schroeder, Stiver, WAFWA 2004)."*

COMMENT: Does this statement refer to populations throughout the range of the sage-grouse? Several statements in the DEIS and in reference literature appear to contradict information presented above. For instance, in the same paragraph (Page 3-74), in reference to Montana specifically, the text indicates: "*The total number of males in these trend areas peaked in 2006 with 988 males. The number of males counted on trend areas declined from 2007 to 2009 but increased in 2010. The overall trend for sage-grouse in trend areas is stable (Beyer et al 2010).*"

In addition, the following statement (attributed to Beyer et al [2010]) on page 4-162 also appears to conflict with the above information: *"Sage-grouse lek counts are used to monitor sage-grouse populations and trends and ideally are counted multiple times over the course of the breeding season. However, a lack of data outside of the PRB area of Montana and insufficient population data throughout the planning area has resulted in a lack of information about specific population trends."*

The Montana Sage Grouse Work Group (2005) also states, "*Recent genetic analysis (Oyler-McCance et al 2001) indicates that Montana sage-grouse are representative of a single population with good genetic diversity (broad-scale assessment."*

Given the inconsistencies of the above statements, please clarify whether the DEIS assumes that the overall trend for sage-grouse in the MCFO planning area is stable. If not, how do population trends differ over the planning area? Are there different populations of sage-grouse in the planning area? What information sources / studies will be used to appropriately document trends on the MCFO planning area-level?

Page 3-74 – "*In portions of Sage-Grouse Management Zone 1, sage-grouse populations have declined through wholesale loss of habitat and through impacts of disturbance and direct mortality to birds on the remaining habitat."*

COMMENT: What is BLM's source (citation) for this information and please clarify which portions of Sage-Grouse Management Zone 1 and/or which parts of the MCFO planning area to which this statement applies? What sources of direct mortality in the MCFO planning area (or outside of the planning area) have caused declines in sage-grouse populations? At the population level, it is very difficult to ascribe population declines to direct mortality unless it attributable to predation. Moreover, populations are cyclic and influenced by many factors including weather.

Page 3-76 – "*The distribution and influence of multiple land uses such as energy development, ROWs, and livestock grazing varies across sage-grouse distribution (Knick et al 2003) throughout the planning area."*

The above comment, attributed to Knick et al (2003), does not specifically address the MCFO planning area. Rather, this report is a general discussion of birds associated with general sagebrush habitats. Overall, the draft DEIS discussion regarding the influence of these factors on sage-grouse specifically within the MCFO planning area is remarkably vague. Most of the discussion hinges on information gathered on a broader scale, which clearly do not have direct applicability to the MCFO

planning area. We recommend that BLM clarify the above assertion and provide a more robust discussion of the MCFO planning area specifically.

Page 3-74 – **"***The most pervasive and extensive change in to sage-brush ecosystems in Sage-Grouse Management Zone 1 is the conversion of nearly 60 percent of native habitats to agriculture (Samson et al 2004)."*

COMMENT: The publication of Samson et al (2004) does not address sagebrush ecosystems in Sage-Grouse Management Zone 1. This paper addresses prairie grasslands in the Great Plains, which represents a much larger area. Samson et al (2004) also does not differentiate between prairie grasslands and sagebrush steppe.

It is necessary for BLM to present specific information on the amount of sagebrush habitat that has been converted to agricultural uses within the MCFO planning area. The DEIS seems to equate Sage-Grouse Management Zone 1 with the MCFO planning area, but does not present a rationale for how Management Zone 1 is similar or dissimilar to the planning area. Please clarify.

Page 3-74 – **"***The planning strategy will evaluate the adequacy of BLM RMPs and address, as necessary, revisions and amendments throughout the range of the greater sage-grouse in North America, which has been divided into seven sage-grouse management zones based on populations within floristic provinces (Stiver et al 2006)."*

COMMENT: *Stiver et al* (2006) does not address management zones based on floristic provinces. The map of the Management Zones on page 3-75 (Figure 3-9) is attributed to Knick and Connelly (2011). Knick and Connelly (2011) which states: *"The Western Association of Fish and Wildlife Agencies defined seven Sage-Grouse Management Zones for assessing population and habitat trends independent of administrative and jurisdictional boundaries. Management zones were originally delineated from floristic provinces, within which similar environmental factors influence vegetation communities (West 1983b, Miller and Eddleman 2001). Boundaries of management zones subsequently have been redefined particularly in Montana and Wyoming to better reflect linkages among populations and to include known leks outside the original zones (S.J. Stiver, pers. Comm.)."*

Page 3-75 – **"***In Sage-Grouse Management Zone 1, greater sage-grouse were historically a function of the interaction of physical factors (e.g., climate, soils, geology, and elevation) and natural disturbance factors (e.g., fire, grazing and drought) that allow sagebrush to persist on the landscape."*

COMMENT: How does the historical condition differ from the existing condition for sagebrush to persist on landscape? These same factors still influence the persistence of sagebrush and sage-grouse today.

Page 3-76 – **"***Throughout Sage-Grouse Management Zone 1, land ownership is predominantly private (70 percent). Ownership on the remaining range of the greater sage-grouse in Sage-Grouse Management Zone 1 is 68 percent private and 13 percent state or other federal ownership (not*

including the Fort Peck and Fort Belknap Indian Reservations), with 83 percent of the federal lands in the range of the greater sage-grouse in Management Zone 1 managed by the BLM."

COMMENT: This statement is unclear. Does this mean that 83 percent of the 13 percent of federal ownership in Management Zone 1 is within the remaining range of the greater sage-grouse?

Page 3-76 **–** ***"****Individual species have different thresholds of fragmentation tolerance; greater sage-grouse have large spatial requirements and eventually disappear from landscapes that no longer contain large patches of habitat while smaller birds like Sprague's pipit can persist in landscapes with smaller patches of habitat because their spatial requirements are smaller."*

COMMENT: The source of the information (citation) regarding patch size thresholds for sage-grouse is not provided. This concept has important management implications and patch size thresholds for sage-grouse need to be identified so that fragmentation impacts can be avoided.

Page 3-77 – "*In Sage Grouse Management Zone 1, the remaining sagebrush habitats are mostly managed as grazing lands for domestic livestock. Domestic livestock function as a keystone species in the management zone through grazing and management actions related to grazing."*

COMMENT: Page 4-160 of the states "*Determining season-of-use and livestock numbers for grazing permits on a case-by-case basis would not necessarily result in high quality sage-grouse habitat. The reduction in grass height caused by livestock grazing in sage-grouse nesting and brood-rearing areas has been shown to negatively impact nesting success when residual herbaceous cover was reduced below approximately 7 inches needed for predator avoidance (Gregg et al 1994). Livestock grazing would potentially reduce suitability of breeding and brood-rearing habitat, which would impact sage-grouse populations (USFWS 2010a)."*

While grazing has the potential to affect sage-grouse habitat; the DEIS fails to describe how sage-grouse habitat and displacement of sage-grouse have been affected by grazing practices in the MCFO planning area. What studies have been done to distinguish between impacts to sage-grouse and habitat from grazing as compared to energy development? What is the range condition of sage-grouse habitats within the MCFO planning area? Identifying impacts from grazing versus impacts from energy development is important for developing appropriate avoidance and mitigation measures associated with hydrocarbon development. *BLM Instruction Memorandum MT-1010-017* directs that management for Sage-Grouse Habitat Protection Priority Areas results in population trends that follow the same magnitude of declines or increases as compared to sage-grouse trend areas within the planning area. The Memorandum states that *"trend leks" would be within the same geographic area, but without human impacts to serve as a baseline*". The Memorandum does not indicate if trend areas would be affected by livestock grazing. This is an important variable that needs to be considered when establishing reference leks and interpreting results from lek counts.

Page 3-79 – "*Greater sage-grouse and other sagebrush-obligate species are experiencing a "death by a thousand cuts" scenario".*

COMMENT: Metaphors such as "*death by a thousand cuts*" are grossly inappropriate and irresponsible as they can be variously interpreted. Statements such as this elicit emotional responses and foster subjective interpretations concerning "*death*" and "*a thousand cuts*". The narrative in the DEIS should strive to be objective and scientific. We strongly recommend this sentence be eliminated.

Page 3-79 **– "***Several studies have shown that breeding sage-grouse populations have been severely affected at oil and gas well densities commonly permitted in Montana and Wyoming (Naugle, Doherty, Walker, Holloran, and Tack 2011).*"

COMMENT: Ramey et al (2011) report that "*Current stipulations and regulations for oil and gas development in sage-grouse habitat are largely based on studies from the Jonah Gas Field and Pinedale Anticline. These and other intensive developments were permitted decades ago, using older, more invasive technologies and methods. The density of wells is high, due to the previous practice of drilling many vertical wells to tap the resource (before the use of directional and horizontal drilling of multiple wells from a single surface location became widespread), and prior to concerns over sage-grouse conservation. These fields and their effect on sage-grouse are not necessarily representative of sage-grouse responses to less-intensive energy development. Recent environmental regulations and newer technologies have lessened effects to sage-grouse.*"

Taylor et al (2007) analyzed six oil and gas development areas in Wyoming with various degrees and ages of activity to determine sage-grouse population trends relative to intensity and timing of oil and gas development. They report that:

- *Sage-grouse population trends are consistent among populations regardless of the scope or age of energy development fields, and that population trends in the six development areas mirror trends state-wide;*
- *Application of the BLM standard sage-grouse stipulations appear to be effective in reducing the impact of oil and gas development on male-lek attendance;*
- *Male lek attendance in areas that are not impacted by oil and gas development is generally better than areas that are impacted;*
- *Displacement from impacted leks to non-impacted leks may be occurring; research is needed to assess displacement and its implications for developing sage-grouse conservation strategies;*
- *Lek abandonment was most often associated with two conditions, including high density well development at forty-acre spacing (sixteen wells per square mile), and regardless of well spacing when development activity occurred within a the quarter-mile lek buffer;*
- *Extirpation of sage-grouse has not occurred in any of the study areas;*
- *Long-term fluctuations in sage-grouse population trends in Wyoming reflect processes such as precipitation regimes rather than energy development activity; however, energy development can exacerbate fluctuations in sage-grouse population trends over the short-term.*

Scientists studying sage-grouse clearly have varying interpretations concerning effects of oil and gas development on population trends. Has BLM considered results of studies conducted by Ramey et al (2011) and Taylor et al (2007) in addressing the effects of oil and gas development on sage-grouse and sage-grouse habitat? The impacts recorded for the (past) intense developments in Wyoming cannot be assumed to be typical of what would occur in the MCFO planning area with future oil and

gas development How is that an appropriate assumption given *"intensive developments were permitted decades ago, using older, more invasive technologies and methods"* (Ramey et al 2011)?

In addition, most of the recorded effects on sage-grouse populations have been based on lek counts. These studies indicate that oil and gas activities have reduced lek counts in the vicinity of oil and gas developments but have not shown that population losses have occurred. Ramey et al (2011) reported, "*In the case of sage-grouse, reduction in male lek counts has been assumed to equate to population losses. To our knowledge, this hypothesis has not been tested with probability based population counts."*

Populations of sage-grouse are frequently mentioned in the cited reference and in the DEIS; however, there is no discussion of what constitutes a sage-grouse population. Are all of the sage-grouse in the MCFO planning area one population? If not, how many populations are there thought to be and how does this influence management direction?

Page 3-80 – "*Nearly 16 percent of Sage-Grouse Management Zone 1 is within 3 kilometers of oil and gas wells, a distance in which ecological impacts are likely to occur (Knick et al 2011). Much of the current oil and gas development is occurring on private lands, with little or no mitigation efforts, which elevates the ecological and conservation importance of sage-grouse habitat on public lands."*

COMMENT: Please provide the source of information (citation) which states that current oil and gas development is occurring on private land with little or no mitigation efforts. In addition, this statement refers to the entirety of Management Zone 1, a portion of which includes northeastern Wyoming where intensive oil and gas development has occurred. Any such statistics must be tied to the MCFO planning area specifically. What percentage of the MCFO planning area is within 3 kilometers of oil and gas wells?

Page 3-81 – "*Knick et al (2003) indicate that there are no active grouse leks within approximately one mile of Interstate 80 across southern Wyoming and only 9 leks known to occur between 1 and 2.5 miles of Interstate 80."*

COMMENT: This statement appears to have a questionable scientific basis because it is not stated how many leks were present prior to construction of the Interstate. What factors other than the Interstate could affect the initiation and maintenance of leks?

Page 3-81 – "*In Sage-Grouse Management Zone 1, urbanization and infrastructure development has also affected greater sage-grouse habitat. Development of population centers and subdivisions and smaller ranchettes and associated buildings, roads, fences, and utility corridors has also contributed to habitat loss and fragmentation in portions of Sage-Grouse Management Zone 1. Current estimates suggest that about 16 percent of the management zone is within 6.9 kilometers of urban development, although Sage-Grouse Management Zone 1 generally has lower rates of population increases compared to other management zones (Knick et al 2011)."*

COMMENT: Similar to comments posed above, why haven't statistics been developed specific to the MCFO planning area? What percentage of the MCFO planning area is within 6.9 kilometers of urban

development and other infrastructure (e.g., highways, wind farms, communication towers) and how do these values affect management direction?

Page 3-82 – "*The greater sage-grouse range in Sage-Grouse Management Zone 1 is very similar to overall portions of the range in which sage-grouse have been extirpated already (i.e., areas with high human footprints), mostly because of the abundance of and distribution of sagebrush occurring in Sage-Grouse Management Zone 1 (Wisdom, Meinke, Knick, and Schroeder 2011), which suggests sage-grouse in Sage-Grouse Management Zone 1 are more vulnerable to declines than those in other portions of sage-grouse range."*

COMMENT: This is a puzzling statement. If Sage-Grouse Management Zone 1 is "very" similar to overall portions of the range in which sage-grouse have been extirpated, "mostly because of the abundance and distribution of sagebrush", please explain why the seven sage-grouse management zones were delineated based on floristic provinces. Presumably, they differed based on floristic characteristics of which sagebrush is a major component. Suggesting that sage-grouse are more vulnerable to declines in Management Zone 1 because of the abundance and distribution of sagebrush does not have a scientific basis.

Based on human effects to sagebrush habitat, it would appear that Management Zone 1 would be the least likely to experience extirpation of sage-grouse. The following statement from page 3-81 supports a contention that sage-grouse in Management Zone 1 are the least likely to experience impacts from the "human foot print", *Current estimates suggest that about 16 percent of the management zone is within 6.9 kilometers of urban development, although Sage-Grouse Management Zone 1 generally has lower rates of population increases compared to other management zones (Knick et al 2011).*

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

Page 4-130 – Sage-grouse Management

COMMENT: BLM needs to clearly explain assumptions made in this section concerning sage-grouse management. According to the DEIS, there is an assumption that male sage-grouse lek attendance is a reliable index of population numbers and trends. Ramey et al (2011) indicate that the reduction in male lek counts has been assumed to equate to populations; however, this hypothesis has not been tested with probability based population counts. Does MCFO assume that male attendance on leks is in direct proportion to population size? If so, what is the scientific justification for this assumption? If not, what is the statistical relationship between male lek attendance and population size, and why?

Page 4-131 – "*The BLM would utilize best available information, management and conservation plans, and other research and related directives, as appropriate; to guide wildlife habitat management on BLM-administered land. Important wildlife habitats (i.e., winter ranges, leks, raptor nests) and locations would be modified based on habitat monitoring surveys, wildlife population surveys, and other information provided by industry, the BLM, and the MFWP."*

COMMENT: The above statement is included within the DEIS as an "assumption or part of the methodology" used to guide wildlife habitat decisions on BLM-administered land. However, this statement does not clearly articulate how this "best available information, etc." would be used to revisit or amend specific management decisions over time (or spatially) via adaptive management.

The basic threshold within the Biological Assessment prepared for the USFWS as part of the *Final Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plans* stated that "*Changes in management of future development will occur if male attendance on leks within 2 miles of CBNG development declines by 25% over five-year increments (BLM 2008). Changes may also be made if lesser declines occur in a period of less than five years, when compared with predetermined reference leks (BLM 2008). If downward trends in habitat occupancy or lek attendance are observed, the BLM may use adaptive management strategies. These strategies could include not authorizing or limiting the number of federal well sites, roads, and infrastructure; not authorizing or restricting the timing of operations conducted on federal leases; extending timing and/or increasing distance from leks; or implementing stipulations, COAs, or off-site habitat management/mitigation. Similarly, if populations remain comparable with the reference leks or increase over a five-year monitoring period, management of development may be modified to be less restrictive or the pace of development may be increased (BLM 2008).*"

We request that BLM include a discussion that clearly outlines how existing monitoring and adaptive management mechanisms currently in place as part of the BLM's 2008 *Final Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plans* would be extended to management decisions proposed upon implementation of the RMP.

In addition, more detail is needed to explain how BLM intends to collect and apply "*habitat monitoring surveys, wildlife population surveys, and other information provided by industry, the BLM, and the MFWP*". Would this information be comprised of studies and information conducted on BLM-administered land only or would information collected on other private, state, or federally-administered land (through other single or cooperative public or private efforts) be pooled so that a broader analysis of the success or failure of habitat mitigation could be conducted as recommended by Ramey et al (2011)?

Page 4-131 - Building off of the discussion/comments above, the DEIS states the following: *"The BLM's 2008 Final Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plans mandates that sage-grouse habitats, connectivity of habitats, and healthy sage-grouse populations are maintained to serve as source populations. However, since the BLM's 2008 Final Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plans was finalized, little CBNG development has occurred and the Wildlife Mitigation and Protection Plan (WMPP) stipulations have not been tested."*

COMMENT: How will the WMPP stipulations discussed above, including provisions for monitoring and adaptive management discussed therein, be carried forward with respect to implementation of the RMP? At present, the DEIS does not include any mention of adaptive management as a tool for addressing the efficacy of proposed restrictions with regards to wildlife management; nor does it discuss the continued role of the WMPP and how (if) those associated restrictions would be considered moving forward. We request clarification on this issue.

Page 4-135 – "*In some areas, such as the Cedar Creek Anticline, decreased male lek attendance has exceeded 80 percent, which is largely attributed to oil and gas development."*

COMMENT: What is the source for (citation for) this information?

Page 4-135 – "*The efficacy of BLM NSO stipulations for leasing and development within 0.25 miles of a lek would result in an estimated lek persistence (the ability of leks to remain on the landscape) of approximately 5 percent, while lek persistence in areas without oil and gas development would be expected to average 85 percent."*

COMMENT: Source references/citations are needed for this statement and many other declarative statements in this section. Just because BLM makes such assertions does not mean they are accurate or scientifically founded. Please provide citations regarding what studies this assertion is based upon and discuss (and cite) the time frame over which lek persistence is evaluated. If persistence of leks on areas without oil and gas development is 85 percent, what is the cause of the 15 percent loss in lek persistence? What time period is assumed for the 85 percent figure? If 15 percent of leks fail to persist, all leks would eventually be extirpated. Is there an implicit assumption that the 15 percent loss in lek persistence is compensated by establishment of new leks, which would maintain viable populations?

Page 4-135 – "*Male lek attendance would be expected to be reduced when subjected to the current standard noise limitation of 50 decibels at the lek site."*

COMMENT: What is the source (citation) of this information? What scientifically documented monitoring has been done to show that noise in excess of 50 decibels at the lek site has reduced lek attendance?

In addition, Page 3-81 states, *It should be noted that median noise levels for rural areas would range from 20 to 40 dBA in the morning and evening and from 50 to 60 dBA in the afternoon (when wind speeds would typically be the greatest) (Mariah Assoc. 2005).*

The DEIS does not present information to document whether these noise levels are natural or generated by human activities. Indisputably, wind has a substantial effect on noise levels. Do natural factors such as wind increase median noise levels to 50 to 60 dBA at leks and if so do natural factors such as wind noise reduce lek attendance? Clarification of these points has implications for monitoring leks to estimate population trends.

Moreover, Ramey et al (2011) reviewed effects of noise on wildlife including sage-grouse and stated that the A-weighted decibel dB(A) method of measuring sound is based on human hearing response and is not universally applicable to other species, which may be more sensitive to sound. Sage-grouse also may be more sensitive to low-frequency sounds and infrasound transmitted through the ground than arboreal bird species and this sound could not be measured by dB(A). We ask that such considerations be addressed in statements regarding noise-related impacts.

Page 4-162 – "*Because it would take 4 or more years from initiation of disturbance to noticeable population responses, impacts may not be known at or prior to the project initiation stage."*

COMMENT: This statement is not supported by a citation. Why would it take 4 or more years to detect population effects? Based on the previous discussion in this DEIS, lek counts appear to be equated with sage-grouse populations. Although this assumption may be questionable in terms of supporting scientific studies, lek counts would provide insights into population effects in less than 4 years. However, the validity of the data in assessing trends in populations could take many years and would need to be analyzed relative to reference leks that serve as a control to isolate variables associated with oil and gas development. The reference to 4 years implies an impact threshold that needs to be explained and justified with a scientific basis as it has management implications.

Page 4-162 – "*A CSU stipulation that allowed activities in a manner that provided for sage-grouse movement and genetic exchange, maintained leks, and ensured restoration of altered habitat would be ineffective in protecting sage-grouse and their habitats."*

COMMENT: We request BLM to explain why such stipulations are considered to be ineffective in protecting sage-grouse and their habitats. These are the factors that are typically thought to benefit sage-grouse populations.

Page 4-163 to 167 **– Cumulative Impact**

GENERAL

The cumulative impact section summarizes the past effects of various land uses and other factors that have affected wildlife, including sage-grouse. This discussion appears to repeat much of the discussion in Chapter 3. As discussed previously in our comments on Chapter 3 and the associated potential direct and indirect impacts discussion in Chapter 4, addressing predicted impacts to sage-grouse relies heavily on research conducted in Management Zone 1. However, the cumulative effects of land management within the MCFO planning area on sage-grouse over this broader Management Zone 1 area are not addressed under Cumulative Impacts.

While Management Zone 1 is extensively referenced in Chapter 3, BLM fails to address the relationship of sage-grouse and their habitat within the larger Management Zone 1 to the MCFO planning area. From the text in this DEIS, it appears that Management Zone 1 is thought to be important for sage-grouse management; however, there is no reference to Management Zone 1 in the cumulative effects section. The section on potential cumulative impacts would be an ideal place to address the relationship among planning and management activities in Management Zone 1 and

the MCFO planning area. At a minimum, the MCFO DEIS must address the potential cumulative effects of the proposed planning activities in the MCFO planning area as they relate to the HiLine and Billings Pompey's Pillar planning areas.

In addition, the potential cumulative effects discussion does not address the effects of livestock grazing on private and public land on sage-grouse and other wildlife. The DEIS (page 4-60) states, "*Determining season-of-use and livestock numbers for grazing permits on a case-by-case basis would not necessarily result in high quality sage-grouse habitat. The reduction in grass height caused by livestock grazing in sage-grouse nesting and brood-rearing areas has been shown to negatively impact nesting success when residual herbaceous cover was reduced below approximately 7 inches needed for predator avoidance (Gregg et al 1994). Livestock grazing would potentially reduce suitability of breeding and brood-rearing habitat, which would impact sage-grouse populations (USFWS 2010a).*"

Grazing undoubtedly has the potential to affect sage-grouse habitat; however, it is unclear how sage-grouse habitat and displacement of sage-grouse have been affected by grazing practices in the planning area and the broader region (e.g., Management Zone 1). The DEIS's potential cumulative effects discussion must appropriately evaluate collective or additive effects of livestock grazing, energy development, and other activity on public and private land on sage-grouse.

The potential cumulative effects discussion for Alternative E (page 4-175) states that "*Under the RFD prediction and with 15 percent of the surface administered by the BLM, sage-grouse populations would continue to decline. Areas of development in which 8 or more well pads per section were allowed, in combination with the existing and proposed development occurring across the Montana border in Wyoming, would potentially result in the complete loss of sage-grouse in these areas."*

COMMENT: This statement raises the question of how this DEIS addresses well-pad density. Under Alternative E, what are the projected well-pad densities in the various categories of sage-grouse habitat? Moreover, what scientific citation has BLM relied upon to make this assumption? One would hope that it was not based upon data collected for older, intensively developed areas, such as the Jonah Field in Wyoming.

<u>Page 4-165</u> – "*Absent a West Nile virus outbreak, a 2 percent tillage rate within 0.6 miles of the Haxby leks would decrease counts to 91 percent of current numbers, but an outbreak of West Nile virus would reduce counts to 42 percent of current numbers, resulting in the disappearance of large leks (more than 25 males) Taylor et al (2010)."*

COMMENT: The specific nature of the projected effects associated with small rates of tillage and West Nile Virus need to be explained in more detail. Were these projections based on a predictive model? At a minimum, the statements made above need to explain whether potential effects to sage-grouse are "predicted to reduce" lek counts (versus "would reduce" and "predicted to result" (versus "resulting") in the disappearance of large leks. Is it possible to accurately predict results of disease (i.e., 42 percent) with all of the variables associated with possible transmission of this virus?

Page 4-165 – "*Large leks (more than 25 males) continue to be the best indicator of population status and their abundance is an important measure for prioritizing management strategies to maintain populations."*

COMMENT: If it is assumed that male lek attendance is an index of population status, then the logic would be that a small lek would equate to a small population and a large lek would equate to a large population, as a direct proportion. If this is not implied in the above statement on Page 4-165, what is the relationship between numbers of males on a lek and population status? Why would large leks be a better indicator of population status than small leks?

Page 4-165 – "*Areas of development in which 8 or more wells pads per section were allowed, in combination with existing and proposed development occurring across the Montana border in Wyoming, would potentially result in the complete loss of sage-grouse in these areas."*

COMMENT: On what is the conjecture based that 8 or more well pads per section and some undefined level of additional development would result in the complete loss of sage-grouse? Were studies conducted that support this generalization? How does this assumption apply to the MCFO planning area? Taylor et al (2007) reported that lek abandonment in Wyoming was most often associated with a density of 16 wells per section, which is substantially denser than 8 wells per section. What is the well density anticipated for the MCFO planning area under the Alternative E?

Page 4-177 – "*With intermingled land ownership patterns and ongoing or imminent surface-disturbing activities, actions occurring on non-BLM-administered lands would offset any of the derived benefits. The BLM's lack of administrative authority would limit BLM's ability to effectively manage these habitats; subsequently, because of factors over which BLM has little or no control, extirpation of sage-grouse populations within areas of disturbance (such as Cedar Creek anticline and South Carter Restoration area) would be possible and probable."*

COMMENT: What are the derived benefits that would be offset to which the first sentence applies? The basis for the predicted probable extirpation of sage-grouse on land not administered by BLM needs to be supported by a scientific rationale. This statement entirely ignores many of the advances in technology and increased sensitivity to the conservation status of sage-grouse. Ramey et al (2011) identify the following advances in technology that avoid and reduce potential effects of oil and gas development on sage-grouse:

- Directional drilling to reduce surface disturbance by drilling multiple wells from on drilling pad;
- Steerable downhole motors and horizontal well bores that can drill as many as many as 20 boreholes from one pad and greatly increase the effective radius of production from one well pad;
- More efficient drill bits that reduce drilling times and rates of failure;
- Lightweight modular drilling rigs which deploy more easily and require a smaller foot print; and
- Slim-hole drilling, micro-holes and coiled tubing which reduce waste volumes, surface disturbance, and noise impacts.

COMMENT: The listing of sage-grouse as a candidate species under the ESA and its "warranted but precluded" status has increased awareness of the conservation status and conservation efforts and

has led to Wyoming, Montana, and other states to develop statewide conservation strategies to protect sage-grouse and their habitat. As such, the DEIS should reference and discuss how such efforts would interface with proposed BLM restrictions. The following are some of the initiatives that have been developed in response to sage-grouse conservation concerns:

- The Wyoming Governor issued Executive Order 2011-5 that establishes guidelines for managing Greater Sage-Grouse Core Area Protection.
- The Montana Governor issued Executive Order No. 2-2013 establishing a Greater Sage-grouse Habitat Conservation Advisory Council which is mandated to gather information, furnish advice, and provide recommendations to the Governor on policies and actions for a state-wide strategy to preclude the need to list the Greater Sage-grouse under the ESA.
- The USFWS, in 2013, issued the Conservation Objectives Team Report, which provides state, federal, local, and private entities with permitting or land management authority information to support conservation actions for sage-grouse.
- The Sage-Grouse National Technical Team (2011) produced *A Report on National Greater Sage-Grouse Conservation Measures*, which addresses the latest science and best biological judgment to assist in making management decisions.
- The Western Association of Fish and Wildlife Agencies completed the *Greater Sage-Grouse Comprehensive Conservation Strategy* (2006), which identifies the critical need to develop associations among local, state, provincial, tribal, and federal agencies, non-governmental organizations, and individual citizens to design and implement cooperative actions to support robust populations of sage-grouse and the landscapes upon which they depend.
- A joint report (*The History and Current Conditions of the Greater Sage-Grouse in Regions with Energy Development* -2007) by U.S. Department of Energy, Interstate Oil and Gas Compact Commission and ALL Consulting provides a historical overview of the sage-grouse to help clarify its regional significance; identifies current conservation plans of important stakeholders; and discusses current and historical management approaches.
- The Natural Resource Conservation Service (NRCS) with the Western Governors Association published *Conserving the Greater Sage-Grouse: Examples of Partnerships and Strategies of Work Across the West*, which illustrates the depth of commitment and cooperation that is taking place across the West to conserve the sage-grouse.
- In 2010, the NRCS and numerous conservation partners (local, state and federal agencies, Tribes, non-governmental organizations) in the Western US established the *Sage Grouse Initiative* to work towards sustaining working ranches and conserve Greater sage-grouse populations in the West using existing voluntary conservation programs.

COMMENT: The referenced statement on page 4-177 of the DEIS also conflicts with statements in the joint report of the Department of Energy, Interstate Oil and Gas Compact Commission and All Consulting (2007), which states, "*The oil and gas industry is a vital component for the successful conservation of sage-grouse. To date, this particular industry has had active members with sage-grouse workgroups and is involved in surveying and monitoring efforts within sage-grouse habitats, such as the Cedar Creek Anticline or Powder River Basin. In certain areas, the oil and gas industry has been responsible for generating sage-grouse distribution density data, as well as other wildlife species, in localities that previously lacked data. The industry is beginning to take a more active role in the conservation and protection of the bird by funding study-based projects."*

DRAFT MONTANA DEIS COMPARISONS - PROPOSED SAGE GROUSE HABITAT MANAGEMENT

This section includes questions generated from a comparative review of the MCFO, HiLine and Billings/Pompey's Pillar RMP/EISs, with a particular focus on the various management restrictions within sage-grouse habitat. **Tables 1** and **2** serve as summaries of main sage-grouse management parameters and management prescriptions included in each of the three referenced RMP/EIS documents and serve as reference points for several specific comments presented below:

Table 1
Sage-Grouse Management Parameters on BLM-Administered Land

Planning Area	BLM Sage Grouse Habitat	Estimated # of Leks	BLM Sage-Grouse Habitat Acreages		
			General Habitat Acres	Protection-Priority Areas	Restoration Areas / Source Population Area
Miles City Field Office (MCFO)	2.5 Million acres	• 386 leks of unconfirmed status, • 455 confirmed active leks, • 33 extirpated leks, and • 19 confirmed inactive leks.	BLM Oil/Gas Lease[(1)]: • 800,000 acres BLM Surface: • 400,000 acres	BLM Oil/Gas Lease: • 1,403,000 acres BLM Surface: • 792,000 acres	BLM Oil/Gas Lease: • 289,000 acres* BLM Surface: • 109,300 acres* * Of these totals, 8,000 acres of Oil/Gas Lease and Surface are part of the Source Population Area.
HiLine	Unknown [(2)]	• 154 leks	BLM Administered Federal Mineral Estate (BLM-FME) [(1)]: • 1,028,661 acres BLM Surface: • 930,265 acres	BLM-FME: • 318,143 acres BLM Surface: • 298,772 acres	BLM-FME: Unknown acres [(3)] BLM Surface: • 46,786 acres
Billings/ Pompey's Pillar	336,479 Acres[(4)]	• 19 active leks on BLM Surface (8 inactive) • 30 lek sites are on FME.	BLM-FME: • 116,452 acres BLM Surface: • 78,575 acres	BLM-FME: • 191,543 acres BLM Surface: • 154,140 acres	BLM-FME: • 63,437 acres BLM Surface: • 45,555 acres

[(1)] See comment below for questions concerning "Oil and Gas Lease" and Federal Mineral Estate" terminologies.

[(2)] See comment below for a question concerning total BLM acres of sage-grouse habitat within the HiLine Planning Area

[(3)] See comment below for a question concerning total BLM acres of "Federal Mineral Estate" within Restoration Areas (HiLine RMP/EIS)

[(4)] See comment below regarding the total acreage reported in Chapter 3, Page 3-85 (Table 3-29) of the Billings/Pompey's Pillar RMP/EIS.

Table 2
Management Prescriptions for Three BLM Planning Areas in Montana

Planning Area	BLM Sage-Grouse Habitat Categories			
	General Habitat Acres	**Nesting/Brood Rearing**	**Protection-Priority and Source Population**	**Restoration Areas**
Miles City [(1)]	Surface-disturbing activities would be avoided within 2 miles of leks CSU stipulations within 2 miles of leks Low-voltage power lines buried within 2 miles of leks	Surface-disturbing activities would be avoided within 4 miles of leks. Timing restrictions (BMP Appendix)	NSO	CSU stipulations
HiLine [(2)]	NSO within 1 mile of leks	CSU stipulations	NSO	---
Billings/ Pompey's Pillar	CSU stipulations NSO on "new oil and gas leases" within 0.6 miles of a lek. Timing restrictions within 3 miles of leks (March 1 – June 15)	Timing restrictions within 3 miles of leks (Mar.1 – June 15) CSU stipulations Geophysical exploration allowed on existing roads Timing-restrictions (Mar1. –June 15) within 4 miles of leks	NSO	NSO on "new oil and gas leases" within 0.6 miles of a lek. Timing restrictions within 3 miles of leks (Mar.1 – June 15) CSU stipulations Geophysical exploration allowed on existing roads Timing-restrictions (Mar1. –June 15) within 4 miles of leks

[(1)] Miles City indicates that sage-grouse protection areas will not be designated as ACECs and no compensation for impacts would be required in sage-grouse impacts (which may conflict with CSU stipulations)

[(2)] Hi Line also has NSO restrictions in sage-grouse wintering areas from Dec. 1 – March 31.

COMMENT: As summarized in **Table 1** above, when discussing specific acreages of sage-grouse habitat that would fall under various management restrictions (based on the respective Preferred Alternatives), the Billings/Pompey's Pillar RMP/EIS and the HiLine RMP/EIS reference BLM Administered "Federal Mineral Estate" and "Surface" under each main sage-grouse management classifications (e.g., General Habitat, Priority Protection Area, Restoration Area). However, the MCFO RMP/EIS references "Oil and Gas Lease" and "Surface" as the two main categories of BLM administration. Please clarify the questions below:

- Are the categories of "Federal Mineral Estate" and "Oil and Gas Lease" intended to represent the same classification? If not, please explain any difference. If yes, please clarify terminologies among all Montana BLM RMP/EISs to aid the public (and potential operators) in consistently interpreting the proposed sage-grouse habitat restrictions.

- Are all proposed surface management restrictions applied equally regardless of whether the BLM Administered Lands in question are “Surface or “Federal Mineral Estate” and/or “Oil and Gas Lease”?
- Is it assumed that if a particular “Surface” acreage is under BLM Management then the mineral estate within that same acreage is also under BLM Administered “Federal Mineral Estate” and/or “Oil and Gas Lease” as well?

COMMENT: Are the 2.5 million acres reported as sage-grouse habitat under BLM Administration (within the MCFO planning area) a summation of the “Oil and Gas Lease” acreages reported for the three main management categories reported in MCFO RMP/EIS Table 2.22? See summary in **Table 1** above (General Habitat Acres [800,000 acres], Protection-Priority Areas [1,403,000 acres] and Restoration Areas and Source Population Area [289,000 acres]).

COMMENT: Three appendices within the MCFO RMP/EIS address management practices to avoid, minimize, and compensate for losses to sage-grouse habitat (i.e., BMPs Appendix, Minerals Appendix, and Fish and Wildlife Appendix). These appendices list specific practices and restrictions that apply to oil and gas development in sage-grouse habitat but do not specify which practices are stipulations that must be met for leasing and development. It is difficult to determine what an oil and gas operator will have to comply with relative to actions in sage-grouse habitat. **Table 2** (below) summarizes what appear to be the primary management restrictions, but they have been summarized from various sections of the RMP/EIS and may not be comprehensive. The MCFO RMP/EIS (and the HiLine and Billings/Pompey’s Pillar RMP/EISs accordingly) should identify required stipulations and guidelines (are these the same as BMPs?) in a comprehensive table within either RMP/EIS Chapter 2 or 3.

COMMENT: Two of the three DEISs reviewed indicate that CSU stipulations will be developed for activities in various sage-grouse habitats; however, BLM fails to specify in the MCFO DEIS how CSU such stipulations will be formulated. By comparison, the HiLine RMP/EIS identifies how CSU stipulations will be established in Appendix E.5 and the Billings Pompey’s Pillar RMP/EIS describes the development of CSU stipulations in Appendix C. Both the HiLine and Billings/Pompey’s Pillar RMP/EISs indicate that the proponent must prepare a plan to maintain the functionality of sage-grouse habitat to assist in identifying CSU stipulations. How will CSU stipulations be identified in the MCFO planning area?

COMMENT: Please clarify the total acreage of BLM-Administered acreage of sage-grouse habitat within the Billings/Pompey’s Pillar planning area. Chapter 3, Page 3-85 (Table 3-29), reports a total of 336,479 acres. However the total appears to be 371,432 acres when summing the acreages presented in Chapter 2, Page 2-19 (Table 2-1). Please clarify.

COMMENT: Please clarify and/or provide the total BLM acres of “Federal Mineral Estate” that would be included within the “Restoration Areas” category for the HiLine planning area. This information appears to be missing in the draft HiLine RMP/EIS.

COMMENT: Please clearly depict what management restrictions/prescriptions would be required for the two proposed ACECs within the HiLine planning area; specifically the Grassland Bird/Greater

Sage-Grouse Priority Areas ACEC (461,220 acres) and Greater Sage-Grouse Protection Priority Area ACEC (930,265 acres). Jointly the two ACECs comprise over 1.39 million acres and represent a substantial land area.

COMMENT: To understand the effects of proposed sage-grouse management in the planning areas for the three BLM field offices, the sage-grouse resource (i.e., populations and habitat) that would be affected by various management directives need to be identified. The RMP/EISs for the three planning areas do not present sage-grouse estimates for population sizes (see **Table** 1) so other metrics that represent the sage-grouse resource which will be subject to the proposed management directives need to be presented. To better understand the sage-grouse resource that would be subject to the management prescriptions identified in the three RMPs, the following information should be clearly stated in each DEIS's *Chapter 3 – Existing Environment*:

- Acres of various classes of sage-grouse habitat within each planning area on BLM-administered lands; and
- Number of leks on BLM-administered lands in the planning area.

COMMENT: As shown in **Table 2** above, the planning prescriptions for surface occupancy and controlled surface use for the three planning areas (MCFO, HiLine, and Billings/Pompey's Pillar) are variable which raises questions of how NSO restrictions were determined. Based on review of the three draft planning documents, it appears that all three relied on same data sources to address impacts of oil and gas development on sage-grouse. All planning areas have similar sage-grouse habitat conditions (i.e., all are in Sage-Grouse Management Zone 1), and all are anticipating some level of oil and gas development. It is unclear how different NSO restrictions around leks were developed. NSO restrictions around leks vary among the planning areas, with buffers around leks being 0.6, 1, 2, and 3 miles. Why are these NSO restrictions different for the three planning areas when they all relied on similar sources to define potential impacts associated with oil and gas development? Does sage-grouse vulnerability to impact or population viability differ among BLM planning areas?

Additional Literature Cited

Ramey, R., L. Brown, and F. Blackgoat. 2011. Oil and gas development and greater sage-grouse (*Centrocercus urophasianus*); A review of threats and mitigation measures. The Journal of Energy Development: 35(1); 49-77.

Taylor, R., M. Dzialak, L. Hayden-Wing. 2007. Greater sage-grouse populations and energy development in Wyoming. Accessed March 2013 at http://bogc.dnrc.mt.gov/reports.asp

CONCLUSION

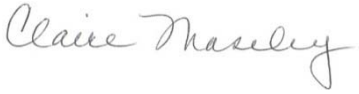
In summary, BLM has failed to properly prepare the DEIS as described above in our comments. In addition to failing to meet the requirements of NEPA, BLM has used Greater Sage-grouse data to develop its plan alternatives that is both not applicable to the MCFO and at such a scale that makes it impossible to make accurate and reasonable land use decisions. Therefore, as stated at the beginning of this comment letter, we formally ask for a redraft of the DEIS to be published for

comment and review before BLM finalizes the DEIS and issues a ROD.

Please do not hesitate to contact us if you have any questions regarding our comments. We appreciate the opportunity to provide them to BLM, despite the fact that an inadequate period for review was provided.

Sincerely,

David A. Galt
Montana Petroleum Association



Claire M. Moseley
Public Lands Advocacy

Spencer A. Kimball
Western Energy Alliance

Cc: The Honorable Max Baucus
The Honorable John Tester
The Honorable Steve Daines
The Honorable Sally Jewel, Secretary of Interior
Neil Kornze – Acting BLM Director
Jamie Connell – Acting BLM Deputy Director
Kate Kitchell – Acting Montana BLM State Director