1022

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BUREAU OF LAND
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CASPER FIELD OFFICE
2008 DEC 29 A 6: 40

December 22, 2008

Bureau of Land Management
Attn: Linda Slone, RMP Project Manager
2987 Prospector Drive
Casper, WY 82604

Re: Scoping Comments for the Buffalo RMP Revision

Dear Ms Slone:

The following comments are submitted on behalf of the Wyoming Outdoor Council for consideration during the scoping process for the revision of the Buffalo Resource Management Plan (RMP) and associated environmental impact statement (EIS) that were solicited by the Bureau of Land Management (BLM).

INTRODUCTION

The Federal Land Policy Management Act (FLMPA) and related BLM regulations require BLM to manage the public lands and their resources pursuant to an RMP. All future actions must conform to the terms and conditions established in the RMP. Given this overarching importance, BLM must ensure careful adherence to the legal requirements applicable to an RMP established by FLPMA, and the requirements for preparing an EIS established by the National Environmental Policy Act (NEPA). The following comments highlight many of these legal requirements and concerns we have with respect to them.

SUPPLEMENTAL COMMENTS REGARDING SPECIAL PLACES

Before turning to our comments on the legal requirements for an RMP, we would like to note that we have submitted separately comments directed at identifying areas with special resource values in the Buffalo Field Office with requests that BLM seek to protect them through the RMP revision process. In many cases we ask that these areas be considered for designation as areas of critical environmental concern (ACEC). We ask that these supplemental comments be considered fully as part of our scoping comments.

1022

REQUIREMENTS APPLICABLE TO AN ENVIRONMENTAL IMPACT STATEMENT THAT BLM MUST COMPLY WITH DURING SCOPING

The "scoping" stage of preparing an EIS requires BLM to make two determinations: (1) what is the scope of the project – in this case the RMP – to be analyzed in the EIS and (2) what are the issues that will be analyzed "in depth" in the EIS. 40 C.F.R. § 1501.7(a). See also 43 C.F.R. § 1610.4-1 (requiring scoping for RMPs to comply with Council on Environmental Quality scoping regulations). Other environmental reviews (such Biological Assessments and consultation for species listed pursuant to the Endangered Species Act) should be identified so that they can be done concurrently with the EIS and integrated with it. We believe the issues identified in these comments are within the legal scope of an RMP, and therefore they should be analyzed in depth in the EIS.

In determining the scope of the EIS, BLM must consider "connected actions," "cumulative actions," and "similar actions." 40 C.F.R. § 1508.25. Connected actions are actions that are "closely related" to the RMP. Closely related actions include any reasonably foreseeable oil and gas development projects that would not occur "but for" authorization provided in the RMP. Examples of oil and gas development actions/projects that would not occur but for authorization in the RMP include leasing, exploration projects, and full-field development projects. Thus, the EIS should address each of these types of connected actions/projects in detail, and given the significant amount of historical data that exists for these types of projects they are reasonably foreseeable and a detailed consideration should be possible.

Similar actions include authorizations for oil and gas development occurring on State and private lands or mineral estates in or adjacent to the geographic area of the RMP, Forest Service Forest Plans and other analyses authorizing oil and gas activities on nearby lands administered by the Forest Service, and RMPs for adjacent BLM Field Offices/Districts. The plans and guidance for the Thunder Basin National Grassland are an obvious similar action and as such the provisions in this plan should be fully considered in the Buffalo RMP and plans made to not act contrarily to this plan. The scope of the EIS should include a detailed analysis of these similar actions so as to foster informed public participation in the RMP revision and informed decision-making by BLM.

Cumulative actions are actions that, incrementally, have cumulatively significant impacts, even if the individual impacts are minor. Thus, BLM should define the scope of the EIS to include analysis of the cumulative effects of actions/projects that have impacts in common with those resulting from oil and gas development. Impacts and actions that should be addressed in a cumulative fashion include, but are not limited to: road construction effects, activities leading to soil and vegetation disturbance, activities leading to changed habitat structure, activities leading to habitat fragmentation, and activities causing air or water pollution. These cumulative impacts result from a number of cumulative actions, including oil and gas development, and thus they must be addressed in a comprehensive manner. In the Powder River Basin, the cumulative impacts from produced water are especially significant and should be carefully analyzed and

2000 DEC 29 A 6: 4
BUREAU OF LAND MANAGEMENT CASPER FIELD OFFIC

presented for public review. Similarly, the scope of the EIS must include consideration of direct and indirect impacts of oil and gas development activities. 40 C.F.R. § 1508.25.[1]

An issue closely associated with the consideration of connected, similar, and cumulative actions and impacts is the Reasonably Foreseeable Development (RFD) scenario for oil and gas development. This issue will be addressed below in the sections on socio-economic issues and oil and gas leasing issues. Suffice it to say here that development of a realistic, well supported, economically rational, and scientifically based RFD is crucial for a proper analysis and determination of connected, related, and cumulative impacts.

Council on Environmental Quality (CEQ) regulations require a reasonable range of alternatives to be presented and analyzed in the EIS so that issues are "sharply defined" and the EIS provides "a clear basis for choice among options . . . ." 40 C.F.R. § 1502.14. CEQ regulations and court decisions make clear that the discussion of alternatives is "the heart" of the NEPA process. Environmental analysis must "[r]igorously explore and objectively evaluate all reasonable alternatives." Such objective evaluation is gravely compromised when agency officials bind themselves to a particular outcome or foreclose certain alternatives at the outset. Therefore, in the context of oil and gas development BLM must use the scoping process to develop alternatives that emphasize needed environmental protection even if such alternatives limit and/or strongly regulate oil and gas development and not dismiss such options without a thorough and careful analysis in the EIS. Elements of an alternative that achieves needed environmental protections are presented in the concluding section of these comments, and specific elements of such an alternative drawn from the revision of the RMP in the Pinedale Field Office are also presented below.

BLM must bear in mind that the "primary purpose" of an EIS is to "insure that the policies and goals defined in [NEPA] are infused into the ongoing programs and actions of the Federal Government." 40 C.F.R. § 1502.1. The policies and goals of NEPA include,

- Encouraging a "productive and enjoyable harmony between man and his environment",
- Promoting "efforts which will prevent or eliminate damage to the environment and biosphere",
- Using "all practicable means and measures . . .to create and maintain conditions under which man and nature can exist in productive harmony . . .",
- Fulfilling "the responsibilities of each generation as trustee of the environment for succeeding generations",
- Assuring "all Americans safe, healthful, productive and esthetically and culturally pleasing surroundings",
- Allowing beneficial use of the environment "without degradation . . . or other undesirable or unintended consequences",
- Preserving "important historic, cultural and natural aspects of our national heritage . . .",

[1] In this regard we ask BLM to consider the report "Fragmenting Our Public Lands, The Ecological Footprint From Oil And Gas Development," The Wilderness Society (C. Weller et al., authors), September 2002.

1022

- Achieving a "balance between population and resource use . . .", and
- Enhancing "the quality of renewable resources" and maximizing recycling of depletable resources.

42 U.S.C. §§ 4321-4331. Thus, the issues that BLM must identify for analysis in its EIS include the above goals and policies, and we ask BLM to "insure" that these considerations are "infused" into oil and gas leasing, exploration, and development activities considered in the EIS and authorized by the RMP. These policies are further incorporated into CEQ regulations regarding the implementation of NEPA. See, e.g., 40 C.F.R. §§ 1500.2(f) (Federal agencies "shall to the fullest extent possible . . . use all practicable means . . . to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment"); 1502.1 ("The primary purpose of an [EIS] is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government").

NEPA requires BLM to make a number of considerations that we specifically urge BLM not to overlook. NEPA requires the BLM to "insure that presently unquantified environmental amenities and values" are given consideration, "recognize the worldwide and long-range character of environmental problems and thus support international efforts to prevent declines in the world environment," and "initiate and utilize ecological information in the planning and development of resource-oriented projects."[2] 42 U.S.C. § 4332, 40 C.F.R. § 1507.2. Thus, in revising this RMP, BLM should consider, analyze, and wherever appropriate facilitate, international efforts to prevent environmental decline. These include a number of international agreements and treaties for resource protection, such as United Nations biosphere reserves, migratory bird treaties, the Convention on International Trade in Endangered Species, and international efforts related to biological diversity preservation, and prevention of global warming, among others. The EIS supporting the RMP should also explicitly address unquantified environmental values and ensure they are given equal emphasis relative to economic analyses, and ensure up-to-date ecological information is utilized in developing the EIS and RMP. The "existence value" of undeveloped public lands is key in this regard, and must be given a high priority for analysis in the EIS, with applicable provisions being made in the RMP.

While the purposes and needs for the RMP are broadly defined by the FLPMA and other law, BLM should give specific attention to the purposes and needs for oil and gas related activities that will be analyzed in the EIS. BLM should address in detail what the purpose of future leasing is. It should address what the purpose of future potential exploration and development activities would be. These considerations should be made with explicit recognition of the relative value of the RMP area for meeting local, regional and national energy needs and what alternatives exist for meeting those needs locally, regionally and nationally. Alternative forms of energy such as wind power must be considered when determining the purpose and need

[2] In terms of recognizing the world-wide and long range character of environmental problems, it is essential that BLM fully consider global warming in the EIS, and make provisions to reduce its impacts in the RMP. The EIS and RMP must specifically consider the impacts of carbon dioxide emissions (CO_2), but should also consider the impacts of methane (CH_4), which is an especially potent greenhouse gas, and which is released from many oil and gas development activities.

4

for oil and gas development along with the relative contributions of alternatives and fossil fuels to climate change. The relative value of the area for meeting energy needs versus supplying environmental amenities/needs/values should be considered in identifying the purpose(s) and need(s) of oil and gas development. Similarly, identification of where specifically oil and gas leasing, exploration, and development is appropriate and inappropriate in the RMP area, and why, should be addressed in the EIS as part of the definition of the purpose and need for the RMP.

Desired outcomes or desired future conditions also are required to be considered in the EIS and RMP. BLM should determine what the desired outcome(s) from oil and gas leasing, exploration, and development activities are, particularly with reference to the desired outcome(s) for endangered species protection, prevention of habitat fragmentation, protecting the naturalness of landscapes and their aesthetic appeal, the prevention of unnecessary or undue degradation of public lands, the prevention of air and water pollution, and the protection of surface owner rights on split-estate lands. Mechanisms for resolving conflicts between the desired outcomes for oil and gas development relative to other resources should be identified in the EIS and adopted in the RMP. The requirement for BLM to prevent unnecessary or undue degradation of the public lands should be paramount in such balancing. Furthermore, some statutes, such as the Endangered Species Act, require that where there are conflicts between what is desired for oil and gas-related activities versus other resources, the objectives for oil and gas development must recede. The RMP should acknowledge this and make provisions for meeting this requirement, and similar requirements of other laws. For example, closure of lands to certain resources uses, such as oil and gas development, is specifically provided for as a means to achieve desired outcomes. Measures for protecting the land to achieve desired outcomes should be developed at an appropriate scale, with a landscape or bioregional scale being the appropriate scale for many actions, particularly endangered species protection. Development of a statement of desired outcomes will be addressed further in the concluding section of these comments.

It is rarely possible for the BLM (or any other Federal agency) to obtain perfect amounts of information. BLM must not allow this fact to stymie environmentally informed decision-making. CEQ regulations essentially establish a presumption in favor of obtaining information that is essential to reasoned decision-making. See 40 C.F.R. § 1502.22. BLM should take steps to gather needed information in all but the narrow range of exceptions permitted by the CEQ regulations. But if BLM concludes information is not essential to reasoned consideration of alternatives, or the cost of obtaining the information is exorbitant, or the means for acquiring the information are unknown, the BLM must nevertheless scrupulously abide by CEQ guidance in this regard, namely ensuring that "credible scientific evidence" be presented relative to reasonably foreseeable significant adverse impacts (including low likelihood but catastrophic impacts) so that the impacts can be assessed based on approaches that are "generally accepted in the scientific community." See 40 C.F.R. § 1502.22(b). See also 40 C.F.R. § 1502.24 (requiring professional and scientific integrity in an EIS).

Monitoring of RMP implementation and the impacts resulting from plan implementation are crucial. A number of legal requirements apply to plan monitoring, and they should be carefully adhered to. See, e.g., 43 C.F.R. §§ 1610.4-9, 1610.5-3. Likewise, the RMP should make provision for the effective enforcement of its provisions.

1022

THE RMP EIS MUST SET FORTH A REASONABLE RANGE OF ALTERNATIVES

As noted above, the range of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. Accordingly, the NEPA requires that BLM to:

(1) present the impacts of the proposal and alternatives in comparative form, in order to sharply define the issues and provide a clear basis for choice among the options by the decision-maker and the public;
(2) rigorously explore and objectively evaluate *all reasonable alternatives*;
(3) devote substantial treatment to each alternative;
(4) include reasonable alternatives not within the jurisdiction of the lead agency; and
(5) include *appropriate mitigation measures* not already included in the proposed action or alternatives.

40 C.F.R. §§ 1502.14; 1502.14(a), (b), (c) and (f) (emphasis added).

This binding ("shall") authority makes it imperative that BLM include, and thoroughly analyze, a conservation alternative, including the provisions set forth in these comments, in the RMP EIS. The underlying principles of the alternative are reasonable and contain appropriate mitigation measures. Therefore, BLM must devote substantial treatment to and a rigorous analysis of an alternative that seeks to conserve Wyoming's great heritage.

Beyond the CEQ regulations, court decisions also make clear that the discussion of alternatives is "the heart" of the NEPA process and that the environmental analysis must "[r]igorously explore and objectively evaluate all reasonable alternatives." Such objective evaluation is gravely compromised when agency officials bind themselves to a particular outcome or foreclose certain alternatives at the outset. Therefore, in the context of oil and gas development, we would like to make two specific requests. First, because ongoing leasing, during the RMP process, limits the BLM's options to manage lands, leasing should be halted in the Buffalo Field Office until the new RMP has been adopted. Considerable leasing would continue in other parts of Wyoming, not to mention the West, and there are already many existing leases in the Buffalo Field Office. Second, we specifically ask that a "No New Leasing" alternative be developed and analyzed in the *draft* EIS. Such an alternative would assist in fulfilling BLM's obligations to, during the scoping process, develop alternatives that emphasize needed environmental protection even if such alternatives limit and/or strongly regulate oil and gas development. Such options may not be dismissed without a thorough and careful analysis in the EIS. Elements of an alternative that achieves needed environmental protections are presented in the concluding section of these comments.

Alternatives embodying these elements as set forth in these comments must not be treated as straw men whose only function is to provide "extremes" against which to contrast "moderate" alternatives because all of the elements (affirmative protection of endangered species, restoration of the ecological integrity of the Nation's waters, etc.) are legally required and have been established as the desired outcome for the public lands by Congress. To the contrary, BLM must provide full, careful, and objective consideration of alternatives embodying these elements.

6

Finally, throughout this analysis process, the BLM must understand and keep in the forefront of the planning, that under the FLPMA, the chosen alternative must "best" meet the needs of the American people as a whole. The FLPMA makes it explicitly appropriate that not all uses be accommodated in all areas, and requires consideration of the relative values of resources, which cannot be defined in solely economic terms. The elements of an alternative outlined in these comments are appropriate and reasonable under these standards, and thus should be fully considered in the EIS and adopted by BLM in the RMP.

With respect to development of alternatives for consideration in the EIS, we particularly ask the BLM to consider the approach and provisions of the just-revised Pinedale RMP with respect to oil and gas development. In the Pinedale RMP the BLM created three categories of land with respect to desired future oil and gas development. The three oil and gas management areas created were "intensively developed fields," "traditional leasing areas," and "unavailable areas."

We ask the BLM to consider a similar approach in the Buffalo Field Office RMP. The reason this approach is desirable is that it creates a "vision" for what future oil and gas development should look like. It creates an overall framework for future development. This approach stands in contrast to the approach used in the recently revised Rawlins and Kemmerer RMPs where no "vision" is presented, rather oil and gas development and leasing provisions are widely varying and disconnected from any overarching goals or framework. There is no vision, just many disconnected provisions in these plans. That should be avoided in the Buffalo Field Office RMP. We believe that if the three categories adopted in Pinedale are adopted in the Buffalo Field Office, there would be a greater likelihood that large areas would be deemed unavailable for future leasing, which is consistent with the recommendations in these comments. We would note that a principle reason such a large area was deemed off limits to future leasing in the Pinedale RMP was that BLM viewed this as an important means to protect the greater sage-grouse and which also dealt with the uncertainty associated with the efficacy of lease stipulations. See http://www/blm.gov/wo/st/en/prog/planning/protest_resolution/protestreports.html (presenting BLM's resolution of RMP protests including the Pinedale RMP wherein BLM offers this explanation for why areas were designated unavailable for future leasing). The Buffalo Field Office should also determine if designating areas off limits to future leasing might be a preferable means to protect sage-grouse relative to lease stipulations.

We specifically ask the BLM to adopt the following provision from the Pinedale RMP that applies to unavailable areas. The Pinedale RMP provides that in unavailable areas that "[m]anagement actions on existing leases within the Unavailable Areas would be designed to protect important habitats by excluding surface occupancy and/or disturbance to the extent this restriction does not violate the leaseholder's/operator's lease rights" with respect to greater sage-grouse, big game, and sensitive species conservation. Proposed Resource Management Plan and Final Environmental Impact Statement for the Pinedale Field Office at 2-140, 2-142, and 2-144. This is an important means to ensure that in areas that BLM does not allow future leasing that the area is not harmed by development of existing leases, and thus it should be replicated in the Buffalo Field Office RMP.

1022

REQUIRE ONGOING AND CONSISTENT MONITORING

Monitoring of RMP implementation and the impacts resulting from plan implementation are crucial. A number of legal requirements apply to plan monitoring, and they should be carefully adhered to. See, e.g., 43 C.F.R. §§ 1610.4-9, 1610.5-3. Likewise, the RMP should make provision for the effective enforcement of its provisions. It is worth noting that the standards and requirements developed in an RMP are mandatory and must be implemented, and not just when site-specific projects are pursued. In view of these provisions the RMP EIS must include precise plans to monitor resources for the life of this RMP as well as plans to ensure that the monitoring is completed in a timely and thorough fashion. In short, if monitoring is not happening, development should not proceed. It is especially important that there be sufficient oversight to ensure oil and gas development is appropriately monitored and regulated from cradle to grave, especially relative to well plugging and abandonment and final reclamation.

"IN MANAGING THE PUBLIC LANDS THE SECRETARY SHALL BY REGULATION OR OTHERWISE TAKE ANY ACTION NECESSARY TO PREVENT UNNECESSARY OR UNDUE DEGRADATION OF THE LANDS."

This provision from the FLPMA is a mandatory requirement applicable to all resource uses and decisions affecting BLM lands. 43 U.S.C. § 1732(b). Consequently, it must serve as a bedrock for all analyses in the EIS, and activities undertaken pursuant to the RMP. It is crucial to recognize that unnecessary or undue degradation must be prevented; the RMP must provide that both prongs of this standard are met. Clearly, the BLM bears a heavy responsibility before it can authorize activities that may degrade the public lands.

We urge BLM not to define "unnecessary or undue degradation" by default, in a negative fashion. In the context of oil and gas development, we specifically recommend that BLM reject the position that because regulations provide that an oil and gas lease conveys the right to "use so much of the leased lands as is necessary to explore for, drill for . . . and dispose of all of the leased resource . . ." essentially anything an oil and gas lessee proposes to do to develop a lease is "necessary" or "due" and therefore any resulting degradation of the public lands is not "unnecessary" or "undue." See 43 C.F.R. § 3101.1-2.

Instead, we urge BLM to require, in a direct and positive fashion, that oil and gas development not cause unnecessary or undue degradation, and to ensure that this is the case. The confusing, circuitous approach of defining unnecessary or undue degradation in a backwards way (if something is deemed necessary by default, so the reasoning goes, it cannot be unnecessary) can lead to a failure to require directional and horizontal drilling technologies, which may not be a lessee's first choice, but which will still allow development of a leasehold but with far less degradation of the public lands, which is what BLM must concern itself with. Given the direct, unambiguous command from Congress to do whatever is necessary to prevent unnecessary or undue degradation, the RMP should define, and prevent, unnecessary or undue degradation in an equally direct, positive fashion.

This view of the proper interpretation of the "UUD" clause is supported by the court's decision in Mineral Policy Center v. Norton, 292 F.Supp.2d 30 (D.D.C 2003), which in no way

8

countenanced a negative definition of unnecessary or undue degradation arrived at by default, but rather recognized it as a direct command from Congress to prevent such degradation. Nor did the court permit BLM to adopt a unitary view of the UUD clause: it creates two distinct mandatory obligations. The court determined unequivocally that the requirement to prevent unnecessary or undue degradation imposes dual requirements on BLM; it must prevent both unnecessary degradation as well as undue degradation. 292 F.Supp.2d at 42. Addressing this dual requirement, the court made plain that "Congress's intent was clear: Interior is to prevent, not only unnecessary degradation, but also degradation that, while necessary to mining, is undue or excessive." Id. That is, while unnecessary degradation may only prevent activities that are not generally recognized or used to pursue mining operations, the undue degradation prohibition establishes a further requirement to prevent activities that would unduly harm or degrade the public lands. As stated by the court, "FLPMA, by its plain terms, vests the Secretary of the Interior with the authority—and indeed the obligation—to disapprove of an otherwise permissible mining operation because the operation, though necessary for mining, would unduly harm or degrade the public land." Id. BLM should address and define the UUD clause in the RMP and the EIS in a manner consistent with the Mineral Policy Center court's views.

BLM MUST ENSURE COMPLIANCE WITH THE LAND USE PLANNING REQUIREMENTS OF FLPMA

Under FLPMA, land use plans for public lands are to "use and observe" multiple use and sustained yield principles, give priority to designation and protection of areas of critical environmental concern, and provide for compliance with pollution control laws, among other things. 43 U.S.C. § 1712(c). See also 43 U.S.C. §1711(a) (requiring continuous inventory of resources and resource values on the public lands). Likewise, specific management actions must be done pursuant to multiple use and sustained yield principles. 43 U.S.C. § 1732(a). These requirements must be borne in mind as the RMP is developed.

The Requirement To Manage For Multiple Use And Sustained Yield Has Substantive Components That Must Be Adhered To.

The definition of multiple use in FLPMA is long, but key provisions include the following: (1) Public lands and their resource values must be managed so that they "best meet the present and future needs of the American people;" (2) It is appropriate that some land be used "for less than all of the resources;" and (3) There must be harmonious and coordinated resource management that is done "without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or greatest unit output." 43 U.S.C. § 1702(c). Sustained yield as defined in FLPMA can be achieved either by "high-level annual" or "regular periodic" output of resources, so long as this is accomplished in a way that can be maintained in perpetuity and is consistent with the definition of multiple use. 43 U.S.C. §1702(h). These definitions give substance to the requirement that land use plans and resulting management actions are to use and observe multiple use and sustained yield principles.

1022

The purpose of this planning process must be to produce a plan that "best" meets the present and future needs of the American people. The RMP cannot adequately meet these needs, or generally meet these needs, or largely meet these needs, it must "best" meet them. FLPMA explicitly requires that what is "best" must be viewed from the perspective of the present and the future and all alternatives, including the proposed action, must be designed to satisfy this requirement. We would note that FLPMA specifically requires that in the development of a land use plan the BLM must "weigh long-term benefits to the public against short-term benefits." 43 U.S.C. § 1712(c)(7). What is best now may not meet future needs, and since future needs may be unknown in some respects, the only way to "best" insure that future needs are met is to develop and select alternatives that have a large built in margin of safety. To achieve a large built in margin of safety the plan should emphasize resource and ecosystem protection, which will best ensure that future options are retained. Furthermore, what is "best" must be determined with reference to the needs of the American people as a whole, not a small subset of the American people or only from the perspective of industry "customers." The American people are BLM's customers not some limited, special interest subset of our 300 million.

FLPMA explicitly provides that the alternative plans that are developed need not accommodate all resource uses on all lands. This provision has special significance relative to oil and gas leasing, exploration, and development because too often essentially all lands are made available by BLM for oil and gas extraction. Therefore, we request that the alternatives developed for consideration in the EIS include a wide range of options relative to allocating lands in this area to oil and gas extraction activities. BLM must fully consider placing areas off limits to oil and gas leasing, subjecting areas open to leasing to No Surface Occupancy (NSO) stipulations, as well as making areas available for leasing subject to appropriate timing and controlled surface use stipulations. Moreover, FLPMA provides that areas where less than all resource uses are allowed should be "large enough to provide sufficient latitude for periodic adjustments" to accommodate changing circumstances. 43 U.S.C. §1702(c).

It is also important to emphasize that under FLPMA the alternatives that are developed must consider the <u>relative</u> value of the resources involved. By this legally required measure, rare, unique, and sensitive native species have a relative value far in excess of more common or easily replaced public land resources, or resources that can be provided from other lands. The same is true of many other resources, such as cultural, historical, paleontological, and wilderness resources. Accordingly, the alternative plans that are developed, and particularly the preferred alternative, must give special emphasis to protecting and providing for relatively rare resources.

Since sustained yield can be achieved by providing for regular periodic outputs of renewable resources, we ask that BLM consider this measure of sustained yield rather than just high-level annual measures. Occasional (periodic) outputs of some resources may be a far more sustainable means to manage for multiple use in perpetuity than to attempt to produce the resource annually, especially at a "high-level." For example, drought could well make livestock grazing ill-advised and unsustainable in some years if other resource values such as wildlife are to be protected and maintained.

In addition to the requirement to manage for multiple use and sustained yield, Congress declared a policy in FLPMA that public lands are to be "managed in a manner that <u>will</u> protect

10

the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values . . . ." as well as to "preserve and protect certain public lands in their natural condition" and provide "food and habitat for fish and wildlife." 43 U.S.C. §1701(a)(8) (emphasis added). Consequently, Congress has made clear that strong environmental protection must be provided through the planning process for these public assets. The EIS should reflect this Congressional guidance in all alternatives that are developed and considered, especially in the plan that is finally selected.

Designation Of Areas Of Critical Environmental Concern Must Be Given Priority.

Areas of Critical Environmental Concern (ACECs) are defined in FLPMA. Just as the definitions of multiple use and sustained yield gives substance to FLPMA's requirements for management to be based on multiple use and sustained yield, the definition of ACEC gives substance to the requirement that priority be given to designation and protection of ACECs. ACECs are defined as areas "where special management attention is required . . . to protect and prevent irreparable damage" to important resources, including fish and wildlife resources, ecological features, and historical, paleontological and archeological resources. 43 U.S.C. §1702(a). Candidate ACECs must have relevance and importance. 43 C.F.R. § 1610.7-2(a).

Under FLPMA, the BLM must "give priority to the designation and protection of areas of critical environmental concern" when it prepares a land use plan. 43 U.S.C. § 1712(c)(3). We believe the BLM must faithfully ensure compliance with this command. It must give priority to designating ACECs; it cannot just "consider" them or "analyze" them, it must designate them as a priority. That is what FLPMA requires. We would note that no other obligation for planning under FLPMA states that priority must be given to that provision, but the designation of ACECs requires that level of emphasis. See 43 U.S.C. 1712(c)(1)-(9). Designation of ACECs was singled out for priority by Congress. And in our view "priority" means what it means: "[p]recedence, especially established in order of importance or urgency." THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE 1395 (4th ed. 2000). As the Supreme Court has stated, "[i]t is, of course, a basic canon of statutory construction that we will not interpret a congressional statute in such a manner as to effectively nullify an entire section. Duncan v. Walker, 533 U.S., 167, 174 (2001) ("[A] statute ought, upon the whole, be so construed that, if it can be prevented, no clause, sentence, or word shall be superfluous, void, or insignificant." (citation omitted)). See also Dodd v. U.S., 545 U.S. 353, 370 (2005) (same). Thus, the BLM should ensure it gives "priority" to "designating" ACECs in the Buffalo Field Office RMP revision.

We ask that BLM consider designating ACECs for all species that have been listed pursuant to the Endangered Species Act or recognized as sensitive species by BLM. The rarity and/or uniqueness of these species means they are "relevant" and "important" by definition. The fact that they are rare also shows "special management attention" is needed; or, in the case of inherently rare species, that special management is needed to protect what is often very limited habitat. Furthermore, in our view the loss of species through extinction or the continued decline of species (especially already-rare species) constitutes "irreparable damage" in both ecological and quality-of-life terms. Therefore, these species warrant improved protection through ACEC designations.

It is also worth noting that the Endangered Species Act (ESA) establishes requirements that can be achieved—and are required to be achieved—by ACEC designation. There is, of course, the well known jeopardy standard in section 7(a)(2) of the ESA that prohibits agencies from jeopardizing the continued existence of listed species or taking actions that result in the destruction of adverse modifications of critical habitat. 16 U.S.C. §1536(a)(2). Designating ACECs is an obvious means of ensuring this duty is met, and is especially relevant given the priority Congress attached to designating ACECs during land use planning.

But perhaps more importantly, section 7(a)(1) of the ESA requires all Federal agencies to "utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation" of listed species. 16 U.S.C. §1536(a)(1) (emphasis added). This is a mandatory duty. Given the priority that Congress attached to designating ACECs, and its commandment that all agencies carry out programs to conserve listed species, it is apparent ACEC designation is precisely the kind of program Congress intended be used to further the conservation of listed species. In this regard, we feel the BLM should especially give consideration to designating ACECs that would protect sage-grouse in this area.

Additionally, since agencies must further the purposes of the ESA by carrying out conservation programs, its worth noting that one purpose of the ESA is to "provide a means whereby the ecosystems upon which [listed] species depend may be conserved." 16 U.S.C. §1531(b). ACECs are clearly a flexible means to protect the ecosystems on which listed species depend, and thus they provide a convenient programmatic means to further the purposes of the ESA that BLM is required to fully utilize and implement. Given the priority for endangered species protection established by Congress, and the priority given to ACEC designation in FLPMA, ACECs should be used liberally to protect rare species in the RMP area. The same obligations also attach relative to candidate and BLM sensitive species pursuant to BLM's Special Status Species Management Manual. BLM Manual Section 6840.

Furthermore, we request that all riparian areas in the geographic area of the RMP be designated ACECs. The ecological value of these areas is universally acknowledged. It is also widely recognized that most riparian areas in the west are in a non-functioning or functioning at risk status. Thus, special management is needed. Riparian areas are discrete and easily recognized, generally speaking. Consequently, they would be relatively easy to delineate for special management. In the aggregate they have far more than local importance. Additional needs for riparian area management will be discussed below. .

In addition to riparian areas, other areas that should be considered for ACEC designation are: big game wintering areas, migration and other ecological corridors, and areas with special breeding, feeding or sheltering value for wildlife, such as cliff areas used by raptors, prairie dog colonies, and caves. Areas of large, contiguous habitat, should also be considered for ACEC designation. Archeological, historical, and paleontolgoical sites and resources should be protected through the use of ACEC designations, as required by FLPMA.

Relative to ACECs, the RMP "shall include the general management practices and uses, including mitigating measures, identified to protect designated ACEC[s]." 43 C.F.R. § 1610.7-

2(b). In our view, this requires the following. First, given the purpose of ACECs the requirement to "prevent irreparable damage" establishes a greater protective standard than either the nonimpairment standard in the definition of multiple-use or the prevention of unnecessary or undue degradation standard applicable to all actions. Compare 43 U.S.C. § 1702(a) with 43 U.S.C. §§ 1702(c), 1732(b). Second, wherever, an ACEC is designated, BLM should consider withdrawing the areas from operation of the mining and mineral leasing laws pursuant to 43 U.S.C. § 1714 so as to ensure there is no irreparable damage. Third, where a potential ACEC has only been identified, BLM must nevertheless "take all feasible action to assure that those qualities that make the resource important are not damaged or otherwise subjected to adverse change pending an ACEC designation decision." 45 Fed. Reg. 57318, 57326 (Aug. 27, 1980). This provision has special application to the potential ACEC in the Fortification Creek area which BLM has long recognized meets the relevance and importance requirements but to date has not designated as an ACEC.

BLM Must Provide For Compliance With The Clean Water Act And Clean Air Act.

It is generally said, by BLM and the State, that the State has primacy in the regulation of air and water pollution. In our view this often results in far too much deference being given to the State. Whatever else can be said, it is BLM, not the State, that makes the fundamental decision about whether to permit oil and gas and coal mining operations in the first place. So clearly the BLM has responsibility to deal with the environmental impacts that results from its decisions, regardless of what the State may or may not be doing. As noted above, FLPMA specifically requires the BLM to "provide for compliance" with the Clean Air Act and Clean Water Act. 42 U.S.C. § 1712(c)(8). In our view this is more than enough delegated authority (and in fact a commandment) to allow the BLM to take whatever steps are necessary to control air and water pollution. Consequently, we request that the Buffalo RMP establish clear, binding, mandatory provisions that will ensure activities authorized by the RMP do not lead to unacceptable levels of environmental contamination.

The Clean Water Act.

The FLPMA establishes a general requirement that land use planning and the resulting plan "provide for compliance" with "pollution control laws." 43 U.S.C. § 1712(c)(8). Compliance with the Clean Water Act (CWA) is an important element of this requirement.

The CWA establishes many requirements that BLM must adhere to in the RMP. It is imperative that BLM insure that waters on its lands comply with State water quality standards. It is critical to recognize that State water quality standards "serve the purposes" of the CWA, which, among other things, are to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters. . ." 33 U.S.C. §§ 1313(c)(2)(A), §1251(a). That is, a purpose of water quality standards is to protect aquatic ecosystems, and BLM must ensure this comprehensive objective is met by ensuring water quality standards are complied with. Water quality standards are typically composed of numeric standards, narrative standards, designated uses, and an antidegradation policy. Sometimes, however, only numeric standards are viewed as "water quality standards." That narrow view is incorrect. The Supreme Court held in PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700 (1994), that all components

of water quality standards are enforceable limits. Consequently, the RMP must ensure all components of State water quality standards are met, not just numeric standards.

Adopting this legally sanctioned view of water quality standards is important. For example, a typical designated use for a stream might state that the stream is protected for cold water species of game fish and other cold water aquatic life, including necessary organisms in their food chain. Designated uses of this sort encompass a far more holistic, ecosystem-based view than focusing on, say, the concentration of chloride in the stream (a numeric standard). Consequently, the RMP should provide that designated uses be fully achieved, and if they are not, require prompt management changes even if numeric standards are otherwise being met. Similarly, narrative standards can often embody a better ecological synthesis than numeric standards, and thus BLM should ensure that they too are achieved. For example, the State's narrative standard might make it illegal to contaminate a stream with floating materials or scum that create objectionable odors or cause undesirable aquatic plant growth. If the State water quality standards applicable to the RMP area have made narrative provisions a component of water quality standards, the RMP should ensure these narrative standards are fully met, and modify management where they are not.

The State's antidegradation policy is also a critical component of water quality standards. See 40 C.F.R. § 131.12 and applicable State regulations. Of particular significance are Outstanding National Resource waters, where water quality must be maintained and protected. 40 C.F.R. §131.12(a)(3). Outstanding National Resource waters are waters that "constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance . . ." Id. (emphasis added).

In addition to the antidegradation policy's protections for waters that are meeting water quality standards, where State water quality standards have not been achieved despite implementation of point source pollution controls, section 303(d) of the CWA requires a State to develop a list of those still-impaired waters, with a priority ranking, and to set total maximum daily loads (TMDLs) of pollutants for the stream "at a level necessary to implement the applicable water quality standards. . . ." 33 U.S.C. §1313(d)(1)(C). Consequently, to the extent waters within the BLM's jurisdiction have been identified as water quality impaired segments, or contribute stream flow to such segments, the RMP should include affirmative steps toward reducing that impaired status, regardless of whether the State has made a specific allocation of pollutant load to BLM lands at the time the RMP is prepared. If any specific load allocation has been made by the State for activities on BLM lands, BLM should obviously ensure that these are complied with.

The RMP should ensure full compliance with sections 401 and 404 of the CWA. Section 401 requires State certification of compliance with State water quality standards prior to authorization of certain actions on BLM lands. 33 U.S.C. § 1341. The RMP should fully implement this requirement. Section 404 requires permits before discharges of dredged or fill material can be made into navigable waters, and BLM, through the RMP, should assist the EPA and Army Corps of Engineers with implementation and enforcement of this requirement, which, of course, is a powerful means for the protection of wetlands. See 33 U.S.C. § 1344.

Coalbed Methane Water Issues

Coalbed methane (CBM) development if of course rampant in the Powder River Basin. A key concern associated with this development is the generation of "produced water" and potential impacts on groundwater resources. Questions related to impacts on water resources have of course been heavily litigated. See, e.g., Western Organization of Resource Councils v. Bureau of Land Management, No. 04-CV-18-J (D. Wyo. Nov. 26, 2008).

Given this overarching importance, we request that the EIS fully consider issues related to produced water and impacts on groundwater, and that the RMP make provision to prevent these impacts and to fully and carefully monitor these matters and to enforce any requirements. We specifically request that careful consideration be given to the potential for elevated total dissolved solids (TDS) and sodicity (Sodium Absorption Ration or "SAR") in produced water and the impacts that can result from these elevated pollution levels. The potential impacts of produced water with elevated TDS or SAR on vegetation, cottonwoods and native grasses, as well as alfalfa or other forage crops, should be fully considered and mitigated. In addition, regardless of any elevated constituent levels, consideration must be given to changes in the fundamental character of streams, to modifications of their flow regimes. Specifically the impacts and ecological significance of converting ephemeral streams to perennial streams or to streams subject to flood stage flows should be considered and mitigated. The impacts of such altered flow regimes on the underlying ecological structure and function of these riparian ecosystems must be considered and mitigated. Impacts on native fishes may be of special significance. In addition, the impacts of these radically altered flow regimes on farmers and ranchers' operations should be considered.

Such analyses must account for the full range of variations in stream flow, effluent (produced water) concentrations, and sensitivities of different species at different life-stages. Impacts from altering stream thermal conditions and the timing of flows must be analyzed. Effects of discharged produced water on adjacent riparian areas, and the effects of increased turbidity and sedimentation should be considered. The analysis should consider lethal and sub-lethal effects on biota. If produced waters are or become a "discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged", they must be treated as point source discharges of pollutants and a National Pollution Discharge Elimination System (NPDES) permit must be required. 33 U.S.C. §§ 1362(14), 1342. See Northern Plains Resource Council v. Fidelity Exploration & Dev. Co., 325 F.3d 1155 (9th Cir, 2003) (CBM produced water is a pollutant for purposes of the Clean Water Act). Based on these analyses, the RMP should provide standards to prevent or mitigate these impacts.

Furthermore, impacts to groundwater resources must be considered and mitigated. Dewatering coal seams to produce CBM can substantially alter groundwater resources and conditions. Groundwater withdrawals can affect water wells and make it more difficult for agricultural operations to persist. Methane seeps, including into people's homes, can occur. These and other groundwater impacts must be fully considered and mitigated.

In 2003 the BLM of course prepared the Powder River Basin Oil and Gas Project EIS that addressed CBM development in the Powder River Basin. But in our view this EIS cannot be

viewed as the end of the analysis relative to water impacts resulting from CBM development. It is already five years old and should serve as nothing more than a springboard to an updated analysis and mitigation measures based on more recent information. The Buffalo RMP should ensure that this is the case. For example, in recent studies the Wyoming State Geological Survey has determined that CBM development in some drainages—Crazy Woman Creek and Clear Creek—is producing vast quantities of produced water and minimal amounts of natural gas, these wells are essentially water wells not natural gas wells. Consequently the Wyoming State Geological Survey is recommending a moratorium on CBM development in these areas. The BLM should fully consider and seek to implement these recommendations of the State.

In addition, these findings by the Wyoming State Geological Survey raise substantial questions about whether produced water is being put to a beneficial use as required by Wyoming State law, or is simply being wasted. The BLM should fully consider and address this issue in the EIS and make decisions accordingly in the RMP.

We must mention two court cases that are highly relevant. The first of course is Pennaco Energy, Inc., v. U.S.Dep't of the Interior, 377 F.3d 1147 (10th Cir. 2004). In this case the court affirmed that the Interior Board of Land Appeals (IBLA) was correct to recognize that CBM in the Powder River Basin has unique and significant environmental impacts—including water impacts—that are not equivalent to the impacts of conventional oil and gas development, and thus these unique impacts must be separately recognized and separately considered in a NEPA analysis. The second case was Wyoming Outdoor Council v. U.S. Army Corps of Engineers, 351 F.Supp.2d 1232 (D. Wyo. 2005) where the court found that the Army Corps of Engineers' "GP 98-08" general permit for dredge and fill activities related to CBM development had not been developed in compliance with NEPA, and therefore invalidated the permit. We ask the BLM to consider both of these decisions at it develops the Buffalo RMP revision and to ensure that it carefully adheres to both of them.

We also want to mention two additional studies—besides the Wyoming State Geological Survey study mentioned above—that the BLM should consider. First, the Western Governors' Association has produced a report entitled "Coal Bed Methane Best Management Practices. A Handbook" (April 2004). Second, the BLM itself prepared the "Environmental Report: Coalbed Natural Gas Effects on the Fortification Creek Area Elk Herd" (September 2007). Both of these reports should be carefully considered by the BLM.

The RMP should prohibit discharge of water extracted from coalbeds onto the ground or into surface waters. This is particularly true of saline "produced" water. In addition to salinity problems, produced water—whether from CBM production or from conventional wells—can be contaminated with heavy metals (Se, As, Ba, Hg, etc.). Selenium may be of particular concern, especially relative to impacts on avian species, and it is important to note that if produced water is stored in reservoirs or pits, heavy metals can become even more concentrated than in the produced water itself. The EIS should consider the problem of produced water storage pits/reservoirs leading to concentrated chemical solutions that harm wildlife (or other resources), and should particularly consider compliance with the Migratory Bird Treaty Act in this regard. Water from CBM development should be reinjected in an environmentally safe manner (i.e., in a manner that ensures groundwater supplies are not contaminated).

CBM development can lower water tables, which has widespread implications and therefore these issues must be addressed in the EIS. If produced waters are not reinjected, potential effects on agriculture must be considered. Dewatering coalbeds can increase the likelihood of difficult-to-control coal seam fires. Seepage of methane and its effects on vegetation, water (including domestic water and aquifers), and even the safety of people's homes must be considered. The impacts of seeping methane on greenhouse gas concentrations and global warming should be considered. Again, the RMP must ensure these impacts are prohibited or mitigated.

The Clean Air Act.

The RMP must manage actions on public lands to meet the air quality standards prescribed by Federal, State, and local laws. Meeting the requirements of applicable State implementation plans and ambient air quality standards is a must. Protecting air quality should be a priority. The FLPMA requires BLM to consider the relative value of the various resources, and indeed clean air is quickly becoming (along with undeveloped landscapes) a most valued, yet dwindling resource. Therefore, BLM should take a proactive approach to managing air quality by, among other things: gathering baseline air quality data; setting and/or implementing (or at least assisting to implement) aggressive standards; requiring any actions on public lands to meet those standards (i.e. no flaring, no two-stroke engine use on public lands, etc); analyzing the cumulative impact of any proposed action with other past, present, and reasonably foreseeable actions; establishing an effective monitoring program; and halting any actions that contribute to air pollution if such monitoring reveals that standards have been exceeded.

The EIS should address the issue of regional haze and the destruction of viewsheds caused by haze, particularly in Class I areas. The Wind Cave National Park and Northern Cheyenne Indian Reservation are both relevant Class I areas, as are Class I areas to the west like the Fitzpatrick Wilderness Area. The BLM has special obligations to protect visibility and other air quality related values in Class I areas, and it should ensure the EIS addresses this issue and that the RMP makes provision for the protection of these values.

Oil and gas development activities directly contribute to air pollution in several ways, and all should be addressed in the RMP EIS. Oil and gas development activities produce large surface disturbances (pads and roads) and increase vehicle traffic, which contributes to particulate pollution. Oil and gas development activities also contribute to NO_x, SO_2, and volatile organic compound (VOCs) pollution, through activities like flaring, drilling, processing plants, and wellhead compressors and compressor stations, to name a few. EISs in the Pinedale area, including the Jonah Infill EIS and the Pinedale Anticline Supplemental EIS, as well as the Moxa Arch EIS in the Kemmerer Field Office, are increasingly showing substantial impacts on visibility in Class I areas due to oil and gas development. In addition, the 2003 Powder River Basin Oil and Gas Project EIS mentioned above showed that CBM development in the Powder River Basin would have substantial air quality impacts, including on Class I areas. They are also showing that the permissible increment consumption in Prevention of Significant Deterioration Class II areas is being fully consumed, a violation of the Clean Air Act. While air quality in the Buffalo Field Office may still generally be very good, as shown in the Pinedale area this can

quickly change if there is significant oil and gas development, so the Buffalo Field Office EIS and RMP should fully address and seek to prevent these problems.

Perhaps most significantly, issues related to ozone pollution must be addressed. This type of air pollution has become all too apparent in the Pinedale area and it has caused a furor. The BLM should assure this is not replicated in the Buffalo Field Office. And given the newly reduced National Ambient Air Quality Standard (NAAQS) for ozone (it has been reduced to 75 parts per billion from the previous 84 ppb), many areas are increasingly close to violating this new national standard.

As indicated, air pollution problems, perhaps more than any other environmental problem, are not subject to human-created, artificial boundaries. Consequently, the EIS must consider air pollution problems existing in the RMP area (whatever their source) at appropriately broad scales.

The BLM has uniformly insisted on pursuing only "qualitative" air quality analyses in other RMP revisions it has done in Wyoming. We urge the BLM to reject this approach to revising the Buffalo Field Office RMP and to instead provide a "quantitative" analysis (i.e., it should employ dispersion modeling to analyze impacts). Given the existence of the 2003 Powder River Basin Oil and Gas Project EIS that already largely did this, undertaking an updated quantitative analysis is completely reasonable and is not subject to any claims that the level of development is unknown, as BLM has incorrectly claimed in other RMP revisions as a means to avoid quantitative analysis.

A qualitative "analysis" is insufficient to meet the requirements of NEPA. An EIS must consider the environmental impacts of a federal action; it must consider the effects of the action. A consideration of the environmental effects of an action requires a consideration of both the direct and indirect effects. 40 C.F.R. § 1508.8. A qualitative analysis does not meet these requirements because it is little more than an inventory of the likely increases in pollutants. An EIS must provide a "detailed statement" on the "environmental impact of the proposed action" or the "adverse environmental effects which cannot be avoided should the proposal be implemented" that NEPA requires. 42 U.S.C. §§ 4332(2)(C)(i)-(ii). A simple inventory does not meet these requirements because it provides no concrete conclusions whatsoever regarding potential impacts of the emissions. This is a violation of NEPA. The BLM is required to "consider every significant aspect of the environmental impact of a proposed action." Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 98 S.Ct. 1197, 1216 (1978). Only the use of quantitative dispersion models such as CALPUFF will allow for this level of required analysis. We would note that EPA may be adopting policy regarding this issue and the BLM should remain attune to those developments.

The FLPMA Requires A Land Use Plan to Consider the Relative Scarcity of Values and to **Realize** those Values.

Under FLPMA, land use plans shall "consider the relative scarcity of values involved and the availability of alternative means (including recycling) and sites for realization of those values." 43 U.S.C. § 1712(c)(6). It is important to note that the plan must seek the "realization"

of these relatively scarce values. It must attempt to identify "sites" where those values can be realized. Consequently the Buffalo Field Office RMP must ensure that relatively scarce values are realized by providing alternative means and sites for protecting them.

THE ENVIRONMENTAL IMPACT STATEMENT MUST ADDRESS THE FULL RANGE OF RESOURCE ISSUES AND THE RESOURCE MANAGEMENT PLAN MUST ADOPT NEEDED PROTECTIONS FOR THOSE RESOURCES

Energy Development.

Energy development is a potentially harmful activity that must be addressed in the EIS and be regulated by the RMP. Wildlife habitat can be fragmented, scenic vistas can be marred and obstructed, air quality degraded, vegetation crushed and altered, and water sources drained and polluted. Primitive areas can be converted into industrial zones, and wilderness and wilderness quality lands can be trammeled and degraded by oil and gas related activities. On "split-estates" the rights, and lives, of private surface owners can be severely impacted.

The concerns expressed in this section with regard to oil, gas, and coal development also generally apply to other minerals. The EIS should make similar analyses relative to these other minerals. Additionally, many of the recommendations in this section are in conformance with the report "Land Use Planning and Oil and Gas Leasing on Onshore Federal Lands."[3] We request that BLM consider and respond to this report as it develops the RMP.

Split Estates

In the Powder River Basin, a key concern and consideration regarding energy development are "split estate" lands, lands where the surface is under private ownership—often by a rancher or farmer who has had the land in the family for generations—but where the subsurface minerals are owned by the federal government and managed by BLM. The BLM should fully consider the numerous problems and issues associated with this landownership pattern and should seek to minimize the problems minerals development can cause for the surface owner.

The BLM has issued instruction memoranda that address this issue and in addition in December 2006 it issued the report "Energy Policy Act of 2005—Section 1835 Split Estate Federal Oil and Gas Leasing and Development Practices. A Report to Congress." We ask the BLM to consider and fully abide by these directives. In addition, in 2005 the State of Wyoming adopted the Wyoming Surface Owner Accommodation Act. Wyo. Stat. § 30-5-401 et seq. We ask the BLM to fully consider this State law and to seek to implement and abide by it to the extent possible, as it must under the provisions of FLPMA. 43 U.S.C. § 1712(c)(9).

In general, we ask the BLM to fully acknowledge and to attempt to respect the deep very personal issues that can be involved with split estates. People's lives can be completely disrupted when an energy development company comes on to a person's land and develops it, perhaps in a way completely at odds with the traditional land use and goals of the owner. These

[3] National Academy of Sciences, 1989

are not little issues and the BLM has a moral obligation to fully recognize them, to seek to respect the people that are involved, and to seek to minimize these problems.

BLM should make full use of provisions in the Surface Mining Control and Reclamation Act that apply to all mineral development, not just coal. Areas used primarily for residential or related purposes can be deemed unsuitable for mineral development and withdrawn from leasing, or have development activities conditioned appropriately. 30 U.S.C. §1281. BLM also has general withdrawal authority pursuant to 43 U.S.C. § 1714. BLM should make use of these provisions, as well as its general authority to condition development, to protect private surface owners who could be adversely affected by oil and gas development.

Oil and Gas Leasing and Land Use Planning Issues.

We believe the revised RMP should prohibit future oil or gas leasing prior to completion of an EIS that analyzes the site-specific impacts of proposed leasing. It is crucial that this "look before you leap" policy be adopted in the RMP to ensure that a lease is not issued before the site specific resource values in an area are fully understood. This is necessary to ensure that an informed balancing can be made pursuant to NEPA as to whether leasing is appropriate, or is outweighed by other resource values. Waiting to do site-specific analyses until after a lease is granted is simply too late. If leasing under the revised RMP occurs prior to completion of a site-specific EIS, options are foreclosed, in contravention of NEPA, the ESA, and the definition of multiple-use in FLPMA. Alternatively, the RMP should specify that all leases should be issued with a no surface occupancy stipulation on the entire lease pending completion of a site-specific EIS to determine if surface occupancy can be allowed. We believe these recommendations are consistent with the provisions in BLM's Land Use Planning Handbook.[4]

Furthermore, it is crucial that lease stipulations that ensure necessary protection of public lands be developed and included in the RMP for attachment to all leases. See 43 C.F.R. §§ 3101.1-2 to 3101.1-3. In this regard we again refer the Buffalo Field Office to the nearly-finalized Pinedale RMP for appropriate stipulations, especially relative to wildlife protection. See Proposed Resource Management Plan and Final Environmental Impact Statement for the Pinedale Field Office at 2-139 to -147. Non-waivable no surface occupancy stipulations should attach to leases that could threaten important wildlife habitat or use areas, water resources, recreation areas, etc., particularly if site-specific impacts are unknown or poorly known when the land is leased. All riparian and wetland areas should be subject to no surface occupancy stipulations. The RMP should adopt a prohibition against leasing in any Scenic or Recreational river corridors, or potential corridors, not just Wild river corridors, and failing that no surface occupancy stipulations should be required. ACECs should not be subject to leasing, or, at a minimum, should be subject to no surface occupancy stipulations. Archeological, paleontological, and historical resources must be adequately protected. Stipulations for the protection of air quality should be considered, as is being done in the Pinedale Field Office. Lease stipulations are discussed in more detail in the section below dealing with big game species.

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[4] In areas of high industry interest that also have other important values, BLM should permit only drilling of exploratory wells. In these areas, data from the initial wells could be used in more detailed environmental studies prior to any further activity. If the studies reveal the need to halt development, lease payments could be refunded.

The RMP should guide and regulate the configuration and timing of lease offerings when parcels are offered for lease. As discussed above, the provisions in the Pinedale RMP where BLM designated three categories of land for oil and gas development is instructive in this regard. Currently, industry nominates parcels that are typically scattered throughout millions of acres of public lands. As a result, pre-leasing environmental analyses are not based on common airsheds, river drainages, or other ecological units; nor do they adequately assess cumulative impacts. The RMP should ensure that these problems are not perpetuated and should instead regulate the timing and configuration of lease offerings so that rational management is possible.

As noted above, FLPMA requires consideration of the relative scarcity of the values involved, and the availability of alternative sites for producing those values must be considered. See, FLPMA § 202(c). Often, the most appropriate opportunities for oil and gas development from both an economic perspective and ecological perspective are within known and operating oil and gas fields, while the dwindling wildlife, scenic, wilderness and other resource values throughout the rest of the area are irreplaceable and should be protected. The EIS should consider this issue, and again, in our view, oil and gas drilling is not appropriate in potential wilderness quality lands, ACECs, important wildlife habitat, and in areas with important archeological, historical, or paleontological resources due to the great relative value of the resources involved.

The RMP should explicitly prohibit oil and gas leasing whenever the reasonably foreseeable development scenario (RFD) has been exceeded, especially if this development is occurring due to new technological innovations that have not been subject to adequate environmental review. CBM is a clear example in this regard: many development proposals for this method of extracting methane far outstrip the RFDs in existing RMPs, largely because this technology was not even envisioned when many RMPs were prepared. Moreover, the environmental impacts may not have been adequately evaluated (produced water from CBM development is the obvious example). Under these conditions, leasing should not proceed until updated environmental analyses are completed, and the RMP should so provide. Recent decisions of the Interior Board of Land Appeals (IBLA) require the unique impacts of CBM development to be analyzed.

The BLM must objectively analyze any purported "restrictions" or "impediments" to oil and gas development in the RMP process, and continue regulating this activity as required by law. The BLM should focus analysis of the purported "adverse effects" of lease stipulations on energy supplies on realistic estimates of economically recoverable resources, not just "technically recoverable" resources. If oil and gas is not economical to extract, there will be no adverse impacts on supply from stipulations designed to protect wildlife, archeological sites, recreation sites and other public assets. The BLM should use well-supported high and low range estimates of gas and oil prices in any analysis of the amounts of oil and gas affected by stipulations.[5]

[5] Of course, the stipulations and other protections may be fully warranted (or required) despite any effect they may have on energy supply, and the BLM should acknowledge this.

BLM's regulations regarding environmental protection at the field development and well drilling stage are general and non-specific. See, e.g., 43 C.F.R. § 3162.5-1(b). Consequently, the RMP should adopt specific definitions of what constitutes "due care and diligence," "undue damage to surface or subsurface resources" and what specifically must be achieved to "reclaim the disturbed surface . . . ." And as discussed above, the RMP should define what "unnecessary or undue degradation" means in a direct and positive, and enforceable, way. At a minimum, the requirements of Onshore Oil and Gas Order No. 1 and the Gold Book, especially relative to reclamation plans, must be strictly complied with, and the EIS should analyze whether wells reclaimed in the past pursuant to these requirements have actually been effectively reclaimed. If not, appropriate modifications should be made to ensure effectiveness. Just as important, it is crucial that the RMP and any subsidiary instruments (leases, APDs, surface use plans, etc.) provide assurance, based on a realistic assessment of past, current and projected budgets and allocations of personnel, of adequate inspection and enforcement as a precondition to lease issuance and operations. Monitoring and enforcement needs are addressed further, below.

The lease acreages limits specified at 43 C.F.R. § 3101.2-1(a) should be monitored and enforced by BLM, and the RMP should make provision for such. BLM Instruction Memoranda (IM) also address the need to comply with these limits on lease acreage holdings, and BLM should insure compliance with these IMs. BLM's LR2000 database makes this a relatively simple undertaking. To the extent BLM views this as an activity for the State Office or other BLM administrative level, the EIS should nevertheless discuss what actions are being taken at that other level and provide citizens with information so they can become aware of and monitor those efforts.[6]

The regulations at 43 C.F.R. § 3162.3-1(a)(3) allow BLM to regulate well spacing pursuant to "any other program established by the authorized officer"—well spacing designations of the State oil and gas commission are not controlling, at least relative to surface spacing of wells. BLM should fully utilize this authority by specifying, in the final RMP, well spacing surface densities that are appropriate for protecting other resource values in an area, as required pursuant to 43 U.S.C. § 1732(b) and other law. As will be discussed below, specific limits in this regard have been defined relative to sage-grouse by the Wyoming Game and Fish Department.

BLM Must Recognize its Retained Rights in Areas That Have Been Leased for Oil and Gas Development and Assert those Rights in the RMP.

Attached as Appendix A is a detailed discussion of BLM's "retained rights" in areas it has leased for oil and gas development. We believe it is crucial that BLM fully consider the issue of "retained rights" in the EIS and that it make provisions in the RMP that fully exercise those retained rights. This is necessary for BLM to fully protect the resources it has been charged with protecting, including its obligation under FLPMA to take any action that is needed to prevent unnecessary or undue degradation of the public lands.

[6] This point applies to any activity BLM claims does not need to be fully explored in the EIS or decided in the RMP. Even if true, the RMP and RMP EIS should still assist citizens who desire to get information about these activities and to participate in them. Thus, BLM should, at a minimum, provide a discussion of what is occurring at the other administrative level and provide basic contact information.

Recently the IBLA issued an opinion that discusses BLM's retained rights, the "reasonable measures" that it can take to protect resources in areas that have been leased. Yates Petroleum Corp., 176 IBLA 144 (September 30, 2008). BLM can regulate the siting and timing of lease activities. Id. at 155 (citing National Wildlife Federation, 169 IBLA 146 (2006) and Colorado Environmental Coalition, 165 IBLA 221 (2005)). The IBLA explicitly rejected the all-too-often made claim (by BLM and industry) that the only "reasonable measures" BLM can impose on a lessee are those in keeping with the "200 meter, 60 day rule": ". . . Yates' constrained interpretation of a " reasonable measure" is at odds with the plain language of the regulation [at 43 C.F.R. § 3101.1-2], which describes what measures "at a minimum" are deemed consistent with lease rights, and does not purport to prohibit as unreasonable *per se* measures that are more stringent." Id. at 156. "BLM need not impose an NSO stipulation on a lease in order to later condition approval of a POD with seasonal restrictions. As we stated above, BLM has authority to impose restrictions on the timing of lease activities." Id. The Buffalo Field Office RMP should fully recognize the degree of these retained rights as affirmed by the IBLA—and as discussed in Appendix A to these comments—and fully exert them.

The exercise of BLM's retained rights may have special applicability with respect to the provision of the Pinedale RMP that we cited above and asked BLM to adopt in the Buffalo RMP. Again that provision provides that in areas unavailable for future leasing, "[m]anagement actions on existing leases within the Unavailable Areas would be designed to protect important habitats by excluding surface occupancy and/or disturbance to the extent this restriction does not violate the leaseholder's/operator's lease rights" with respect to greater sage-grouse, big game, and sensitive species conservation. Based on the IBLA's opinion in Yates Petroleum and the discussion in Appendix A, it is apparent that BLM can require many conservation measures on existing leases that in no way "violate the leaseholder's/operator's lease rights."

Coalbed Methane Issues.

In addition to the many water quality and quantity impacts discussed above, CBM fields can have a much higher density of wells than occurs in conventional gas fields. Consequently, issues such as habitat fragmentation, outright loss of habitat, and impacts to visual resources are magnified. Because of this, the RMP must ensure that the unique impacts of CBM development are evaluated prior to leasing, and that such analyses do not simply duplicate the analyses done for conventional gas fields. As noted above, recent IBLA decisions require consideration of the unique impacts of CBM development.

Full Field Development and Application for Permit to Drill Issues.

Local residents and other concerned citizens wanting to be involved in the actual development of oil and gas fields and/or drilling of wells are often stymied. One reason participation is stymied is that BLM does not make Notices of Staking (NOS) and APDs readily available to the public in a timely fashion. In some cases citizens are expected to physically review NOSs and APDs by visiting the BLM office, or if they do not live nearby, to make weekly telephone calls to the BLM office to request that these documents be faxed to them. That is unacceptable, and in this day and age there is no reason they should not simply be posted on

BLM websites in a timely fashion. Any proprietary or privileged information can be redacted. The lack of availability of NOSs and APDs hampers public participation, which violates NEPA. The BLM should include provisions in the RMP that will correct these problems. This recommendation is consistent with and required by the public participation provisions in the CEQ NEPA regulations, 43 C.F.R. §3162.3-1. The Mineral Leasing Act provision related to notifying persons of APDs is a minimum requirement and does not supercede or abrogate other requirements, such as those in the CEQ NEPA regulations. See 30 U.S.C. § 226(f) (providing "[t]he requirements of this subsection are in addition to any public notice required by other law.") (emphasis added).

The EIS must address the issue of granting exemptions and exceptions to lease stipulations at the APD stage. At a minimum, the RMP must identify which stipulations cannot be relaxed and the specific conditions that must be met before a request to exempt or relax any of the others will be granted. In our view, relaxing environmental protections should not be allowed. All too often exemptions or exceptions are granted when a company needs "just a few more days" to complete drilling or other activities. This is not a sufficient reason in our view—the stipulations are clear and companies should be able to complete activities as agreed to, or wait a few months to complete them when resource damage is lessened. Allowing drilling to continue essentially for the convenience of a company leads to unnecessary or undue degradation. Another common rationale for permitting exemptions or exceptions are claims that "game species aren't on the winter range yet" and other similar justifications. Rationales such as this are insufficient: drilling during a restricted period may prevent animals that would have moved onto the range from doing so, it may disturb and stress animals that are in areas adjacent to or nearby the area being drilled, it may concentrate animals in areas that are not being drilled, it may cause undisturbed areas to be overgrazed and degraded, etc. At a minimum, granting exceptions and exemptions to stipulations constitute Federal actions subject to NEPA; that is an EIS or EA needs to be prepared before they are granted. The public participation requirements of NEPA must be fully complied with. Even if the RMP provides guidance on the circumstances under which relaxation of environmental standards can be allowed, and such guidance was subject to NEPA (as it must be), BLM must still comply with NEPA when actual requests are made and the site-specific consequences can be analyzed. RMP level analysis supporting exemptions and exceptions is simply not site-specific enough to allow for approval of site-specific requests, and the RMP should so provide.

BLM employs Sundry Notices pursuant to 43 C.F.R. § 3162.3-2(a) (authorizing use of Form 3160-5, the Sundry Notice). In our experience, Sundry Notices are used for a wide array of activities, and not necessarily just for "further well operations", as required by the regulations. The RMP should define precisely when the use of Sundry Notices is appropriate, and in our view they are inappropriate for anything other than the enumerated activities mentioned at 43 C.F.R. § 3162.3-2(a). Additionally, the RMP should define when NEPA compliance is required and what opportunities exist for public involvement relative to Sundry Notices.

Toxic and Hazardous Wastes and Chemicals; Stormwater Runoff.

The use of hydraulic fracturing and the impacts of drilling fluids (muds) and chemicals must be considered in the EIS. Hydraulic fracturing and drilling fluids contain a wide array of

chemicals, many of which are clearly toxic or hazardous. The appropriateness of using these chemicals must be addressed in the EIS. We specifically recommend that, if "fraccing" is contemplated, the option of requiring water only – i.e., prohibiting the use of toxic chemicals – be considered. The RMP should provide specific guidance regarding the requirements oil and gas companies must abide by to meet the requirements of applicable laws—including community right-to-know laws--and provide for complete and thorough compliance, monitoring, and enforcement by BLM. Spill prevention and cleanup requirements must be specified, and provisions for collecting and disposing of these wastes must be provided for in detail, again with sufficient monitoring and enforcement to ensure compliance. While Federal pollution and toxic and hazardous waste law may provide some exemptions for the oil and gas industry, BLM still has sufficient authority, and responsibility, under NEPA and FLPMA to require inventory and monitoring of these chemicals, as well as spill prevention, cleanup, and mitigation plans. See, e.g., 43 U.S.C. 1732(b); 43 C.F.R. §§ 3162.4-1(a), 3162.5-1(c)-(d); Onshore Oil and Gas Order No. 1. See also Executive Order No. 13,016 (delegating authority to land management agencies to enforce CERCLA on lands they manage); BLM Manual MS-1703 (Hazardous Materials Management).

In a related issue, BLM should ensure that oil and gas drilling operations (including well pads) comply with any applicable stormwater discharge requirements. See 72 Fed. Reg. 10,308, 10,335 (Mar. 7, 2007) (adopting BLM's revised Onshore Order No. 1, which requires operators to take measures to minimize erosion and sedimentation in section IV.c.). In Natural Resources Defense Council v. U.S. E.P.A, 526 F.3d 591 (9th Cir. 2008), the Ninth Circuit Court of Appeals held that EPA's rule attempting to exempt oil and gas activities from stormwater runoff permitting requirements was illegal and invalidated the rule. Thus, stormwater runoff from oil and gas development activities are subject to Clean Water Act permitting, and the RMP should recognize and require this.

Rights-of Way.

Rights-of-way are often part-and-parcel of energy development projects, as well as many other activities. All provisions in the Mineral Leasing Act and FLPMA must be adhered to relative to rights-of-way to help ensure environmental protection. We specifically request that the EIS address several issues. The issue of the impact of power lines on birds and bats should be addressed, particularly with regard to raptors and sage-grouse. Electrocutions are one negative impact of power lines, and electrocutions could violate the Migratory Bird Treaty Act and Bald Eagle Protection Act, not to mention the ESA. The RMP should have provisions to ensure these laws are not violated if rights-of-way are granted, as well as provisions that specify thorough monitoring and the penalties that will be imposed by BLM for failure to comply. Perhaps just as importantly, power lines change the "structure" of habitat, which may create favorable conditions for some species but be unfavorable for others. For example, there is evidence that ferruginous hawks, which are becoming rare, can be placed at a competitive disadvantage to other raptors when power lines create perches in otherwise open habitat. Likewise, the increasingly imperiled sage-grouse can be further threatened if raptors are provided hunting perches in habitat occupied by sage-grouse. The EIS must take account of these kinds of effects, and the RMP must ensure they are avoided or at least mitigated. For example, the RMP should require that existing rights-of-way, with similar types of structures, be

utilized to the extent possible. Similarly, the impacts rights-of-way have on habitat fragmentation must be analyzed in the EIS, and provision made to avoid or mitigate these impacts in the RMP.

Monitoring and Enforcement.

The EIS should include a realistic assessment and analysis of oil and gas well plugging, abandonment, reclamation, and enforcement needs and problems. The RMP must provide that wells are abandoned and plugged in accordance with the provisions of 43 C.F.R. § 3162.3-4 and Onshore Oil and Gas Order No. 1. In addition, the BLM must not only quantify the needs that projected development will entail in terms of personnel and costs, it must also explain how it will ensure that these needs will in fact be met. In our view, if BLM lacks resources to engage in monitoring and enforcement sufficient to ensure compliance with all requirements applicable to oil and gas drilling on public lands within the RMP area, then it should not allow further development to occur—it should deal with the backlog of cleanup needs first. BLM has sufficient authority, and a responsibility, to prevent development if it lacks sufficient resources to ensure compliance with requirements applicable to oil and gas development. See, e.g., 43 U.S.C. 1732(b). The bases for this assertion are discussed in detail in Appendix A.

The RMP should ensure that reclamation standards are enforced and increase bonds to cover actual reclamation costs, so neither taxpayers nor landowners are left to foot the bill. In the past, BLM has estimated the cost of reclaiming just one well ranges from $2,500 –$75,000. The EIS should include up-to-date estimates for costs of reclamation of development activities in this area. The RMP should increase bonds as needed to ensure the full costs of reclamation are met and should not rely on per lease bonds (currently set at $10,000) or on statewide bonds (now $25,000) if they will not cover anticipated costs. BLM has this authority. See, e.g., 30 U.S.C. § 226(f); 43 C.F.R. §§ 3104.1(a), 3104.5, 3106.6-2. This authority and the responsibility of BLM to adjust bonds as needed to meet reclamation needs has been confirmed in recent BLM IMs.

Coal Development.

The RMP must ensure full compliance with the Mineral Leasing Act and Surface Mining Control and Reclamation Act (SMCRA) for coal development in the RMP area. The Powder River Basin is of course a massive coal producing area. The RMP must assure the environmental protection performance standards and reclamation standards required by SMCRA are fully adhered to. The "federal lands program" for coal mining must also be carefully adhered to. The RMP should include provisions that will ensure that BLM works carefully with the State in the regulation of coal mining, and BLM must ensure the State is adequately implementing and enforcing the program, particularly with respect to vegetation reclamation requirements. See 30 U.S.C. § 1273 (providing the Federal lands program must consider the "unique characteristics of the Federal lands in question" and that "at a minimum" the Federal lands program shall include the requirements of the State's program). The EIS should evaluate whether the State is in fact adequately protecting public lands resources and develop means to protect those resources as needed. It should also address any potential new coal mining or expansion of coal mining that might occur so that BLM can work with the Office of Surface Mining to ensure the requirements related to mining plan decisions can be fully complied with.

1022

The provisions for unsuitability determinations in SMCRA must also be fully utilized and complied with. BLM should ensure that "Determinations of the unsuitability of land for surface coal mining . . . shall be integrated as closely as possible with present and future land use planning and regulation processes at the Federal, State, and local levels." 30 U.S.C. § 1272(a)(5). BLM should ensure that the suitability review for Federal lands complies with the requirements at 30 U.S.C. § 1272(b) and that any needed withdrawals and conditions are made, as provided for in that section. Similarly, BLM should ensure that existing suitability determinations are as up-to-date as possible and in conformance with the RMP. As mentioned above, the provisions at 30 U.S.C. § 1281 should be fully utilized to protect surface owner rights. Roadless areas, ACECs, unique wildlife habitats, and other special management areas should not be deemed suitable for coal mining.

BLM must carefully abide by its regulations at 43 C.F.R. subpart 3461, which govern unsuitability. We would specifically note that areas containing significant sage-grouse habitat should likely be designated as unsuitable for coal mining under Criteria 14 and 15 of the BLM's regulations because these areas are high priority habitats for migratory bird species or habitat for a species of high interest. 43 C.F.R. §§ 3461.5(n)(1), (o)(1).

Renewable Energy Sources and Global Warming.

The EIS must fully address renewable sources of energy in at least two regards. First, it must address potential renewable sources of energy available from lands within the RMP area. It should address the relative merits of pursuing these types of energy developments versus fossil fuel development. It should fully address the potential negative impacts of renewable sources of energy. For example, wind energy farms can have negative consequences for avian species if not properly designed and sited. Biomass energy, if it is derived from old growth forests or other inappropriate sources, can wreak havoc on ecosystems or be little more than a guise for logging. The EIS must address these issues fully and openly. The RMP should adopt provisions to ensure these negative effects are avoided or at least mitigated. Second, the potential for renewable energy sources developed elsewhere to obviate the need for fossil fuel development in the RMP area should be addressed. Almost all agree, fossil fuels are not a long-term solution to our energy needs and that renewable energy production must be fostered, so the EIS should address this aspect of energy development.

The EIS should also consider ways the BLM itself can maximize the use of renewable or alternate energy sources, and increase the efficiency of energy use in all activities BLM undertakes, including in its buildings and automobile fleet. The RMP should require increased use of renewable or alternate sources of energy by BLM and should include requirements for increased energy use efficiency. These efforts should be documented and publicized.

The EIS should address the problem of global warming and the steps BLM can take to reduce this problem. For example, coal seam fires could unnecessarily contribute to global warming. Flaring of hydrocarbon by-products contributes to global warming, and much of that may be unnecessary. Methane leaks or seepage from oil and gas wells may be especially significant given the extremely high heat trapping properties of methane. It is our understanding

that considerable amounts of carbon dioxide in methane is separated out and simply vented. BLM should make a thorough analysis of how activities it undertakes or authorizes contribute to the generation of carbon dioxide or other "greenhouse gasses," and the RMP should make provisions to reduce and minimize them. Several Western States are pursuing the Western Climate Change Initiative. The BLM should consider the work of these states and seek to support it in the RMP. Information is available on these efforts by doing a simple Google search on "Western Climate Change Initiative." Furthermore, the BLM has long been under a directive from the Secretary of the Interior to consider climate change issues when undertaking long-term planning. Exhibit 1.

Wind Energy.

There is a strong movement toward wind energy development in Wyoming. We strongly support the development of wind energy and think that it is crucial for this country to move toward the use of renewable sources of energy rather than fossil fuels. This is necessary both to reduce the environmental impacts of fossil fuels development and to reduce the contribution toward global warming made by burning fossil fuels. That said, as noted above the development of wind energy itself can have significant environmental impacts, especially on wildlife and visual quality. Therefore, it is crucial for the EIS to consider this issue and for the RMP to make provisions to avoid these problems. The RMP should identify areas that are suitable and not suitable for wind energy development, and areas where development may be acceptable if appropriate mitigation (best management practices) is employed. The RMP should provide for careful, site-specific analysis of wind energy sites before proposals are too far advanced or committed to (including via financial commitments). Careful attention to and regulation of siting will likely eliminate or at least greatly reduce any problems attendant to wind energy development.

The Biodiversity Conservation Alliance recently prepared a report entitled "Wind Power in Wyoming: Doing it Smart from the Start" that identifies areas that may be appropriate for wind energy development. We urge BLM to fully consider this report. It is available at the BCA website. Likewise the State of Wyoming has developed similar maps showing where wind energy development may be appropriate. Again, we urge the BLM to fully consider this information. Similarly, the Western Governors' Association through its Western Renewable Energy Zones (WREZ) initiative is moving toward preparation of maps of this sort that will be useful to BLM.

Livestock Grazing.

Livestock grazing can have profound impacts on wildlife and the public lands. See 43 U.S.C. §§ 1901(a)(1) (determining that "vast segments" of the public rangelands are in unsatisfactory condition), 1751(b)(1) (finding that much federal rangeland "is deteriorating in quality"). Recognizing this, BLM adopted standards and guidelines for grazing administration in 1995 that are designed to restore and protect rangeland health and degraded range conditions. See 43 C.F.R. Subpt. 4180. The RMP should provide a clear and binding schedule for ensuring that the three steps the grazing rules establish for determining if grazing needs to be modified are

accomplished in a timely manner.[7] Furthermore, for allotments that have already been assessed, provision should be made in the RMP for future assessments and determinations—the standards and guidelines are intended to be an ongoing, prominent factor in grazing management, and the Fundamentals of Rangeland Health are standing national requirements. It is also worth noting that pursuant to the Public Rangelands Improvement Act (PRIA), "the goal" of rangeland management "shall be to improve the range condition of the public rangelands . . . ." 43 U.S.C. § 1903(b) (emphasis added).

BLM's standards and guidelines and the Fundamentals of Rangeland Health also have potential applicability and utility for properly managing all resource uses in the RMP area. For example, many standards and guidelines and the Fundamentals of Rangeland Health would be appropriate as stipulations to oil and gas leases to ensure there is no unnecessary or undue degradation. Consequently, as part of this planning effort, the BLM should consider what changes if any are needed to extend the standards and guidelines and Fundamentals of Rangeland Health to all other programs, and the RMP should provide for their adoption as requirements to guide all future management activities and decisions. The standards and guidelines, and the Fundamentals of Rangeland Health, provide a convenient existing means to meet many of the requirements highlighted in these comments, which BLM, through the RMP, should take advantage of.

In addressing livestock grazing in this plan, we urge the BLM to pay special attention to the following. Monitoring and follow-up monitoring needed to ensure any changes necessary to meet the standards and guidelines must be provided for in the RMP. The condition of springs and riparian areas, including biotic and abiotic components, and whether they are in proper functioning condition must be given special attention. The condition of upland areas, including cryptobiotic crusts must be carefully monitored and protected. In all cases where these important resources and areas are not functioning properly, the BLM must include in the RMP mandatory steps that will be taken to remedy these problems.

In accordance with the standards and guidelines, and provisions in the FLPMA and PRIA, the EIS should determine the suitability of lands within the RMP area for livestock grazing and the RMP should require adjustments accordingly. There is no doubt BLM has this responsibility and authority. See, 43 U.S.C. §§ 315 (grazing districts must be chiefly valuable for grazing), 315a (BLM can do "any and all things" necessary to manage grazing), 1701(a)(8) (public lands to be managed to protect environmental values), 1702(c) (multiple use management allows for areas to be deemed unsuitable for certain uses and requires consideration of relative resource values), 1712(a)-(c) (land use plans to be based on multiple use), 1712(d) (land use classifications can be modified or terminated), 1712(e) (allowing for elimination of principle or major uses), 1732(c) (revocation of permits authorized), 1752 (allowing discontinuation of grazing permits and a determination in land use plans of whether lands "remain available for domestic grazing"), 1903(b) (allowing for discontinuation of grazing pursuant to land use planning decisions). See also Public Lands Council v. Babbitt, 529 U.S. 728 (2000) (holding that allocation of forage in a land use plan pursuant to 43 C.F.R. § 4100.0-5 does not, on its face, violate the Taylor Grazing Act). Livestock grazing, like all land uses, should only occur in areas

[7] The three steps are: assess rangeland health, determine if grazing is a significant factor causing unhealthy rangelands, take appropriate actions to eliminate or modify grazing by the start of the next grazing season.

where it has been carefully determined, pursuant to the land use planning process, to be a suitable use of the land.

As noted above, the impacts of grazing on riparian areas should receive particular attention in the EIS, and the RMP should make binding and mandatory provisions to deal with the impacts of grazing in riparian areas. BLM's Riparian-Wetlands Initiative acknowledged the importance of insuring that livestock grazing is compatible with riparian habitat protection, and set an ambitious goal for the agency to achieve. The RMP should achieve these goals. Upland areas, too, may require special livestock management in order to ensure the restoration of fragile areas and cryptobiotic soils, or to protect remnant high condition/seral stage vegetation. BLM should not rely on water developments as a way to transfer grazing pressure from riparian areas to other (usually upland) areas. This approach often does not solve problems; it just moves them from ecosystems with a relatively high ability to recover due to the availability of water (riparian areas) to ecosystems with little or no ability to recover from excessive livestock grazing (uplands).

Requirements related to the Clean Water Act were mentioned above, but they bear repetition in the context of livestock grazing. BLM should ensure there is sufficient water quality monitoring relative to the impacts of livestock grazing, and take concrete steps to guarantee that livestock grazing does not adversely impact water quality or impair designated beneficial uses of these waters. The BLM must collect all data necessary to evaluate and achieve compliance with water quality standards, including in particular standards related to fecal coliform bacteria. Compliance with the Safe Drinking Water Act should also be addressed.

Cryptobiotic Soils

With respect to cryptobiotic soils we offer these further comments. The BLM should survey the extent of cryptobiotic soils crusts in the Buffalo Field Office and take appropriate steps to protect areas of high soil crust concentration or particularly vulnerable areas. Cryptobiotic crusts play an essential role in soil health and provide ground cover throughout much of the Buffalo Field Office. Soil crusts help to prevent desertification in arid regions and aid in mineral uptake in vascular plants (particularly nitrogen fixation)[8]. Grazing, off-road vehicles, and energy development are the three major causes for declines in cryptobiotic crusts in the Buffalo Field Office and the BLM should regulate these activities with the goal of protecting soil crusts in sensitive areas.

Off-Highway Vehicles.

[8] Belnap, Jayne. 1995. Surface disturbances: Their role in accelerating desertification. Environmental Monitoring and Assessment. 37(1-3), 39-57. Kimball T. Harper and Jayne Belnap, 2001. The influence of biological soil crusts on mineral uptake by associated vascular plants. Journal of Arid Environments. 47(3): 347-357. Belnap, Jayne. 1996. Soil surface disturbances in cold deserts: effects on nitrogenase activity in cyanobacterial-lichen soil crusts. Biology and Fertility of Soils. 23(4): 362-367.

1022

Off Highway Vehicle (OHV) use is addressed by Executive Orders 11644 (1972) and 11989 (1977), and by regulations at 43 C.F.R. § 8340 *et seq*. Section 8342.1 provides that:

> (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air or other resources of the public lands, and to prevent impairment of wilderness suitability;
> (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruptions of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats;
> (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors;
> (d) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic or other values for which such areas are established.

Based on this language, and on the enormous potential for damage posed by the use of OHVs, we urge the BLM to require the following in the RMP:

- The RMP should designate specific trails open for OHV use;
- Trails designated as open should be clearly marked so that all users will be aware of where OHV use is, and is not, allowed (this will also assist in effective law enforcement);
- The RMP should prohibit OHV use unless routes are specifically marked and designated as available for that use (i.e., BLM should adopt a "closed unless posted open" policy);
- Even where a route is recognized, constructed, and maintained, BLM still has a responsibility to determine whether recreational OHV use is appropriate on that route. Similarly, where routes are open for administrative purposes (including authorized uses by permittees), BLM should still ensure the authorization is tailored as narrowly as needed to ensure resource protection while allowing for the valid administrative access. The RMP should make provisions that reflect these requirements.
- The RMP should implement effective, frequent monitoring of OHV impacts, and set clear benchmarks which, if exceeded, trigger closure of an area to OHVs. If monitoring and enforcement cannot be effectively accomplished due to lack of personnel or resources, the RMP should not allow the use.
- In accordance with 43 C.F.R. § 8342.2(c), the RMP should prohibit OHV use in wilderness study areas, other areas the BLM has inventoried and found to have wilderness character, and areas within citizen-proposed wilderness areas. These lands comprise a fraction of the lands within the RMP area, and leave plenty of lands open for OHV use elsewhere.
- The RMP should prohibit OHV use in critical wildlife habitat, winter range, areas critical for nesting, breeding or other reproductive behaviors, and habitat for threatened, endangered or sensitive species, during critical seasons.

31

- Riparian areas and wetlands are of critical importance to the biological functioning of the RMP area, and are exceedingly rare. OHVs, except on designated trails, are not appropriate in these fragile ecosystems, and the RMP should so provide.
- Pursuant to 43 C.F.R. § 8342.2(a), OHV use impacts must be evaluated "on all resources and uses in the planning area." Thus, the EIS must evaluate the impacts of OHV use on the full range of resources present in the area, including wilderness quality lands, non-motorized recreation, grazing, water quality, wildlife habitat, scenic quality and other uses.
- The RMP should prohibit unrestricted, cross-country OHV use in the RMP area.

Furthermore, too often we have seen RMPs promise to develop travel plans later, but they never do materialize as other post-planning priorities take over. Moreover, the stopgap method of allowing OHV use on "existing" trails pending completion of the trail designation process should not be pursued because it equates to an open designation as OHVs create new tracks. The "existing trails" designation also creates enforcement problems, with BLM rangers unable to determine if a trail was existing or just-created.

In general, BLM should evaluate the road system in the RMP area and determine the minimum system of routes necessary. Based on that analysis, BLM should close redundant routes; roads with no destination or purpose; illegal, "ghost," or "wildcat" routes; and roads in sensitive areas. The RMP should make these closures immediately effective, provide for the reclamation of closed routes, and ensure sufficient funding for reclamation, monitoring, and enforcement.

Noise.

The EIS and the RMP itself should address issues related to noise, and its impact on the remoteness and quietness that so many seek on the public lands. We particularly ask that the EIS address, and the RMP provide requirements to minimize, the noise created by oil and gas development activities, especially the noise problems from compressors and compressor stations, as well as flaring and fraccing. Noise occurring due to oil and gas exploration and well drilling should also be minimized. OHV noise should also be addressed.

Invasive Species, Noxious Weeds, and Management of Native Vegetation.

We ask that BLM ensure the RMP provides for compliance with Executive Order 13112, which established requirements and procedures Federal agencies are to adhere to relative to invasive species. Section 2 of the Executive Order requires BLM to identify actions that may affect the status of invasive species and to then:

> Use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and

provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them . . . .

Just as important, the Executive Order requires BLM to "not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions." The EIS should fully analyze the extent of the invasive species problem in this area, the causes, and options for both restoration and prevention in the future.

The flip side of preventing invasive species from becoming established is protecting native plant species and communities, especially rare and special status species. The BLM should conduct surveys to determine the location and characteristics of native plant communities and rare or special status species. The survey results should be presented in the EIS, and the RMP should establish standards for protecting native plant communities and rare or special status species. BLM's grazing regulations and the PRIA establish that native species and plant communities are to be given preference over non-native species and communities (whether invasive or intentionally created), so the RMP should establish standards to ensure these requirements are met. To prevent invasive species dominance, and to favor native species and plant communities over non-natives, we make the following requests:

- The RMP must insure that no cross-country vehicular (motorized and bicycle) travel is allowed in known habitat or locations of sensitive plant species.
- The RMP must not allow surface disturbing activities in threatened, endangered or sensitive plant species habitat.
- The RMP must target areas with threatened, endangered, or sensitive plants for noxious weed control activities as a first priority.
- The RMP must exclude areas with threatened, endangered, or sensitive plants from fuelwood cutting areas.
- BLM must review grazing allotments and address the protection of areas with threatened, endangered, or sensitive plants species.
- The RMP must not permit communication sites, oil and gas drilling pads, utility rights-of-way, and road rights-of-way in known areas with special status species populations.
- BLM must augment law enforcement personnel and field staff, and instruct them to concentrate efforts in areas with special status species habitat in order to curb noncompliance activities and protect sensitive species from irreversible impacts.
- The RMP must not allow reseeding (particularly with non-native species) or surface-disturbing restoration after fires in areas with special status plant species, as the natural diversity and vegetation structure must be allowed to provide regeneration.
- BLM must survey the planning area to document all "relict" or undisturbed plant communities—areas that have persisted despite the warming and drying of the interior west over the last several thousand years, or have not been influenced by settlement and post-settlement activities (livestock grazing, roads, energy development). These are unique areas that can be used as a baseline for gauging impacts occurring elsewhere in

the planning area. The RMP should provide that relict and undisturbed plant communities must be managed for their protection; no activities that could negatively affect these communities should be allowed.

- Protection of riparian plant communities should receive special attention in the RMP (see section on riparian habitat management, below), and native cottonwood and willow communities along riparian areas should be targeted for protection and reestablishment where they have been eliminated or degraded.

There are a variety of vegetation restoration methods that can be used to restore and promote a natural range of native plant communities in the planning area. BLM must prohibit methods and projects that do not achieve the objective of restoring and promoting a natural range of native plant communities. Consequently, we believe BLM should establish the following standards in the RMP:

- Chaining, roller-chopping, or similar methods of vegetation manipulation must be prohibited due to the widespread disturbance they cause.
- Livestock must be excluded from a restoration/revegetation sites long enough to document that the restoration is successful.
- Although control of noxious weed species is a priority, chemical treatments of noxious weed species should be used <u>only</u> if damage to other resources in the area is significant, imminent and certain, and if damage to other resources (e.g., the damage to native species) is determined to be of less significance than the noxious weed problem. Other means of noxious weed control should be given first priority.
- BLM must prioritize areas for which fire could improve the vegetation communities and then allow natural fires to burn in these areas (see section on fire policy, below).
- BLM must establish monitoring plots to determine the effectiveness of the treatments used for invasive plant control *and* to provide baseline data of overall change in conditions.
- Fuelwood harvesting must be carefully regulated, and should be concentrated in areas that have already been disturbed.

<u>Wilderness, Wilderness Study Areas, and Citizens' Proposed Wilderness Areas.</u>

The EIS must address protection of existing wilderness study areas (WSA's), such as the Fortification Creek WSA. The provisions at 43 U.S.C. § 1782(c), 43 C.F.R. Part 6300, as well as the Wilderness Act itself, must be fully complied with. The RMP should establish standards to ensure that the wilderness qualities of existing wildernesses and WSA's are not impaired or degraded. For example, we believe oil and gas development activities in WSAs should be prohibited or regulated to the full extent permitted by law. Exploration leaves long-term marks on the landscape, which should be avoided. Oil and gas drilling activities also impair and degrade wilderness qualities and should be prohibited except under no surface occupancy stipulations.

Likewise, we believe Citizens' Wilderness Proposals (CWP) should be considered as to their wilderness qualities. The wilderness qualities of these areas should be protected to the maximum extent possible even if they are not eligible for wilderness

designation or WSA status. For example, they could be considered for designation as ACECs, or for NSO stipulations if the area is subject to oil and gas leasing. While BLM may be currently limited in designating new WSAs, it does nevertheless operate under guidance to consider and manage for wilderness qualities in areas such as these. We believe all the CWPs have important wilderness qualities which should receive recognition and protection in the EIS and RMP, respectively. This issue is discussed further in our supplemental comments addressing "special places" and the need to protect them.

Wild and Scenic Rivers.

In formulating, analyzing, and making decisions regarding future management in the RMP area, the BLM must comply with the National Wild and Scenic Rivers Act of 1968. 16 U.S.C. §§ 1271-87. As Congress made clear, the purpose of the Act is to safeguard one of the Nation's most spectacular and critical resources—our rivers. To that end, the Act requires that rivers of the Nation which

> possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, *shall* be preserved in free-flowing condition, and that they and their immediate environments *shall* be protected for the benefit and enjoyment of present and future generations.

16 U.S.C. § 1271 (emphasis added).

In fulfilling the requirements of this statute, the BLM should consider that rivers and streams in the RMP area are of tremendous importance to the wildlife and fish, and the beauty and recreational appeal of the area. Water is the lifeblood of the arid west, and a priceless resource. Unless the BLM is willing to protect these vital corridors, its efforts to preserve ecosystem integrity, conserve wildlife and fish, and manage the public lands in the best interests of the American people, may be for naught.

Recognizing the importance of rivers to every aspect of public land values, the Wild and Scenic Rivers Act requires the BLM, as part of its land use planning duties, to consider whether the rivers and streams under its jurisdiction qualify for inclusion in the Wild and Scenic Rivers System. 16 U.S.C. § 1276(d); BLM Manual MS-8351 (Wild and Scenic Rivers Policy). To do this, the agency must first make a determination of which river segments are "eligible" for inclusion in the system. The agency must consider all stream segments under its jurisdiction and must recognize that all free-flowing rivers and streams with outstandingly remarkable values are eligible for Wild and Scenic River designation.

Second, the BLM must determine which of the eligible segments are "suitable" for designation as Wild and Scenic Rivers. In this phase, BLM evaluates rivers eligible for inclusion in the system in terms of conflicting uses. Conflicting uses must be real and reasonably foreseeable, not theoretical or unsubstantiated. The BLM's suitability determinations must reflect that the law favors inclusion of eligible rivers in the Wild and Scenic Rivers System, as opposed to exclusion.

As BLM practice makes clear, when the agency deems a river eligible for status as a Wild and Scenic River, it must manage the river to preserve its outstandingly remarkable qualities until the agency can address its suitability. In turn, once the agency determines a river is suitable, the agency must take all management steps necessary to protect the river so that Congress may have a meaningful opportunity to include the river in the Wild and Scenic Rivers System. To do otherwise would run counter to agency policy, undermine the Act, and disregard FLPMA's requirement that the BLM protect resources valuable to the American people, such as rivers that are eligible or suitable for Wild and Scenic River designation, for the benefit of future generations and without undue degradation of these resources. 43 U.S.C. § 1702(c); 43 U.S.C. § 1732(b). Additionally, BLM must reconsider rivers that have previously been inventoried to determine whether they may now possess the qualities required for designation as a Wild or Scenic River.

Locatable Minerals.

The location of a mining claim alone does not give rise to a vested property right. Instead, a mining claim only creates a vested property right if there has been a discovery of a valuable mineral; until that condition has been demonstrated, no rights exist. In determining whether such a discovery has been made, the BLM must take into account the cost of the recovery of the mineral and the costs associated with compliance with all State and Federal laws and regulatory requirements, including those intended to protect the environment. Unless a claimant can prove that it can recover the mineral at a profit, the BLM has no choice but to reject a claimant's mining plan of operations. The BLM has the authority to contest mining claims on these grounds "when such action is deemed to be in the public interest." Of determinative importance in defining the "public interest" is the requirement that BLM "shall" take actions to prevent unnecessary or undue degradation of the public lands, and this provision has special force and effect relative to "hard rock" mining. 43 U.S.C. § 1732(b). The RMP must include binding provisions that reflect these requirements. Full compliance with the regulations at 43 C.F.R. Part 3809 should be ensured (BLM's hardrock mining regulations).

The BLM should consider withdrawal of special places from mineral entry. Often mineral claims have a low potential for economically recoverable mineral deposits, there can be severe impacts due to the scale of modern mining activities, and the public interest of protecting more valuable resources (including wildlife habitat, water, recreation, wilderness, etc) can outweigh the mineral values. Special places that should be considered for withdrawal include, but are not limited to, lands with wilderness qualities including citizens' proposed wilderness areas, important wildlife habitat, water sources, and unique geologic formations.

Uranium

After many years of dormancy there is greatly increased interest in uranium mining. Much of the interest relates to "in-situ" uranium recovery where a solution of chemicals is pumped into the deposit to extract the uranium rather than via conventional excavation methods. There is substantial potential for uranium mining in the Buffalo Field Office. Given the potential for increased uranium mining, the Buffalo EIS and RMP should carefully consider this issue. In

particular the BLM should concern itself with the water quality impacts that can result from the chemicals used in in-situ mining and should seek to mitigate these impacts. It is crucial that existing water sources and water rights not be threatened by this activity.

Visual Resource Management.

It is BLM policy that visual resource management (VRM) classes are assigned to all public lands as part of the Record of Decision for RMPs. The objective of this policy is to "manage public lands in a manner which will protect the quality of the scenic (visual) values of these lands." Under the authority of FLPMA, the BLM must prepare and maintain on a continuing basis an inventory of visual values for each RMP effort. 43 U.S.C. § 1701. In addition, NEPA requires that measures be taken to " . . . assure for all Americans . . . aesthetically pleasing surroundings." Once established, VRM objectives are as binding as any other resource objectives, and no action may be taken unless the VRM objectives can be met. The RMP must make clear that compliance with VRM classes is not discretionary.

In order to comply with the laws and regulations, the visual qualities of all lands within the RMP area must be inventoried, and VRM classifications for such lands must be analyzed in the EIS. We submit that all areas with wilderness qualities, whether citizen-proposed or otherwise, must be designated as VRM I "to preserve the existing character of the landscape." This would also be true for any visual ACECs identified during the RMP revision process. Visual sensitivity within these areas is very high; the visual quality of these areas is of deep concern to thousands of individuals and local and national organizations; and any action that would impact visual resources within these areas would be extremely controversial and typically unnecessary or undue.

Oil and gas development severely degrades the visual quality of an area. We submit that all areas not currently being developed for oil and gas production should be classified as at least VRM II, in order to "retain the existing character of the landscape." The fact that development has occurred in the past, however, should not limit VRM classifications. Indeed, BLM objectives for visual resource classes contemplate rehabilitating such areas in order to meet the VRM class determined through the RMP revision process. In addition, it must be noted that other management actions must reflect VRM classifications. For example, oil and gas leasing may need to be prohibited or no surface occupancy may be required so as to comply with the VRM class.

Cultural and Paleontological Resources.

Most if not all historical, archeological, and paleontological resources (hereinafter, "cultural resources") are strictly non-renewable: once marred or destroyed, they are forever lost to future generations. Such fragility demands the utmost care and humility from BLM managers and planners. The RMP should reflect—and require—this conservative approach to managing these priceless and irreplaceable resources.

BLM's multiple-use mandate requires land managers to consider the value of cultural resources in their decision-making process. Unfortunately, these resources are frequently given short shrift in this calculus. Their value is not easily measured, and as a result they are sacrificed

in pursuit of more obviously economically profitable resources. The RMP should ensure this problem is avoided.

RMPs are the principle guide for the BLM's management of cultural resources. Therefore, BLM's preparation of the RMP EIS provides an excellent opportunity for the agency to address concerns about these resources and to implement policies that will protect and preserve cultural resources.

The BLM's management of cultural resources is governed and guided by a host of laws, orders, and regulations. These include, but are not limited to, the Antiquities Act of 1906, the National Historic Preservation Act (NHPA), Executive Order 11593, the Archaeological Resources Protection Act (ARPA), and the Native American Graves Protection and Repatriation Act (NAGPRA). BLM's decisions regarding cultural resource management are also governed by the FLPMA and NEPA. The BLM must adhere to these and other laws when preparing and implementing the RMP, and must provide evidence of cultural resource consideration as part of the EIS prepared as part of the RMP revision process.

As noted above, the BLM's multiple-use mandate requires managers to balance resource use and resource preservation. Land use plans should take into account the effects other land and resource uses may have on cultural resources. The BLM Manual notes that the need for additional information should be evaluated, responsibilities assigned, and schedules established at the outset of the planning process. In other words, not only must the BLM examine the effects of other land and resource uses on cultural resources, it must evaluate whether or not it possesses sufficient information to assess these potential resource conflicts. If the agency lacks enough information to make informed decisions, it must collect data according to a plan and schedule established at the outset of the planning process. The BLM should clearly spell out the process the agency will follow in order to comply with the procedures outlined by BLM Manual.

Of particular concern in the planning process is the preparation and maintenance of cultural resource inventories. FLPMA requires the Secretary of the Interior to "prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values." 43 U.S.C. §1711(a). Surveys for cultural resources are also mandated by ARPA. See 16 U.S.C. 470ii (requiring the Secretary of the Interior to develop plans for surveying lands to determine the nature and extent of archaeological resources and to prepare a schedule for surveying lands that are likely to contain the most valuable archaeological resources); Executive Order 11593, Protection and Enhancement of the Cultural Environment (requiring federal agencies to nominate to the Secretary of the Interior all sites that appear to qualify for listing on the National Register of Historic Places). Further, the NHPA mandates that the BLM establish a preservation program to identify, evaluate, and protect historic properties, and to nominate qualifying properties to the National Register of Historic Places. See 16 U.S.C. § 470h-2.

The RMP must ensure these legal mandates are fully complied with. The required inventories and programs can—and should—serve to identify areas of resource sensitivity and should be used proactively by the BLM in its planning and management in order to avoid resource conflicts.

Another concern is consultation with Native American tribes during the planning process. BLM is required to consult with tribes under FLPMA, NEPA, American Indian Religious Freedom Act, NAGPRA, and Executive Order 13007, in order to learn of tribal concerns and places of traditional religious or cultural importance to the tribe within the planning area. The BLM must specifically request the views of tribal officials, and must solicit the views of traditional leaders or religious leaders. BLM must be diligent in its pursuit of this information.

BLM can prevent unauthorized use of cultural properties through a variety of measures, including administrative protection measures. The BLM Manual specifically notes that the BLM's protective measures may include "withdrawal, closure to public access and off-road vehicles, special designations," etc. The EIS should identify areas where cultural sites are at risk, and the RMP should employ one or more of these administrative measures to protect these resources. The areas designated should be of sufficient size to allow viable protection of the resources; designation of just the site itself may not allow for effective management. More specifically, the BLM should consider closing culturally sensitive areas to mineral leasing and entry, grazing, and designating ACECs to protect fragile cultural resources. Also, the RMP should specify a travel plan for OHVs that limits vehicle travel to routes that do not pass near culturally sensitive areas. All OHV routes designated in the RMP should be surveyed for cultural resources to ensure the protection of those resources. Finally, the EIS should address the impacts of oil and gas exploration and development activities on cultural resources, with particular attention being given to the effects of the use of explosives or "vibreosis" vehicles during exploration activities. The RMP should make provisions that ensure these activities will not destroy or alter cultural resources.

Recreation Management.

The recreation resource on public lands is becoming increasing valuable: more people want to recreate on a finite amount of public land. Recreationists desire solitude, clean air, clean water, vast undeveloped landscapes, and a place to witness healthy natural systems thriving with native plants and wildlife. The RMP should accommodate those desires.

In order to ensure the continued viability of these desired experiences, the BLM must manage public lands under a "recreation opportunity spectrum," or ROS. Increasing recreation pressure dictates the need to include more lands within ROS classes that protect the land's undeveloped, wild character, i.e. primitive and semi-primitive non-motorized recreation classes. These designations allow for multiple activities of the sorts most desired by the public: camping, picnicking, hiking, climbing, enjoying scenery, wildlife or natural features viewing, nature study, photography, spelunking, hunting (big game, small game, upland birds, waterfowl), ski touring and snowshoeing, swimming, fishing, canoeing, sailing, and non-motorized river running.

All lands within WSAs, proposed wilderness, and ACECs should be managed as ROS class primitive, while other spectacular and important lands in the RMP area, such as important wildlife habitat, should be managed as ROS semi-primitive non-motorized.

1022

Socio-Economics.

As noted above, consideration of oil and gas development potential in the RMP area must address potential oil and gas reserves/resources from the standpoint of economically recoverable resources and not just technically recoverable resources. The purpose of the RMP is to guide actual management actions for approximately 15-20 years; oil and gas extraction activities will be largely driven by real world economics, not by the technical feasibility of extraction, which only sets a theoretical outer boundary to the actual level of development. It would, of course, be appropriate and useful for BLM to address economically recoverable oil and gas resources from the standpoint of "high" and "low" price scenarios.

Specifically, economic recoverability should guide BLM's development of the Reasonably Foreseeable Development Scenario (RFD) applicable to oil and gas development in the RMP area. Basing the RFD, and resulting forecasts (like job growth and revenues) and decisions on technically recoverable resources unrealistically inflates the likely level of oil and gas development and has little utility in the real world. As mentioned above, development of the oil and gas RFD on the basis of economically recoverable resources is also necessary for a proper analysis of connected, related, and cumulative actions and impacts, as required by NEPA.

In considering oil and gas development potential in the RMP area, BLM should address the viability of recovering oil and gas from existing—proven—fields as opposed to creating new fields where the oil and gas potential is less known. In our view, it is appropriate from economic and environmental perspectives for BLM to favor development in existing fields and discourage it or prohibit it in undeveloped areas, especially in areas with other important resources. See 43 U.S.C. § 1732(b).

BLM should address the economics—as well as the technical feasibility— of requiring oil and gas companies to utilize directional drilling and other techniques that reduce the "footprint" of oil and gas development activities. Oil and gas companies have a vested interest in reducing short-term costs. In contrast, BLM has a duty to define what drilling techniques will be utilized on public lands (as well as when they will be used and where they will be used) on the basis of broader public interest considerations. See 43 U.S.C. §§ 1732(b); 1702(c) (multiple use to be based on relative values and "not necessarily [ ] the combination of uses that will give the greatest economic return or the greatest unit output").

Considerations of the contribution of the oil and gas industry to employment, income, and other economic measures must include a national, State, and regional perspective of the relative value of these activities. As mentioned, FLPMA requires BLM to manage the public lands to achieve what is "best" for the "American people," not just local economies. Moreover, these analyses must consider not only the present contribution of various sectors of the economy, but also trends that are apparent. The EIS should realistically address the socio-economic impacts of the boom and bust development cycle often associated with oil and gas drilling and development. In addition, BLM should use the Headwaters Economics economic profile system to better understand the socioeconomic profile of the RMP area. **http://www.headwaterseconomics.org/eps/index.php**. This profile system will help the BLM

40

to better understand the contribution of energy development versus other industries and activities to the local economy.

Moreover, the BLM should concern itself with the economic returns to the government from the activities it authorizes or proposes to authorize, and optimal returns might well be achieved via a paced form of development.

Fire And Fire Policy.

The EIS should address issues related to fires and fire policy. It is crucial that the RMP establish an ecologically based fire restoration program so that fire can play its natural, and necessary, role in the RMP area. With the necessary ecological role of fire defined as an underpinning, the RMP can then address more specific issues, and should:

- Provide that fire suppression efforts and related vegetation management efforts (like thinning) are focused on the "wildland urban interface." Remote areas where fire causes few if any problems and may in fact be an important component of ecological health should not be subject to mechanical vegetation management activities pursued to accomplish fire policy.
- Prohibit any mechanical treatments (e.g., thinning) of vegetation in WSAs or citizens' proposed wilderness areas.
- Prohibit road building as a means to accomplish any vegetation treatments in furtherance of the fire policy. If "non-permanent" roads are allowed, there should be stringent assurance they will in fact be temporary.
- Be consistent with the Western Governors Association's 10-year Comprehensive Wildfire Strategy prepared in 2001.
- Provide that funds for fire management should be used, in accordance with our recommendations on invasive and exotic species, to eradicate flammable invasive species such as cheatgrass. They should also be used to restore native species less likely to create fire problems, and for restoring seed banks of native species.
- Provide that riparian areas should be restored so that they can serve as natural firebreaks.

Additionally, the EIS should address underlying assumptions or conditions that influence fire policy in a thorough and scientifically credible manner. The full costs and benefits of fire suppression and related vegetation management activities should be illuminated, particularly relative to other means of reducing fire hazards, such as allowing natural fires to burn or "prescribed" burning. Land exchanges and other similar methods for preventing encroachment of housing developments among otherwise remote BLM lands should be addressed. The relative importance of past fire suppression policy and drought in creating "unnatural" fuel accumulations and creating hazardous fire conditions should be thoroughly addressed and analyzed. Whether fuel accumulations are in fact "unnatural" should be fully explored in a scientifically rigorous manner. In this regard we request that BLM consider the implications of the following article relative to any fire policies it develops in the RMP: A.L. Westerling et al. 2006. Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity. Science 313(5789): 940-943. Increasingly warm temperatures, particularly in the spring, may be an

important driving force behind increased fire frequency and severity, and this may make other management actions to reduce fires less viable or justifiable.

Vegetation Treatment and Logging Issues.

We feel that the following issues and concerns regarding vegetation treatment and logging authorized by the RMP should be considered by the BLM.

Thin in forest types where it will be effective.
Management actions should be specific to the actual hazardous fuel threat for each vegetation type, as all are different in terms of fire return interval, response to fire, and type of fires that occur. A 'one size fits all' policy should not be applied. Clearly, in some areas, thinning may be appropriate, but the BLM must make sure that the solution fits the need and is specific to the forest type. To that end, we would like to see the BLM develop maps that show forest types, interval since last fire, proposed treatment method and a discussion of the effectiveness of each treatment method being employed in that forest type.

Concentrate thinning activities where they will do the most good.
We request that thinning activities concentrate on where past experience and research demonstrates they will do the most good. Research shows that thinning to protect structures is most effective adjacent to the structure. For example, Cohen et al.'s Structure Ignition Assessment Model (SIAM) indicates that intense flame fronts (e.g. crown fires) will not ignite wooden walls at distances greater than 40 meters (approx. 130 feet) away. If the BLM concentrates its thinning activities adjacent to structures and private lands, it will by default provide a needed buffer between its management activities and lands and these private lands.

Trees to be thinned.
In areas that could be suitable for thinning, we request that activities focus on thinning understory trees and removal of brush and fine fuels. Even in thinned areas, it is important that the BLM link treatments with a post-restoration prescribed fire program that removes surface fuels. We believe that where thinning is used, removal of smaller diameter material will most likely have a net remedial effect. Brush and small trees, along with fine dead fuels lying on top of the forest floor, constitute the most rapidly ignited component of dry forests.

In addition, removal of mature trees can increase fire intensity and severity. These trees provide "insurance" because they often survive surface fires and can speed post-fire recovery. Even if they are diseased, dying or dead, large old trees and snags are important to many wildlife species and ecosystem functions. We therefore request that when thinning is being considered that it be applied to portions of the forest structure where it will make the most ecological sense and where the public may realize the most benefits.

Insect and disease infestations.
While some trees can and perhaps should be removed, we would also like the BLM also consider the benefits of dead snags for wildlife, as well as other ecological benefits related to soil holding and "nurse tree" characteristics. The RMP should explain how any projects will provide for adequate snag retention to ensure these benefits.

1022

In order to help the public to understand the problem related to insect and disease issues, it is important that the BLM provide stand inventory maps which delineate distribution of forest types by age class and stand density. These maps, in conjunction with an identification of the location of current pockets of beetle mortality or other target insect and diseases would serve as critical data necessary to understand current and future insect populations and disease threats.

Sanitation/salvage of dead and dying trees.
We ask that the BLM to pay careful attention to which trees it classifies as "dying," since in the past we feel it has sometimes used a broader interpretation of "dying" trees than is warranted. Because drought is the main driver in insect outbreaks and older trees are the most fire-resistant component of the forest, it does not make sense to us to remove trees just because they are old and therefore potentially susceptible to bug kill if the drought persists. Older age class trees provide critical habitat components in the forest. We therefore ask the BLM to be specific about what it regards as "dying," and that that definition not include trees which it may classify simply as vulnerable to disease, bugs or fire.

We advocate for managing for healthy forests. Old growth forests, the presence of threatened, endangered and sensitive species and healthy streams and fisheries are all indicators of healthy forests. It is clear that the presence of dead and dying trees is not an indication of unhealthy forests, unless the BLM is merely looking at this issue from a commodity production standpoint, which we feel is an unduly narrow view under BLM's multiple use obligations.

We would like the BLM to develop an alternative that maximizes the overall ecological health of the planning area, measured by retention of habitat security and old growth tress and maintenance of habitat conditions that are most likely to benefit sensitive, threatened and endangered species, as well as water quality and roadless values.

Clearcutting.
Due to the impact to forest resources, we strongly discourage the BLM from proposing clearcutting as a treatment method under the RMP. It has been documented that clearcutting negatively impacts soil, water quality, and wildlife habitat. Because of this we encourage the BLM to consider alternatives to clearcutting such as selective harvesting and group selection cuts.

Secure habitat, hiding cover, and thermal cover.
Please assure the public that the current amount of secure wildlife habitat will be maintained. Please provide an analysis of the effects of the proposed or potential treatments on secure habitat, hiding cover, and thermal cover for wildlife.

Prescribed fire.
We acknowledge that use of fire as a management tool can be controversial; however, we also understand that it is a valid way to reduce an actual fuels buildup problem, if one exists. If addressing fuels and insects is an issue in the planning area, then the best approach for reducing those problems may be through the use of prescribed fire in areas where human safety and structures are not compromised.

43

1022

Fire break effectiveness.
Please provide an assessment regarding the expected effectiveness of fire breaks in slowing or stopping a stand-replacing fire. This information should be specific to various forest types.

Addressing fine fuels.
Because fine fuels are the major determinant in driving large fires, we ask that the BLM to pay special attention to fine fuels, brush, etc., in the development of vegetation treatment and forestry prescriptions pursuant to this RMP. We also ask for a full assessment related to the effectiveness of each of the potential management actions related to fuels reduction.

Seral stage analysis.
Please provide information regarding forest seral stages within the analysis area. Please assure that adequate amounts of functional old growth stands will be safeguarded from treatment and that an appropriate range of seral stages is maintained.

Age class diversity in analysis area.
Please provide a map outlining forest age class diversity by stand, as well as an evaluation of the effects of actions on each age class.

No new roads.
Please assure that no new or temporary roads will be constructed in currently roadless areas and that any new roads in currently roaded areas are as temporary as possible and reclaimed as expeditiously as possible. Where possible, management actions should be completed using the existing road network. We also encourage the BLM to consider minimum impact techniques such as the use of large-wheeled vehicles, helicopters or winter horse logging to minimize the need for road building within the planning area.

Threatened and endangered species and special status species.
Please provide an analysis of the likely impacts of any forestry projects on threatened and endangered species and special status species, especially Canada lynx, other forest carnivores such as wolverine, and raptors that use forested habitats. Please insure that proper consultation with the U.S. Fish and Wildlife Service and coordination with the Wyoming Game and Fish Department is initiated and completed.

Cumulative impacts analysis.
Please assess the cumulative impacts of any potential or proposed vegetation treatment or forestry projects on forest resources in conjunction with other past and present projects and projects in the reasonably foreseeable future.

Water quality and fisheries.
Please ensure that best management practices are implemented, including appropriate setbacks from riparian areas, to prevent sedimentation and other impacts to fisheries and water quality.

Roadless and Wilderness Characteristics.
We would ask that the BLM not propose or pursue mechanical treatments or road building in any roadless areas. We would like for the BLM to assure the public that the roadless and wilderness characteristics within the planning area are maintained throughout the lifetime of the plan. Please take account of areas slated for treatment that may be in close proximity to roadless areas so that the roadless and wildlife characteristics and values in those adjacent areas are retained.

Noxious weeds.
We are concerned about the potential spread of noxious weeds in a post-treatment environment. Please provide a plan that will minimize introduction of noxious weeds into treated areas. In addition, most noxious weeds are introduced through human causes. Therefore, we specifically request a plan that will address human access issues, both motorized and non-motorized, that will minimize the spread of noxious weeds onto the vulnerable post-treatment landscape.

Travel management.
We ask that the BLM develop a plan that recognizes the potential for illegal user created motorized routes to be created and that proposes mitigation to reduce these routes and minimizes their impacts. The BLM should decommission user created motorized routes as part of this plan.

Grazing.
We ask that the BLM identify how it proposes to adjust domestic livestock stocking rates within forestry or vegetation treatment areas to minimize domestic livestock grazing effects on plant and tree regeneration.

Visuals.
The scenic qualities of proposed or potential project areas should be fully considered and protected to the maximum extent possible. Please develop a plan to maintain the scenic qualities in areas proposed for forestry or vegetation treatments.

Wildlife Resources And Management.

The following concerns regarding wildlife touch on a number of issues. One common need, however, is the following. When considering impacts to wildlife, BLM must do more than consider just the area actually impacted by a given activity. The effects of oil and gas development, for example, are far broader and more pervasive that just the public land acreage converted to bare dirt for roads and oil pads. In this regard, the report "Fragmenting Our Lands, The Ecological Footprint from Oil and Gas Development" should be considered.[9] BLM must ensure its analyses of impacts to wildlife consider indirect, connected, related, long-term, and cumulative impacts in as quantitative, and scientifically supported, a manner as possible. BLM must also ensure that it fully complies with BLM Manual MS-6840 (Special Status Species Management).

[9] See footnote 1 for full citation.

Threatened and Endangered Species Management.

Several relevant provisions of the ESA that must be considered in the EIS and complied with in the RMP were mentioned above in the context of ACECs. Of course, the Section 7 "duty to ensure" listed species are not jeopardized, the duty to ensure critical habitat is not destroyed or adversely modified, and the duty to proactively seek to conserve listed species, apply to all management actions. These requirements can be furthered if the RMP: (1) adopts strong provisions for the protection and conservation of listed species, and (2) adopts measurable objectives for upward population trends for all listed species present or likely to be present in the RMP area. For example, the RMP should comply with and seek to implement any recovery plans and/or biological opinions applicable to listed species in the planning area.

Additionally, there are two other areas of crucial importance relative to the Section 7 "duty to ensure" that BLM must abide by to protect threatened or endangered species. First is the need to engage in careful biological assessments (BA) or other ESA-related analyses to determine if listed species in the RMP area are likely to be adversely affected by the RMP, or by actions carried out under the RMP. It is critical that only credible and reputable scientists conduct BAs and other ESA-related analyses, and BLM must ensure that this is the case by establishing criteria for the quality of BAs and other ESA-related analyses—whether prepared by/for BLM or by/for an applicant—in the RMP. BLM should monitor and enforce these requirements. This is consistent with the requirement to use the best available science established by the ESA. See BLM Manual MS-6840.2.E.2-5. Additionally, BLM sometimes has totally merged BAs with accompanying EISs, making ESA compliance totally indistinguishable from NEPA compliance. In our view this is inappropriate because the substantive requirements of the ESA (imposing mandatory duty to conserve listed species) cannot be met by totally merging them with the procedural requirements of NEPA (requiring analysis and disclosure of environmental impacts). The RMP should prohibit this approach and certainly it should not be utilized in the RMP EIS itself.

Second is the need to engage in consultation with the U.S. Fish and Wildlife Service (the Service) relative to any listed species that occur in RMP area that may be adversely affected by the RMP or by actions authorized by the RMP or contemplated in the RMP. We believe that consultation regarding the RMP is required and should be initiated or reinitiated relative to all listed or proposed species and their critical habitat in the RMP area so as to ensure that the activities authorized or contemplated in the RMP do not jeopardize listed species or result in the destruction or adverse modification of critical habitat. Consultation should be completed and any biological opinion(s) or other guidance issued by the Service should be adopted by BLM and made a binding part of the RMP (and activities occurring under it) prior to approval of the RMP. The RMP should establish criteria to ensure that the regulatory requirements for reinitiating consultation are complied with at the earliest possible time so as to ensure species are not jeopardized. See 50 C.F.R. § 402.16 (establishing reinitiation criteria). Moreover, the prohibition on foreclosing reasonable and prudent alternatives, as provided for in section 7(d) of the ESA, must be enforced by the RMP. These recommendations are consistent with BLM's Land Use Planning Handbook and its Special Status Species Manual. See BLM Manual MS-6840.2.E.

ESA Candidate and BLM Sensitive Species.

BLM must ensure full compliance with BLM Manual MS-6840.06.E (Special Status Species Management). BLM Manual MS-6840.06.E requires that "protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species"—that is:

> Consistent with existing laws, the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for the species to become listed.

BLM Manual MS-6840.06.C & .06.E. See BLM Manual MS-6840.06.C (1&3) (discussing BLM's responsibility to confer with U.S. Fish & Wildlife Service regarding individual species' needs). BLM Manual MS-6840.06.C.2 imposes a series of additional substantive obligations on the BLM regarding candidate and therefore sensitive species management:

> 2. For candidate species [and sensitive species] where lands administered by the BLM or BLM authorized actions have a significant effect on their status, [the BLM shall] manage the habitat to conserve the species by:
>
> a. Ensuring candidate [and BLM sensitive species] are appropriately considered in land use plans (BLM 1610 Planning Manual and Handbook, Appendix C).
>
> b. Developing, cooperating with, and implementing range-wide or site-specific management plans, conservation strategies and assessments for candidate [and sensitive] species that include specific habitat and population management objectives designed for conservation, as well as management strategies necessary to meet those objectives.
>
> c. Ensuring that BLM activities affecting the habitat of candidate [and sensitive] species are carried out in a manner that is consistent with the objectives for managing those species.
>
> d. Monitoring populations and habitats of candidate [and sensitive] species to determine whether management objectives are being met.

Additionally, BLM must ensure compliance with BLM Manual MS-6840.22. Provisions here require BLM to take a broad and proactive approach to special status species management, and in the context of planning require that, "Land use plans shall

be sufficiently detailed to identify and resolve significant land use conflicts with special status species without deferring conflict resolution to implementation-level planning."

We particularly note that the term "conservation" is defined in the BLM's special status species manual and specifically with respect to special status species (as opposed to ESA listed species) it means "to use, and the use of, methods and procedures such that there is no longer any threat to their continued existence or need for continued listing as a special status species." (emphasis added). Thus, in pursuing the above conservation measures the BLM should bear in mind that the goal is to not only prevent listing of special status species under the ESA, but also to seek to be able to remove them from BLM's sensitive species list.

These provisions have special relevance to the sage-grouse, but many other sensitive species also occur in the Buffalo Field Office planning area, such as the burrowing owl, ferruginous hawk, and white-tailed parried dogs. The EIS and should address and the RMP should seek to protect in compliance with the Special Status Species Manual all sensitive species that occur in the planning area.

Game Species, Raptors, and Sage Grouse.

Big Game

The Wyoming Game and Fish Department collects and analyzes a wide range of information related to game species. The BLM should fully utilize this information as it develops the RMP. In particular, this information should be utilized to help determine stipulations, conditions of approval, and other protections for game species (and other species) that apply to fluid mineral and other mineral development activities. Relative to big game, we urge the BLM to protect more than "critical" big game winter ranges. This approach is biologically and ecologically unsupportable and results in unnecessarily and unduly restricted protections. We therefore request that protective measures (stipulations, etc.) be considered not just for "critical" winter ranges, but also for all winter range areas, particularly relative to oil and gas extraction activities. To the extent BLM excludes "general" winter range areas from the application of protective measures, it should provide a biologically defensible rationale for such a decision. In addition, the EIS should address and the RMP should seek to protect migratory bottlenecks (for big game but other species as well), birthing areas, and transitional areas between winter range and summer range.

Additionally, we urge the BLM to ensure full compliance with the Wyoming Game and Fish Department's mitigation policy. Wyoming Mitigation Policy lists crucial habitats as "vital." Crucial habitat "directly limits a community, population, or subpopulation" and replacement of this habitat "may not be possible." Crucial habitat is habitat "which is the determining factor in a population's ability to maintain and reproduce itself . . . over the long term." The State of Wyoming's policy is that there should be "no loss of habitat function" in these vital crucial habitats, and even though some modification may be allowed, the location, essential features, and species supported must remain "unchanged." The EIS should consider whether standard and traditional timing limitation stipulations for big game crucial winter ranges meet this policy in

that drilling is only limited during certain periods and ongoing operations are not regulated at all, and the EIS should consider whether additional or modified stipulations are needed to comply with State policy represented in this mitigation policy. The FLPMA of course requires the BLM to comply with State policies if they are not contrary to Federal policy, 43 C.F.R. § 1712(c)(9), and Department of Interior regulations governing Federal-State relations in wildlife management recognize that "State authority regarding fish and resident wildlife remains the comprehensive backdrop applicable in the absence of specific, overriding Federal Law." 43 C.F.R. § 24.1(a).

Furthermore, the WGFD has developed, with the approval of the Wyoming Game and Fish Commission, its "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats" policy. Available at http://gf.state.wy.us/downloads/pdf/og.pdf.[10] Among many other things, this policy recognizes the ineffectiveness of winter drilling timing limitation stipulations standing alone. In all cases, Wyoming's mitigation policy recommends going beyond just the winter drilling timing limitations BLM applies to lease parcels on crucial winter range, to also include a suite of additional standard management practices. These additional management practices include planning to regulate the pattern and rate of development, phased development, and cluster development, among many other provisions, few if any of which are ensured by the traditional, standard timing limitation stipulation. As discussed above and in Appendix A there is no doubt that BLM has authority to require these additional stipulations recognized as needed by the Wyoming Game and Fish Department.

Finally, the Western Governors' Association (WGA) has established a Wildlife Corridors Initiative aimed at protecting migration corridors and crucial habitats. This policy statement of the western governors is available at http://www.westgov/org/wga/initiatives/corridors/index.htm. One chapter of this policy statement was prepared by the Oil and Gas Working Group. The core of their recommendations for new oil and gas leases is that a full understanding of crucial habitats needs to be established prior to leasing. A specific recommendation is that site-specific NEPA analysis should be conducted prior to leasing. There is also stated State policy with regard to how existing leases should be managed, and as discussed above, the BLM must abide by State policy unless it is contrary to Federal policy. 43 U.S.C. § 1712(c)(9).

Raptors

Raptors also often receive protective stipulations and other protective measures, particularly in the context of oil and gas development activities. The EIS should examine existing stipulations and protections to determine their effectiveness and to determine whether they should be modified so as to protect these magnificent birds. Too often raptor stipulations only apply to occupied nests. Again, however, this is an inappropriately restricted approach from a biological and ecological perspective. The EIS should examine whether habitat that could potentially be occupied by raptors, such as previously utilized nests, should receive

[10] A related publication that BLM should consider is this: Hebblewhite, M. 2008. A literature review of the effects of energy development on ungulates: implications for central and eastern Montana. Report prepared for the Montana Fish, Wildlife and Parks Department. Miles City, Montana.

protection so as to ensure the continued viability of raptors in the RMP area. It should consider all biological needs of raptors and develop suitable protections for all significant life-stages of the various raptors, all of which should be included in the RMP. Additionally, the EIS should address compliance with the Bald Eagle Protection Act and Migratory Bird Treaty Act and the RMP should specify the means by which BLM will ensure compliance with these laws as well as pursue (or facilitate) enforcement of them. And as just discussed, the BLM should fully consider the State of Wyoming's mitigation policy, its Recommendations Report, and the WGA Migration Corridors Initiative in the context of raptors.

Sage-grouse

The sage grouse too often receives special protective measures, particularly in the context of oil and gas development activities. Typical stipulations limit oil and gas development activities when sage grouse are utilizing known leks. BLM should reexamine whether these types of stipulations are sufficient, standing alone, to protect the viability of sage grouse populations. It is axiomatic that wildlife require all environmental features (food, cover, shelter) necessary to support all life-stages. Focusing exclusively on one element of a species' ecological needs not only might fail to protect the species, it might also blind BLM to other critical factors affecting the species. For example, it is well known that sage grouse chicks need access to wet meadow areas so they can find high-protein insects to support early growth. Dense stands of sagebrush are critical winter habitat. Furthermore, the appropriate means to protect sage grouse is to not only focus management efforts (and protective measures) on particular habitat needs (e.g., protecting leks), but also to ensure sagebrush habitats, an increasingly imperiled ecosystem, are protected generally. In this regard the BLM should consider the provisions for protecting "large, contiguous blocks of federal land" with shrub habitats provided for in the recently released Kemmerer Field Office RMP. Proposed Resource Management Plan and Final Environmental Impact Statement for the Kemmerer Field Office Planning Area at 2-56, Map 21. The same, of course, is true for many other species, including such sagebrush obligate species as Brewer's sparrow, sage sparrow, and sage thrasher; and of course the same is true for species dependent on other habitats and ecosystems.

Recent findings prepared by the Wyoming Game and Fish Department (WGFD) provide substantial guidance on needed protections for the sage-grouse. Attached as Exhibit 2 is a determination by the WGFD that represents the consensus view of sage-grouse experts in several western states experiencing significant oil and gas development regarding measures needed to ensure sage-grouse conservation. Among many other things, this memo finds that there is a vital need to establish core areas to ensure sage-grouse conservation. The need for core area delineation and protection is made apparent because "[f]ull field energy development appears to have severe negative impacts on sage-grouse populations under current lease stipulations." Id. at 2. The suite of existing stipulations "have been shown to be inadequate for protecting breeding and wintering sage-grouse populations during full field development." Id. "To ensure long-term persistence of populations and meet goals set by the states for sage-grouse, identifying and implementing greater protection within core areas from impacts of oil and gas development is a high priority." Id. Furthermore, the WGFD and other state game and fish agencies unanimously determined that no surface occupancy (NSO) and timing stipulations as currently formulated are insufficient to meet the conservation needs of sage-grouse. "At the scale NSOs are established,

they alone will not conserve sage-grouse populations without being used in combination with core areas." Id. at 3. Thus, the quarter mile limitation on activities around leks (which is not even an NSO strictly speaking) clearly will not ensure conservation of sage-grouse.[11] And, "[a]s with NSOs, at the scale that timing stipulations are established, they alone will not conserve sage-grouse populations without being used in combination with core areas." Id. at 6. And last, the WGFD has determined that "[l]eks tend to remain active when well-pad densities within 1.9 miles of leks are less than 1 pad per square mile . . . but leks tend to go inactive at higher pad densities . . . ." Id. at 7. The WGFD memorandum is exactly the same analysis as that developed by the Western Association of Fish and Wildlife Agencies (WAFWA). Exhibit 3.

We also feel that the classic stipulations that have been use to protect sage-grouse fail to comply with the policies of the WGFD relative to mitigation. Attached as Exhibit 4 is the WGFD's mitigation policy. Species or their habitats such as the greater sage-grouse which are candidates for listing under the Endangered Species Act (ESA) are considered to be in the "vital" mitigation category. Id. at 4. For species or their habitats in the vital category, the State of Wyoming's policy is that there will be no loss of habitat function. As shown by the discussion above regarding the recent WGFD memorandum (Exhibit 2), it is clear that use of the standard, old stipulations will not meet the requirements of this policy. The WGFD memorandum, Exhibit 2, as well as the WAFWA memorandum, Exhibit 3, which cite the relevant research and are based on it, show that if just the old, standard stipulations are applied, "the arrangement of habitat features, and the capability of those features to effectively sustain species, populations, and diversity of wildlife over time," Exhibit 4 at 7, cannot be assured, and thus the WGFD mitigation policy would not be complied with.

Furthermore, recently the Governor of Wyoming issued an Executive Order for sage-grouse protection. Exhibit 4. This policy recognizes the core area concept recommended by the WGFD and WAFWA. Looking at Exhibit 5, it is apparent there are important core areas in the Buffalo Field Office that require protection. The Executive Order calls for not allowing new development in core population areas unless they can be demonstrated to not cause declines in sage-grouse populations. The BLM Wyoming State Director has agreed that this policy appears to be sound:

> I am aware of your Sage-Grouse Implementation Team's work to define "core areas" for sage-grouse within the Powder River Field Office and across Wyoming. We have received maps of the core areas identified by the Team along with recommendations to you and understand that the U.S. Fish and Wildlife Service have provided an endorsement of both the areas and strategy. Consequently, it seems appropriate to base our management strategy on these "core areas."

Letter from Donald A. Simpson, Acting State Director, Wyoming BLM, to Wyoming Governor Dave Freudenthal, dated June 12, 2008 (BLM State Office files) (emphasis added).

Probably more significantly, the WGFD has adopted mitigation measures to implement this Executive Order. Exhibit 6; also available at http://gf.state.wy.us/wildlife_managment/sagegrouse/index.asp. The WGFD calls for no more than one well per 640 acres, surface

[11] To be effective, NSOs probably need to extend a minimum of 4 miles from a lek. Exhibit 3 at 3, 6.

disturbance limited to less than five percent of sagebrush habitat per 640 acres, no surface occupancy within 0.6 miles (not ¼ mile) of occupied leks, and other limitations. The BLM should fully consider these limitations and the Executive Order in the EIS and should adopt these policies in the RMP.

Conclusion

Consideration of the above issues is necessary to prevent unnecessary or undue degradation of wildlife on the public lands. Additionally, the protections discussed above involve "timing limitations" during actual exploration or drilling for oil and gas. The EIS should consider whether other types of stipulations are needed (including no surface occupancy), and also whether stipulations and protections are required for ongoing operations so as to effectively protect wildlife. If additional, needed protections are identified, they should be adopted in the RMP. As noted above, the Pinedale Field Office designated large areas as unavailable for future leasing in its RMP as a means to protect the sage-grouse in the face of the lack of efficacy of traditional stipulations. The need to not grant exemptions and exceptions to stipulations on oil and gas leases was discussed above in the section on oil and gas activities at the APD stage

In addition to data available from the WGFD, we also want to draw BLM's attention to the National Wetland Inventory, GAP analyses, State Natural Heritage Program databases, and various bird surveys (e.g., Christmas bird counts, breeding bird surveys, etc.). There are many other similar sources of data. BLM should seek out and fully utilize these data in the RMP revision so that it can adequately manage and protect the priceless wildlife resources in the RMP area.

Wildlife Diversity Must Be Ensured.

BLM has a duty to protect the diversity of all native wildlife on public lands by providing for ecosystem-based management. The FLPMA requires public land management to protect ecological and other values, and also requires that they be managed for multiple use and sustained yield. 43 U.S.C. §§ 1701(a)(7)-(8). The NEPA requires BLM to fulfill its trustee obligation for future generations, assure productive surroundings, avoid environmental degradation, preserve important natural aspects of our national heritage, and enhance the quality of renewable resources. 42 U.S.C. §§ 4331(b)(1)-(6). The CWA established the objective of restoring and maintaining the chemical, physical, and biological integrity of the Nation's waters, which of course includes the RMP area. 33 U.S.C. § 1251. The ESA establishes the purpose of conserving the ecosystems upon which threatened and endangered species depend on. 16 U.S.C. § 1531(b). BLM's livestock grazing standards and guidelines establish standards of ecological health applicable not only to livestock grazing, but to resource management generally. See 43 C.F.R. subpt. 4180. Read together, these and other legal standards establish that BLM must ensure the ecosystems it manages are fully protected so as to enhance biological diversity.

With this in mind, we ask that the RMP provide for the following steps to ensure that wildlife diversity is protected. As requested above, all riparian areas should be designated ACECs and given special management. It is widely recognized that (1) riparian areas in the west are crucial centers of biological diversity and (2) most BLM riparian areas are in unhealthy

condition. Consequently, special management provisions for these areas must be made in the RMP. Riparian area management is discussed in more detail below. The RMP must also ensure that other special habitats are protected and enhanced. As noted, all wildlife requires adequate habitat for feeding, reproducing, and hiding or resting (sheltering), and the plan must ensure that such is provided for all species at all critical life stages. Wintering areas, colonial or other concentrated avian nesting areas, spawning beds, and traditional birthing areas are examples of the special habitats the RMP should provide for and protect.

In addition to protecting special habitats, the plan must provide for protecting certain species to ensure that biological diversity is protected. Certainly species listed pursuant to the ESA and BLM and/or State sensitive species must receive species-specific attention, but other species should receive special emphasis as well. The plan should identify and provide for the protection of "keystone" species, which can be literally key to preventing undesirable, cascading ecological effects, such as widespread extinctions. Prairie dogs are an example of a keystone species that demand special management efforts. The status of carnivores is often indicative of the overall environmental health of an area, and thus they warrant special management prescriptions, and in any event there is widespread public demand and support for protecting these magnificent creatures. It is also important to note that there are keystone resources that are critical for protecting a host of species. Springs or other water holes, deep pools in streams, and salt or mineral licks are examples. BLM should ensure that the RMP makes special provision for protecting keystone resources, as well as keystone species.

The EIS must carefully evaluate problems resulting from habitat fragmentation and the need for maintaining the connectivity or linkage of habitats. Habitat fragmentation is strongly associated with the road building that accompanies most, if not all, traditional management activities. By altering the physical environment, roads and highways modify animal behavior. Many species shift home ranges, change movement patterns and even reproductive and feeding behaviors to avoid roads. Perhaps the most pervasive, yet insidious, impact of roads is providing access to natural areas and encouraging further development. It is apparent that the RMP must limit habitat fragmentation resulting from road building, protect current roadless areas, provide for aggressively closing unneeded or ecologically destructive roads, and provide for maintaining needed roads so as to reduce negative environmental impacts. The RMP must also limit habitat fragmentation resulting from other activities, such as the construction of well pads.

More generally, the BLM should consider the principles of island biogeography so as to ensure that fragmentation does not degrade existing wildlife habitats. That is, it must insure that small islands of habitat are not created by management activities such as logging, chaining, or oil and gas development. The RMP should ensure both that the total areas of important habitats are maintained and that these habitats are not further fragmented. Creating habitat fragments impedes dispersal, colonization, and foraging. Moreover, fragmented habitats can have altered environmental conditions and allow for intrusions of pests (weed invasions and cowbird nest parasitism are classical examples). We specifically request that BLM limit any further fragmentation of sagebrush communities, which are critical to many species on many BLM lands, and which is an increasingly imperiled ecosystem.

1022

The flip side of habitat fragmentation is maintaining migration corridors and other ecological linkages. The conservation biology literature indicates it is probably more effective to preserve existing corridors/linkages than to attempt to create new ones. It is crucial the EIS identify existing migration and other movement corridors. The RMP must ensure that management actions authorized by the RMP protect the ecological integrity of these corridors and linkages. Big game migration routes have been widely documented, but riparian areas, mountain ranges and ridges, and other areas serve as important linkages among habitats (and even eco-regions) that must be preserved. Ensuring that corridors remain as wide as possible is the best way to ensure that they are in fact effective.

The principles of island biogeography should also guide BLM in creating protected areas. Here, an obvious application is the creation of ACECs. Modern conservation biology has firmly established that larger protected areas are of greater value, and are more effective, than smaller areas for maintaining the ecological integrity of a protected area. Consequently, when BLM designates ACECs, or other areas, to protect wildlife, it should ensure they are large enough to protect the species, habitat, or ecological attributes for which the protected area was created.

We also request that BLM consider and enunciate in the RMP a policy relative to habitat "edge." Increasing edge has been common in classical wildlife management because it was perceived as a means to increase biological diversity, or more particularly, as a means to benefit certain games species. Modern conservation biology, however, recognizes a number of problems associated with increasing the amount of edge, such as: modifying microclimates needed by some species, increasing impacts of wind in some communities, increasing the incidence of fire, and increasing predation and competition from exotic and pest species that are often well adapted to the disturbed conditions that characterize ecological edges. Furthermore, even if increasing edge increases overall biological diversity, it can be harmful to certain, usually rare and/or specialized, species. Similarly, increasing edge can be problematic for species that require large, undisturbed blocks of habitat, such as many predators. We believe it would be inappropriate to increase edge to the detriment of rare or highly specialized native species or species that need large contiguous habitats, and the RMP must ensure that this does not occur. Sagebrush obligate species (sage grouse, Brewer's sparrow, etc.) should receive special consideration in this regard in the Buffalo Field Office planning area. As noted above, protection of "large, contiguous" areas of shrub habitat as is provided for in the Kemmerer RMP would be appropriate in the Buffalo Field Office RMP.

It may be impossible to fully protect biological diversity (and to effectively manage many other resources) without considering other landowners and landholdings within the RMP area, particularly in an area like the Powder River Basin where most of the surface land is privately owned. Therefore, we request that the EIS consider other landholdings relative to BLM's efforts to protect biological diversity. Land exchanges could be warranted in some circumstances, and if so the RMP should provide for initiating any needed legislative authority or other processes. The Land and Water Conservation Fund, as well as the new Land Conservation, Preservation and Infrastructure Improvement Fund, are two funds that might allow acquisition of important inholdings, or other lands, in fee simple or perhaps via other mechanisms such as conservation easements. The RMP should establish a program or at least

guidance for how BLM will attempt to work with other landowners relative to biodiversity protection efforts, and make provision for accessing funding needed to implement those efforts.

It is also critical to note that protecting biological diversity can only be dealt with appropriately at the planning level; it certainly cannot be dealt with appropriately or effectively at a project-specific level. The reason for that is readily apparent: fragmentation, connectivity and other factors affecting biological diversity are inherently landscape level considerations, not site specific. The project level is simply too small a scale to effectively consider what are inherently ecosystem level concerns and processes. The import of this is that the RMP should establish specific, binding limits on road densities and other disturbances that cannot be exceeded in the planning area. This is the only way to ensure biological diversity is preserved, and that ecosystem attributes are not "nickel and dimed" to death by individually small but cumulatively significant site-specific projects. The BLM should consider bio-regional plans developed by the Nature Conservancy in assessing broad-scale needs relative to biodiversity protection. The Nature Conservancy has offices in Cody and Lander.

Part and parcel of planning for maintaining biological diversity via ecosystem-based management is a need to ensure that indirect and cumulative impacts of management actions are fully considered. As noted above, the NEPA regulations provide guidance in this regard. Cumulative impacts are the incremental impacts of actions, past, present and future, regardless of whom undertakes them. See 40 C.F.R. §1508.7. Indirect effects of an action are further removed from the action itself, but still are reasonably foreseeable. See 40 C.F.R. §1508.8. See also 40 C.F.R. §1508.25(c). It is worth noting that the ESA provides somewhat similar definitions for these concepts that are applicable to listed species. See 50 C.F.R. § 402.02 (defining actions, action areas, and effects of the action in very broad terms). The RMP EIS must take special care that these "second-order" impacts are fully considered and analyzed if BLM is to meet its legal mandate for ecosystem management and preserving biological diversity. Again, these considerations should not and cannot be left to the project level because the perspective at that point is too constrained to permit meaningful ecosystem level analysis.

Riparian Areas.

The RMP area contains remarkable riparian areas that are vitally important to the ecological health of the region. Properly managing riparian areas is a critical component of managing for biological diversity and for meeting many other needs. Only about one percent of the lands managed by the BLM are wetlands, yet these are some of the most ecologically important landscapes under BLM jurisdiction.

Riparian areas and wetlands provide rare oases of lush vegetation and water in an arid environment. As a result, they are rich in wildlife like birds, deer, elk, amphibians, fish, cougar, bobcat, and other species. They also improve water quality by filtering sediment and other pollutants, stem erosion, improve groundwater reserves, reduce the risk of flash flooding, and provide shelter for wildlife. They are also often home to important cultural sites. See BLM's Riparian-Wetlands Initiative for the 1990's (RWI) at 7-8.

1022

Because of the critical importance of these areas, two Executive Orders require their protection. Executive Order 11988 (1977) requires federal agencies to avoid adverse impacts associated with the occupancy of floodplains. Executive Order 11990 (1977) requires federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial value of wetlands. Further, all federally approved activities must include all practical measures to minimize adverse impacts to wetlands and riparian areas. As discussed above, section 404 of the Clean Water Act also provides guidance relative to wetlands protection.

The BLM's policy is to "maintain, restore, or improve riparian-wetland ecosystems to achieve a healthy and proper functioning condition that assures biological diversity, productivity, and sustainability. . ." BLM Handbook H-1737.06. RMPs must "recognize the importance of riparian-wetland values, and initiate management to maintain restore, improve or expand them." Id. at 1737.06.B.4.

The cornerstone to effective protection of riparian areas is the completion of a comprehensive inventory of the riparian and wetlands resources within the bounds of the RMP area. These areas should be identified and their functioning condition should be evaluated. See RWI at 16 (noting need for inventories). "Improving the functioning condition of these areas is the focus of BLM's riparian-wetland restoration goal." RWI at 11.

Based on the critical importance of riparian areas, and the considerations set forth above, we urge the BLM to incorporate into the RMP specific, measurable riparian and wetland area protections. These include, among other things:

- Completion of "a broad inventory" of all riparian areas. This inventory should be done prior to preparation of the RMP EIS and should be presented in it.
- Specification of the steps that will be undertaken so that riparian areas that are not in properly functioning condition can be restored, and how the condition of areas that are in properly functioning condition will be maintained.
- Exclusion of OHVs from riparian areas and wetlands except on designated routes;
- Incorporation of riparian and wetland area protection with protection of the associated watersheds.
- Assurance that livestock grazing standards and guidelines and Fundamentals of Rangeland Health are complied with, and that livestock grazing is excluded from riparian areas as needed;
- Development of an effective monitoring program that measures biodiversity and wildlife populations, soil erosion, vegetation health, the presence of non-native species, water quality and quantity, and the impacts of other uses such as grazing, OHVs, recreation uses, and other activities;
- A prohibition on oil and gas leasing and development in riparian areas, or a requirement for no surface occupancy stipulations. Analysis should be provided in the EIS of how mineral development and associated impacts such as waste pits, roads, pipelines and other uses will be regulated so as to avoid impacts to riparian areas and wetlands;
- A prohibition on the issuance of rights-of-way in riparian and wetlands areas, or in areas where such use would adversely impact riparian areas;

56

- Identification of lands for acquisition in riparian or wetlands areas that are ecologically, hydrologically or geologically linked to BLM wetlands and crucial to their functioning;
- Designation of riparian areas and wetlands as ACECs .

ELEMENTTS OF THE RESOURCE MANAGEMENT PLAN STATEMENT OF DESIRED OUTCOMES AND ALTERNATIVES FOR CONSIDERATION IN THE ENVIRONMENTAL IMPACT STATEMENT

Statement of Desired Outcomes.

As noted above, BLM's land use planning handbook requires BLM to provide a statement of desired outcomes in its land use planning process. BLM Handbook H-1601-1, II.2. Elements of a statement of desired outcomes for oil and gas extraction activities were discussed above. Here we present more general considerations that should guide the statement of desired outcomes. The various laws that collectively establish a requirement to engage in ecosystem management and ensure protection of biological diversity also establish elements of a statement of desired outcomes.

As required by the ESA, BLM should seek to conserve the ecosystems upon which endangered and threatened species depend on in the RMP area. As required by the Clean Water Act, BLM should seek to restore and maintain the chemical, physical, and biological integrity of all waters in the RMP area. Additionally, the plan should seek to eliminate the discharge of pollutants into waters in the RMP area, "provide for the protection and propagation of fish, shellfish, and wildlife," and provide for "recreation in and on the water[s]" in the RMP area. 33 U.S.C. § 1251(a)(1)-(2). The Clean Air Act declares a national purpose to "protect and enhance the quality of the nation's air resources so as to promote the public health and welfare . . ." 42 U.S.C. § 7401(b)(1). It also declares goals and policies for the protection of Class I areas from visibility and other degradation. Id. §§ 7470(2), 7491(a)(1). Pursuant to FLPMA, BLM should ensure that public lands in the RMP area are managed to protect the "quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values," as well as ensure compliance with the definitions of multiple use and sustained yield. 43 U.S.C. §§ 1701(a)(8), 1702(c) and (h). No unnecessary or undue degradation of the public lands can be allowed. 43 U.S.C. § 1732(b). BLM's Fundamentals of Rangeland Health and the grazing standards and guidelines are a blueprint for ecosystem-management-based goals that BLM should apply to all activities in the RMP area. See 43 C.F.R Subpt. 4180. The Wilderness Act should provide the desired outcome for all BLM roadless areas, namely they should be managed so that they remain "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who dos not remain." 16 U.S.C. § 1131(c). The National Historic Preservation Act provides that "Prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as maybe necessary to minimize harm to such landmark . . . ." 16 U.S.C. 470h-2(f).

Taken together, these and other laws define what BLM's statement of desired outcomes should be under the RMP, and the RMP should ensure such outcomes are implemented on the ground. The report "Conservation Management of America's Public Lands: An Assessment and

1022

Recommendations for Progress 25 Years After FLPMA"[12] provides further guidance on many of these elements and should be considered by BLM as it adopts a statement of desired outcomes for the RMP.

Alternatives.

To ensure the above desired outcomes occur, BLM must develop alternatives in the EIS that explicitly incorporate the above legal obligations, and the preferred alternative certainly must meet these legal standards. Alternatives embodying these elements must not be treated as straw men whose only function is to provide "extremes" against which to contrast "moderate" alternatives because all of the elements (affirmative protection of endangered species, restoration of the ecological integrity of the Nation's waters, etc.) are legally required and have been established as the desired outcome for the public lands by Congress. To the contrary, BLM must provide full, careful, and objective consideration of alternatives embodying these elements.

As noted above, under the CEQ regulations rigorous analysis of all reasonable alternatives is "the heart" of an EIS. Under the FLPMA, the chosen alternative must "best" meet the needs of the American people as a whole if it is to meet the definition of multiple use. The FLPMA makes it explicitly appropriate that not all uses be accommodated in all areas, and requires consideration of the relative values of resources, which cannot be defined in solely economic terms. The elements of an alternative outlined in these comments are appropriate and reasonable under these standards, and thus should be fully considered in the EIS and adopted by BLM in the RMP.

Thank you for considering these comments and please contact me if you have any questions.

Sincerely,

Bruce Pendery
Wyoming Outdoor Council

cc: Governor Dave Freudenthal

Attachments

[12] A White Paper by the National Wildlife Federation and the Natural Resources Defense Council, October 2001.

58

APPENDIX A

The BLM's "Retained Rights" in Areas that Have Been Leased

The following discussion outlines what we view as BLM's "retained rights" in areas that have been leased for oil and gas development, allowing it to condition development in ways that protect the natural environment.

The National Environmental Policy Act (NEPA) itself establishes important national policies for environmental protection and Congress "directs that, to the fullest extent possible . . . the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in [NEPA]."[13] The Council on Environmental Quality (CEQ) regulations implementing NEPA reinforce this obligation to protect the natural environment.[14] The courts too have recognized that the purposes and goals of NEPA control BLM's oil and gas development activities.[15] Thus, the BLM must interpret, and implement, its obligations where leases have been issued in light of the policies established by NEPA.

In addition to NEPA, the Federal Land Policy and Management Act (FLPMA), BLM's organic law relative to its mission and purpose, establishes a requirement to fully protect the natural environment in areas that have been leased. "[I]t is the policy of the United States that—the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; . . . that will provide food and habitat for fish and wildlife and domestic animals . . . ."[16] The BLM is required to manage the public lands under a multiple use mandate, which requires among other things the "harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment . . . ."[17] Instruments allowing for the use, occupancy or development of the public lands must contain a provision authorizing revocation or suspension if any terms or conditions of the instrument are violated, including compliance with air and water quality standards.[18] And last, "[i]n managing the public lands the Secretary [of the Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the [public] lands."[19]

With respect to the BLM's obligation to prevent unnecessary or undue degradation of the public lands, it is probably important to emphasize that the FLPMA's mandate to prevent

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[13] 42 U.S.C. § 4332(1). *See also id.* § 4331 (presenting the environmental protection policies of NEPA).
[14] *See, e.g.*, 40 C.F.R. §§ 1500.2(f) (Federal agencies "shall to the fullest extent possible . . . use all practicable means . . . to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment"); 1502.1 ("The primary purpose of an [EIS] is to serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government").
[15] *Getty Oil Co. v. Clark*, 614 F.Supp. 904, 920 (D. Wyo. 1985) ("The Secretary is not only permitted, but is required, to take environmental values into account in carrying out his regulatory functions, unless there is a clear and unavoidable statutory authority prohibiting the Secretary from complying with NEPA's mandate.").
[16] 43 U.S.C. § 1701(a)(8).
[17] *Id.* at § 1702(c).
[18] *Id.* at § 1732(c).
[19] Id. § 1732(b).

unnecessary or undue degradation imposes *dual* action requirements on the BLM; it must take *any action needed* to prevent *both* unnecessary degradation as well as undue degradation of the public lands.[20] We would also note that the decision in *Mineral Policy Center* stands as the final word as to what the unnecessary or undue degradation clause means—the Department of the Interior did not appeal this decision, and thus it is the final word as to the Department's responsibilities and has been accepted as binding by the Department. Addressing this dual requirement, the court made plain that "Congress's intent was clear: Interior is to prevent, not only unnecessary degradation, but also degradation that, while necessary to mining, is undue or excessive."[21] That is, while unnecessary degradation may only prevent activities that are not generally recognized or used to pursue mining operations, the undue degradation prohibition establishes a *further* requirement to prevent activities that would unduly harm or degrade the public land. As stated by the court, "FLPMA, by its plain terms, vests the Secretary of the Interior with the authority—and indeed the obligation—to disapprove of an otherwise permissible mining operation because the operation, though necessary for mining, would unduly harm or degrade the public land."[22]

Despite this clearly established law, the BLM has sometimes persisted in misstatements of the governing legal standard. It sometimes continues to view its dual mandate under FLPMA as a unitary obligation (it still claims that unnecessary degradation and undue degradation are one and the same), and then incorrectly proceeds to claim that only things not necessary for mining are prohibited unnecessary *and* undue degradation. The BLM's attempts to read the plain language of FLPMA in the conjunctive rather than the disjunctive were firmly rejected by the *Mineral Policy Center* court. The court clearly held that the undue degradation prohibition relates to degradation of the environment on the public lands, not what is or is not necessary for *mining*. It is impossible for the BLM to fully recognize let alone exert its retained rights if it persists in stating its legal obligations in an impermissibly constrained manner. Given the above, we believe that FLPMA, like NEPA, provides the BLM with authority, and indeed an obligation, to protect the natural environment even in areas that have already been leased.

Furthermore, a host of other laws impose a requirement on the BLM to consider environmental conservation as a key component of oil and gas development.[23] Thus, we believe

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[20] *Mineral Policy Center v. Norton*, 292 F.Supp.2d 30, 42 (D.D.C. 2003).
[21] *Id.*
[22] *Id.*
[23] For example, the purposes of the Endangered Species Act "are to provide a means whereby the ecosystems upon which [listed] species depend may be conserved and to provide a program for the conservation of such [species], and the Secretary of the Interior shall "utilize [programs administered by him] in furtherance of the purposes of this chapter." 16 U.S.C. §§1531(b), 1536(a)(1). The objective of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The purposes of the Clean Air Act are "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare . . . ." 42 U.S.C. § 7401(b)(1). See also id. §§ 7470(2), 7491(a)(1) (directing that air quality in protected landscapes and airsheds be protected). Under the National Historic Preservation Act, prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as maybe necessary to minimize harm to such landmark . . . ." 16 U.S.C. 470h-2(f). This is a small sampling of the numerous environmental protection statutes BLM and the Forest Service operate under, and additional obligations will be mentioned as this discussion proceeds.

it is clear that in addition to having retained rights allowing it to condition development, the BLM is also under an *obligation* to ensure environmental protection even in areas that have been leased.

In addition to the legal obligations noted above, a host of BLM policies, regulations, and contractual provisions relative to oil and gas development allow and in fact demand protection of the natural environment in areas that have been leased. Quite simply, the BLM has retained very substantial rights to condition development so as to protect the natural environment even though it has leased lands for oil and gas development. The BLM's standard lease form (form 3100-11) contains the following reservations of authority to BLM:

- Lease Terms Section 4: "Lessor reserves the right to specify rates of development and production in the public interest . . . ."
- Lease Terms Section 6: "Lessee must conduct operations in a manner that minimizes adverse impacts to the land, air, water, to cultural, biological, visual, and other resources . . . . Lessee must take reasonable measures deemed necessary by lessor to accomplish the intent of this section. To the extent consistent with lease rights granted, such measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures."
- Lease Terms Section 7: "To the extent that impacts from mining operations would be substantially different or greater than those associated with normal drilling operations, lessor reserves the right to deny approval of operations."

Clearly the BLM has retained very substantial rights under the standard lease contract, and under those retained rights the BLM has more than adequate authority to ensure that it fully complies with the laws and policies noted above by asserting these retained rights and the need to adhere to legal obligations for the protection of the environment when development is proposed on a lease.

The BLM sometimes invokes its regulation at 43 C.F.R. § 3101.1-2 as imposing limits on its ability to condition development, claiming that (in the absence of a specific stipulation or non-discretionary statute) it can only impose "reasonable measures" demanding no more than that lease operations be moved by no more than 200 meters, leasehold operations be prohibited for no more than 60 days, or that operations not be moved off the leasehold.[24] This is an unduly limited view of this regulation, and other applicable provisions of law. As was discussed in the body of these comments, this view was just confirmed by the Interior Board of Land Appeals in the case of *Yates Petroleum Corp.,* 176 IBLA 144, 156 (2008), where it held that a constrained interpretation of a reasonable measure "is at odds with the plain language of the regulation [at 43 C.F.R. § 3101.1-2], which describes what measures "at a minimum" are deemed consistent with lease rights, and does not purport to prohibit as unreasonable *per se* measures that are more stringent."

In adopting this regulation, BLM commented that "the authority of the Bureau to prescribe 'reasonable,' but more stringent, protection measures is not affected by the final

[24] 43 C.F.R. § 3101.1-2

rulemaking."[25] Quite simply, this regulation establishes a floor, not a ceiling as to the reasonable measures provided for in the lease contract that the BLM may require. As noted above, the specific terms of the standard lease certainly do not limit BLM's authority to this degree. It may be worth noting that the standard lease form and the regulation were both adopted in 1988; BLM certainly developed one in full recognition of the other. Consequently, the standard lease and the 3101.1-2 regulation must be considered together to determine the BLM's retained rights. In fact, the BLM acknowledged the potential for confusion and disagreement about how the 3101.1-2 regulation should affect lease rights and obligations. In an Instruction Memorandum issued in December 1991, the BLM explained the language of regulation 3101.1-2. Specifically, the 200 meter/60-day rule is not absolute. Rather, because all leases are subject to FLPMA, the "unnecessary and [sic] undue degradation" standard applies, as discussed above. The Instruction Memorandum states therefore that "mitigation required to protect public lands from unnecessary and [sic] undue degradation is consistent with the lease rights granted."[26] And, further, that "[u]sing a FLPMA standard to determine if an exception to the 200 meter/60 days is consistent with lease rights places the resolution of this issue clearly within the concept of striking the best multiple use balance."[27] That is to say that applying the FLPMA standard confirms that even under the 3101.1-2 regulation , the BLM is committed to conserving wildlife and preventing pollution, while still allowing the lessee access to oil and gas resources. Therefore, the 3101.1-2 regulation does not stand as the sole word on what constitutes "reasonable measures," as the BLM sometimes claims, and in any event it too hardly constrains the BLM's rights to condition development.

The final rulemaking promulgated on May 16, 1988 for the 3101.1-2 regulation, remarks that the intent of the rulemaking was to "resolve the uncertainty which has existed concerning the Bureau's authority within the terms and conditions of the standard lease form to control site-specific environmental impacts."[28] The uncertainty stems from arguably ambiguous language in the 3101.1-2 regulations, which states:

> A lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold subject to: Stipulations attached to the lease; restrictions deriving from specific, nondiscretionary statutes; and such *reasonable measures* as may be required by the authorized officer to minimize adverse impacts to other resource values, land uses or users not addressed in the lease stipulations at the time operations are proposed. To the extent consistent with lease rights granted, such *reasonable measures* may include, *but are not limited to*, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. *At a minimum*, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year.[29]

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[25] Oil and Gas Leasing, Geothermal Resources Leasing, 53 Fed. Reg. 17,340, 17,341 (May 16, 1988).
[26] Memorandum from the Director of the Bureau of Land Management to all state directors 1992-67 (Dec. 3, 1991).
[27] *Id.*
[28] 53 FR 17340.
[29] 43 CFR § 3101.1-2 (emphasis added).

The final rulemaking, which addressed comments in response to the proposed rule about the definition of "reasonable measures," clarifies the meaning of "reasonable" in the context of the final version of regulation 3101.1-2. The BLM first states that the "final rulemaking provides that the Bureau, *at a minimum*, can require relocation of proposed operations by 200 meters and can prohibit new surface disturbance for a period of 60 days, and that such requirements are consistent with the lease rights granted."[30] Therefore, the BLM intends the 200 meter/60 day rule as the smallest measure it may take to protect against environmental surface damage.

BLM commentary at 53 Fed. Reg. 17340 makes clear that the BLM has the authority to require environmental protection under the terms of the standard lease form to regulate environmental impacts on leaseholds, and that the specific minimum standards set out in the 3101.1-2 regulation does not greatly limit the BLM's retained authority.[31] Consequently, the provisions in the 3101.1-2 regulation do not completely or unilaterally define the scope of BLM's retained rights, and the arguably broader reservation of authority evidenced in the standard lease form is still fully operable.

Furthermore, language in a revision of the BLM's Federal oil and gas leasing and operating regulations proposed at 63 Fed. Reg. 66840-01 includes discussion of 43 C.F.R. part 3100, subpart 3104 (Environment and Safety).[32] The proposed revision states that subpart 3104, which concerns environmental obligations of lessees, was intended to guide the well operator in environmental protection, though in general, not specific terms.[33] Instead, "[t]he details of environmental protection are considered in several *other sections of these regulations* and in *lease terms and conditions* as well as orders and notices BLM may issue."[34] This commentary from the proposed revision explained that the revision was intended to clarify and organize existing and new regulations that came out of the Federal Onshore Oil and Gas Leasing Reform

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[30] *Id.* (emphasis added).

[31] 53 FR 17340, "To resolve the uncertainty which has existed concerning the Bureau's authority within the terms and conditions of the standard lease form to control site-specific environmental impacts, the proposed rulemaking was intended to establish the measures over which the Bureau has clear authority." "[I]t is appropriate to establish minimum parameters within which the Bureau can specify site-specific mitigating measures which, by regulation, are consistent with the lease rights granted a lessee. The final rulemaking provides that the Bureau, at a minimum, can require relocation of proposed operations by 200 meters and can prohibit new surface disturbance for a period of 60 days, and that such requirements are consistent with the lease rights granted. The authorized officer may grant a lease suspension in appropriate cases if new surface disturbance is prohibited under this section. Similarly, the authority of the Bureau to prescribe "reasonable," but more stringent, protection measures is not affected by the final rulemaking."

[32] Environment and Safety regulations are now codified at 43 C.F.R. 3162.5, with Environmental Obligations, specifically, at 43 C.F.R 3162.5-1. Though the rule was not finalized in the code where it was proposed (3104 now addresses bonding), the language in 3152.5-1 is sufficiently close to subpart 3104 proposed in the Federal Register document cited here (63 FR 66840) that one may infer that the intent made public in the quoted text applies to the Environment and Safety subpart as promulgated in 3152.5-1. (The intent as set out in 63 FR 66840 is to provide "an explanation of what an operator must do to protect the environment when conducting operations," while the current code at 3162.5-1 begins by explaining the conduct required of operators to preserve the environment: "The operator shall conduct operations in a manner which protects the mineral resources, other natural resources, and environmental quality." 63 FR 66840 , 43 C.F.R 3162.5-1.)

[33] 63 FR 66840-01 at 66844.

[34] *Id* (emphasis added).

Act of 1987, including the addition of environmental provisions. *Id.* at 66841. Therefore, since the environmental obligations are derived both from the language of the standard lease form and the regulations together, clearly the 3101.1-2 regulation cannot alone be considered the authority directing the BLM's ability to enforce environmental protection.

Consequently, it may be worth noting what rights BLM conveys when it issues a lease and what rights it retains. The BLM only conveys three rights when it issues a lease:

- An "exclusive right" to remove all of the oil and gas on the leasehold.[35]
- The right to "use" as much of the leasehold as "necessary" to recover all of the leased resource.[36]
- The right to build and maintain "necessary" improvements to extract the leased resource.[37]

Thus, the only rights a lessee has are a right to exclude others from developing the lease, a right to use no more of the lease than is "necessary" to retrieve the leased oil and gas, and a right to build only "necessary" improvements. Operators have not been conveyed a right to develop the oil and gas in exactly the manner they desire or on the exact timeline they desire. BLM has retained the right to condition those aspects of oil and gas development.

In contrast to the limited rights that have been conveyed, under the standard lease form and the 3101.1-2 regulation, the BLM has specifically retained the right to condition development based on the following:

- Applicable laws.[38]
- Terms, conditions, and stipulations in the lease.[39]
- Regulations and formal orders in effect when the lease is issued.[40]
- Regulations and orders issued afterward, if not inconsistent with lease rights and provisions in the lease.[41]
- Specific, non-discretionary statutes.[42]
- Reasonable measures.[43]

Special mention may be needed with respect to the first limitation on conveyed rights. The standard Offer to Lease and Lease for Oil and Gas (Form 3100-11) makes the removal of oil and gas "subject to applicable laws."[44] This is a considerably broader provision than the reference to non-discretionary statutes in the 3101.1-2 regulation. Many laws are applicable even if they are not strictly non-discretionary. A number of these laws, such as provisions in the

[35] Form 3100-11.
[36] 43 C.F.R. § 3101.1-2.
[37] Form 3100-11.
[38] *Id.*
[39] *Id.*
[40] *Id.*
[41] *Id.*
[42] 43 C.F.R. § 3101.1-2.
[43] *Id.*
[44] Form 3100-11.

Clean Air Act and the Clean Water Act, were noted above. These provisions are certainly "applicable" even if they are not "non-discretionary," and thus the leasehold—and the lessee—have been made "subject to" these laws under the explicit terms of the standard lease contract. Any number of other laws are also "applicable," including the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act 16.[45] And thus the lease—and the lessee—have specifically been made subject to the provisions of these laws.

Before moving on, we would also note that the "terms, conditions, and stipulations of this lease," to which the lease—and lessee—are also "subject to" under form 3100-11, specifically includes the three limitations noted above that are stated in the standard lease form. That is, the rate of development can be specified as needed in the public interest, reasonable measures not necessarily limited to only the three mentioned in the 3101.1-2 regulation that are deemed necessary to minimize adverse impacts can be required, and if the impacts of the proposed operation are substantially greater than normal, operations can be denied.

This broad range of retained rights gives the BLM great authority to specify the time, place, and manner of oil and gas development. The limited conveyance of rights under a federal oil and gas lease and the government's high degree of retained authority to condition development on leases was long ago recognized by the United States Supreme Court:

> Unlike a land patent, which divests the Government of title, Congress under the Mineral Leasing Act has not only reserved to the United States the fee interest in the leased land, but has also subjected the lease to exacting restrictions and continuing supervision by the Secretary. . . . . In short, a mineral lease does not give the lessee anything approaching the full ownership of a fee patentee, nor does it convey an unencumbered estate in the minerals.[46]

In addition, the court noted that "[r]ecognition of the Secretary's power here serves to protect the public interest in the administration of the public domain."[47]

Clearly, the BLM has more than sufficient authority to regulate development of an oil and gas lease in order to meet its obligations under numerous applicable environmental laws and policies enacted to protect the natural environment.[48] Or said differently, it has more than sufficient authority to meet its legal obligations and management objectives despite leases being in place because what has been conveyed is an interest "subject[ ] . . . to exacting restrictions and

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[45] 16 U.S.C. §§ 703-712, U.S.C. §§ 668-668c

[46] *Boesche v. Udall*, 373 U.S. 472, 477-78 (1963).

[47] *Id.* at 484.

[48] BLM sometimes attempts to invoke BLM Instruction Memorandum (IM) 92-67 (issued December 3, 1991) that was discussed above as limiting its ability to condition development on a lease. But construing the IM in such a way could be inconsistent with the decision in *Mineral Policy Center v. Norton* (also discussed above) if it is not recognized that a *dual* obligation is in operation and the undue degradation prong of that obligation requires the BLM "to disapprove of an otherwise permissible mining operation because the operation, though necessary for mining, would unduly harm or degrade the public land." The IM must be interpreted in light of the holding in *Mineral Policy Center* and in light of the statements made by the BLM in the Federal Register in developing the 3101.1-2 regulation, also discussed above. And it should be pointed out that this IM expired on September 30, 1992.

continuing supervision," not "an unencumbered estate in the minerals" as discussed in *Boesche* above.[49]

In addition to the provisions in the standard lease contract, the Mineral Leasing Act itself and BLM's regulations relative to the conditions under which oil and gas development may be pursued are replete with retained authority to condition development of leases, and indeed a responsibility to do so in order to protect the natural environment. Many if not all of these provisions were "regulations and formal orders in effect" when many leases were issued, and they are not "inconsistent with lease rights and provisions in the lease" in any event, as provided for in the standard lease form.[50] Accordingly, they constitute additional retained rights.

"Each lease shall contain provisions for the purpose of insuring the exercise of reasonable diligence, skill, and *care* in the operation of said property . . . ."[51] "The Secretary of the Interior is authorized to prescribe necessary and proper rules and regulations and to do any and all things necessary to carry out the and accomplish the purposes of this chapter, also to fix and determine the boundary lines of any structure, or oil and gas field . . . ."[52] "The Secretary of the Interior, for the purpose of encouraging the greatest ultimate recovery of [leasable minerals], and *in the interest of conservation of natural resources*, is authorized to waive, *suspend*, or reduce the rental, or minimum royalty, or reduce the royalty on the entire leasehold . . . ."[53] "The Secretary of the Interior . . . shall *regulate* all surface disturbing activities conducted pursuant to any lease issued under this chapter, and shall determine reclamation *and other* actions as required *in the interest of conservation of surface resources*."[54] Clearly the Mineral Leasing Act gives the BLM broad authority to condition oil and gas development in the interest of conservation and this authority has been recognized by the courts.[55]

As noted, BLM regulations regarding the conditions under which oil and gas development can occur are also replete with provisions allowing the BLM to condition the time, place, and manner of oil and gas development. "The authorized officer is authorized and directed to . . . require compliance with lease terms, with the regulations in this title and all other applicable regulations promulgated under the cited laws, and to require that all operations be conducted in a manner which protects other natural resources and the environmental quality . . . ."[56] "Before approving operations on a leasehold, the authorized officer shall determine . . . that

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[49] *Boesche v. Udall*, 373 U.S. 472, 477-78 (1963).
[50] Form 3100-11.
[51] 30 U.S.C. §187 (emphasis added).
[52] *Id.* § 189.
[53] *Id.* § 209 (emphasis added) *See also* 43 C.F.R. § 3103.4-4 (companion regulatory provision allowing suspension of leases).
[54] *Id.* § 226(g) (emphasis added) (also requiring approval of a plan of operations and "complete and timely" reclamation and restoration of lease tracts).
[55] *Copper Valley Machine Works, Inc. v. Andrus*, 653 F.2d 595 (D.C. Cir. 1981) (determining that the "ordinary meaning" of the term "in the interest of conservation" in section 209 of the Mineral Leasing Act allows suspension of operations so as to protect the environment); Getty Oil Co. v. Clark, 614 F.Supp. 904 (D. Wyo. 1985) (holding sections 189 and 209 of the Mineral Leasing Act provide broad grants of authority allowing conditioning of development to protect the environment, even allowing denial of drilling operations to protect wilderness values when a suspension is requested by the lessee).
[56] 43 C.F.R. § 3161.2.

the proposed plan of operations is sound both from a technical and environmental standpoint."[57] All operations will be conducted in a manner "which protects other natural resources and environmental quality . . . ."[58] "The operator shall conduct operations in a manner which protects the mineral resources, other natural resources, and environmental quality."[59] "The operator shall exercise due care and diligence to assure that leasehold operations do not result in undue damage to surface or subsurface resources or surface improvements."[60]

Furthermore, the BLM has separate regulations related to making authorizations of land use on the public lands. "Each land use authorization shall contain terms and conditions which shall" protect cultural resources, ensure compliance with pollution control laws, required compliance with state environmental standards, and otherwise protect Federal properties. 43 C.F.R. §§ 2920.7(b)(1)-(4) and (c)(1)-(5).

And as also noted above, section 4 of the standard lease form clearly allows the BLM to regulate the pace of development. This authority is bolstered by many other provisions of law and policy noted above, and the courts have recognized that BLM has an obligation to consider regulating the pace of development in a NEPA analysis. In Northern Plains Resource Council v. BLM, No. CV 03-69-BLG-RWA (D. Mont. February 25, 2005) and Northern Cheyenne Tribe v. BLM, No. CV 03-78-BLG-RWA (D. Mont. February 25, 2005) the court held that the BLM violated NEPA by not considering alternatives for phased development in the context of a coalbed methane development project.

The BLM itself has also recognized the need to consider phased and/or paced development alternatives. In the Pinedale Anticline Draft Environmental Impact Statement (1999), which formerly applied to the Pinedale Anticline field outside of Pinedale, Wyoming, the BLM acknowledged that "BLM can regulate the manner and pace of development" and that pursuant to Interior Board of Land Appeals decisions, "consider[ing] staggering development over time [is] an '*obvious* alternative.'"[61]

At least one implication of the above review of the degree of retained rights enjoyed by the BLM is that "takings" concerns are not of such a certain, severe magnitude that the BLM must in essence capitulate to the development desires of industry. In our experience, the BLM often quickly invokes (or bows to) concerns about there being a "taking" if it were to strongly regulate oil and gas development. We believe such concerns are greatly overstated.

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[57] *Id.*

[58] *Id.* § 3162.1(a) (also requiring the operating rights owner to comply with all applicable laws, regulations, lease terms, Onshore Oil and Gas Orders, Notices to Lessees, "and with other orders and instructions of the authorized officer").

[59] *Id.* § 3162.5-1(a) (also requiring compliance with orders, applicable laws, regulations, lease terms and the drilling/operations plan).

[60] Id. § 3162.5-1(b).

[61] Pinedale Anticline Draft EIS at 2-43 (citing Wyoming Outdoor Council, 147 IBLA 105 (1998) and Powder River Basin Resource Council, 120 IBLA 47 (1991)). See also Pinedale Anticline Draft EIS at 2-2 (paced development is consistent with lease rights granted and required to meet the requirement to prevent unnecessary or undue degradation).

Before a taking can occur, a property right must have been *given*. While certainly the BLM has conveyed the right to extract oil and gas from a leasehold, using no more of the leasehold than is "necessary" and building only "necessary" improvements, it has done so subject to any development occurring under a highly regulated, comprehensive framework administered by the federal agency, as discussed in detail above. Specifically, whatever property right has been "given" has been made "subject to" applicable laws; terms, conditions and stipulations in the lease itself; other regulations and orders in place when the lease was granted; later-issued regulations if not inconsistent with the lease; specific, non-discretionary statutes; and any reasonable measures that the BLM may require. To quote the Supreme Court again, a federal lease is "subjected [ ] to exacting restrictions and continuing supervision" and "does not give the lessee anything approaching the full ownership of a fee patentee."[62] Having given only a highly conditioned right to development, the BLM can fully regulate development of existing leases with little fear of there being a "taking," and under the legal authorities discussed above it must in fact do so.[63]

Furthermore, besides the fact that the BLM has given only a significantly limited right, it is well established that a regulatory taking can *only* occur if an agency deprives the leaseholder of *all* economically viable uses of the leasehold.[64] This is "black letter law" reemphasized time and again by the Supreme Court. It seems unlikely that any restrictions that the BLM might place on lease development would deprive the leaseholder of *all* economically viable uses of the lease, and certainly a taking does not occur just because the leaseholder does not get to develop the lease in exactly the manner or on exactly the timeline they might desire.

We engage in this lengthy and somewhat detailed review of relevant law and policy so as to emphasize that the BLM certainly has the authority, and indeed an obligation, to fully protect the natural environment in the Buffalo Field Office planning area even in areas that have been leased. And while not mentioned above, clearly the BLM has an even greater authority and greater legal obligation to protect the natural environment in areas that have not yet been leased. Specific means by which this retained authority could be exercised, such as by requiring the use of phased or paced development, will be discussed next.

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[62] *Boesche* at 477-78.

[63] In addition there also is little chance that there will be a breach of contract if the agencies carefully regulate development on a lease. We have not suggested that applicable laws enacted after lease issuance are necessarily enforceable, although it is not at all apparent that the conditions where the Supreme Court found a contract repudiation in the context of the Outer Continental Shelf Land Act and offshore leases is replicated in the language of the onshore standard lease form where the lease is made subject to applicable laws with no mention made of such a limitation only being applicable to laws existing at the time of entering the contract. *See Mobil Oil Exploration & Producing Southeast, Inc. v. United States*, 530 U.S. 604 (2000) (finding repudiation of offshore oil lease occurred where the government imposed restrictions established by a later-enacted law). As the court observed, "the need to obtain Government approvals so qualified the likely future enjoyment of the exploration and development rights that the contract, in practice, amounted primarily to an *opportunity* to try to obtain exploration and development rights in accordance with the procedures and under the standards specified in the cross-referenced statutes and regulations." Id. at 2436. All that was bought was a promise that the government would not deviate significantly from the terms of the lease; that the "gateway" to enjoyment of the rights granted would not be significantly narrowed (which in *Mobil Oil* the government had done). *Id.* No more is likely demanded of onshore leases.

[64] *Lucas v South Carolina Coastal Council*, 505 U.S. 1003 (1992).

a. Paced and Phased Development

One of the most important means by which environmental values can be protected is by adopting specific provisions requiring phased and/or paced development in environmentally sensitive areas. This is an "obvious" way to manage oil and gas development according to the IBLA. As noted above, section 4 of the standard lease form specifically allows regulation of the rate of development, and BLM has recognized the validity of this approach in the Pinedale Anticline EIS. The IBLA recently recognized that section 4 of the standard lease form allows the BLM to protect resources by regulating the manner and pace of development and the siting or timing of lease activities, even if these requirements are imposed on leases issued long ago (1948).[65] *See also Yates Petroleum Corp,* 176 IBLA 144, 155-158 (2008) (confirming that the pace of development can be regulated).

b. Clustered Development and Directional Drilling

Another important means to achieve environmental protection is to require clustered development and the related technique of requiring directional drilling. Again, there is no doubt that imposing such requirements are well within the agency's retained rights under a federal oil and gas lease. Oil and gas lessees may have a right to retrieve all the oil and gas on a leasehold, but they do not have a right to do it exactly when, where, and how they choose; specifying the time, place and manner of oil and gas development is well within the agency's authority, and in fact in the words of the Mineral Leasing Act it has an obligation to "regulate" oil and gas development so as to conserve surface resources. That directional drilling might cost a leaseholder somewhat more than straight-hole drilling is not sufficient reason in and of itself for the BLM to not require directional drilling, if such would better protect the natural environment it has been charged with protecting. Only if <u>all</u> economically viable use of the leasehold would be precluded is the BLM barred from requiring directional drilling.

c. Lease Suspension

Lease suspension is another means at BLM's disposal to ensure full environmental protection is achieved in leased areas. As noted above, the Mineral Leasing Act gives the BLM authority to suspend leases "in the interest of conservation," a term that includes conservation of environmental values, and BLM's companion regulations reemphasize this power. The courts have also recognized this authority. Suspending leases so as to protect the natural environment is a well recognized means to protect the natural environment, having been used by the BLM in the Jack Morrow Hills Coordinated Activity Plan and Pinedale Anticline Supplemental EIS Record of Decision, for example.

d. Conditions of Development

Other means to protect the natural environment that are well within the BLM's retained rights to require include limitations on well pad size, requiring closed-loop drilling fluid systems, the use of remote well monitoring and car pooling and other traffic reduction techniques, and requirements to bury utility lines. The BLM can require these and other techniques and

[65] *National Wildlife Federation et al.*, 169 IBLA 146, 164 (2006).

provisions as prerequisites to development on existing leases due to its substantial retained rights.

e. Retention and Enforcement of Lease Stipulations

One of the most important means by which the BLM can ensure that the natural environment is protected is to ensure that timing stipulations oriented toward the protection of wildlife crucial ranges are not abandoned and are in fact vigorously enforced. The BLM in Wyoming has shown increasing tendencies to abandon these protections and/or to grant exceptions and waivers to them. This is a dangerous trend that should not be perpetuated, if protection of other resources is desired.

h. Conclusion

We ask the BLM to explicitly discuss and to recognize these retained rights in the Buffalo Field Office EIS and to exert these rights in the Buffalo Field Office RMP, particularly in areas that will not be available for future oil and gas leasing but where there are existing leases.