UPPER MISSOURI RIVER BREAKS NATIONAL MONUMENT

RESOURCE MANAGEMENT PLAN

Oil and Gas Leases – Scoping Report

March 15, 2005

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CONTENTS

Introduction

The BLM is including an analysis of 12 existing natural gas leases in the ongoing Upper Missouri River Breaks National Monument Resource Management Plan (RMP). The analysis of these leases will be part of the comprehensive plan for the Monument scheduled for release to the public as a draft in the summer of 2005.

The BLM's decision to examine these leases is the result of a Montana Federal District Court ruling involving a suit that alleged the agency did not fully comply with the National Environmental Policy Act, the Endangered Species Act, and the National Historic Preservation Act when 3 of the 12 leases were awarded in 1999. The 3 leases involved in the suit were based on analysis in the West HiLine RMP. The ruling ordered the BLM to prepare an environmental impact statement for the oil and gas leasing program that covers the 3 leases. An additional 9 leases in the Monument are also based on the West HiLine RMP. The BLM believes all 12 of the leases should be analyzed in the ongoing Monument RMP.

Public Involvement

The first step in this analysis was scoping this new issue with the public, which began with a news release and update to the mailing list (email/regular) in September 2004 to explain the issue. This was followed in October with news releases and a newsletter to the mailing list, which included information about the natural gas leasing issue, some frequently asked questions/answers, and a request for public comment on the development of alternatives for inclusion in the ongoing Monument RMP. All news releases, updates and newsletters are also posted to the Monument website. Table 1 provides a listing of the news releases and update/newsletter associated with this new issue.

Table 1. News Releases and Update/Newsletter for the Oil and Gas Leasing Issue

Item	Date	Distribution/Number	
News Release	September 16, 2004	Monument Website and Media List	25
Update	September 16, 2004	Monument Website and Mailing List	6,297
News Release	October 8, 2004	Monument Website and Media List	25
News Release	October 21, 2004	Monument Website and Media List	25
Newsletter	October 27, 2004	Monument Website and Mailing List	6,036

Public Meetings

To provide opportunities for public participation, the BLM held 6 public meetings in November 2004. The format of the public meetings was informational with an opportunity for the public to visit BLM resource specialists at 4 informational stations and an opportunity for questions/answers. The intent was to provide enough information about the lease area for the public to provide written comments on the development of alternatives. About 60 people attended these public meetings. Table 2 provides the date, location, and attendance for the public meetings.

Table 2. Public Meeting Locations, Dates, and Attendance

Location	Date	Attendance
Winifred	November 8, 2004	14
Lewistown	November 9, 2004	4
Great Falls	November 10, 2004	23
Chinook	November 15, 2004	10
Fort Belknap	November 16, 2004	3
Billings	November 17, 2004	9

Since the public meetings were informational, questions and concerns were not formally recorded by the BLM but a comment form was provided and the public was encouraged to submit written comments at the conclusion of the meeting or by December 15, 2004. However, some of the questions asked and concerns expressed included:

- would this issue and analysis be part of the Monument RMP or a separate effort
- how will weeds be addressed (monitoring and control)
- why not address all the oil and gas leases
- how would new stipulations be attached to existing leases
- would new road construction be reclaimed
- would natural gas roads be available to the public
- has the BLM reclaimed natural gas roads in the past
- the analysis must address the impacts of exploration (especially wildlife)
- additional restrictions to protect wildlife are not necessary
- need to address the problem with predators to improve wildlife
- private land should not have been included in the Monument
- can BLM change the lease stipulations on the other 31 leases in the Monument
- what is the legal status of the other 31 leases in the Monument
- are there any applications for drilling pending
- there is a need to allow continued educational use of the Monument
- you need a collection system to get the natural gas out of the Monument (pipelines)
- will the analysis consider field development of the leases
- need to strengthen the stipulations to protect wildlife
- what are the values in this area (scenic, remoteness, wildlife, cultural)
- can seismic research be released to the public after 5 years or so
- can the RMP override State spacing requirements for the number of wells
- why is the West HiLine RMP inadequate for these leases
- did all leasing covered by the West HiLine RMP follow the same decision document and laws
- was something different done when leasing the 12 West HiLine leases in the Monument
- did the designation of the Monument lend itself to the need to revisit these leases
- how does the lawsuit affect the Monument designation and other work on the RMP
- how and when does the private surface owner add comments prior to the leasing of Federal subsurface
- who regulates the actions of natural gas companies when it's private surface and Federal subsurface
- who regulates the type of material that is used when natural gas pipelines are on the surface
- how many of the leases are in a visual resource management class I area
- would these leases require new roads or would drilling take place next to a road
- what does science tell us about bighorn sheep sensitivity to human activities
- how can you manage/enforce off-highway vehicle regulations

Coordination/Consultation

Coordination with the State of Montana and Blaine, Chouteau, Fergus, and Phillips Counties under the National Environmental Policy Act will continue with the preparation of the Monument RMP. This coordination consists of the State and Counties as cooperating agencies in preparation of the RMP. This will continue with the alternative development process for the 12 West HiLine oil and gas leases and through completion of the Monument RMP.

Consultation with the tribes under the National Historic Preservation Act will continue with the preparation of the Monument RMP. Previously this has included an opportunity for cooperating agency status, information mailings (letters, updates, and newsletters), and meetings with the Blackfeet Tribal Council, Chippewa-Cree Cultural Advisory Committee, Confederated Salish and Kootenai Tribes of the Flathead Nation, Fort Belknap Community Council, and Gros Ventre White Clay Society. In September and October 2004 the tribes were notified of the inclusion of the oil and gas leasing issue in the Monument RMP (letter, update, and newsletter). This consultation will continue through completion of the Monument RMP.

Consultation with the U.S. Fish and Wildlife Service (FWS) under the Endangered Species Act will continue with the preparation of the Monument RMP. Several informal meetings/discussions have occurred with the FWS on the

listed species in the area, suggestions for management, and effects that should be addressed in a biological assessment. This will continue with the alternative development process for the 12 West HiLine oil and gas leases and through completion of the Monument RMP.

Comment Letters/Emails

A total of 5,700 letters, emails, and comment forms were received on this issue, of which 5,571 were a variation of 2 form letters/emails. Some letters/emails were as brief as a few sentences; others were several pages long. Some offered specific comments on alternatives, while others conveyed a want or an opinion. They all expressed an interest in the management of public land.

All public comments were read and 449 specific comments were identified and coded into 30 subject categories. Table 3 provides a list of the codes, subject categories, and the number of comments by subject. Please refer to this table when reviewing the attached Public Comments by Subject Category.

Table 3. Comment Codes, Subject Category, and Number of Comments

Code	Subject Category	Number of Comments
1000	Resources - General	15
1050	Air Quality	1
1100	Cultural Resources	6
1150	Fish and Wildlife	62
1350	Soil	13
1400	Vegetation/Native Plants	2
1401	Riparian	2
1403	Noxious and Invasive Plants	13
1450	Visual Resources	11
1500	Water	2
2100	Public Access	1
2200	Minerals	2
2210	Oil and Gas Activity	60
2212	Oil and Gas Leasing	9
2213	Oil and Gas Lease Validity	16
2215	Oil and Gas Impacts	45
2217	Oil and Gas Lease Management	5
2253	Motorized Watercraft	1
2300	Transportation	2
2310	Aircraft Landings	1
2311	Aircraft Overflights	1
2320	Roads	31
4050	ACECs	1
4250	Wilderness Study Areas	38
5050	Economic	11
5052	Communities	1
5200	Social	2
6050	Management	90
6101	Analysis	2
6103	Public Involvement	3
	Total	449

Sample of Comments

Following is a sample of the 449 specific comments received from the public. This is only a sample that highlights some of the comments from each category and does not include all the comments, suggestions, data or concerns raised by the public. For a comprehensive summary, please refer to the attached Public Comments by Subject Category.

The BLM needs to conduct a comprehensive inventory of historic sites, plants and wildlife in the Monument, so that it can better determine the "objects of interest" that need to be protected before well sites and roads are constructed.

BLM should take a proactive approach to managing air quality by, among other things: gathering baseline air quality data; setting 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 (including the proposed Roundup coal-fired power plant and significant increases in oil and gas development along the West HiLine); establishing an effective monitoring program; and halting any actions that contribute to air pollution if such monitoring reveals that standards have been exceeded.

BLM must consult with all interested parties, including interested Tribes and other consulting parties, id. at 1157, and must satisfy the procedural requirements of Section 106, pursuant to 36 C.F.R. §§800.3 through 800.6.

Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.

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.

The no surface occupancy stipulation should be a first option where surface activities, both cumulative and otherwise, detrimentally affect the visual resource or affect wildlife breeding, calving and winter range areas.

No surface disturbance should occur on slopes over 20%, to prevent erosion and degradation of scenic values and unique features of this wild landscape.

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.

To prevent the spread of noxious weeds, all vehicles should be cleaned before entering the Monument.

Allow only one well site per section to protect scenic values and opportunities to experience remote settings.

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.

As BLM develops its RMP for the monument, it should base its analysis on economically recoverable oil and gas, not simply technically recoverable oil and gas.

Pipelines should be buried along transportation system approved road beds.

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.

Amend the leases to attach stipulations and restrictions, including No Surface Occupancy restrictions that are necessary to protect monument objects.

When wells become unproductive, all trace must be eliminated.

Must be developed in a manner which creates the least impact and should be phased out when they stop producing and the area should be reclaimed to its original condition.

Gas wells drilled on the land within the monument have already left a network of road scars and drilling sites that have never been reclaimed.

If existing leases are found to be invalid, they must be nullified.

If the judge in the active case of the three invalid West HiLine leases rules those leases cancelled, then the other nine in the West HiLine RMP should also be cancelled.

Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.

BLM should also analyze similar reasonably foreseeable actions including authorizations for oil and gas development occurring on State and private lands in or adjacent to the geographic area of the RMP, Charles M. Russell National Wildlife Refuge Management Plan and other oil and gas activities on nearby lands administered through adjacent BLM Field Offices/Districts.

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, and in particular the EIS and the final RMP should ensure compliance with the Clean Water Act, Safe Drinking Water Act, Toxic Substances Control Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response Compensation Liability Act (CERCLA—the Superfund) relative to the use of these and other toxic and hazardous substances.

Roads to natural gas well sites should be limited to administrative use only.

When the wells are no longer producing commercial quantities of natural gas, the well sites and roads should be reclaimed and recontoured.

BLM should analyze the costs of road maintenance and restoration and compare these costs with the budgets available to complete the work.

Road density is completely out of control in the Monument. User created roads are springing up even now four years after creation of the Monument, and further development of the gas leases will result in more miles of road.

Wells should be prohibited in any of the existing or proposed wilderness study areas.

In 2003 the Montana Wilderness Association asked the BLM to reevaluate the Bullwhacker as a primitive area during the Monument management planning process. We believe that much of the area was unfairly denied Wilderness Study Status during the first evaluation process and that because of changes which have

occurred since 1990, the area's wilderness character needs to be reevaluated and considered within the Monument management process.

In general, when looking at the economic implications of various management alternatives, BLM should do a full accounting of the costs and benefits. To facilitate informed investment decisions about publicly owned wildlands, economic analysis must take into consideration both market and nonmarket benefits and costs.

The BLM should prepare a comprehensive economic analysis, from both regional and national perspectives, comparing the costs of nominal additional gas production against the benefits of a unique and still largely undeveloped public landscape containing the myriad values for which the Monument was established.

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 natural gas development activities, especially the noise problems from compressors and compressor stations.

Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.

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 meeting the conservation mandate for the monument, 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, and the prevention of air and water pollution.

Insufficient opportunity for public comment was one point of contention in this legal challenge. However, MWF does not believe that the insertion of a mid-process open house schedule addresses this issue sufficiently nor meets the letter nor intent of NEPA requirements for public involvement.

Planning Process

The next step in the analysis of these leases is the development of a range of alternatives. This range will include the current lease stipulations and an alternative that would prohibit surface disturbance on the lease area(s). Other alternatives will be developed based on the public comments and resources in the Monument. These alternatives will be part of the overall management alternatives already developed for the RMP for a comprehensive Monument plan. The range of alternatives will then be looked at carefully for the environmental impacts of each alternative. This analysis will be part of the comprehensive plan for the Monument scheduled for release to the public as a draft in the summer of 2005.

This summary and report of the public comments is available on our web site at www.mt.blm.gov/ldo/um/MonumentRMP.htm. Copies can also be requested by contacting the Lewistown Field Office, P.O. Box 1160, Lewistown, MT 59457.

Upper Missouri River Breaks National Monument

Resource Management Plan

Oil and Gas Lease Public Comments

By Subject Category

March 15, 2005

UMRBNM Oil and Gas Lease Comments

Subject Code No.	Lease Comment Letter No.	Lease Comment
1000		
	L16	The BLM needs to conduct a comprehensive inventory of historic sites, plants and wildlife in the Monument, so that it can better determine the "objects of interest" that need to be protected before well sites and roads are constructed.
	L2343	The BLM needs to conduct a comprehensive inventory of historic sites, plants, and wildlife in the Monument, so that it can better determine the "objects of interest"
	L2502	In addition to data that we have sent you over the past few years, we want to draw BLM's attention to important data available from the Montana Department of Fish, Wildlife and Parks, 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.
	L2503	Fully inventory the lease areas for cultural resources prior to approving any specific ground-disturbing activity.
	L2504	The archeological, historical, cultural inventories should be completed before any drilling begins. Special species and habitat requirements must be completed with written expectations for protection, preservation and restoration.
	L2518	Lease development should not proceed until inventories are complete for the objects protected by the Monument proclamation. The objects cannot be adequately protected if much of the inventory process is left to occur during planning for roads and pipelines. There must be an adequate inventory in advance of further development in order to provide information for making informed decisions about cumulative effects.
	L2531	A comprehensive inventory of the historic sites, plants and wildlife should be conducted by the BLM to determine the objects of interest to be protected.
	L29	Conduct a comprehensive inventory of historic sites, plants, and wildlife in the Monument, so that it can better determine the "objects of interest" which need to be protected before well sites and roads are constructed.
	L31	A comprehensive inventory of historic sites, plants and wildlife must be conducted.
	L32	Conduct a comprehensive inventory of historic sites, plants, and wildlife in the Monument, so that it can better determine the "objects of interest" which need to be protected before well sites and roads are constructed.
	L34	All items and areas requiring protection must be inventoried before any well sites or roads are located.
	L5068	A thorough inventory of valued "objects" must be carried out prior to any gas development planning analyses and decisions.
	L5521	Plants, wildlife, and historic sites need to be inventoried before roads are built and drilling begun so as to reduce unnecessary impact to these resources.
	L5581	The BLM needs to conduct a comprehensive inventory of historic sites, plants and wildlife in the Monument, so that it can better determine the "objects of interest" which need to be protected before well sites and roads are constructed.

Subject Code No.	Lease Comment Letter No.	Lease Comment
	L9	The BLM should inventory the historic sites, plants and wildlife so that these ageless qualities can be protected forever.
1050		
	L2502	BLM should take a proactive approach to managing air quality by, among other things: gathering baseline air quality data; setting 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 (including the proposed Round Up coal-fired power plant and significant increases in oil and gas development along the West HiLine); 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. Much of the air pollution causing this haze can be attributed to coal-fired power plants and a general increase in the burning of fossil fuels within and beyond the RMP region. Accelerated oil, gas, and coalbed methane development on Federal, State and private lands is another contributor. Part and parcel of reducing regional haze are the requirements in the Clean Air Act for the prevention of significant deterioration of air quality and protection of air quality in various airshed categories, particularly in Class I airsheds applicable to National Parks and wilderness areas. The EIS should address how prevention of significant deterioration requirements can be met, and the RMP should require steps to ensure they are met. 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 NO2, SO2, and volatile organic compound (VOCs) pollution, through activities like flaring, drilling, processing plants, and wellhead compressors and compressor stations, to name a few. The Environmental Protection Agency (EPA) has prepared a report on the oil and gas extraction industry. Data in the report show the oil and gas extraction industry ranks as follows in terms of creating air pollutants among the 29 industrial sectors EPA had data for in 1997: Pollutant — Ranking (out of 29) CO — 9th NO2 — 3rd PM10 — 14th Particulates — 22nd SO2 — 2nd VOC — 5th These data emphasize the importance of regulating air pollution from oil and gas development activities in the RMP area.
1100		
	L2501	All oil and gas leases should be inventoried prior to any surface disturbing activity. Tribal governments should also be contacted as required by law. Where cultural resources are identified, surface disturbance and occupancy of that area must be prohibited.
	L2502	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 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. 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. BLM Manual MS-8100.08.A.1.b.(3).

The BLM's multiple-use mandate requires managers to balance resource use and resource preservation. BLM Manual MS-8100.08.A.1.b.(2) states that land use plans should take into account the effects other land and resource uses may have on cultural resources. The manual notes that the need for additional information should be evaluated, responsibilities assigned, and schedules established at the outset of the planning process. See BLM Manual MS-8100.08.A.1.b.(2). In other words, not only must the BLM examine the effects of other land and resource uses on cultural resources, but also 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 MS-8100.08.A.1.b.(2).

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. 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. 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.

The BLM must specifically request the views of tribal officials, and must solicit the views of traditional leaders or religious leaders.

BLM Manual MS-8120.32.A makes clear that the BLM can prevent unauthorized use of cultural properties through a variety of measures, including administrative protection measures. The manual specifically notes that the BLM's protective measures may include "withdrawal, closure to public access and off-road vehicles, special designations," etc. BLM Manual MS-8120.32.A. 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.

The RMP should specify a travel plan for ORVs that limits vehicle travel to roads that do not pass near culturally sensitive areas. All roads 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.

L2503 Seek to identify the cultural and historic resources potentially at risk of being damaged or destroyed by all oil and gas development activities.

BLM must consult with all interested parties, including interested Tribes and other

Subject Code No.	Lease Comment Letter No.	Lease Comment
		consulting parties, id. At 1157, and must satisfy the procedural requirements of Section 106, pursuant to 36 C.F.R. Sections 800.3 through 800.6. We believe that information developed through the Section 106 consultation process could raise important questions about historic resources affected by development of the leases, i.e., whether the leases should have been issued at all, or whether No Surface Occupancy (NSO) stipulations should have been attached. Accordingly, it is important for BLM to complete the Section 106 process in coordination with the NEPA process. Additionally, compliance with Section 106 should include an analysis of all potential impacts associated with the twelve oil and gas leases, and should develop appropriate alternatives and methods to avoid, minimize, or mitigate these impacts through specific stipulations and restrictions.
	L2522	Cultural and historic sites must especially be protected, including by not having roads which make them more accessible to vandals.
	L3995	Preserve all historic, cultural and scenic sites.
	L69	BLM should bar surface activities on historic and cultural sites, including native American sites and Lewis & Clark sites.
1150		
	L1278	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L13	Any wildlife disturbance is limited in time and scope. After a time the gas wells will have little or no impact on wildlife. Gas well development improves wildlife habitat.
	L16	To protect wildlife, well sites must be located outside of big horn sheep habitat, elk calving grounds, and other critical wildlife-habitat. The introduction of natural gas wells will result in lower reproductive rates in big horn sheep (studies have shown bighorns do not breed well and have difficulty raising their young near drilling activity), and will have a negative effect on elk and deer hunter's experience in the Monument.
	L1988	I urge you that you do not approve any drilling in bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L20	Gas wells with the disturbance of the land due to increased car and truck travel, digging for pipes and all the noise thereof will cause a decrease in sheep, elk and deer according to research. Wells should certainly not be allowed in big horn sheep habitat, elk calving grounds and other critical habitat.
	L2001	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L2025	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L22	One cannot forget the impact gas development has on big horn sheep as well as hunter's availability of elk and deer.

Subject Code No.	Lease Comment Letter No.	Lease Comment
	L2228	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L2273	Sites should be outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L2343	To protect wildlife, well sites should not be located in big horn sheep habitat, elk calving grounds, and other critical wildlife habitat. The introduction of natural gas wells will result in lower reproductive rates in big horn sheep (studies have shown bighorns do not breed well and have difficulty raising their young near drilling activity), and will have a negative effect on elk and deer hunters' experience in the Monument.
	L2501	Given the cumulative impacts, including oil and gas drilling from 31 other leases and all of the other proposed uses, what does the best available science recommend to protect winter range and calving grounds for elk and mule deer? A professional paper outlining the relation between road density and wildlife was prepared by Dr. Jack Lyon, who is well known for his research on road density research in forest lands, and Matt Becker, a researcher for The Wilderness Society. The paper was presented at the 1993 annual meeting of Wildlife Society, and organization of professional wildlife biologists, and is titled: "The Open Lands Dilemma: The Challenges of Big Game Management and Transportation Planning in Open Landscapes--a Case Study of the Missouri Breaks National Monument." Scientific studies also strongly suggest that bighorn sheep are impacted by oil and gas drilling activities. A study by the University of North Dakota based on research from 1992-1995 concluded that bighorn sheep are impacted from drilling activities. "The maintenance of the well and the vehicle on the roads out there does cause stress, and the sheep move temporarily, which takes energy from them and away from their time of feeding in these areas" according to one of the study's two lead researchers. "Areas with low and few roads had high lamb survival statistics" Researchers found that bighorns also are stressed by coyotes, military aircraft, cattle and hunters. The draft Monument management plan analysis should address the issue of how bighorn sheep are impacted by oil and gas drilling activities and the cumulative impacts from all the other proposed uses in the Monument. How large of a buffer zone does the best available science recommend to best protect bighorn sheep range and especially lambing areas? Stipulations should incorporate buffer zones which offer the maximum protection for bighorn sheep. Sage grouse leks are special areas within a national monument, so the maximum protective buffer zone should be incorporated into the stipulations. Prior to issuing any oil and gas leases, endangered species should have been identified and the impacts analyzed to comply with the Endangered Species Act. Drilling activities must be disallowed or mitigated if they detrimentally affect endangered or threatened species.
	L2502	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. Development of gas leases inevitably leads to the building of roads and the increased use of existing routes which already present a threat to wildlife species listed in the Proclamation. Additionally, some existing roads that might otherwise be candidates for closure will not be closed due to development of nearby gas leases. In this regard, the TWS report “Fragmenting Our Lands, The Ecological Footprint from Oil and Gas Development” (already submitted as part of our initial scoping comments) should be considered. 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).

BLM's planning handbook requires that a result of consultation/conferencing and the planning process itself must be the establishment of "conservation elements" that are presented in the RMP. BLM Handbook H-1601-1 at Appendix G page 5. It is imperative that these elements take account of all critical life stages (e.g., juveniles vs. adults) and ecological needs (e.g., breeding, feeding, shelter and cover) for all proposed and listed species, including ensuring protection of important habitat for these species.

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.

Montana Department of Fish Wildlife and Parks collect and analyze 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.

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, 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 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.

In addition, the sage grouse rarely receives no 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. It is also well known that the sage grouse may qualify for listing as a threatened or endangered species, so BLM has heightened obligations to protect the species. Furthermore, the appropriate means to protect sage grouse is to focus management efforts and protective measures on particular habitat needs (e.g., protecting leks), and to ensure sagebrush habitats, an increasingly imperiled ecosystem, are protected.

L2505 It is also encompasses the only "official" sage grouse lek within the national monument boundary and has high potential for sage grouse wintering habitat. Any decisions that the BLM reaches regarding resource management should emphasize the continued health of this declining species, in addition to the big game habitat fragmentation challenges that frequently accompany natural gas development in the American West.

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	L2508	Wells should be kept out of important wildlife areas such as elk calving grounds, sage grouse nesting areas, and bighorn habitat.
	L2512	As a resident only living and working just a few miles from the Monument I see no crucial winter range for deer or elk in the breaks. If I absolutely declare any areas a winter range, it would be rancher owned hay stacks. Regarding the impacts to sage grouse, the provisions set forth in the Montana Sage Grouse Plan can be used to manage sage grouse in gas lease areas. The only known sage grouse lek in the Monument is not affected by the gas leases now in question. As to impact on most animals including sage grouse and elk, the most critical issue as to their survival is predator control.
	L2517	No reason to raise the bar for sage grouse management on gas leases beyond that which has been established by the Montana Sage Grouse Management Plan. The notion that roads or drilling operations will have adverse impact on wildlife is unfounded and has never been validated by study in the Missouri Breaks.
	L2518	The no surface occupancy stipulation should be a first option where surface activities, both cumulative and otherwise, detrimentally affect the visual resource or affect wildlife breeding, calving and winter range areas. There was also some discussion of the existing wildlife stipulations and it appears that the standard stipulations are not strict enough to limit impacts on wildlife, in particular, impacts on deer, elk and bighorn sheep. The standard stipulations appear to be based on an unfinished analysis of the situation, in particular, the topography, wildlife habitat and road density. Inventories of wildlife and wildlife habitat should be finished before embarking on any further gas development. Wildlife habitat that supports or could support populations of sheep, deer, elk and sage grouse should be identified. In particular, areas in the Monument that are identified as good habitat for these species should be protected as habitat for the further recruitment of these species into the Monument. Development should be avoided or curtailed where such activities would impair possible recruitment of new calving grounds or sage grouse leks. The wildlife provisions in the existing stipulations are inadequate. The minimum distances are too short to protect nesting and strutting grounds, elk security areas, bighorn sheep habitat and raptor nesting areas.
	L2519	Keep well sites far away from elk calving ground, big horn sheep habitat and sage and sharptail grouse habitat.
	L2522	Given the wildlife sensitivities in some of the impacted areas, use of dirigibles would be better. Gas exploration should not be located in key wildlife habitat, or allowed to interrupt established migratory and hunting ranges.
	L2529	Well sites must be located outside of BH sheep habitat, elk calving grounds and other critical areas.
	L2530	MWF is concerned with some public statements made by Monument management staff that to the effect that “there is only one lek in the Monument.” While technically, this is not an untrue statement, it disallows consideration for the remaining 12 leks within 2 miles of the Monument boundary therefore fits the definition of potential nesting areas; anywhere within a 2-mile radius of leks as denoted within the Sage Grouse Plan. Many of these other leks are on private land where BLM has no authority to control activity, however, BLM is fully within its authority to do a plan for mitigation in potential nest areas; MWF simply requests that BLM recognizes the existence of all leks in the area and then plan accordingly.

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		West Nile Virus has proved to be a significant negative impact on individual flocks of Sage grouse. In a study on Sage grouse on the neighboring Charles M. Russell National Wildlife Refuge, numerous radio-collared sage grouse were found dead, and were subsequently determined to have died from West Nile Virus. Furthermore, a USDA press release determined that the highest concentration of West Nile Virus in Montana is located just north of the Monument in Blaine County. That being said, no mitigation measures are stipulated in the Range of Alternatives to combat this potential negative impact resulting from natural gas-related activities. Mosquito reproduction occurs in pools of standing water and coexistent with Oil and Gas exploration, drilling and production is an associated storage of production water, usually stored in open pits; specific requirements for these storage pits is located in Oil and Gas Exploration segment of the Alternatives. Integrated Pest Management techniques should be explored to minimize mosquito activity. While naturally occurring pools can support mosquito production, the additional pits associated with natural gas activities can easily be designed to keep mosquito activity to a minimum.
	L2531	Well sites should not be located in big horn sheep habitat, elk calving grounds, or other critical wildlife habitat.
	L26	Well sites must be located outside of bighorn sheep habitat, elk calving grounds, and other critical wildlife habitat. The introduction of natural gas wells will result in lower reproductive rates in big horn sheep and will have a negative effect on elk and deer hunters' experience in the Monument.
	L29	Studies have shown that bighorns do not breed well and have difficulty raising their young near drilling activity, therefore, the introduction of gas wells will result in lower reproductive rates in bighorn sheep. Protect wildlife, sites must be located outside of big horn sheep habitat, elk calving grounds and other critical wildlife habitat.
	L2908	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L30	Suggestions for increased restrictions because of sage grouse only reflects the total lack of knowledge of sage hens. Decreases in sage grouse numbers are solely the result of predation which has escalated the past 30 years.
	L3023	The presence of bighorn sheep habitat, elk calving grounds, and potential and occupied sage grouse leks are just a few of the reasons that great care must be taken on Monument land you are charged to protect.
	L3079	The only way such development and preserving wildlife can be compatible is to work together to do everything possible to not disturb the natural habitat of our nation's greatest treasures.
	L31	Any well must be located outside of big horn sheep habitat, elk calving grounds, and other critical wildlife habitat.
	L32	To protect wildlife, well sites should not be located in big horn sheep habitat, elk calving grounds, and other critical wildlife habitat.
	L3415	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L3441	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.

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	L3622	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L3626	Well sites that are approved be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L3718	Oppose any well sites located on or near any bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L3796	Well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, and all other critical wildlife habitat.
	L4060	Any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and all other critical wildlife habitat.
	L4220	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L4277	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks, and all other critical wildlife habitat.
	L43	Require only well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L4715	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks, and all other critical wildlife habitat.
	L4955	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L5220	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks, and all other critical wildlife habitat.
	L523	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L5371	Any development that occurs on leases predating the Monument's proclamation should be prohibited in critical wildlife habitat, including bighorn sheep habitat, elk calving grounds, and potential and occupied sage grouse leks.
	L5509	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L5520	Bar well sites and access routes within key wildlife habitat, such as Sage Grouse leks, bighorn sheep habitat, or elk calving areas.
	L5521	All well sites should be located away from important wildlife areas (calving grounds, travel corridors, etc.)
	L5523	Gas production activities should be sited away from critical wildlife habitat, such as sage grouse nesting areas, and cultural objects.
	L5547	Any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks, and all other critical wildlife habitat.

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	L5581	Well sites must be located outside of bighorn sheep habitat, elk calving grounds, and other critical wildlife habitat.
	L5686	I would like to see provisions of the Montana Sage Grouse Plan be used to establish management criteria for sage grouse on all gas leasing matters.
	L5686	I see no impact to wildlife as there are no proven wintering ranges for deer and elk in this area.
	L5687	This remote wildlife habitat could be degraded forever if proposed gas leases are developed without consideration of the area's natural and historic values.
	L69	BLM should bar surface activities on crucial wildlife habitat such as sage grouse leks (existing and potential), elk calving grounds and bighorn sheep habitat.
	L72	These sites be located far away from the habitat of elk, bighorn sheep, and other regional dwellers that are crucial to our delicate ecosystem.
	L857	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L888	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L950	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L-FL1	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks and all other critical wildlife habitat.
	L-FL2	Require any well sites you do approve to be located outside of bighorn sheep habitat, elk calving grounds, potential and occupied sage grouse leks, and all other critical wildlife habitat.
1350		
	L16	No surface disturbance should occur on slopes over 20%, to prevent erosion and degradation of scenic values and unique features of this wild landscape.
	L22	Where leases already exist there should be no disturbance on slopes over 20%.
	L2343	No surface disturbance should be allowed on slopes over 20% to prevent erosion and degradation of scenic values and unique features of this wild landscape.
	L2501	The stipulation should be changed to read "Surface-disturbing activities shall be prohibited during muddy and/or wet soil periods." Soils are highly erosive so surface disturbance should be prohibited on slopes over 20 percent.
	L2502	BLM must also minimize soil compaction, erosion and rutting at and near drill sites. Specifically, BLM should prohibit surface disturbing activities when the soil and/or roads are wet or muddy.
	L2518	There should be no surface development on lease sites where the drilling operation has to navigate steep terrain to reach the site.
	L2519	Keep any surface disturbance to slopes of 15 percent or less.

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	L2529	No surface disturbance on steep, highly erodable slopes.
	L2531	No surface disturbance should be allowed on slopes over 20% to prevent erosion and degradation of the Monument.
	L26	No surface disturbance should occur on slopes over 20%, to prevent erosion.
	L31	No surface disturbance should be allowed on slopes over 20%.
	L32	No surface disturbance should be allowed on slopes over 20% to prevent erosion and degradation of scenic values.
	L5581	No surface disturbance should occur on slopes over 20%, to prevent erosion and degradation of scenic values and unique features of this wild landscape.
1400		
	L2501	Well sites and roads should not be constructed in any flood plains.
	L2502	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 specific 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 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 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 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 monument. BLM must prohibit methods and projects that do not achieve the objective of restoring and promoting a

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		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 site for enough time 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 only 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.
1401		
	L2502	Similarly, the RMP should make provision for implementing BLM's Riparian-Wetland Initiative, and seek to implement the specific objectives established in that initiative, particularly the objective of restoring 75% of riparian areas to "proper functioning condition."
	L2519	Riparian habitat is particularly important to nearly all wildlife species, and should receive special protection.
1403		
	L16	To prevent the spread of noxious weeds, all vehicles should be cleaned before entering the Monument.
	L22	Developers disregard the weed problems.
	L2343	To prevent the spread of noxious weeds, all vehicles should be cleaned before entering the Monument
	L2502	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. BLM should consider whether it is more effective and efficient, ecologically and economically, to simply avoid certain ground-disturbing activities so as to ensure the requirements of the Executive Order are complied with. For example, not building certain roads or authorizing certain oil and gas drilling activities may be a very cost effective, as well as ecologically effective, means to prevent the spread of invasive species, and the RMP should establish guidance as to when avoidance of ground-disturbing activities is preferred and appropriate.
	L2522	To protect the natural state of the ecology, it is important to prevent the importation of non-native plants during construction, production, and restoration. The posting of a satisfactory bond for eradication of weeds will aid in attention to prevention.
	L26	All vehicles should be cleaned before entering the Monument to prevent the spread of noxious weeds.
	L29	Future pipelines should be buried along the roadbeds to minimize disturbances and to prevent the spread of noxious weeds. All vehicles should be cleaned before entering the Monument.
	L32	To prevent the spread of noxious weeds, all vehicles should be cleaned before entering the Monument.

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	L3995	All vehicles, individuals and equipment should be sprayed or rinsed in order to be weed free.
	L5068	To limit the spread of noxious weeds, all gas construction and support vehicles must be weed-free before entering the Monument.
	L5521	Minimize vehicle traffic to keep down noxious weed spread.
	L5523	Lessees should be required to keep their production vehicles free of invasive organisms.
	L9	Stopping the spread of noxious weeds should be a priority.
1450		
	L16	Allow only one well site per section to protect scenic values and the public's right to experience remote settings - to preserve the marvelous, timeless beauty of the Monument.
	L22	Only one well site per section should be allowed to help preserve the solitude and beauty.
	L2343	Allow only one well site per section to protect scenic values and opportunities to experience remote settings - to preserve the marvelous, timeless beauty of the Monument.
	L2501	To maintain esthetic values, the stipulations should be changed to state that all well sites and other surface disturbing activities, semi permanent and permanent facilities shall require special design including location, painting and camouflage to blend with the natural surroundings and to preserve the area's scenic values.
	L2502	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. See IBLA 98-144, 98-168, 98-207 (1998). 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 proposed for wilderness designation, 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.
	L2504	Natural, non-obtrusive lighting, if lighting is needed, should be expected.
	L2531	To protect scenic values, only one well site should be allowed per section.

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	L26	Allow only one well site per section to protect scenic values and the public's right to experience remote settings - to preserve the marvelous, timeless beauty of the Monument.
	L32	Allow only one well site per section to protect scenic values and opportunities to experience remote settings.
	L5521	Minimize number of well sites in any area to keep visual and road impact down (one or less per section).
	L5581	Allow only one well site per section to protect scenic values and the public's right to experience remote settings - to preserve the marvelous, timeless beauty of the Monument.
1500		
	L2502	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, is 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. All too often, 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. 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. An important step toward complying with the CWA can be made by ensuring the RMP adheres to and incorporates elements of the Clean Water Action Plan. The Clean Water Action Plan makes many provisions, but several are particularly relevant to public lands management. The Clean Water Action Plan requires "managing natural resources on a watershed basis . . . ." http://www.cleanwater.gov/action/c2b.html. Federal agencies must adopt a policy that "will ensure a watershed approach to federal land and resource management that emphasizes assessing the function and condition of watersheds, incorporating watershed goals in planning, enhancing pollution prevention, monitoring and restoring watersheds, recognizing waters of exceptional value, and expanding collaboration with other agencies, states, tribes, and communities." Id. The BLM is specifically required to provide for "enhanced watershed restoration efforts, including the integration of watershed restoration as a key part of land management planning and program strategies," among many other requirements. Id. The BLM "will increase maintenance of roads and trails and aggressively relocate problem roads and trails to better locations. Where unneeded roads pose threats to water quality they will be obliterated and the land restored." Id.
	L2532	The State of Montana has Water Quality Standards to protect the beneficial uses of our rivers, lake and streams. The waters in the project area are classified as B-3. The designated beneficial uses of B-3 water bodies are drinking, culinary and food processing, after conventional treatment; bathing, swimming and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply (ARM 17.30.625).

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		No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in MCA 75-5-318), settleable solids, oils or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife. (ARM 17.30.625 (2f)) Pollution resulting from storm drainage, storm sewer discharges, and non-point sources, including irrigation practices, road building, construction, logging practices, over-grazing and other practices must be eliminated or minimized. (ARM 17.30.637 (7)) Pending completion of a TMDL for the Missouri Choteau and adjacent planning areas, new or expanded non-point source activities affecting a listed water body may commence and continue provided those activities are conducted in accordance with reasonable land, soil, and water conservation practices…(75-5-703 (9b) MCA) "Reasonable land, soil, and water conservation practices" means methods, measures, or practices that protect present and reasonably anticipated beneficial uses. These practices include but are not limited to structural and nonstructural controls and operation and maintenance procedures. Appropriate practices may be applied before, during, or after pollution-producing activities. (ARM 17.30.602 (24)
2100		
	L2511	May I suggest that roads be obliterated and to require inholdings.
2200		
	L2228	I suspect that the gas fields extend over wide areas, that the reservoirs are linked. If this happens to be true, drilling elsewhere, outside the National Monument, will still recover the gas that is under it.
	L2502	As BLM develops its RMP for the monument, it should base its analysis on economically recoverable oil and gas, not simply technically recoverable oil and gas. The economically recoverable resources are that part of the technologically recoverable resources that can be recovered with a profit based on a cash flow analysis. To be considered economically recoverable the market costs of gas recovery must be less than or equal to the gas price (Goerold, 2001). When economic criteria are considered the oil and gas actually recoverable drops significantly (USGS, 1998). It is important to note that when assessing economically recoverable resources, government analysts include items such as the direct costs of exploration, development and production. Not included in the calculus are non-market costs such as the off-site ecological costs and cumulative negative environmental impacts to a public resource such as a watershed. An economic analysis of benefits and costs should however provide a full accounting of non-market benefits and costs, as well as those more readily measured in market prices. Government economic analyses more closely resemble a financial analysis than a true economic analysis. If the economic analysis fully accounted for the non-market costs associated with oil and gas extraction, the quantities of oil and gas estimated to be economically recoverable would be less than reported. A useful analysis would focus on an estimate of access to resources that are economically recoverable. Technically recoverable resources have no basis in economic reality as they are estimated without regard for costs or profits. If the full cost of extracting the gas is greater than market price, the gas is not an economic resource and there is no impact or opportunity cost from the lease stipulations designed to protect the environment. By using technically recoverable resources (rather than USGS estimates of economically recoverable), the BLM will grossly overestimate the adverse supply impacts and hence the opportunity costs from leasing stipulations and wilderness protections. Since policymakers should be concerned about the actual impacts and not the hypothetical impacts from lease stipulations, economically recoverable resources, estimated by USGS, are the policy-relevant measure and should be the basis for any future analyses by BLM.

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2210		
	L1	The time and effort being expended here to be shifted to utilization of citizen owned resources (gas/oil in this case) with absolute attention to specification, regulation and reclamation.
	L12	Why not let them build and explore any potential (lease) resource that may ultimately provide a cheaper utility, this but be a plus for me, yes there is environmental concerns but at what length do you go?
	L1264	Drilling should be done with the utmost precautions and reclamation.
	L13	The oil and gas lease stipulations are adequate.
	L14	There should (be) the toughest, most stringent rules possible to protect our land.
	L15	Where valid gas leases existed prior to the Monument designation, drilling activities should be allowed.
	L16	Where pre-existing natural gas leases are found, they must be developed in a manner which creates the least impact and should be phased out as the wells stop producing "paying quantities" of natural gas. Pipelines should be buried along roadbeds to minimize surface disturbance.
	L23	The strictest of scrutiny should be applied to all proposed and on-going oil and gas development proximate to the Monument.
	L2343	Pre-existing leases must be developed in a manner which creates the least impact and should be phased out as the wells stop producing "paying quantities" of natural gas. Pipelines should be buried along road-beds to minimize surface disturbance.
	L2501	Oil and gas stipulations should be adopted which best protect and result in the least amount of interference with the proper care and management of the objects of interest identified in the proclamation.
	L2502	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. If BLM proposes the development of gas in unconventional, continuous-type deposits within the resources area, there are significant environmental and community costs. Exploiting the gas in unconventional, continuous-type deposits will require drilling a significant number of wells, as the distribution of these resources is not well understood. Based on existing technology, the USGS indicates that nationwide approximately 960,000 productive wells will be required to recover potential gas reserve additions of 300 trillion cubic feet. However the habitat loss would not end there as extrapolation of present-day success ratios indicates that roughly 570,000 "dry" holes would have to be drilled in addition to the productive wells – for a total of 1,530,000 drilling sites on public and private lands. Based on an industry report in Alaska (cited in NPC, 1999), while past drilling pads consumed about 65 acres of habitat, recent operations average less than 10 acres. If we assume 5 acres per drilling pad and 1,530,000 drill sites, exploitation of just the continuous-type gas deposits would consume approximately 7.7 million acres of habitat on public and private land across the nation. In order to bring gas to market, thousands of miles of pipeline must also be constructed – extending the impacts of gas drilling far from the actual drill site. There are currently more than 270,000 miles of gas transmission pipelines and another 952,000 miles of gas distribution lines. The National Petroleum Council (1999) projects a need to build 38,000 and 255,000 miles of additional transmission and distribution pipelines, respectively, by

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		2015. The costs associated with pipeline construction must be included in the economic analysis. 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. 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.
	L2503	Provide management objectives to restrict activities that may adversely impact monument objects. Amend the leases to attach stipulations and restrictions, including No Surface Occupancy restrictions that are necessary to protect monument objects. Attach appropriate Conditions of Approval for development, as well as other forms of restrictions. BLM should also consider circumstances in which denial of an Application for Permit to Drill or any development application may be necessary to protect resources. Overall, an examination of the potential impacts associated with the twelve oil and gas leases must reflect full compliance with NEPA and the NHPA, as well as the heightened sensitivity towards preserving and protecting the Monument's unique cultural and historic resources.
	L2504	Any valid leases should have no more than two drill sites per section. Dry wells are considered to have been drilled and apply to the "drill sites per section." Generators would be more appropriate outside the Monument boundaries.
	L2505	Monitor and enforce the proper restoration of sites containing dry holes or nonproducing wells. Seek to rehabilitate gas sites, roads, and impacts from exploration activities to natural conditions after exploration and after the gas wells are decommissioned. Allow for the construction of proposed gas pipelines only within established road right-of-ways.
	L2517	The stipulations set forth in the West HiLine RMP adequately cover the parameters for gas leasing in the Missouri Breaks Monument.
	L2519	Pipelines should be buried along transportation system approved road beds.
	L2522	The exploration company must provide funding prior to exploration preparation for restoration of any disturbed areas. If production-level gas is found, facilities for collection and transport of the gas must be designed to minimize the impact, such as running pipelines along existing roads, and full and sufficient funding should be in-hand for restorative work.
	L2528	In planning possible well sites and access roads, the most sensitive areas should be excluded, such as bighorn sheep habitat, elk calving grounds, and sage grouse leks (both occupied and potential).
	L2529	When wells become unproductive, all trace must be eliminated. Only one well site per section should be allowed.
	L2530	Missing from this document are stipulations specific to the production stage. Other than road-related parameters, little attention is given to the production stages which can have as significant an impact on wildlife in their most vulnerable times as the exploration and drilling phases. MWF requests specific mitigation measures to be implemented during

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		production activity especially throughout the time period when winter range occupation is at its peak and the lek season for sage grouse.
	L2531	Further development should be done in respect for the purposes of the Monument and phased out at the earliest possible time.
	L26	Where pre-existing natural gas leases are found, they must be developed in a manner which creates the least impact and should be phased out as the wells stop producing paying quantities of natural gas. Pipelines should buried along roadbeds to minimize surface disturbance.
	L28	Those 31 leases that were grandfathered in before the monument designation can be considered only if it is agreed that the developers will follow all federal, state, and BLM laws, and policies. Under no circumstances should permits be issued for the 12 natural gas leases on the 10,034 acres now outside the monument designation.
	L29	Must be developed in a manner which creates the least impact and should be phased out when they stop producing and the area should be reclaimed to its original condition. Only one well site should be permitted per section to protect scenic values and the public's right to experience remote settings.
	L3	No evidence of oil or gas development should be smelled, seen or heard by people on or beside the river or in the side canyons at any time, night or day, or at any time of the year. This includes fumes or gases, visible evidence of development equipment, light pollution at night or sounds from construction or production equipment. Apply to any utilities or infrastructure associated with the oil or gas development, including electric power transmission lines; communication lines or towers; water wells, river pumps or pipelines; and any oil and gas well production equipment or infrastructure, such as pumps, buildings and pipelines. A suitable reclamation bond should be posted to ensure that all of the above conditions are met. The bond should take into consideration future conditions, such as rising costs of material and labor. A careful environmental engineering study should be conducted to determine what a suitable bond amount should be, and this study should be paid for by the owner of the lease.
	L30	The current oil and gas lease stipulations are more than adequate to protect the integrity of the monument.
	L31	Pre-existing leases must be developed with the least amount of impact and should be phased out as they stop producing paying quantities of gas. Only one well site per section at the most should be allowed.
	L3103	It must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L32	Where valid natural gas leases exist, they should be developed in a manner which creates the least impact and be phased out as wells cease producing "paying quantities" of natural gas. Pipelines should be buried along road-beds to minimize surface disturbance.
	L34	The number of well sites should be restricted and their location regulated. When they are no longer useful, each site should be reclaimed. Any pipelines constructed should be required to follow existing roadways to avoid further disturbance of the land.

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	L391	Must be done in the least destructive manner, even if it means that the costs and timing of such development are increased and extended.
	L3995	Burial of the pipelines should be paramount for protection of wildlife and for aesthetic purposes.
	L4003	Development must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L4060	Development must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L41	The least impact in all areas -- roads, drilling, the protection of wildlife, the erosion factor.
	L4277	Development must occur only in a careful manner that will protect the Monument, its wildlife, and its wild landscape.
	L43	It must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L4779	The exploration and drilling which has occurred left a network of road scars and drilling sites that have never been reclaimed.
	L4865	Development must be done in a more careful manner than so far proposed.
	L4865	Gas wells drilled on the land within the monument have already left a network of road scars and drilling sites that have never been reclaimed.
	L4936	An example of environmental friendly extraction policies may be found in the recently published policies of the BP Oil Company at the North Slope.
	L5	Although there are already roads and some development in the area, no further activity of this type should be allowed.
	L5407	The exploration and drilling which has occurred left a network of road scars and drilling sites that have never been reclaimed.
	L5407	Development must occur only in a careful manner that will protect the Monument, its wildlife, and its wild landscape.
	L5500	Where drilling does take place I would like to see the sites and roads reclaimed.
	L5510	The restoration plan should maximize opportunities for participation by volunteers and conservation groups, including the process of prioritization of implementation tasks.
	L5510	Include a restoration plan addressing the goal of restoring the land to a baseline condition from which native ecosystem function may reestablish by natural processes, thereby reinstating the resilience and resistance of the land to natural and human disturbance.
	L5510	Stipulate the removal of above ground improvements (including roadways enabling access for unintended purposes) and restoration of natural hydrology, plant and animal communities.
	L5520	Require pipelines to be buried along existing roadbeds.
	L5521	Use roadbeds for pipeline routes to minimize impact.

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	L5521	Pre-existing leases need to be developed in a low impact manner and phased out as production decreases.
	L5526	Sufficient bond should be held to cover the above costs should actual recovery fall short of projections.
	L5526	Any infrastructure to support these leases should be in as close proximity to existing services as possible, and pipelines should be buried along existing roads.
	L5547	The exploration and drilling which has occurred left a network of road scars and drilling sites that have never been reclaimed.
	L5581	Pipelines should be buried along roadbeds to minimize surface disturbance.
	L5676	As a fundamental policy requirement, reclamation must be addressed up-front with any allowed drilling.
	L72	Need to be careful to protect the valuable landscape of the Monument and the wildlife that surrounds it.
	L-FL1	Development must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L-FL2	The exploration and drilling which has occurred left a network of road scars and drilling sites that have never been reclaimed.
	L-FL2	Development must occur only in a careful manner that will protect the Monument, its wildlife, and its wild landscape.
2212		
	L1294	Oil and gas development leases that predate the area's monument status must be rescinded.
	L15	The Monument proclamation prohibits new gas leasing.
	L2	Offer the twelve leasers an opportunity to select leases outside the boundaries of the monument where there would be no impact on the values or resources of it. Impose very strict restrictions and stipulations to encourage selection of leases outside the monument.
	L2501	These 12 leases must be considered along with the other 31 oil and gas leases in the Monument.
	L2503	In the alternative, BLM should reauthorize each lease with appropriate stipulations and restrictions attached to the leases, including, if necessary, No Surface Occupancy (NSO) restrictions. BLM's effort should be aimed at preserving and protecting the significant cultural and historic resources and landscapes that lead to the designation of this area as a National Monument.
	L2518	It was unclear to me whether the standard stipulations listed on the handout applied to all twelve lease or just some of them. According to the BLM lease appendix to the Analysis of the Management Situation, some leases have standard stipulations dating from 1998 while other leases do not. It appears that 26 have no stipulations at all while other leases have other stipulations. My question is, what are the stipulations on the other leases that have any stipulations? If they are not the standard stipulations, then what are they?
	L2533	Mineral leases in the Monument can be exchanged for leases elsewhere.

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	L29	Opposed to any additional leases issued for this area.
	L5581	Justify why leasing of these few additional acres is necessary for meeting the energy needs of the American public.
2213		
	L2502	If existing leases are found to be invalid, they must be nullified.
	L2503	With respect to the three leases at issue in Montana Wilderness Association vs. Fry, BLM must determine, in light of a thorough evaluation of the impacts, whether those leases should have been issued at all.
	L2504	If the judge in the active case of the three invalid West HiLine leases rules those leases cancelled, then the other nine in the West HiLine RMP should also be cancelled.
	L2505	If the existing leases are deemed invalid then they should be nullified.
	L2508	Those found invalid should be nullified.
	L2518	If the Judge rules that the three leases are cancelled, then that will affect the validity of the remaining 9 leases. There should be no exploration of or development on existing leases in the Monument until those leases are determined to be valid after the final court challenge to the 3 leases now in litigation. Analysis of potential gas development must acknowledge the present litigation and potential for future litigation.
	L2528	If the 3 leases were issued without compliance with the laws cited by the court, they should not be considered valid. Your newsletter mentions that BLM wants to leave validity to the courts. We urge BLM to challenge validity in this review.
	L2530	In lieu of recent legal action on the 3 leases on the Monument and the uncertain status of those leases, MWF believes it is inappropriate to develop operating plans that incorporate these 3 leases.
	L33	There are three leases that require judicial approval. We urge you to deny the leases.
	L34	The leases should be deemed invalid
	L4	If these oil and gas leases were initially analyzed with an inadequate environmental document, as stated by the court, then these leases are illegal and should be rescinded.
	L4918	I believe that these leases should not be allowed within the Monument.
	L5	Existing gas leases should be cancelled if possible.
	L5520	We urge the BLM to seize the opportunity presented by the court ruling and challenge the validity of the gas leases. (The other nine leases could also be invalid if they too were issued without NEPA and ESA compliance.)

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	L5581	Request that at this time the BLM withdraw its decision to lease these lands for energy development.
	L69	The three leases addressed by the Court cannot be valid if they were issued without legal compliance with NEPA, ESA and NHPA. BLM should take a strong stand that those leases are not valid, and are in fact void. With respect to the other nine West HiLine leases, we ask BLM to examine the facts and determine whether they were issued under the same circumstances as the three. If the facts are the same, they cannot be valid either.
2215		
	L1098	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L1278	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L14	I would suggest that you require in-depth studies on the impact on all aspects of that fragile environment.
	L16	The impact of natural gas drilling, and road construction should not be analyzed piecemeal-as proposed. The impact of gas drilling should be considered as just one part of a long, linked list of cumulative impacts including off road vehicles, airstrips, powerboats, livestock grazing and recreation.
	L2001	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L2025	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L22	The cumulative effects of off-road vehicles, recreation, powerboats and airstrips should be added to the gas development.
	L2228	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L2273	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L2343	The impact of natural gas drilling and road construction should not be analyzed piecemeal, but considered along with all of the other cumulative impacts such as those from off-road vehicles, airstrips, powerboats, livestock grazing and recreation.
	L2502	Impacts and actions that should be addressed in a cumulative fashion include, but are not limited to: existing road and trail network, effects of new road construction, motorized use including ORVs, airplanes and motor boats, jet boats and jet skis, 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. 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 actions/projects they are reasonably foreseeable and a detailed consideration should be possible. This should include the maze of two-track routes, shut-in wells, abandoned well sites and other impacts left from the last forty-plus years of drilling in the area as well the impact associated with the possible development of the other 31 oil and gas leases within the monument.

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		BLM should also analyze similar reasonably foreseeable actions including authorizations for oil and gas development occurring on State and private lands in or adjacent to the geographic area of the RMP, Charles M. Russell National Wildlife Refuge Management Plan and other oil and gas activities on nearby lands administered by through adjacent BLM Field Offices/Districts.
	L2503	Examine the direct, indirect, and cumulative impacts on historic resources associated with development of all leases that exist within the Monument, as part of the scope of the RMP/EIS.
	L2505	It is essential that the gas pads, collection and containment facilities and the maintenance and support of roads be considered cumulatively with other ongoing impacts and activities within the Monument.
	L2508	Analysis of the effects of these wells needs to include the larger picture of disturbance in the area.
	L2518	The reasonable and foreseeable cumulative impacts analysis of potential gas development must include all of the gas leases, not just the 3 included in the litigation. The cumulative effects analysis must review impacts from road density, potential noise from overflights, possible remote landing strips, increased motor traffic on the river, development on private land within the Monument boundary and contiguous with the Monument and all other activities or potential activities that increased use will bring. The impacts must be analyzed for their effect on the objects protected by the Monument proclamation.
	L2519	Address the cumulative impacts of not only natural gas well drilling and proposed road construction, but also of airstrips, motorized off road vehicle (OHV) use, and domestic livestock grazing.
	L2528	BLM should analyze potential impacts on a cumulative basis, running all the way through exploration to full field development. Lessees are not going to drill unless they imagine they can develop an entire gas field. This means all access roads, drill pads, waste pits, drilling equipment, pipelines, and long-term occupancy must be considered now.
	L2531	The impact of any drilling should be analyzed with the cumulative impacts of vehicles, on and off road, airplanes, power boats, livestock, and recreation.
	L26	The impact of natural gas drilling and road construction should not be analyzed piecemeal as proposed. Off-road vehicles, airstrips, powerboats, livestock grazing and recreation must all be considered as negative impact on the environment.
	L3023	The approval of gas development sets in motion a chain of wilderness-threatening impacts that include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L3103	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L3174	Any gas development must be analyzed in terms of its cumulative impacts, not just the immediate effect. Such development will mean roads, heavy equipment, trucks, drill pads, noise, and, inevitably, offroad vehicles.
	L32	The impact of natural gas drilling and road construction should not be analyzed piecemeal, but considered along with all of the other cumulative impacts such as those from off-road vehicles, airstrips, powerboats, livestock grazing and recreation.
	L34	The impacts of gas development must be linked to the other contemplated activities and their cumulative affects considered.
	L3415	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.

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	L3441	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L3718	Cumulative impacts include widespread pollution, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L3995	The cumulative effect of roads, vehicles, heavy equipment has a profound and lasting effect on the landscape.
	L4003	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L43	The approval of gas development must be seen as just the first in a long linked list of cumulative impacts that include new fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L4779	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L4865	Consider the cumulative impacts of old damage together with new fragmenting roads, heavy equipment, drill pads and off-road vehicles.
	L4955	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L5407	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L5509	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L5520	Analyze all the cumulative impacts of full gas field development, including access routes, off-road traffic, drill pads, waste pits, and gas collection pipelines and facilities.
	L5521	The impacts of roading should be analyzed as cumulative, along with other impacts such as motor vehicle use, numbers of recreationists, livestock grazing, climate, etc.
	L5523	Analyze for cumulative impacts of such activities and other activities taking place on the monument, such as motor vehicle use and livestock grazing.
	L5581	Cumulative impacts include off-road vehicles, airstrips, powerboats, livestock grazing and recreation.
	L69	Impacts of oil & gas operations should be analyzed for the complete run to full-field development, because that is the ultimate goal of any lessee. Drill pads, waste pits, access routes, gas collection pipelines and installations, off-road vehicles, boats and boat support facilities - all must be considered in your review.
	L72	The BLM should also consider that approving this further development of gas sets a precedence for further, cumulative impacts which include but are not limited to the grave impacts of fragmented roads, heavy equipment/off-road vehicles, and drill pads.
	L857	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L950	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
	L-FL1	Cumulative impacts include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.

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	L-FL2	Cumulative impacts that include new, fragmenting roads, heavy equipment, drill pads, off-road vehicles, and others.
2217		
	L210	If you do allow gas development, insist that the gas companies pay the land owners a fair and equitable portion of the profits.
	L2502	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, and in particular the EIS and the final RMP should ensure compliance with the Clean Water Act, Safe Drinking Water Act, Toxic Substances Control Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response Compensation Liability Act (CERCLA—the Superfund) relative to the use of these and other toxic and hazardous substances. 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 the natural gas companies must abide by to meet the requirements of these 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 obligation, under NEPA and FLPMA to require inventory and monitoring of these chemicals, as well as spill prevention, cleanup, and mitigation plans. 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, III.G.4.b.(7). 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 gas drilling operations (including well pads) comply with any applicable stormwater discharge requirements, including acquiring NPDES permits, as required. BLM should work with the EPA relative to regulation of hazardous and toxic wastes generated from oil and gas development activities. EPA's report on the oil and gas extraction industry provides information regarding these substances and data on rates of inspection and enforcement actions for this industry. These data show oil and gas extraction facilities receive little in the way of inspection and enforcement relative to the other 29 industrial sectors, despite the significant levels of toxic and hazardous materials used and generated by the industry. The RMP should make provisions for ensuring that, in cooperation with the EPA, the rate of inspections (and as necessary, enforcement) is increased within the monument. The EIS should include a realistic assessment and analysis of natural 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 sufficient resources to engage in monitoring and enforcement 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. 43 U.S.C. 1732(b). 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

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		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. 30 U.S.C. § 226(f); 43 C.F.R. §§ 3104.1(a), 3104.5, 3106.6-2.
	L2505	Provide the public, on an annual basis, with accurate monitoring information for those existing leasing leases within the Monument. Provide an estimate of how long the valid gas leases in the Monument will remain subject to possible exploration and development. Seek to terminate leases that are no longer meeting the requirements of production in paying quantities or leases that otherwise violate the law.
	L2518	The BLM should provide an estimate of how long the valid gas leases in the Monument will remain subject to possible exploration and development. The BLM must monitor production and enforce regulations for determining whether gas leases are meeting the requirements of the law and send out proper and timely notices regarding non-producing wells. The BLM must seek to terminate leases that are no longer meeting the requirements of production in paying quantities or leases that otherwise violate the law. The BLM must, on an annual basis, provide the public with accurate monitoring information for those existing leases within the Monument. The BLM must monitor and enforce the proper restoration of sites containing dry holes or non-producing wells.
	L950	Make sure that the drilling rights are bought from their owners and permanently retired instead of allowing them to despoil such a special place.
2253		
	L2507	I would like the river to be for mostly paddle boats to preserve the peaceful setting.
2300		
	L4086	Support authorization of a study of the bike and pedestrian needs of national parks.
	L5150	Support authorization of a study of the bike and pedestrian needs of national parks.
2310		
	L2507	The land landing strips or airplanes landing in the river will not preserve the natural quality.
2311		
	L1104	Please keep commercial sightseeing flights out of the Monument.
2320		
	L14	You just want to open a national monument to road building for miles of road for gas and oil leases.
	L16	Roads to natural gas well sites should be limited to administrative use only. When the wells are no longer producing commercial quantities of natural gas, the well sites and roads should be reclaimed and recontoured.

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	L17	Prevent new roads from being built and new wells from being drilled.
	L18	Protect the monument from roads and gas wells.
	L21	All roads drill holes and gas or oil lines when done, can be reclaimed.
	L2343	Roads to natural gas well sites should be limited to administrative use only, and when the wells are no longer producing paying quantities of natural gas, the well sites and roads should be reclaimed and recontoured.
	L2501	The management plan can finally address the problem of unauthorized, unneeded, and damaging two-track routes. The draft management plan analysis should address the issue of how road densities affect habitat security in the Monument. But roads created by oil and gas drilling should not be viewed separately from roads created by recreation or other means. Roads and associated disturbances are believed to be the primary agent driving elk distribution across seasons and landscapes. In general, the easier the access, the denser the system of roads, and the more improvements made to roads, the more likely traffic will increase and wildlife will seek areas with greater security. If the BLM is unable to conduct the necessary research as part of the Monument management plan analysis, then a more precautionary approach is warranted and justified. Roads to drill sites should be for administrative use only and two-track routes wherever possible should be decommissioned and revegetated. Well sites and roads leading to well sites should be decommissioned and restored with natural vegetation when the wells cease producing.
	L2502	Oil and gas exploration also requires roads that increase ecological costs and invite cross-country travel and habitat damage by ORVs. Natural gas development often requires daily vehicular trips to monitor and maintain wells and pipelines. The increased traffic disrupts wildlife, may result in more road kill, and diminishes quality of life for local residents. Roads become conduits for non-native species that displace native species resulting in significant mitigation costs for taxpayers. Roads, by providing access, increase the frequency of human-caused fires. Humans cause ninety percent of all wildfires on public lands; more than half of those wildfires begin along roads. In addition, roads increase the damage to historical, cultural and archeological resources due to increased ease of access. Roads increase sediment deposits in streams resulting in reductions in fish habitat productivity. In addition to keeping sediment from access roads and drill sites out of community water sources, roadless areas protect communities from mass wasting (e.g. landslides). The economic costs from road construction for oil and gas drilling include increased ORV monitoring costs, increased frequency and costs of stream restoration projects, increased noxious weed mitigation costs, increased damage to archaeological sites and the decline in future benefits from visiting these sites, increased water treatment costs for downstream communities, and increased road maintenance and closure costs for taxpayers. BLM should analyze the costs of road maintenance and restoration and compare these costs with the budgets available to complete the work. For example, on average, the annual maintenance cost of a mile of Forest Service road is about $1,500 per mile (USDA FS 1999). Each new mile of road added to the FS transportation system competes for limited road maintenance funding, as Congressional funding is less than 20% of the funding necessary to maintain the existing road infrastructure. BLM faces similar problems and they must be accounted for in the plan.

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	L2504	Drilling brings roads, roads which inevitably lead nowhere when the site is abandoned either because of no gas or exhaustion of the gas potential. These roads, drill pads and other associates of the process should be reconstituted to a natural state. The huge trucks associated with "thumper" activity (and seismic testing) should be restricted because of environmental degradation, not only to the land surface but also to constructed roads. The equipment should move on these roads during dry periods only when the potential damage to roads is minimal.
	L2507	I believe the use of too many motor vehicles reduces this natural quality. I would like few roads with parking spots for people to hike to see nature.
	L2517	Impact of roads servicing these leases is considered minor because the number of new miles is not significant and most of the service roads are not open to the public.
	L2518	Several of the leases have acreage that includes bottoms or relatively flat spots that are only accessible from steep slopes. Cutting access roads into the steep slopes is a recipe for speedy erosion. Moreover, it is likely that roads built on slopes would never be reclaimed because of the cost and problems associated with it. Instead, operators will probably seek a variance from having to reclaim because it would be difficult to preserve the soil scraped up to build the road as it washes away in a few rain storms. There should be no road-building or drilling on slopes at all because of the huge problem of managing the overburden. Operators would ask for permission to push the overburden into coulees rather than to reclaim and the best answer to that is prohibit it from the start. Road density is completely out of control in the Monument. User created roads are springing up even now four years after creation of the Monument, and further development of the gas leases will result in more miles of road. Has an analysis been made of the current road density in the Leroy Field Area? The BLM should not permit any further road building in the Monument to develop leases until it has already closed and reclaimed existing roads in order to determine the minimum transportation requirement. Administrative closure of the roads to new developments must be accompanied by locked gates and a contractual commitment from the leaseholder to rehabilitate the road to its original contour and to replant. Don't the BLM's studies show that open road densities of 6 linear miles per section have profound impacts on elk? How can the BLM permit any new roads whether open or not with the existing road density? Roads/two tracks that are not necessary for access or for administrative demands should be closed and rehabilitated. Gas companies that wish to construct roads to new gas sites should be required to close and rehabilitate existing roads as part of their mitigation requirements. Seismic crews using thumper trucks can create new roads if they travel off of existing roads. There should be no seismic work that relies on vehicle traffic off of existing roads. Motor vehicle routes that were used to develop gas leases should be closed to motor vehicles.
	L2519	Existing roads to old well sites and proposed roads to new sites should be limited to only those strictly needed for administrative use. Road density should be analyzed and fully disclosed.
	L2522	No new roads should be constructed.
	L2529	Roads to well sites should be limited to administrative use only.
	L2531	Roads to well sites should be limited to administrative use only. When the wells are closed the site and roads should be reclaimed.

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	L26	Roads to gas sites should be limited to administrative use only. When the wells no longer produce, roads and sites should be reclaimed and recontoured.
	L3	Any access roads created for oil or gas development anywhere inside the monument should be gated to prevent use by anyone other than people directly involved with the lease, such as exploration, construction or production crews and government or civilian monitors. The roads should be built to best construction practices to ensure no damage occurs to the surrounding habitat by erosion, dust or dust-inhibitors, invasive non-native vegetation, or hazardous chemical spills. As soon as production ceases, the roads should be obliterated so there is no visible evidence of their previous existence.
	L31	Any roads to well sites should be limited to administrative only with all reclaimed when abandoned and any pipelines buried along side roads only.
	L32	Roads to natural gas well sites should be limited to administrative use only, and when the wells are no longer producing paying quantities of natural gas, the well sites and roads should be reclaimed and recontoured.
	L34	Road construction should be limited and their use restricted. They should be closed and reclaimed as soon as their legitimate use relating to the lease has ended.
	L4060	New roads will fragment the wild land, reducing the ability of large animals to migrate and weakening the species due to inbreeding. In addition, there will be impacts of heavy equipment, drill pads, and off-road vehicles.
	L5220	The exploration and drilling which has occurred left a network of road scars and drilling sites that have never been reclaimed.
	L5486	Each well creates a "footprint" and calls for service roads. Roads break up the continuity of wilderness areas and thus are deadly and disruptive for wildlife.
	L5510	The RMP should also list proscribed modes of access to the monument with specific restrictions for off-road access, including a prohibition against motorized off-road traffic.
	L5521	Roads should be obliterated or closed after use for well production is terminated.
	L5523	Roads leading to well sites should be limited to administrative use, then closed and obliterated when gas production has ended.
	L5581	Roads to natural gas well sites should be limited to administrative use only. When the wells are no longer producing commercial quantities of natural gas, the well sites and roads should be reclaimed and recontoured.
	L5686	I see no impact to roads as there are only 21 miles of roads for the 12 gas leases. Most of these roads are not open to the public anyway.
	L7	I trust that BLM will take charge of creating roads instead of allowing the companies with the lease to create them.
	L9	Roads to natural gas wells should be limited to administrative use only. When the wells stop producing commercial quantities of natural gas, the well sites and roads should be reclaimed to as natural status as possible. Pipelines should be buried to minimize surface disturbance.

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4050		
	L2502	BLM Manual MS-8120.32.A makes clear that the BLM can prevent unauthorized use of cultural properties through a variety of measures, including administrative protection measures. The manual specifically notes that the BLM's protective measures may include "withdrawal, closure to public access and off-road vehicles, special designations," etc. BLM Manual MS-8120.32.A. 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.
4250		
	L1278	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L1988	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L2001	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L2025	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L2228	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L2273	Sites should be prohibited in any of the existing or proposed wilderness study areas.
	L2501	In 2003 the Montana Wilderness Association asked the BLM to reevaluate the Bullwhacker as a primitive area during the Monument management planning process. We believe that much of the area was unfairly denied Wilderness Study Status during the first evaluation process and that because of changes which have occurred since 1990, the area's wilderness character needs to be reevaluated and considered within the Monument management process. The rationale used for denying wilderness study status was that the vehicle ways used for oil and gas exploration, along with livestock reservoirs gave the area an "unnatural appearance". But to be considered for wilderness, an area only has to have opportunities for solitude, be of sufficient size so as to make it practical for preservation, and substantially retain its primitive character so that any improvements or human habitation is largely unnoticeable. In this respect, the Bullwhacker is indistinguishable from the adjoining Ervin Ridge WSA and nearby Cow Creek, Woodhawk, and Antelope Wilderness Study Areas. Livestock grazing and supporting facilities such as stock tanks, existing in the area prior to designation is permissible in wilderness. The Wilderness Act even allows the occasional use of motorized equipment where practical alternatives do not exist for maintenance or other activities. The Bullwhacker remains a candidate for Wilderness Study designation and deserves and needs a higher level of protection if it is to remain some of the wildest country on the Great Plains. A question the management plan analysis should address is how will oil and gas drilling affect the wilderness character of the Bullwhacker area?
	L2502	The Bullwhacker should remain a candidate for Wilderness Study Area designation and be provided the highest level of protection for "some of the wildest country on all the Great

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		Plains".
	L2508	Wells should be kept out of existing or proposed wilderness areas.
	L2528	Wells and access roads should not be allowed in any wilderness study areas, both existing WSA's and those proposed by citizen groups.
	L2892	Wells should also be allowed in any of the existing or proposed wilderness study areas.
	L2908	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L3001	Keep wells out of the existing and proposed wilderness study areas.
	L3415	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L3441	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L3622	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L3626	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L3718	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L3796	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L4060	Gas wells should be prohibited in any of the existing or proposed wilderness study areas.
	L4220	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L4277	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L43	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L4715	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L4955	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L5220	Wells should also be absolutely prohibited in any of the existing or proposed wilderness study areas.
	L523	Wells should also be prohibited in any of the existing or proposed wilderness study areas.

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	L5371	Any development that occurs on leases predating the Monument's proclamation should be prohibited in any existing or proposed wilderness study areas.
	L5509	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L5520	Bar surface activities on leaseholds within the BLM wilderness study areas or within citizens' proposed WSAs.
	L5547	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L69	BLM should bar surface activities on Wilderness study areas, both the official WSA's and those proposed by Montana citizen groups for WSA status during the RMP comment period last year.
	L72	The wells should also be located far away from any existing or proposed wilderness study areas.
	L857	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L888	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L950	Wells should be prohibited in any of the existing or proposed wilderness study areas.
	L-FL1	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
	L-FL2	Wells should also be prohibited in any of the existing or proposed wilderness study areas.
5050		
	L17	Value of the natural gas that could be drilled for is questionable, especially when the negative impacts of wildlife and natural beauty are considered.
	L2502	In general, when looking at the economic implications of various management alternatives, BLM should do a full accounting of the costs and benefits. To facilitate informed investment decisions about publicly owned wildlands, economic analysis must take into consideration both market and nonmarket benefits and costs. To account for the full array of market and nonmarket wildland benefits, economists have derived the total economic valuation framework (TEV). TEV is the appropriate measure to use when comparing wilderness benefits to opportunity costs. Figure 1 summarizes the seven categories of wildland benefits. (Attachment 1) This approach is more fully described in an article from Denver University Law Review, Vol. 76, No. 2, entitled The Economic Benefits of Wilderness: Theory and Practice. Examples of the economic costs from energy exploitation are summarized in Table 4 and should be included as part of the discussion of the economic analysis of the Price Resource Management Plan. While many of these costs are difficult to estimate, academic and federal agency economists have made great advances in developing methods to value non-market costs and benefits. Included in the table are methods available for estimating the economic costs, to drive home the point that these costs are quantifiable and should be included in the economic calculus. Many heretofore-unquantifiable wildland benefits and costs are now quantifiable and available to agency officials responsible for developing the policies and procedures for guiding public land management. We therefore strongly encourage the BLM to internalize non-market costs into the cost functions used to estimate economically recoverable resources.

Economic Costs of Mining, Oil and Gas Extraction (Table)

Cost Category: Direct Use
Description of Potential Cost: Decline in quality of recreation including hunting, fishing, hiking, biking, horseback riding, outfitting and guiding.
Methods for Estimating Cost: Travel cost, contingent valuation surveys.

Cost Category: Community
Description of Potential Cost: Air, water and noise pollution negatively impacts quality of life for area residents with potential decline in the number of retirees and households with non-labor income, loss of educated workforce with negative impacts on non-recreation business. Decline in recreation visits and return visits negatively impact recreation businesses.
Methods for Estimating Cost: Surveys of residents and businesses. Averting expenditure methods for estimating costs of mitigating health and noise impacts. Change in recreation visitation, expenditures and business income. Documenting migration patterns.

Cost Category: Science
Description of Potential Cost: Oil and gas extraction in roadless areas reduces value of area for study of natural ecosystems and as an experimental control for adaptive ecosystem management.
Methods for Estimating Cost: Change in management costs, loss of information from natural studies foregone.

Cost Category: Off-site
Description of Potential Cost: Air, water and noise pollution affect quality of downstream and downwind recreation activities. Drilling rigs in viewsheds reduce quality of scenic landscapes, driving for pleasure and other recreation activities and negatively impacts adjacent property values. Groundwater discharged can negatively impacts adjacent habitat, property, and crop yields, while depleting aquifers and wells.
Methods for Estimating Cost: Contingent valuation surveys, hedonic pricing analysis of property values, preventive expenditures, well replacement costs, restoration and environmental mitigation costs, direct impact analysis of the change in crop yields and revenues.

Cost Category: Biodiversity
Description of Potential Cost: Air, water and noise pollution can negatively impact fish and wildlife species. Ground water discharged changes hydrological regimes with negative impacts on riparian areas and species. Road and drill site construction displaces and fragments wildlife habitat.
Methods for Estimating Cost: Replacement costs, restoration and environmental mitigation costs.

Cost Category: Ecosystem services
Description of Potential Cost: Discharging ground water negatively impacts aquifer recharge and wetland water filtration services. Road and drill site construction increase erosion causing a decline in watershed protection services.
Methods for Estimating Cost: Change in productivity, replacement costs, increased water treatment costs, preventive expenditures.

Cost Category: Passive use
Description of Potential Cost: Roads, drilling and pipelines in roadless areas results in the decline in passive use benefits for natural environments.
Methods for Estimating Cost: Contingent valuation surveys, opportunity costs of not utilizing future information on the health, safety and environmental impacts of oil and gas drilling.

Source: Testimony of Peter A. Morton, Ph.D., Resource Economist, Ecology and Economics Research Dept., The Wilderness Society, before the Subcommittee on Forests and Public Land Management, Committee on Energy and Natural Resources, United States Senate, April 26, 2001.

		As BLM develops its RMP for the monument, it should base its analysis on economically recoverable oil and gas, not simply technically recoverable oil and gas. The economically recoverable resources are that part of the technologically recoverable resources that can be recovered with a profit based on a cash flow analysis. To be considered economically recoverable the market costs of gas recovery must be less than or equal to the gas price (Goerold, 2001). When economic criteria are considered the oil and gas actually recoverable drops significantly (USGS, 1998). It is important to note that when assessing economically recoverable resources, government analysts include items such as the direct costs of exploration, development and production. Not included in the calculus are non-market costs such as the off-site ecological costs and cumulative negative environmental impacts to a public resource such as a watershed. An economic analysis of benefits and costs should however provide a full accounting of non-market benefits and costs, as well as those more readily measured in market prices. Government economic analyses more closely resemble a financial analysis than a true economic analysis. If the economic analysis fully accounted for the non-market costs associated with oil and gas extraction, the quantities of oil and gas estimated to be economically recoverable would be less than reported. A useful analysis would focus on an estimate of access to resources that are economically recoverable. Technically recoverable resources have no basis in economic reality as they are estimated without regard for costs or profits. If the full cost of extracting the gas is greater than market price, the gas is not an economic resource and there is no impact or opportunity cost from the lease stipulations designed to protect the environment. By using technically recoverable resources (rather than USGS estimates of economically recoverable), the BLM will grossly overestimate the adverse supply impacts and hence the opportunity costs from leasing stipulations and wilderness protections. Since policymakers should be concerned about the actual impacts and not the hypothetical impacts from lease stipulations, economically recoverable resources, estimated by USGS, are the policy-relevant measure and should be the basis for any future analyses by BLM.
	L2508	Include economic analysis of value gained from the wells versus that lost through further development of the area.
	L4277	The BLM should prepare a comprehensive economic analysis, from both regional and national perspectives, comparing the costs of nominal additional gas production against the benefits of a unique and still largely undeveloped public landscape containing the myriad values for which the Monument was established.
	L4865	The BLM should prepare a comprehensive economic analysis, from both regional and national perspectives, comparing the costs of nominal additional gas production against the benefits of a unique and still largely undeveloped public landscape containing the myriad values for which the Monument was established.
	L5220	The BLM should still be required to prepare a comprehensive economic analysis, from both regional and national perspectives, comparing the costs of nominal additional gas production against the benefits of a unique and still largely undeveloped public landscape containing the myriad values for which the Monument was established.
	L5407	The BLM should prepare a comprehensive economic analysis, from both regional and national perspectives, comparing the costs of nominal additional gas production against the benefits of a unique and still largely undeveeped public landscape containing the myriad values for which the Monument was established.
	L5526	A thorough cost/benefits analysis by a qualified team should be performed which also factors in all reclamation costs at the end of useful lease/well life.
	L5581	Publish the cost-benefit analysis performed by the BLM that led to the conclusion that the greatest benefit for the public welfare arises from the act of leasing these lands.
	L72	The BLM really should prepare a large-scope economic analysis, on a regional and national basis. This analysis should contrast the costs of further gas production against the benefits of a unique and still largely undeveloped landscape in which the Monument

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		was established.
	L-FL2	The BLM should prepare a comprehensive economic analysis, from both regional and national perspectives, comparing the costs of nominal additional gas production against the benefits of a unique and still largely undeveloped public landscape containing the myriad values for which the Monument was established.
5052		
	L13	Gas well development has a positive impact on our community.
5200		
	L2502	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 natural gas development activities, especially the noise problems from compressors and compressor stations. Noise occurring due to oil and gas exploration and well drilling should also be minimized. In addition, noise generated from ORVs, airplanes, motorboats, jet boats etc. should be addressed.
	L5523	Wells and other production infrastructure on valid existing leases should be sited in such a way that they do not degrade the natural soundscape with industrial noises.
6050		
	L10	To allow road development, gas drilling rigs (and wells), along with the inevitable gas flares and "sweetening" plants is a sacrilege to that great country.
	L1098	Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L11	Gas leases on the breaks and the Monument do not fit. Should not be there.
	L1278	Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L1294	Development will doom the values that qualified the area for a monument in the first place.
	L14	Your plans are not consistent with the entire concept that created that monument.
	L154	Demand energy-efficiency in all phases of American businesses & especially the automotive sector.
	L16	Natural gas drilling and road building are not compatible with the values for which the Monument was created.
	L17	Managed to minimize development than if it is managed to maximize resource extraction.
	L18	Banning and future natural gas drilling would help maintain the wild nature of the monument.
	L1886	Direct our efforts toward the development of renewable non-petroleum sources of energy.

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	L19	Land and wildlife should be permanently protected.
	L1988	Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L20	We should be looking at alternative energy rather than drilling for gas and oil.
	L2001	Its biological, historical and cultural resources are not compatible with such development the Monument was created to protect.
	L2025	Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L210	Let's use the gas produced under US soil in the US and not sell it to other countries and then buy our gas supplies from the middle east countries.
	L2177	Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L22	I hope everything possible will be done to preserve this unique monument in the most pristine state possible.
	L2228	Drilling is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L224	Please consider redirecting your energies at examining alternatives to oil.
	L2273	On leases that predate the Monument's proclamation, development must protect the wildlife and landscape of the Monument.
	L2343	Natural gas drilling and road building are not compatible with the values for which the Monument was created.
	L24	Keep this area as pristine as possible.
	L2437	Use oil more efficiently and accelerate the development of new engine and fuel technologies that will lower demand for oil permanently.
	L25	I would hope that the drilling, roads, and noise could be relegated to a less sensitive area than some of the most pristine country in the northern Great Plains.
	L2502	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. 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 meeting the conservation mandate for the monument, 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, and the prevention of air and water pollution. 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 monument should be paramount in such balancing. The Proclamation states that the Secretary of the Interior "shall manage development on existing oil and gas leases within

		the monument, subject to valid existing rights, so as not to create any new impacts that would interfere with the proper care and management of the objects protected by this proclamation." In addition, 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. 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. BLM Handbook H-1601-1.II.B.2. 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. BLM Handbook H-1601-1.III.A.4. The BLM should manage the monument using the "precautionary principle" of conservation biology to protect the objects of interest listed in the monument proclamation. The "precautionary principle" of conservation biology, which states that precautionary measures should be taken when a certain activity or inactivity threatens to harm human health or the environment, even when science has not fully established cause and effect relationships (Meffe et al 1994, Noss and Cooperrider 1994). 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. 43 C.F.R. §§ 1610.4-9, 1610.5-3; BLM Handbook H-1601-1.IV-VII. 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. See Southern Utah Wilderness Alliance v. Norton, 301 F.3d 1217 (10th Cir. 2002). Regular monitoring and enforcement is particularly necessary for any development of natural gas leases in the monument. In the context of natural gas development within the monument, 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 plan should emphasize resource and ecosystem protection, which will best ensure that future options are retained. The alternative plans that are developed, and particularly the preferred alternative, must give special emphasis to protecting and providing for relatively rare resources. 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 will protect 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. In addition the Proclamation states that the monument lands "have been set apart and reserved as the Upper Missouri River Breaks National Monument for the purpose of protecting the objects identified above…" The EIS should reflect this Congressional and Presidential direction in all alternatives that are developed and considered, especially in the plan that is finally selected.
	L2503	In keeping with the Proclamation's clear management directive to restrict oil and gas development, BLM must ensure that each proposed alternative within the EIS precludes activities associated with the twelve leases from impacting or interfering with the protection of the Monument's objects, including cultural and historic resources.
	L2504	It should be a mandatory requirement that best practices for the resources be used in a Monument proclaimed for its unrivaled remote wilderness character.

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	L2505	The BLM must take meaningful steps to protect these wild landscapes against irresponsible mineral and mining development, irresponsible off-road vehicle use, and other development that impairs or degrades the values for which the National Monument was created.
	L2529	The following must be protected: the objects of interest such as historic sites, wildlife, and geologic formations as well as landscape beauty and opportunities to experience what Lewis and Clark and crew experienced.
	L26	Natural gas drilling and road building are not compatible with the values for which the Monument was created.
	L269	We should be working hard on alternative energy sources with little or no polluting side effects.
	L27	The integrity of the land can be easily protected, if the rules are set up front what the drilling company can and can not do.
	L2824	Stress conservation, promote public transportation and find alternative cell cars.
	L286	Why doesn't someone elaborate production of non-gas consuming products for all people instead of finding areas of land to destroy in our never-ending pursuit of more gas and oil.
	L2892	Development is compatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L2892	Gas development should be permitted on leases that pre and post date the Monument's proclamation.
	L2908	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L3001	Gas development is incompatible with the reason the Monument was set aside. Don't degrade its biological, historical and cultural resources.
	L3017	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L3023	Development is incompatible with the biological, historical, and cultural resources the Monument was meant to protect.
	L31	Natural gas and road building are not compatible with values for which the monument was created.
	L3103	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L3185	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L32	Natural gas drilling and road building are not compatible with the values for which the Monument was created.
	L34	Follow strict guidelines, recognizing that drilling and related activities are inconsistent with the purpose of the monument
	L3415	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.

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	L3441	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L35	Proper implementation of Best Management Practices.
	L3622	It must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L3655	Drilling in a National Monument seems contradictory to the purpose of a National Monument.
	L3678	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L3718	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L3796	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L386	Such development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
		Focus on ways to develop renewable energy sources and energy conservation measures.
	L4003	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L42	Keep the upper Missouri Breaks Monument serene and wild.
	L4277	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L43	Development is incompatible with the values the Monument was created to protect.
	L463	To conserve our energy resources through better use.
	L4692	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L4715	I find this development totally incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L4779	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L4779	Where are the proposals to create more energy for folks in this area from alternative sources of energy?
	L4852	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L4865	Development is incompatible with the biological, cultural and historical values the Monument was created to protect.

Subject Code No.	Lease Comment Letter No.	Lease Comment
	L4955	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L5220	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L523	This Monument should be preserved for its biological, historical and cultural resources and the proposed development would threaten these. If gas development is permitted on leases that predate the Monument's proclamation, it must occur only in a careful manner that will protect the Monument, its wildlife and its wild landscape.
	L5347	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L5407	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L5509	Development is incompatible with the values the Monument was created to protect.
	L5510	Consumptive land use practices such as mining, animal husbandry, forestry and oil and gas production are inappropriate to the concept of a National Monument.
	L5523	Maximize protection of objects described in the monument proclamation.
	L5526	Oil and gas exploration, though permitted under existing leases, is inconsistent with monument formation values such as wildlife and habitat, solitude, and experiencing the upper Missouri as Lewis and Clark did.
	L5543	Natural gas drilling and roads are not compatible with the values for which the Monument was created.
	L5547	Development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
	L5557	Managing the wildlife population, the water resources, the flora and fauna, the historical objects should be priorities; and most of all, tourism and the staffing to maintain it.
	L6	Oil drilling and national monuments don't mix.
	L678	Such development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L68	Drilling, timber cutting, dams and mining have no place in areas set aside as a National Monument, wildlife refuge or National Park.
	L72	This type of development is contrary to all of the values the Monument was created to protect.
	L8	To develop that part of Montana for oil and gas drilling is unthinkable.
	L857	This development is not compatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L874	Development funds invested by all parties should be spent toward clean, renewable energy alternatives and conservation.

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	L888	Development is incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L950	Development is totally incompatible with the values the Monument was created to protect: it's biological, historical and cultural resources.
	L-FL1	Development is incompatible with the values the Monument was created to protect: its biological, historical and cultural resources.
	L-FL2	Such development is incompatible with the values the Monument was created to protect: its biological, historical, and cultural resources.
6101		
	L2502	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. See also BLM Handbook H-1790-1.III.A.2.d. 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 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."
	L9	Development should be analyzed as a whole and its cumulative impact and damage considered before any development occurs.
6103		
	L14	I hope that all of our opinions will count for something in your decision-making processes.
	L2529	In addition to scheduling public meetings in communities such as Winifred and Chinook, you should hold meetings in western Montana cities such as Missoula and Kalispell.
	L2530	Insufficient opportunity for public comment was one point of contention in this legal challenge. However, MWF does not believe that the insertion of a mid-process open house schedule addresses this issue sufficiently nor meets the letter nor intent of NEPA requirements for public involvement.