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# Fax

To: Mary Bloom From: Tai Johnson -  
 Fax: 406-233-2886 Pages: 26 1  
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 Re: \_\_\_\_\_ CC: \_\_\_\_\_

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February 4, 2005

Mary Bloom  
Coal Bed Methane Manager  
U.S. Bureau of Land Management  
Miles City Office  
111 Garryowen Road  
Miles City, MT 59301

**Re: Northern Plains Resource Council Scoping Comments on Amendment to Powder River and Big Dry Resource Management Plan**

Dear Ms. Bloom and Mr. Hallsten:

Northern Plains Resource Council (Northern Plains) welcomes the opportunity to comment on the scope of the forthcoming Resource Management Plan Amendment and Environmental Impact Statement for the Powder River and Big Dry Resource Areas being prepared by the Montana office of the U.S. Bureau of Land Management (BLM).

Northern Plains is a grassroots conservation and family agriculture group whose members live, work, and recreate on lands that will be impacted by coal bed methane development. Methane development threatens the lifeblood of eastern Montana and we are heartened to see the agencies charged with protecting the land, air, and water of Montana to step up to the plate.

Northern Plains is committed to protecting Montana's land, water, and communities from irresponsible methane drilling. To that end, we educate the public about problems associated with methane development and ways to solve them, and hold government officials and industry accountable to existing laws.

BLM must use this process to make decisions about where and under what conditions conventional oil and gas and methane leasing, exploration, drilling, and development should occur on federal lands and private lands underlain by federal minerals. Although this will require hard choices, this is the best place to make these tough decisions because all the players are at the table.

Northern Plains encourages BLM to adopt a proactive, precautionary approach during this process and err on the side of designating some areas as off-limits to leasing and exploration and imposing strict restrictions on areas open to leasing, exploration, and development (including wide use of no surface occupancy stipulations to protect resources). While a decision not to lease in an area or to lease with only severe restrictions and mitigation measures can be modified to meet the needs of oil and gas companies, BLM will find it difficult to impose more restrictions on oil and gas companies after leasing has occurred.

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## I. Collaborative Approach to EIS Process with Citizen Participation

The most important phase of this process will take place between the close of scoping and the release of the draft EIS some time next August or September. With the release of the draft EIS, BLM and DEQ will have selected the preferred alternative. If the public is not allowed to participate, comment, and make suggestions during this phase, BLM almost guarantees public outcry, hundreds of pages of criticisms of the draft EIS and preferred alternative, and ultimately litigation.

An alternative to this approach would be to involve Northern Plains and other concerned citizens and organizations in the process from the start. The BLM should include representatives of Northern Plains and any other organizations expressing an interest in all meetings of the Interdisciplinary Team responsible for drafting the EIS and Amendment.

Northern Plains and other organizations, including locally impacted landowners, can offer constructive recommendations and suggestions during this process that will ultimately result in a better record of decision for how methane development will proceed in Montana.

## II. Agency Actions During the EIS Process

Given the fact that the 2003 Oil and Gas Amendments is invalid, BLM must immediately place a moratorium on additional leasing of conventional oil and gas and methane resources until this amendment and EIS process is complete with the signing of a record of decision. BLM should also suspend all leases of methane resources in Montana and suspend any approved APDs for which wells have not been drilled, and place a moratorium on the approval of additional APDs until the amendment and EIS process are complete. To be fair to the methane companies, the BLM should exercise its authority under Section 39 of the Mineral Leasing Act to suspend leasing operations, with a commensurate extension of the lease terms, in the interests of conservation. 30 U.S.C. §209.

Even with this moratorium on additional leasing and suspension of CBM leases and APDs, there will be hundreds of thousands of acres of private minerals leased before this process can be completed.

The NEPA and FLPMA require that BLM amend relevant Resource Management Plans (RMPs) and complete an EIS *before leasing occurs*.

The NEPA requires BLM to complete an EIS before it makes any irreversible and irretrievable commitment of resources. *Sierra Club v. Peterson*, 717 F.2d 1409, 1414 (9<sup>th</sup> Cir. 1985).<sup>1</sup> In *Conner v. Burford*, 848 F.2d 1441, 1451 (9<sup>th</sup> Cir. 1988), the Ninth Circuit held that the sale of an oil or gas lease constitutes the point of commitment and consequently, BLM must complete an EIS before making an irretrievable commitment of resources by selling leases of federally-owned oil and gas minerals.

BLM's Handbook on Planning for Fluid Mineral Resources (H-1624-1) adopts this decision as official BLM policy:

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<sup>1</sup> See 40 CFR § 1502.5(a) (1985) (Requiring EIS be prepared at the go/no go stage).

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Compliance with NEPA has been integrated into BLM's resource management planning process. The BLM has a statutory responsibility under NEPA to analyze and document the direct, indirect, and cumulative impacts of past, present, and reasonably foreseeable future actions resulting from Federally authorized fluid mineral activities. By law, these impacts must be analyzed before the agency makes an irreversible commitment. In the fluid minerals program, this commitment occurs at the point of lease issuance. Therefore, the EIS prepared with the RMP is intended to satisfy NEPA requirements for issuing fluid mineral leases.

BLM Handbook on Planning for Fluid Mineral Resources, Chapter I.B.2.

Furthermore, the NEPA prohibits BLM from taking any action that would (1) have an adverse environmental impact or (2) limit the choice of reasonable alternatives.<sup>2</sup> By leasing federally-owned methane minerals and by approving APDs for methane wells, BLM has already violated both of these prohibitions.

Federal courts have repeatedly recognized that proper timing of the NEPA review process is vital. An EIS must be prepared early enough so that it can serve practically as an important contribution to the decision making process and to ensure that agencies do not use the NEPA process to "rationalize or justify decisions already made, or take action prior to the NEPA process that "limit[s] the choice of reasonable alternatives." 40 C.F.R. §§ 1502.5; 1506.1(a); see also Save the Yaak Committee v. Block, 840 F.2d 714, 718 (9th Cir. 1988).

The purpose of the NEPA process is "to appraise decision-makers of the potential disruptive environmental effects that may flow from their decisions at a time when they retain a maximum range of options." Conner v. Burford, 848 F.2d 1441, 1446 (9<sup>th</sup> Cir. 1986). Taking actions during the NEPA process that could limit those options undermines the purposes and effectiveness of the NEPA process.

The moratorium and suspension are necessary to preserve the status quo and to insure the potential environmental impacts associated with methane exploration and development are properly evaluated and disclosed before any more decisions are made and before any more actions are taken.

The moratorium and suspension are also necessary to ensure that BLM does not continue to violate NEPA by making irretrievable commitments of resources that could have adverse environmental impacts and could limit the choice of reasonable alternatives. 40 CFR § 1506.1.

This EIS must consider the potential cumulative impacts of past, present, and reasonably foreseeable future conventional oil and gas and methane development in Wyoming when combined with past, present, and reasonably foreseeable development of these resources in Montana. To do so, the BLM and DEQ need to include an inventory of all leases of conventional oil and gas and methane leases in effect in Montana and the relevant portions of Wyoming, an inventory of all approved and pending APDs for conventional oil and gas and methane wells in Montana and the relevant portions of Wyoming, and a detailed inventory and discussion of past and present conventional oil and gas and methane exploration and development in Montana and relevant portions of Wyoming, including a

<sup>2</sup> 40 CFR 1506.1(a)(1)(2) which mandates that until an agency issues a decision for a pending NEPA document, "no action concerning the proposal shall be taken which would: (1) have an adverse environmental impact; or (2) limit the choice of reasonable alternatives."

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detailed disclosure and discussion of the environmental impacts caused by such past and present development (such as the Tea Pot Dome development in the Powder River watershed).

#### IV. Reasonably Foreseeable Development Scenarios

Before BLM can determine a reasonably foreseeable development scenario, the agencies need to disclose the specific areas where conventional oil and gas and methane resources have already been leased. BLM needs to prepare a map for each county in the Resource Areas showing the location of all leases of private, state, and federal oil and gas resources. These maps should also indicate the location of past and present conventional oil and gas and methane wells and fields. While determining where private minerals have been leased will take time and effort, this burden is better placed on BLM, with their expertise in this area, rather than concerned citizens. This information is readily available in county courthouses, if one knows what to look for, and can easily be placed in a GIS system. Approximately 46% of the Powder River Basin has already been leased for oil and gas development and specifically methane development.

#### V. Identify and Designate Areas as Unsuitable for Leasing

Based on information compiled during this process, BLM must identify lands that are presently unsuitable for conventional oil and gas and methane exploration and development because other potential resource values or uses of the land outweigh the potential values for oil and gas resources. These are areas where the oil and gas exploration and development activity, regardless of stipulations or mitigation measures, would create unacceptable impacts on other resource values and constitute unnecessary and undue degradation under the FLPMA.

Criteria for establishing areas unsuitable for conventional oil and gas and methane exploration and development must include but should not be limited to high densities of cultural or historic resources; irrigated agricultural lands; critical wildlife habitat including nesting habitat, roosting or mating habitat, winter habitat, calving grounds, and habitat of threatened and endangered species; ground water serving as drinking water supplies for towns or other population centers; alluvial valley floors used for irrigation purposes; designated wilderness and roadless areas; 100-year flood plains and wetlands; slopes in excess of a certain percentage; highly erodible soils; and Areas of Critical Environmental Concern. ←

In establishing areas as unsuitable for conventional oil and gas and methane development, BLM should include buffer zones around the above-mentioned areas.

BLM must solicit input from agencies with special expertise, such as the Montana Department of Fish, Wildlife, and Parks, U.S. Fish and Wildlife Service, and the public regarding areas that should be off limits to conventional oil and gas and methane exploration and development because of the values of other resources or other uses of the land.

BLM has the authority to declare areas as unsuitable for oil and gas leasing and development under the FLPMA in order to prevent undue and unnecessary degradation to resources.

#### V. Scoping Obligations

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NEPA mandates that BLM and DEQ "determine the scope and the significant issues to be analyzed in depth in the environmental impact statement." 40 C.F.R. §1501.7(a)(2).

The scope of an EIS consists of the range of actions, alternatives, and impacts to be evaluated. To determine the scope of an EIS, BLM and DEQ are required to consider three types of actions, three types of alternatives, and three types of impacts. 40 C.F.R. §1508.25.

BLM and DEQ must evaluate three types of actions in an EIS:

(1) Connection actions, which means that they are closely related and therefore should be considered in the same impacts statement. Actions are connected if they:

- (i) Automatically trigger other actions which may require environmental impact statements.
- (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
- (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

(3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency should analyze these actions in the same impact statement when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.

40 C.F.R. §1508.25(a)(1)-(3).

The EIS needs to disclose and meaningfully evaluate the potential cumulative impacts of development necessary for methane development, including the construction of compressor stations, production pipelines, water treatment facilities, power generation facilities, access roads, and other infrastructure necessary for such development.

The impacts of methane development need to be considered in light of the cumulative impacts caused by the increased construction of gas-fired and coal-fired power generation facilities. The cumulative impacts of coalmine expansions and possible railroad construction, such as the proposed Tongue River Railroad, need to be evaluated.

BLM and DEQ must consider three types of alternatives in the EIS:

- (1) No action alternative.
- (2) Other reasonable courses of action.
- (3) Mitigation measures (not in the proposed action).

BLM and DEQ must consider three types of potential impacts in the EIS:

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- (1) Direct Impacts which are those "caused by the action and occur at the same time and place."
- (2) Indirect Impacts which are those "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."
- (3) Cumulative Impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency...or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. §1508.25(b)(1)-(3), 40 C.F.R. §1508.7, and 40 C.F.R. §1508.8(a)(b).

## VI. Reasonable Range of Alternatives

NEPA requires that federal agencies provide a detailed evaluation of alternatives to the proposed action in every environmental impact statement. 42 U.S.C. § 4332(C)(iii); 40 C.F.R. § 1502.14(a). This discussion of alternatives is essential to NEPA's statutory scheme and underlying purpose:

The goal of the statute is to ensure "that federal agencies infuse in project planning a thorough consideration of environmental values." The consideration of alternatives requirement furthers that goal by guaranteeing that agency decision-makers "[have] before [them] and take into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit balance." NEPA's requirement that alternatives be studied, developed, and described both guides the substance of environmental decision-making and provides evidence that the mandated decision-making process has actually taken place. Informed and meaningful consideration of alternatives -- including the no action alternative -- is thus an integral part of the statutory scheme.

Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228 (9th Cir. 1988), cert. denied, 489 U.S. 1066 (1989) (citations and emphasis omitted), cited in Alaska Wilderness, 67 F.3d at 729. Indeed, NEPA's implementing regulations recognize that the consideration of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14, quoted in Alaska Wilderness, 67 F.3d at 729, 730.

Accordingly, the regulations and cases set high standards for considering alternatives in an environmental impact statement and define the range of alternatives that must be considered. The agency must "[r]igorously explore and objectively evaluate **all reasonable alternatives**" to a proposed action. 40 C.F.R. § 1502.14(a) (emphasis added); see City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990). The Ninth Circuit has strictly enforced this requirement in numerous cases:

To be adequate, an environmental impact statement must consider every reasonable alternative. An EIS is rendered inadequate by the existence of a viable but unexamined

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alternative... Thus, the range of alternatives considered must be sufficient to permit a reasoned choice.

Methow Valley Citizens Council v. Regional Forester, 833 F.2d 810, 815 (9th Cir. 1987) (citations omitted), rev'd on other grounds sub nom. Robertson v. Methow Valley Citizens Council, 490 U.S.

NEPA requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources. 42 U.S.C. Section 4332(F)." "An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action. Northwest Envtl Defense Center v. Bonneville Power Admin., 117 F.3d 1520, 1538 (9<sup>th</sup> Cir. 1997). The Forest Service violated NEPA by failing to "rigorously explore and objectively evaluate all reasonable alternatives" to the proposed action. City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9<sup>th</sup> Cir. 1990) (quoting 40 CFR 1502.14). The Forest Service must describe and analyze alternatives to the proposed action. Alaska Wilderness Recreation & Tourism Ass'n v. Morrison, 67 F.3d 723, 729 99<sup>th</sup> Cir. 1995).

The CEQ regulations emphasize that:

[The alternatives] section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment and Environmental Consequences, it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options y the decision-maker and the public. In this section, agencies shall:

- (a) Rigorously explore and objectively evaluate all reasonable alternatives.
- (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
- (d) Include the alternative of no action.
- (e) Identify the agency's preferred alternative or alternatives . . . .
- (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

40 CFR 1502.14.

BLM has predicted that as many as 26,000 methane wells could be drilled by 2010. Each methane well requires pumping between 10-30 gpm of water from the coal seams to release the methane gas. The inherent nature of methane development produces two devastating impacts.

First, methane development requires an almost unimaginable mining of aquifers in a semi-arid region where such aquifers are the primary source of water for the agriculture-based economies of the region.

Second, methane development produces an equally unimaginable volume of wastewater contaminated by numerous pollutants. BLM's approach to these two issues at the Redstone Gas

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<sup>3</sup> 40 CFR 1508.9(b)

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Partner's CX Field, the discharge of untreated wastewater directly into the Tongue River and to unlined percolation ponds along tributaries to the Tongue River, is simply unacceptable.

BLM needs to develop an alternative that combines phased in development with re-injection of the wastewater into the same aquifer or coal seam from which it originated. In the initial phases of development, wastewater could be re-injected if suitable depleted coal seams exist or at minimum treated prior to discharge. In subsequent phases of development, companies could be required to reinject wastewater into coal seams depleted in earlier phases of development to facilitate aquifer recharge and recovery. BLM should consider using forced unitization and pooling and other mechanisms to facilitate such development.

Properly supervised and enforced re-injection will eliminate the impacts to surface waters and the related impacts associated with discharging such water on the surface, including impacts on native vegetation and irrigated crops, soils vital to the agricultural economic base of the region, the need for thousands of stock watering ponds, etc.

Re-injection will also minimize and/or eliminate the impacts of drawing down aquifers over hundreds of square miles and thereby eliminate the uncertainties of aquifer recharge and potential impacts on surface waters connected to such aquifers.

Consequently, BLM needs to evaluate a phased development-re-injection alternative in the EIS. This alternative not only needs to evaluate re-injection but also disclose and evaluate different patterns of methane field development necessary to take full advantage of re-injection including the placement of re-injection wells. The EIS also needs to evaluate several water treatment technologies to deal with waste water that for some reason or another needs to be disposed of on the surface until re-injection wells can be installed.

BLM and DEQ need to consider a range of alternative development scenarios, including less than full-scale development of conventional oil and gas and methane resources proposed by industry.

BLM and DEQ need to consider a range of alternatives stipulations and conditions of approval to give the agencies flexibility in limiting development in some areas of site-specific studies show that such development will cause irreparable damage to other resources.

BLM needs to consider a range of oil and gas leasing alternatives in addition to closing areas to leasing. BLM needs to consider an alternative rescinding some existing oil and gas leases to reduce the level of impacts predicted in the 2003 FEIS. BLM needs to develop new lease stipulations to address the impacts from methane development, including but not limited to air quality impacts, ground water drawdowns, the impacts of such draw downs on springs and wells, methane migration, and the disposal of methane wastewater. BLM needs to consider putting no surface occupancy stipulations to protect other resources values from methane development. BLM also needs to review and update all of its existing lease stipulations. Most of these stipulations are decades old and inadequate. BLM has recognized that many of these lease stipulations are inadequate to protect resources, including sage grouse and other ground-nesting birds.

BLM needs to integrate the 2003 Oil and Gas RMP into this process. The 2003 FEIS was recently invalidated by a federal court. BLM needs to coordinate the re-write of 2003 RMP Amendment with this Amendment Process. AS a result of the Court order, BLM will need to evaluate a phased

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development alternative for methane development. The BLM needs to examine using forced unitization of leases, pooling of leases, and compensatory royalties to facilitate phased development if necessary. BLM should also consider purchasing some federal oil and gas leases to facilitate phased development or consider attachment new stipulations on existing leased restricting the time in which the lease could be developed.

BLM needs to develop an alternative that evaluates BLM's current bonding regulatory framework to determine whether such program is adequate to ensure the reclamation of land disturbed by methane and conventional oil and gas development. Methane development presents unique reclamation issues because of the high density of wells and related infrastructure and the because of the impacts of saline and sodic discharges on native soils and vegetation. Numerous studies of found that the BLM bonding program is inadequate even without considering the unique reclamation issues posed by methane development. BLM has the statutory obligation to ensure the reclamation plans and bonds are adequate to ensure that no undue and unnecessary degradation of public lands occurs.

The Custer National Forest is in the early stages of amending its Forest Plan to allow for oil and gas leasing and specifically methane development. There has been a significant level of interest expressed by methane companies to lease federal minerals underlying Forest lands. Given the level of impacts predicted by the 2003 FEIS, which only estimates 400 wells to be drilled on Forest Service lands, BLM needs to coordinate this process with the CNF. Additional development on Forest Service lands will only exacerbate predicted impacts.

## **VI. Mitigation Measures**

The NEPA obligation to consider mitigation measures serves a separate but equally important purpose. The purposes of the discussion of mitigation measures is to provide decision-makers and the public with an opportunity to develop and evaluate methods of avoiding or minimizing the potential environmental impacts identified in the alternatives and environmental consequences portion of the NEPA process.

Using information generated during this process, BLM and DEQ need to identify, evaluate, and implement extensive mitigation measures in areas where oil and gas and methane development will occur. These mitigation measures need to be mandatory conditions of approval or stipulations for leases, APDs, and plan of operations for full-scale development.

The implementation of these mitigation measures needs to be monitored and enforced by agency inspections during all phases of exploration and development. If additional staffing resources are necessary to accomplish these goals, the agencies should seek additional appropriations from the Montana legislature or Congress.

## **VII. Areas of Critical Environmental Concern**

BLM needs to identify, evaluate, and designate Areas of Critical Environmental Concern (ACEC). Not only should BLM and DEQ solicit ideas from the public, but the agencies should

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identify areas where the proximity of oil and gas resources, including methane, to historic or cultural resources, prime farmlands and ranchlands, wetlands, critical wildlife habitat (winter habitat, nesting or calving habitat), and other ecologically critical areas makes these resources unsuitable for development.

Using information collected during this process, Northern Plains will propose specific areas as ACEC at a later date.

### VIII. Adequate Baseline Inventory for all Resources

The first step BLM needs to take in this process is to compile an inventory of studies, reports, and other information regarding the potentially affected environment. BLM should solicit such studies and information from all relevant agencies, including but not limited to the USGS, Montana Department of Fish, Wildlife, and Parks, USFWS, Montana Bureau of Mines, etc. A baseline inventory needs to be completed for each resource identified in our comments below (surface water, ground water, soils, cultural and historic resources, etc.) Much of this information has been collected for studies and EISs for proposed coalmines in the 1970s and 1980s. Although some of this information may need to be updated, it provides a good starting point for an analysis.

After gathering such information, BLM needs to review such information and evaluate whether such information is adequate to establish the baseline condition of the affected environment. Without such baseline information, there is simply no way to determine whether areas should be open to leasing and development or to measure the potential impacts of such development.

BLM is required to "describe the environment of the areas to be affected or created by the alternatives under consideration." 40 CFR § 1502.15. Although the establishment of baseline conditions is not an independent legal requirement under NEPA, the establishment of the baseline conditions of the affected environment is a practical requirement of the NEPA process. In Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci, 857 F.2d 505, 510 (9<sup>th</sup> Cir. 1988), the Ninth Circuit states that "without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." "The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process".<sup>4</sup>

Without these baseline conditions there is no way for the agency or the public to meaningfully evaluate the potential environmental consequences of the proposed action and the alternatives and the potential of the listed mitigation measures to avoid or minimize the adverse impacts.

If there is incomplete or unavailable scientific information regarding the baseline condition of the affected environment for any resource, NEPA mandates that BLM collect such information for the EIS process and analysis.

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<sup>4</sup> Council of Environmental Quality, Considering Cumulative Effects under the National Environmental Policy Act (May 11, 1999).

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The existence of incomplete or unavailable scientific information concerning significant adverse environmental impacts triggers the requirements of 40 CFR 1502.22. This provision requires "the disclosure and analysis of the costs of uncertainty [and] the costs of proceeding without more and better information." Southern Oregon Citizens Against Toxic Sprays, Inc. v. Clark (SOCATS), 720 F.2d 1475, 1478 (9<sup>th</sup> Cir. 1983). "On their face these regulations require an ordered process by an agency when it is proceeding in the face of uncertainty." Save Our Ecosystems v. Clark, 747 F.2d 1240, 1244 (9<sup>th</sup> Cir. 1984).

40 CFR 1502.22 imposes three mandatory obligations on BLM in the face of scientific uncertainty: (1) a duty to disclose the scientific uncertainty; (2) a duty to complete independent research and gather information if no adequate information exists (unless the costs are exorbitant or the means of obtaining the information are not known); and (3) a duty to evaluate the potential, reasonably foreseeable impacts in the absence of relevant information, using a four-step process.

The duty to conduct independent research when faced with incomplete or unavailable information insures agencies comply with NEPA's central purpose – "to obviate the need for speculation by insuring that available data is gathered and analyzed prior to the implementation of the proposed action." Save Our Ecosystems at 1248-49. The Ninth Circuit has held that "Section 1502.22 clearly contemplated original research if necessary." *Id.* at 1244 note, 5.

Using information collected during the early stage of this process, BLM needs to determine what studies are necessary and immediately commence them so that the results can be included in the EIS. Baseline data is inadequate for almost every resource in the Basin.

## **IX. Significant Issues that Need to be Disclosed and Evaluated in the EIS**

BLM and DEQ need to disclose and evaluate the following significant issues and evaluate the potential direct, indirect, and cumulative impacts of conventional oil and gas and methane development on these resources in the EIS.

### **A. Water Quantity and Quality**

The potential impacts of methane development on surface waters and ground waters are overwhelming. The EIS needs to disclose how such development will comply with the federal Clean Water Act, Montana Water Quality Act, including its nondegradation policy, the Montana Constitution, etc. The EIS needs to include a detailed list of all permitting requirements and other requirements required before development proceeds.

### **B. Ground Water Resources**

- The EIS needs to use the best available science to map all aquifers potentially impacted by methane development and use modeling to determine the interrelationship between the aquifers and to estimate recharge rates after methane has ceased. The EIS needs to describe the depletion/recharge dynamics for all potentially impacted coal formation over a timeframe that includes full groundwater recharge after methane development is completed.
- What are the estimated draw-down levels of withdrawing large quantities of ground water over hundreds of square miles? What are the cumulative impacts of such draw-downs?

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- The EIS needs to disclose and evaluate the basic porosity, permeability, and connectivity of the various aquifers that may be impacted by conventional oil and gas and methane exploration and development. Each of these different aquifers needs to be adequately characterized, the baseline water quality of each aquifer needs to be documented, hydrologic flow regimes and ground water gradients need to be evaluated and mapped.
- Modeling of the aquifers need to be done to determine how the various aquifers are connected and how these aquifers are connected to surface waters in the region that may be impacted by development.
- The EIS needs to include an inventory of all seeps, springs, artesian wells, ground water wells, and surface waters in the areas potentially impacted by methane development. The baseline condition of these resources needs to be adequately characterized in terms of both quantity and quality before development is allowed to proceed. The agencies should survey landowners to gather such information, in addition to using files maintained by the Montana DNRC and a database of wells maintained by the USGS and Montana Bureau of Mines.
- The EIS needs to disclose and evaluate all the potential impacts of contaminating different aquifers including shallow alluvial aquifers from water disposal ponds.
- The EIS needs to discuss the impacts of contamination of aquifers from fracturing elements and other drillings fluids. DEQ and BLM need to disclose all potential fracturing elements that may be used during conventional oil and gas and methane development.
- The EIS needs to disclose and evaluate the cross-contamination of different aquifers during the drilling process and from improperly designed and drilling wells.

### C. Surface Water Quality

- The EIS needs to disclose and evaluate the potential contamination of surface waters from spills of drilling fluids, fracturing elements, and other hazardous substances used during the development process.
- The EIS needs to disclose and evaluate the potential impacts of methane on surface water quality, including a detailed and scientifically valid study of all the potential pollutants in waste water produced by such development, a discussion of the applicable water quality standards for such pollutants, and a discussion of the impacts of such pollutants on human health, aquatic life, wildlife and domesticated animals, native vegetation and irrigated crops, soils, etc. Recent studies have shown that methane wastewater is toxic to aquatic life. BLM needs to consider these impacts in the EIS.
- BLM needs to disclose and evaluate efforts presently under way to develop Total Maximum Daily Loads (TMDLs) and water quality standards to address potential impacts of methane development. These efforts need to be incorporated into this EIS, including any discussions with Wyoming regarding discharges from methane development. BLM needs to insure there is ample opportunity for public participation, review, and comment. No such decisions should be

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made until this EIS is complete. The State of Montana is in the process of developing a TMDL for the Tongue and Powder Rivers and their tributaries to address current impairment issues. The preliminary assessments indicate that the Powder River is impaired for both salinity and Sodium Adsorption Ratio and indicates portions of the Tongue River are impaired for salinity. BLM needs to incorporate any agreement between the States of Montana and Wyoming and Tribes regarding the allocation of any remaining pollution load, if any, in this Amendment process. BLM needs to examine whether the State of Wyoming may need an authorization to degrade Montana water quality.

- The EIS needs to disclose and evaluate the potential impacts of construction activities, including road construction on sedimentation rates. What are the potential impacts of increased sedimentation rates on the life span of the Tongue River reservoir and other downstream reservoirs? What are the costs of mitigating these impacts, including dredging operations, increased costs of clearing irrigation canals and diversion structures? What will the impacts of such sedimentation rates have on aquatic life including macroinvertebrates, periphyton, fisheries, etc? BLM needs to consider the cumulative impacts of the Tongue River Railroad when quantifying these potential impacts.
- The EIS needs to disclose and evaluate the potential impacts of altering natural runoff patterns caused by constructing stock-watering ponds and other impoundments in natural drainages. What are the impacts on water rights of downstream users? What are the impacts on downstream wetlands and riparian areas?
- The EIS needs to disclose and evaluate the impacts of ground water withdrawals on wetlands and riparian vegetation.
- The EIS needs to disclose and evaluate the impacts of the disposal of wastewater (with high salt content) into surface waters or stock ponds on wetland and riparian vegetation as the result of contamination of shallow alluvial aquifers and surface waters.
- The EIS needs to evaluate the potential impacts of unlined stock ponds on surface water and ground water resources, including the accumulation of salts and metals behind the dams, the development of saline seeps down gradient of the ponds, and the creation of saline seeps in shallow alluvial aquifers under the ponds. What impacts will these developments have on riparian and other native vegetation? How many stock ponds will be required per well at flows of 10-30 gpm?
- What are the design and engineering standards for the stock pond dams? The EIS needs to discuss whether such ponds can handle large storm events such as a 24-hour storm event. What are the potential impacts of dam failure?
- The EIS needs to evaluate potential water quality impacts on a watershed-by-watershed basis. As mentioned before, the baseline condition, in terms of both quantity and quality, of all surface waters and ground waters that may be impacted by development needs to be collected and disclosed in the EIS.

#### D. Water Rights

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- The EIS needs to disclose and evaluate the potential impacts on the water rights of downstream users in terms of both quantity and quality. The EIS needs to disclose the potential impacts of ground water withdrawals altering flow regimes in surface waters and thereby affecting downstream water rights. BLM needs to consider the cumulative impacts of existing withdrawals and discuss the implications of the Yellowstone Compact. The States of Montana and Wyoming are currently in discussions regarding potential violations of the Compact by the State of Wyoming.
- The EIS needs to disclose and evaluate how such withdrawals comply with the Montana Water Use Act, the recently established controlled groundwater area, principles of western water law including whether the use of such water is for a beneficial use and thus requires a permit or whether such water is waste.
- The EIS needs to disclose and evaluate the potential impacts of constructing stock ponds in natural drainages and how such stock watering ponds will impact natural drainage patterns and consequently downstream water rights that rely on natural drainage to collect and store water for us in agriculture and ranching operations.
- The EIS needs to disclose and evaluate potential impacts of development on interstate water compacts, on water contracts from the Tongue River Reservoir.
- What are the impacts of the water rights of the Northern Cheyenne and Crow Nations. How does BLM propose to meet its trust obligations? How will it be determined if wells near the Northern Cheyenne and Crow nations affect the neighboring aquifers?

#### E. Air Quality

- The EIS needs to include an emissions inventory for all possible sources of air contaminants related to oil and gas and methane development including generators, trucks, drilling rigs, compressor stations, seepage from wells, etc. The EIS needs to include levels of likely emissions for all potential pollutants using data from oil and gas and methane development in other states. The inventory needs to list all potential pollutants (sulfur dioxide, nitrogen oxides, hydrogen sulfides, methane, carbon dioxide, etc.).
- The EIS needs to discuss how oil and gas and methane development will meet National Ambient Air Quality Standards and Montana Ambient Air Quality Standards. The EIS needs to consider the cumulative impacts on air quality of conventional oil and gas and CBM in Montana and Wyoming.
- The EIS needs to include dispersion modeling to determine whether air quality standards will be threatened. The assumptions in the model need to be disclosed.
- The EIS needs to disclose and evaluate the potential impacts of development on the Class I Air shed of the Northern Cheyenne Indian Reservation.

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- The EIS needs to disclose and evaluate the potential cumulative impacts of conventional oil and gas development and methane development in Wyoming and the cumulative impacts that current and reasonably foreseeable coal-fired and gas-fired power plants present.
- What percentage of allowable emissions will oil and gas and methane development take up?
- The EIS needs to disclose and evaluate any hazardous or toxic air pollutants that may be emitted from development and discuss the potential impacts of these pollutants on humans.
- The EIS needs to include a regulatory increment consumption analysis to determine the potential impacts of methane development when combined with the impacts of conventional oil and gas development and other natural resource development in the Resource Areas.

#### F. Roads and Transportation

- The EIS needs to include an inventory of all existing primary and secondary roads in the potential areas of development and disclose and evaluate the potential increase in number of roads necessary for such development.
- The EIS needs to disclose and evaluate the potential impacts of dust created by the use of such roads.
- The EIS needs to disclose and evaluate a comprehensive review of road impacts, including secondary effects to understand the cumulative impacts of the proposed methane development on the roads and residents in Montana. The review should include:
  - Engineering review of projected impacts of "typical" methane vehicles & traffic on roads typical of those in potentially developed areas.
  - Correlation of road use-related revenues to anticipated operation, maintenance & repair costs.
  - Total generation of fugitive dust on unpaved roads be
  - Determinations arrived at related to compliance with Clean Air Act (PM-10, PM2.5, haze, etc.) and Clean Water Act and how those conclusions been verified.
  - Potential safety impacts to wildlife and residents due to methane related traffic.
  - Noise and aesthetic pollution resulting from road construction for methane development.
- What policies, regulations and/or agency oversight will be implemented to mitigate these impacts?

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- What are the impacts of methane vehicular traffic on "highway" safety? State how the conclusions have been statistically verified.

#### **G. Land Owners**

- The EIS needs to discuss the impacts on landowners adjacent to oil and gas development and surface owners in cases where the mineral estate is severed from the surface estate. BLM needs to hold public meetings with such landowners and take extraordinary measures to solicit their concerns and recommendations. BLM needs to develop lease stipulations and conditions for approval of APD to address those concerns. For example, if a surface owner uses certain areas for calving in the spring, a no surface occupancy or similar stipulation or condition needs to be developed to minimize impacts on the surface owner's operations.
- The EIS needs to discuss stipulations and conditions of approval for leases and APDs that will give such landowners notice of proposed leasing, exploration, and development they potentially impact them and their way of life.

#### **H. Fish and Wildlife Populations and Habitat**

- The EIS needs to disclose and evaluate the potential impacts on wildlife populations and habitat of all species known to in habitat areas with the potential for oil and gas or methane development. For each species, critical wintering grounds, calving grounds, migration routes, foraging areas, breeding habitats, and other important habitat need to be identified.
- The EIS needs to disclose and evaluate the potential impacts on migratory bird species, waterfowl, and upland game birds, including the sage grouse. The EIS needs to disclose and discuss critical nesting and breeding habitat.
- The EIS needs to disclose and evaluate the fragmentation and disturbance of wildlife habitat and the prairie ecosystems by such development including access roads and noise from compressors.
- The EIS needs to disclose and evaluate the potential impacts of increased access on poaching rates and thus wildlife population sizes.
- The EIS needs to disclose and evaluate the potential impacts of development on the hunting and guiding industry.
- The EIS needs to disclose all species listed as threatened or endangered, all species petitioned for listing, and all species of special management concern in the areas where development may occur. The EIS needs to evaluate the potential impacts of such development on these species and their habitat. Consultation with the USFWS will be required.
- The EIS needs to disclose and evaluate the potential impacts on aquatic life, including periphyton and algae communities, macroinvertebrate communities, and the fisheries communities.

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- The EIS needs to disclose and evaluate the potential short and long-term impacts of the quality and quantity of the discharge water on fish populations. This should include the effects of salts and ammonia on fish, effects on spawning habitats, etc.
- The EIS needs to disclose and evaluate the potential for methane seepage into surface waters and its effect on fish, algae, invertebrates, and other affected organisms.

#### I. Recreation

- What are the cumulative impacts of proposed methane development on the types of recreation engaged in by Montana residents?
- What are the cumulative impacts of proposed methane development on visitor-based recreation, including economic impacts?
- What are the cumulative impacts of proposed methane development on hunting and fishing in Montana? What will be the economic impact of lower number of hunters and fishers?
- What will be the impact on farmers and ranchers that rely on such alternative sources of income if development adversely impacts fisheries and wildlife populations?

#### J. Vegetation, Soils, and Noxious Weeds

- The EIS needs to discuss the potential impacts of wastewater from oil and gas and methane exploration and development being discharged into surface waters. What impact will such waters have on native vegetation along the surface water bodies? What impact will such waters have on irrigated crops like alfalfa, sugar beets, hay, and corn?
- What impact could such wastewater have on the productivity of agricultural crops? Discharges from development in Wyoming over 50 years ago still account for 25% of the salts in the Powder River and have been linked to declines in productivity in alfalfa. What impact will such decreases in productivity have on local agriculture? On the local tax base if agricultural productivity declines?
- The EIS needs to disclose and evaluate baseline soil and vegetation data.
- The EIS needs to disclose and evaluate the effects of disturbances on topsoil to microorganisms such as fungi and algae that provide nutrients to other plants and wildlife.
- The EIS needs to disclose and evaluate the potential impacts of the accumulation of salts and other pollutants in stock watering ponds. What impact will such salts have on the soils? Will such ponds be able to be reclaimed? How will the salts be disposed?
- The EIS needs to discuss the potential impacts of development on the spread of noxious weeds in areas of surface disturbance. Development will cause a tremendous amount of surface

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disturbance that, if not concurrently reclaimed, will result in the spread of noxious weeds. What will the fiscal impacts of noxious weeds have on local agricultural production? On county weed control efforts? Mitigation measures need to be incorporated as conditions of approval of APDs to address noxious weed issues.

#### K. Methane venting and seepage

- The EIS needs to identify and evaluate the potential for above ground methane seeps that can be associated with such development. What impacts will such seeps have on native vegetation? What dangers to such seeps pose in terms of wildfires and human safety? What about the dangers of asphyxiation and poisoning from methane seepage?
- EIS needs to develop a comprehensive timeline of methane and hydrogen sulfide seeps identified on private and public properties, in water courses, as well as an analysis of related impacts, especially the increasing threats to public health, for past and proposed development.
- The EIS needs to disclose and evaluate the potential threat of underground and surface fires created by such development. Who will bear liability for damage from such fires and how will their effects be mitigated?

#### L. Local infrastructure and services

- The EIS needs to discuss the impacts of oil and gas and methane exploration and development on local infrastructure and services, including new road construction, increased road maintenance and plowing; increased demand for police, fire, and emergency service; and increased demand for pipeline powerline right-of-ways. The EIS needs to evaluate the potential tax revenues that oil and gas and methane development may provide for counties and weigh them against the increased costs of providing local services to such development.
- The EIS needs to discuss the potential impacts associated with power lines necessary to supply electricity to development, including impacts on raptors, visual impacts, etc.

#### M. Hazardous Substances

- Please reveal and analyze the cumulative effects of the "Hazardous" and "Extremely Hazardous" federally controlled substances that are being used and produced in methane production in rural-residential areas of Montana.
- What quantities of listed controlled substances and other carcinogens have been and will be released by methane development in Montana -- per well drilled, per year and cumulatively -- in order to drain the relevant formation to the expected total recovery?
- At the required spacing, what will be the cancer risk and cumulative exposure levels of people and animals to carcinogenic emissions from -- 1) well drilling/completion; 2) well operations including compressors, and 3) well maintenance?

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- The hazardous substances at issue include, but should not be limited to, the following hazardous substances that have been confirmed as potentially utilized or produced during construction, drilling, production, and reclamation operations (**Extremely hazardous Substances are bolded**)

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- 1,1,1-trichloroethane, 4-4 methylene, 1,2,4-trimethylbenzene, Acetone, **Acrylamide**, Aluminum, Aluminum Oxide, Ammonium bisulfate, Ammonium hydroxide, Ammonium nitrate Ammonium persulfate, Ammonium sulfate, Arsenic, Barium, Basic zinc carbonate, Benzene, Cadmium, Calcium hydroxide, Carbon disulfide, Carbon tetrachloride Chromium, Coal Tar Pitch, Copper, Cumene, Cyclohexene ethylbenzene, Dianiline, Diethanolamine, Dodecylbenzenesulfonic acid, Ethylene diamine tetra, Glycol ethers, formaldehyde, Isobutyl alcohol, Lead, Manganese, Mercury, Methanol, Methyl ethyl ketone, Methyl ter-butyl ether, **Nitrogen Dioxide**, Nitroloiacetic acid, n-hexane, Napthalene, Nickel, **Ozone**, PAHs(polynuclear aromatic hydrocarbons), POM (Polycyclic organic matter), Potassium hydroxide, Propylene Radium 226, Selenium, Sodium Hydroxide, Sodium nitrate, **Sulfur dioxide**, **Sulfur trioxide**, **Tetraethyl lead**, Toluene, Uranium, VOC, xylene (m-, o-, & p-), Zinc, Zirconium nitrate, Zirconium sulfate, benzene formaldehyde.
- Please disclose the amount of each chemical that is released during each cavitation.
- Please analyze the chemical sensitivity risks, toxic exposure risks and cancer risks for each of the following groups of Montana residents: adult residents who work outside the home, adult residents who work at home, children who attend school outside the home, children who do not attend school outside the home, and workers who spend at least eight hours a day working on and around wells.

#### N. Livestock Grazing & Agriculture

- The EIS needs to estimate the number of acres that have been and will be impacted or will be removed from livestock grazing, other agricultural uses due to well pads, roads, methane saturated soils, and other aspects of infill drilling.
- How many acres of federal public lands do wells and related facilities in the application denude? Non-federal lands?
- How many acres of lands are impacted by oil and gas development?

#### O. Energy Demand

- The EIS needs to disclose and evaluate the increased energy demands that oil and gas and methane development will create to run compressor stations, treat and dispose of wastewater, etc. What are the potential impacts of power lines necessary to transmit this power on wildlife etc.?

#### P. Cultural and Historic Resources

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- The EIS needs to include an inventory of historic, cultural, and archeological resources within the area of proposed CBM production. The inventory should comply with the National Historical Preservation Act and all other applicable laws and needs to be completed before leasing and development occurs.
- What consultation and public input mechanism does the BLM plan to use to ensure that CBM development does not unduly impact these resources?

**Q. Socioeconomic Impacts**

- The EIS needs to evaluate and disclose the projected labor needs for coal bed methane well construction and long term maintenance, including information on how long construction workers and well maintenance workers will live in a certain community and in which communities will they live.
- The EIS needs to disclose and evaluate changes in projected population due to the shift in labor demands. The EIS should determine and disclose the percentage of employees who will be hired from local communities and what wages will they receive.
- The EIS needs to address the effect on local school district FTEs (Full Time Enrolled Students) due to short and long term changes in population.
- This EIS must evaluate and disclose the cost to ranches, farms, and homeowners for fences, weed protection, cattle passes, dehydrated or poisoned livestock, and drilling replacement wells.
- The EIS needs to evaluate the loss of property value on land with or near methane production and the effect of decreased property value on local tax bases.
- The EIS must disclose and evaluate the economic effect of the aforementioned toxic chemicals on local fisheries in terms of loss of fish and income from fish sales, cost of moving and the fisheries to non-polluted water, and cost of preventing toxic chemical from affecting fish.
- The EIS needs to disclose and evaluate the increased demand on community social programs such as drug and alcohol and mental health counseling due to increases in short and long term workers.
- The EIS must evaluate and disclose the decrease in revenue to recreation areas due to loss of scenic beauty caused by roads, pipelines, power lines, "stock ponds" processing facilities, etc, and the effect of this loss of revenue on local, state, and federal tax bases.

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#### R. Lands and Realty Actions

- What is the cumulative effect on real estate prices in areas where methane wells have been drilled? Please examine using sensitivity analyses that include distance from well, visibility, amount of vegetation, and noise barriers among other factors.
- What are the cumulative effects on real estate prices in areas subject to methane development due to stigmatization of rural communities as dispersed industrial zones where surface owners have little legal or no regulatory protection?
- Using accepted economic methods, please disclose whether increased well densities are economic.

#### S. Subsidence Issues

- The EIS must disclose and discuss potential subsidence problems as water and natural gas are withdrawn from the coal seams.

#### T. Well Design Standards and Spacing Issues

- The EIS needs to disclose and evaluate wells spacing requirements and unitization options available to companies and the potential impacts of such requirements.
- The expected well densities for convention oil and gas and methane development will help quantify the cumulative impacts of such development. What are the expected well densities for such development?
- Increased well densities are likely to merely increase the rate of methane production over the ensuing several years, with a significant reduction in the rate and amount of production in later years. The agency often says that it has no information that supports the applicant's assertion that the wells are necessary to drain the formation. The Bureau of Land Management records indicate that in fact the increased well densities may not produce significantly larger quantities of gas over the life span of the field. The EIS should address this issue.
- Please identify and quantify specific infrastructure requirements such as gathering lines, regional pipelines, local road improvements, compressor stations, etc. Absent these considerations, BLM and DEQ simply cannot know the impacts of increased well densities.
- Disclose and evaluate design standards for well drilling to determine whether they meet sound engineering principles and whether they will protect workers drilling such wells.

#### U. Health and Safety Issues

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- The EIS needs to disclose and evaluate, based on industry averages, the number of explosions, injuries, and deaths that may be caused by conventional oil and gas and methane development.
- The EIS needs to disclose and evaluate the risk to citizens living near such development from such explosions.
- The EIS needs to disclose and evaluate the potential impacts of hydrogen sulfide gases generated during drillings. What are the potential dangers to workers? To neighboring landowners?
- The EIS must evaluate and disclose the amount of construction and operation noise in Decibels for methane wells, facilities, etc., as well as how this noise will be monitored and where information on noise levels will be available to the public.
- The EIS must list the types of fracturing substances that will be allowed and disallowed during methane production and address how these substances will be monitored and prevented from entering drinking water and other water intended for human, livestock, and wildlife use.

#### X. Cumulative Impacts

BLM must disclose and evaluate the potential cumulative impacts, which are defined as:

[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 CFR 1508.7.

In *City of Carmel-by-the-Sea v. U.S. Dep't of Trans.*, 123 F.3d 1142, 1160 (9<sup>th</sup> Cir. 1997), the Ninth Circuit held that an NEPA document must "catalogue adequately the relevant past projects in the area." It must also include a "useful analysis of the cumulative impacts of past, present, and future projects [which] requires a discussion of how [future] projects together with the proposed . . . project will affect the environment." *Id.* The NEPA document must analyze the combined effects of the actions in sufficient detail to be "useful to the decision-maker in deciding whether, or how, to alter the program to lessen cumulative impacts." *Id.* Detail is therefore required in describing the cumulative effects of a proposed action with other proposed actions. *Neighbors of Cuddy Mountain v. USFS*, 137 F.3d at 1379 (9<sup>th</sup> Cir. 1998). See also *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1214-15 (9<sup>th</sup> Cir. 1998).

In *Muckleshoot Indian Tribe v. USFS*, the Ninth Circuit held that "twelve sections [of an EIS] entitled cumulative impacts . . . [that] provide very broad and general statements

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devoid of specific, reasoned conclusions . . . were far too general and one-sided to meet the NEPA requirements.” The Court went on to state that the statements regarding the potential cumulative impacts “fall far short of a ‘useful analysis’ as required by *City of Carmel*, 123 F.3d at 1160.” *Id.* “To consider cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public, in reviewing the Forest Service’s decisions, can be assured that the Forest Service provided the hard look that it is required to provide [under NEPA].” *Neighbors of Cuddy Mountain v. USFS*, 137 F.3d 1372, 1376 (9<sup>th</sup> Cir. 1998). In *Cuddy Mountain*, the Court explained “[g]eneral statements about ‘possible’ effects and ‘some risk’ do not constitute the ‘hard look’ absent a justification regarding why more definitive information could not be provided. *Id.*”

As previously stated in these comments, BLM needs to consider the cumulative impacts of the development of conventional oil and gas and methane development in Montana in light of the cumulative impacts of conventional oil and gas and methane exploration and development on National Forest lands, Northern Cheyenne, and Crow Nation lands in Montana, and Wyoming development (past, present, and reasonably foreseeable future). BLM needs to consider the cumulative impacts of the proposed Tongue River Railroad when combined with the impacts of methane development. BLM needs to complete a regulatory PSD Increment Consumption Analysis working in close consultation with the MDEQ to ensure the protection of Class I and Class II Airsheds in the region.

## XII. Compliance with all Applicable Laws

- The EIS must disclose and evaluate all permits and approvals necessary to comply with all applicable federal and state laws and how methane development will comply with such laws including:
  - The National Historic Preservation Act.
  - The Montana Water Quality Act and implementing regulations, including the nondegradation policy.
  - The fundamental right to a clean and healthful environment guaranteed by the Montana Constitution and the requirement that all lands disturbed by the taking of natural resources be reclaimed.
  - Undue and unnecessary degradation requirements of FLPMA and implementing FLPMA regulations.
  - Identify right-of-way and special use permits necessary for full field development including the construction of pipelines, road, service buildings, compressor stations, and other related infrastructure.
  - The Clean Water Act.
  - The Clean Air Act.
  - Endangered Species Act.
- The EIS needs to disclose, discuss, and clarify the maze of statutory and regulatory requirements for conventional oil and gas and methane from leasing to final reclamation for development on private, state, and federal lands and for development of private, state,

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and federal minerals. The EIS needs to lay out in a flowchart the step-by-step process for oil and gas development and identify areas where there is an opportunity for public participation.

- The EIS needs to disclose and discuss the unitization process and how this process may potentially impact the pattern of oil and gas and methane development.

#### VIV. Public Participation

The BLM needs to develop a standard lease stipulation and standard condition of approval for APDs that requires that all modifications, suspensions, or waivers of lease or APD stipulation or conditions to be done in writing and only after an opportunity for public review and comment. No lease stipulation or condition of approval for an APD should be modified or eliminated without at least some opportunity for public comment.

We would like to meet with BLM at the earliest possible date to discuss our scoping comments. We are especially interested in working with BLM to develop new lease stipulations and mitigation measures to reduce the impacts of methane development. Northern Plains would like to clarify the relationship between this Amendment process and the re-write of the 2003 Oil and Gas RMP Amendment required by the recent federal court order in *Northern Plains Resource Council v. Bureau of Land Management* (CV-03-69-BLG-RWA).

If you have any questions or would like more information or clarification, please call Michael Reisner at 406.248.1154.

Sincerely,

Northern Plains Resource Council