

# RECORD OF DECISION

## DECISION

The decision is hereby made to approve Alternative H and all Appendixes from the Bureau of Land Management's (BLM's) 2008 *Final Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plans* (FSEIS). The FSEIS was prepared under the regulations implementing the Federal Land Policy and Management Act (FLPMA) (43 Code of Federal Regulations [CFR] Part 1600) and the National Environmental Policy Act (NEPA). The decision applies to BLM-administered lands and minerals only. The BLM is responsible for implementation of the Record of Decision (ROD).

## ALTERNATIVES

The following eight management alternatives were considered in the development of the FSEIS: The No Action Alternative (Existing coal bed natural gas [CBNG] Management) and seven action alternatives for managing oil and gas resources—specifically CBNG exploration and production—throughout the Planning Area.

**Alternative A** -the “no action” alternative. Under existing management, APDs for CBNG wells would be approved on a case-by-case basis only in specific geographic areas where little or no CBNG data is available. The APDs would only authorize the drilling and testing of wells and associated construction activities. CBNG production would not be authorized nor would the operator be allowed to discharge waters into state or U.S. streams or drainages. All current leasing stipulations regulating mitigation measures would be applied to new leases and enforced on current leases.

**Alternative B** – BLM would review and approve CBNG activities with an emphasis on the natural and cultural resources. Certain mitigation measures would be implemented to minimize environmental impacts including: generators and compressors would have to be powered by natural gas-fired engines; water from producing wells would be injected into a different aquifer with the same or lesser quality water; co-location by spacing unit, of single-seam development wells on the same well pad would be required; and roads to wells and compressor sites would be limited to single lane width with turnouts.

**Alternative C** – BLM would review and approve CBNG activities with an emphasis on facilitating production of CBNG. BLM would use the least restrictive mitigation measures to minimize or eliminate adverse impacts to other resources. Operators could use diesel engines with Best Available Control Technology to reduce emissions. Roads and utility corridors would be positioned to use existing disturbances as much as possible and operators would not be required to drill directional or horizontal CBNG wells. Furthermore, water management would be based on a combination of beneficial use and surface discharge.

**Alternative D** – BLM would review and approve CBNG activities while maintaining existing land uses and protecting downstream water consumers. The number of wells connected to each compressor would be maximized to reduce the overall number of field compressors required. All produced water (depending on water quality) would be treated prior to surface discharge or pumping into holding facilities such as impoundments, pits, and ponds. Transportation of treated water for discharge would be via a constructed drainage system or pipeline to the nearest perennial watercourse if possible. Use of CBNG-related roads would be limited to industry, and enforcement would be increased through the use of additional fences and gates to reduce public access and overuse. In addition, wildlife surveys would be conducted prior to the approval of APDs.

**Alternative E** – This alternative provides management options to facilitate CBNG exploration and development while sustaining resource and social values, and existing land uses. Exploration and development of CBNG resources on BLM minerals are subject to agency decisions, lease stipulations, permit requirements, and surface owner agreements. Operators would be required to submit a project Plan of Development (POD) outlining the proposed development of an area when requesting CBNG well densities greater than 1 well per 640 acres. The project POD would be developed in consultation with the affected tribes, affected surface owner(s), and other involved permitting agencies. Alternative E combines water management options so that there would be no unnecessary or undue degradation as defined by the Montana Department of Environmental Quality (MDEQ) of water quality allowed in any watershed.

**Alternative F** – Under this alternative, development of CBNG on federal leases in the Billings and Powder River Resource Management Plan (RMP) areas would

be done in a phased manner through restrictions imposed by BLM. BLM would limit the number of federal APDs approved each year cumulatively (both state and federal APDs combined) and in each fourth order watershed. BLM would also limit the percentage of disturbance on BLM surface or on private surface overlying federal minerals within each identified crucial habitat area. Finally, BLM would place a limit on the volume of untreated water discharged to surface waters from federal CBNG wells within each fourth order watershed. The cumulative limit placed on federal APDs would be based on 5 percent (910 wells) of the total number of state, private, and federal wells (18,225 wells) predicted to be drilled in the Planning Area.

**Alternative G** – Under this alternative, development of CBNG on federal leases in the Billings and Powder River RMP areas would be done following the same management actions as described under Alternative F; however, development would be limited to the low range of predicted wells (6,470) from the reasonably foreseeable development scenario.

**Alternative H** – BLM’s approved alternative. Development in the Billings and Powder River RMP areas would be done in a phased manner through restrictions imposed by BLM.

The phased approach is intended to reduce the overall cumulative impacts to any resource by managing the pace and place as well as the density and intensity of federal CBNG development. In addition to the standard POD review, four evaluation screens for water, wildlife, Native American concerns, and air would be applied. The screens would be used when reviewing proposals to identify impacts, develop mitigation measures and guide the decision making process. The process BLM would follow when reviewing PODs involves reviewing the POD, making permit decisions, monitoring and assessing impacts and adjusting operations, mitigation measures, and thresholds. Thresholds would be adjusted when monitoring data justify a change.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

Alternative A, the no action alternative, is the environmentally preferred alternative [40 CFR 1505.2 (b)]. Only a limited number of wells could be approved resulting in fewer impacts than the other alternatives analyzed. Although Alternative A would result in fewer impacts, the alternative does not provide for the continued use of public minerals for oil and gas development consistent with FLPMA, the Energy Policy Development Group recommendations, and Executive Order 13212.

## **MANAGEMENT CONSIDERATIONS**

The ROD fully complies with BLM’s multiple use mission while considering and providing for responsible development of important oil and gas resources as described in the FLPMA.

The ROD considers the use and protection of the resources managed by BLM, including important energy and natural resources present in the planning area. While the ROD supports the development of oil and gas resources, it also includes the application of mitigation measures to minimize or avoid impacts to resources or land uses from oil and gas activities and to prevent unnecessary or undue degradation. In addition to the mitigation measures, existing lease stipulations may be applied to protect critical resource values. Other protective measures, such as COAs, may be required at the APD stage to mitigate site-specific impacts.

The ROD takes into account statutory and national policy considerations. The analyses in the FSEIS were based on evaluation of the Powder River and Billings RMP areas for oil and gas development, identifying sensitive natural and cultural resources, evaluating the effects of surface disturbance to these resources and identifying successful protection measures. The constraints placed on oil and gas development were reviewed in light of resource protection and where possible, major conflicts were resolved to provide a balance between protection of sensitive resources, and sound practices for development of oil and gas resources. The decision was also based on input from the public, industry, and other federal and state agencies. Through the review process, many practicable methods to reduce environmental harm were incorporated into the FSEIS and carried forward in this ROD.

Impacts anticipated from future actions taken in accordance with the approved plan are acceptable for the following reasons: 1) as the nation’s largest land manager, the Department of the Interior, through the BLM, plays a major role in implementing the National Energy Policy; 2) the National Energy Policy promotes the production of reliable, affordable and environmentally clean energy; 3) among the Nation’s most pressing concerns is to reduce our reliance on foreign oil and gas while protecting the environment; 4) BLM-administered lands contain world-class energy and mineral resources, vital to the national interest; 5) the vast energy and mineral resources under BLM’s jurisdiction places the agency in the key role of ensuring an adequate supply of energy necessary for the safety and security of our families, our communities and our nation; 6) CBNG is available on public lands and BLM has a multiple use mission under FLPMA; 7) the approved decision is an environmentally sound alternative; and 8) the

approved alternative complies with all applicable laws and regulations.

## **MITIGATION**

The following mitigation measures are being adopted into the ROD and will be applied. These represent practicable means to avoid or minimize environmental harm from the approved decision.

### **Air Quality**

Roads and well locations constructed on soils susceptible to wind erosion will be appropriately designed to reduce the amount of fugitive dust generated by traffic or other activities. Dust inhibitors (i.e., surfacing materials, non-saline dust suppressants, water, etc.) will be used as necessary on unpaved collector, local, and resource roads, which present a fugitive dust problem. To further reduce fugitive dust, operators will establish and enforce speed limits (i.e., 15 mph) on all project-required roads in and adjacent to the project area.

Potential emission reduction measures (USDI BLM 1999d) are available to further limit the oxides of nitrogen and other pollutant emissions. The appropriate level of control will be determined and required by the applicable air quality regulatory agencies during the preconstruction permit process. Visibility impacts will be mitigated by reducing emissions of particulate matter less than 2.5 microns in diameter, nitrogen dioxide and sulfur dioxide through implementation of the air quality screen.

### **Cultural Resources**

Cultural resource reviews or surveys will be conducted as required prior to the approval of permits and commencement of construction or other surface disturbing activities authorized by BLM. Guidance for application of this requirement can be found in NTL-MSO-85-1.

Results of cultural resource surveys will be presented as part of the permit review or approval process. Decisions regarding relocation of proposed access roads or well pads, data recovery, and excavation will be made to protect the cultural or historical sites.

### **Fire**

Operators are required to comply with BLM-imposed conditions during times of high fire danger. Such conditions may include restrictions on types of activities allowed, hours of operation, and requirements for maintaining certain fire suppression equipment at the

work site. Operators must maintain a current fire suppression plan.

### **Hydrology**

Water well and spring mitigation agreements will be used to facilitate the replacement of groundwater that may be lost to drawdown. Replacement water may require supply from offsite sources.

### **Indian Trust and Other Interests**

The tribes will be invited to participate in the IWG responsible for developing and recommending the monitoring and mitigation measures needed for each agency to ensure its actions achieve compliance with applicable air and water quality standards across jurisdictional boundaries. Mitigation measures for potential impacts to the Northern Cheyenne Tribe trust resources and other interests are included in the ROD Appendix B.

### **Lands and Realty**

Corridors will be required for placement of roads, pipelines, and utility lines in a common area of disturbance wherever possible.

### **Livestock Grazing**

Damaged gates and fences will be repaired or replaced according to landowner requirements at the operator's expense. When working on or near grazing lands, project-related construction equipment and vehicle movement will be minimized to avoid disturbance of grazing lands. Responsibilities for fence, gate, and cattle guard maintenance and noxious weed control will be defined in APDs, BLM approvals, or right-of-way (ROW) grants. Facilities will be placed to avoid or minimize impacts on livestock water.

### **Paleontology**

BLM APD COAs provide guidance for notifying BLM and mitigating damage to paleontological resources discovered during oil and gas construction activities. Limitations include restricted use of explosives for geophysical exploration, monitoring requirements, and work stoppages for discovered resources.

### **Recreation**

Exploration activities will be coordinated for timing to minimize conflicts during peak use periods.

## **Solid and Hazardous Waste**

Site clearance surveys will be conducted prior to surface disturbance commencement. Solid and hazardous wastes generated as a result of oil and gas lease operations will be disposed of in a manner and at a site approved by the appropriate regulating agency.

## **Soils**

Areas with steep topography will be developed in accordance with the BLM Gold Book (United States Department of the Interior and United States Department of Agriculture 2006) requirements. Lease roads and constructed facilities will be located in accordance with the approved APD. In areas of construction, topsoil will be stockpiled separately from other material, and be reused in reclamation of the disturbed areas. Unused portions of the producing well site will have topsoil spread over it and will be reseeded.

Construction activities will be restricted during wet or muddy conditions and will be designed following BMPs to control erosion and sedimentation. If porous subsurface materials are encountered during pit construction, all onsite fluid pits will be lined. During road and utility ROW construction, surface soils will be stockpiled adjacent to the cuts and fills.

Stream crossings will be designed to minimize impacts and not impede stream flow. Erosion control measures will be maintained and continued until adequate vegetation cover (as defined by BLM on a case-by-case basis) is reestablished. Vegetation will be removed only when necessary. Water bars will be constructed on slopes of 3:1 or steeper.

Erosion control and site restoration measures will be initiated as soon as a particular area is no longer needed for exploration, production, staging, or access. Disturbed areas will be recontoured to provide proper drainage.

Topsoil piles may be required to be seeded following the BLM seeding policy.

Displaced farmland, whether in crop production or not, will be reclaimed to original soil productivity through adoption of standard reclamation procedures.

## **Vegetation**

It is the responsibility of the operator to develop a noxious weed prevention plan outlining ways to control noxious weeds on lands disturbed in association with oil and gas lease operations. Lease-associated weed control strategies are to be coordinated with any involved surface owners and local weed control boards. A pesticide-use proposal must be reviewed and approved by BLM prior to any

herbicide application on lands disturbed by federal oil and gas lease operations. A pesticide application record must be made within 24 hours after completion of application of herbicides. Additional measures may be required to prevent the spread of noxious weeds.

The noxious weed prevention plan must include measures to prevent the spread of weed seeds from any vehicles and equipment traveling from or prior to mobilizing it to, the project area.

Disturbed areas resulting from any construction will be seeded in accordance with the BLM seeding policy (USDI BLM, 1999c) or surface owner's requirements. Depending on surface ownership, seeding is usually required during the fall or spring.

Should the reseeded of sagebrush be required, different seeding times and techniques will be required. To the extent practicable, vegetation will be preserved and protected from construction operations and equipment except where clearing operations are required to conduct oil and gas operations, such as for roads, well pads, pipelines, power lines, utility lines, and structures. Clearing of vegetation will be restricted to the minimum area needed for construction and equipment.

To the maximum extent practicable, all maintenance yards, field offices, and staging areas will be arranged to minimize disturbance to trees, shrubs, and other native vegetation and situated to avoid disturbance to important vegetative species, such as sagebrush.

Cuts and fills for new roads will be sloped to minimize erosion and to facilitate revegetation. Riparian zones will be protected by federal lease stipulations and permit mitigation measures. The BLM seeding policy will be followed for all reclamation and reseeded activities.

During reclamation activities, early succession plants will be used for revegetation to provide a fast growing cover crop to minimize and compete against noxious weeds.

Operator reclamation plans will be developed in consultation with the surface owner. Reclaimed areas reseeded with native species will require a certified weed-free seed mix. The seed mix used on private surface will be developed in consultation with the surface owner. Successful revegetation will usually require at least two growing seasons to ensure a self-sustaining stand of seeded species.

## **Visual Resource Management**

Camouflage of all wellheads on federal surface in Class II Visual Resource Management Areas will be required to preserve the viewshed. Camouflage will consist of paint chosen to blend in with the background and placement of wellheads to reduce visual intrusions.

## Wilderness Study Areas

Laws and regulations established to protect Wilderness Study Areas prohibit leasing of these lands for resource extraction. Existing oil and gas leases in Wilderness Study Areas will be developed in accordance with the BLM policy for interim management of lands under wilderness review.

## Wildlife and Aquatics

Temporary and permanent access roads will be avoided on south-facing slopes within designated crucial big game winter range, where practicable.

The planting of grasses, forbs, trees, or shrubs beneficial to wildlife will follow the BLM seeding policy. When needed, BLM will require installation of erosion and sedimentation control measures, such as riprap, erosion mats, mulch, bales, dikes or water bars. Riprap material and placement must be approved by the appropriate agency.

All above-ground electrical poles and lines will be raptor-proofed to avoid electrocution following the criteria and outlined in the Avian Power Line Interaction Committee (2006).

Activities such as stream crossings that could directly impact sensitive or protected fish species will be undertaken during non-spawning periods for these species. In the unlikely event that multiple, sensitive, or protected fish species with back-to-back spawning periods are present in the same stream reach, one of the following options will be exercised: selecting a nearby, alternative stream crossing site that does not provide suitable spawning habitat for the fish species of concern; using a nearby, existing stream crossing over the channel to avoid instream disturbances; or using shore-based equipment to position and extend the pipeline or other item (e.g., temporary bridge) across the stream, thereby avoiding in-channel activities.

## MONITORING

This section describes the monitoring that will be conducted during implementation of the decision.

### Land Use Plan Monitoring

Land use plan monitoring will be conducted by BLM. The BLM will monitor the plan to 1) ensure compliance with decisions; 2) measure the effectiveness or success of decisions; and 3) evaluate the validity of decisions.

## Project Monitoring

At the project level, inspections will consist of physical onsite examination of oil and gas operations, disturbance areas, verification sampling at water quality monitoring points, environmental sampling and analysis of produced water, evaluation of construction and reclamation techniques and results. Inspections will be conducted more frequently during periods of intense activity, in areas of critical or sensitive resources, or where problems have been noted and corrective measures are being implemented.

## Resource Monitoring

For each resource, a series of items will be monitored (see Appendix C of the ROD). Each item is evaluated by location, technique for data gathering, unit of measure, and frequency and duration of data gathering. When a duration is not specified, the duration is for the next 20 years. The monitoring plan states the event that will be evaluated and lists the key resources that will be monitored. If an adverse impact can be corrected by a management action within the scope of this plan, the change will be implemented. If the adverse impact can be corrected only by a management action that is outside the scope of this plan, the Billings (USDI BLM, 1983a) or Powder River (USDI BLM, 1985) RMPs will be formally amended.

The Montana Department of Natural Resources and Conservation (DNRC) Technical Advisory Committee for the Powder River Basin Controlled Groundwater Area has proposed a groundwater monitoring plan for CBNG development. The monitoring recommendations are incorporated into the monitoring table. For a complete copy of that plan, see the FSEIS (BLM, 2008). Much of this plan has been adopted and put in place (see reports at <http://www.mt.blm.gov/mcfo/cbng/CBNG-Monitoring.htm>).

The BLM, U.S. Fish and Wildlife Service (FWS), and the State of Montana have developed a Wildlife Monitoring and Protection Plan (WMPP, see ROD Appendix A).

## PUBLIC INVOLVEMENT

The FSEIS was prepared by an interdisciplinary team of specialists from the BLM's Miles City and Billings field offices, and the BLM Montana State Office.

Preparation of the document began in August 2005. The BLM solicited comments from agencies and the public using a variety of tools to announce the beginning of the SEIS process. Public participation activities included public scoping meetings, informal meetings, SEIS website information, and newsletters. Biweekly

teleconference calls were also hosted by the BLM to provide ongoing communication with cooperating agencies and collaborators.

The BLM prepared a public participation plan to guide project management and team efforts to develop the SEIS and to ensure public involvement during the entire SEIS preparation process. During the scoping for and preparation of the Draft SEIS (DSEIS), formal and informal public input was solicited.

The 30-day scoping period began with the *Federal Register* Notice of Intent published on August 5, 2005 (Vol. 70, No. 150, Page 45417). The scoping period and the availability of planning criteria were announced in a legal notice, newspaper advertisements, and media releases. During the scoping period, the BLM received written comments in the form of letters, comment forms, and emails.

Public scoping meetings were held in four towns within the Planning Area. Total attendance was 126 people, with some people attending more than one meeting.

More than 500 comments were submitted during the scoping meetings and in written communications. Many comments were received in several categories, including air quality, oil and gas, phased development, water resources, and wildlife.

Following the public scoping period, the BLM held an alternative development meeting with cooperating agencies and other collaborators on September 21, 2005, in Miles City. As a result of this meeting, a preliminary phased development alternative was developed and distributed to the cooperating agencies and collaborators for comment. Based on cooperating agency and other collaborator comments, and further consideration of scoping comments, the BLM revised the alternative.

The revised phased development alternative was then summarized in an October 2005 project newsletter. More than 1,800 copies of the newsletter were sent to interested parties. The phased development alternative presented in the newsletter was based on the proposed high range of development identified in the original Reasonably Foreseeable Development report. In response to several comments received as a result of the newsletter, the BLM developed a second phased development alternative based on the low range of predicted development.

On November 9, 2005, another meeting was held in Miles City with cooperating agencies and other collaborators. Both the high and low range phased development alternatives were presented for discussion and feedback. As a result of this meeting, the two alternatives were refined.

On February 2, 2007, a Notice of Availability was published in the *Federal Register* announcing the

availability of the DSEIS and beginning a 90-day public comment period which ended on May 2, 2007. Approximately 1510 copies of the DSEIS were distributed to the public for comment. Additionally, a copy was posted on the BLM-Miles City Field Office SEIS website for downloading by the public.

Public meetings were held at five locations within the Planning Area to gather comments on and answer questions concerning the DSEIS. The meetings were attended by a total of 161 members of the public. Comments were received both in writing and orally.

The *Federal Register* Notice of Availability announcing the release of a Supplemental Air Quality Analysis for the DSEIS was published December 12, 2007. A public meeting was held at Miles City, Montana on February 20, 2008. The meeting was attended by 12 members of the public. Comments were received both in writing and orally. The 90-day public comment period for the air supplement ended on March 13, 2008.

The Assistant Secretary, Land and Minerals Management, in the Department of the Interior is the responsible official for the land use plan amendment. As such, the FSEIS/Amendment was not subject to administrative review (protest) under the BLM or Departmental regulations (43 CFR 1610.5-2). FLPMA and its implementing regulations provide land use planning authority to the Secretary, as delegated to the Assistant Secretary.

## **Tribal Consultation**

The BLM has consulted with the Crow Tribe of Indians, the Northern Cheyenne and the Lower Brule Sioux tribal governments throughout the preparation of the SEIS. A chronology of the consultation process with Native American Tribes is in Chapter 5 of the FSEIS.

## **U.S. Fish and Wildlife Service Consultation**

As required by Section 7 of the ESA of 1973, the BLM prepared and submitted a biological assessment to the FWS. The document defined potential impacts on threatened and endangered species as a result of management actions proposed in the FSEIS. A letter received March 25, 2007, from the FWS states:

“The Service concurs with your determination that the proposed action may affect, but is not likely to adversely affect the grizzly bear, bald eagle, pallid sturgeon, black-footed ferret, least tern, and Canada lynx. Formal consultation is not required at this time.” A copy of the letter is included in the Wildlife Appendix of the FSEIS.