



*Supplement to the
Montana Statewide Oil and Gas Final
Environmental Impact Statement
and
Amendment of the Powder River and
Billings Resource Management Plans*

SCOPING REPORT

Prepared for:

**U.S. DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
MILES CITY FIELD OFFICE**

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Acronyms and Abbreviations

APD	Application for Permit to Drill
BLM	Bureau of Land Management
CBNG	coal bed natural gas
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FEPCO	Fidelity Exploration & Production Company
FLPMA	Federal Land Policy and Management Act
MBOGC	Montana Board of Oil and Gas Conservation
MBMG	Montana Bureau of Mines and Geology
MDEQ	Montana Department of Environmental Quality
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NOA	Notice of Availability
NOI	Notice of Intent
NO _x	nitrous oxide
NTHP	National Trust for Historic Preservation
PM	particulate matter
RFD	Reasonably Foreseeable Development
RMP	Resource Management Plan
ROD	Record of Decision
SEIS	Supplemental Environmental Impact Statement
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

1.0 Introduction

This report documents the public scoping process of the Bureau of Land Management's (BLM's) Supplement to the Montana Statewide Oil and Gas Final Environmental Impact Statement (EIS) and Amendment of the Powder River and Billings Resource Management Plans (RMPs) (BLM 2003a). The scoping report includes an overview and summary of the scoping process, the planning schedule, the scoping meetings, the comments submitted by the public, and the issues identified from scoping comments.

Scoping helps the BLM identify issues potentially affecting the future management of public lands and resources. These issues will be used to focus development of the alternative(s) to be evaluated in the Supplemental EIS and RMP Amendments (SEIS/Amendment).

1.1 Background

In 2003, the BLM and the State of Montana jointly prepared the EIS and RMP Amendments (Statewide Document). The Statewide Document analyzed the environmental impacts associated with amending the RMPs to change existing land use decisions regarding the development of oil and gas resources, including coal bed natural gas (CBNG) exploration and development. The Record of Decision (ROD) for the Statewide Document was approved on April 30, 2003.

As a result of lawsuits filed against the BLM's decision, the District Court ordered the BLM to prepare an SEIS/Amendment, which BLM's Miles City Field Office is now preparing. The U.S. District Court for the District of Montana has identified three topics to be evaluated in the SEIS/Amendment:

1. CBNG phased development
2. Cumulative impacts from the proposed Tongue River Railroad
3. How private water well mitigation agreements will help alleviate the impacts of methane migration and groundwater drawdown

Together with the Statewide Document, the SEIS/Amendment will provide a comprehensive framework for managing public land and allocating resources related to CBNG and other oil and gas exploration and development activities.

The SEIS/Amendment will be prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended; the Council on Environmental Quality regulations implementing NEPA, the Federal Land Policy and Management Act of 1976 (FLPMA), and other related regulations.

The SEIS/Amendment will also update the Statewide Document to incorporate significant new information and reflect any changes in policies, regulations, and activities since the Statewide Document was approved. Monitoring data will be presented to update the public on new resource data developed since the Statewide Document was completed in April 2003.

1.2 Purpose and Need

The purpose of the Statewide Document for the BLM was to analyze impacts from oil and gas activity, including CBNG exploration, development, production, and reclamation in the Powder River and Billings RMP areas.

The purpose of the SEIS/Amendment will be to supplement the Statewide Document by considering and analyzing the effects from CBNG phased development. At a minimum, the SEIS/Amendment will address the three topics identified by the U.S. District Court: 1) The document will analyze the direct and cumulative environmental and socioeconomic impacts of a phased CBNG development alternative. 2) The SEIS/Amendment will include the proposed Tongue River Railroad in the discussion of cumulative effects for all alternatives. 3) The document will discuss how private water well mitigation agreements will help alleviate the impacts of methane migration and groundwater drawdown.

1.3 Planning Area Location and Description

The BLM will make decisions on its administered surface and mineral estate within a defined planning area (see Map 1). The planning area includes approximately 1.5 million surface acres and 5.0 million acres of BLM-administered mineral estate. The planning area includes Big Horn, Carbon, Golden Valley, Musselshell, Powder River, Stillwater, Sweet Grass, Treasure, Wheatland, and Yellowstone counties, as well as portions of Carter, Custer, and Rosebud counties.

The BLM administers large contiguous tracts of mineral estate within the planning area; however, most of the BLM-administered surface estate consists of small tracts interspersed with other federal, state, and private lands. Other federal land managers include the U.S. Forest Service (Custer National Forest), the National Park Service (Big Horn Canyon National Recreation Area), and the U.S. Department of Agriculture (USDA, Fort Keogh Livestock and Range Research Laboratory). Other large land owners and managers include the Montana Department of Natural Resources and Conservation for state trust lands, numerous private ranching interests, and various tribes, including the Crow and Northern Cheyenne.

1.4 Scoping Process

Scoping takes place early in the planning process and is open to agencies and the public. Scoping results help identify the range or scope of issues to be addressed in the SEIS/Amendment.

The BLM solicited comments from agencies and the public by using a variety of tools to announce the beginning of the SEIS/Amendment process.

The scoping meetings were announced in the *Federal Register*, a legal notice, newspaper advertisements, and media releases (see Appendix A).

The 30-day scoping period began with the publication of the *Federal Register* notice of intent (NOI) published on August 5, 2005

(Vol. 70, No. 150, Page 45417). During the scoping period, the BLM received written comments in the form of letters, comment forms and emails. Comments received in writing or during public meetings were entered into an electronic database and sorted several ways, including type of issue, geographic location, and type of submitter (e.g., agency, special interest group, individual). Issues were then identified based on the comments. For all resource categories, specific resource topics were defined within the category (e.g., groundwater quality was a topic within the water resources category).

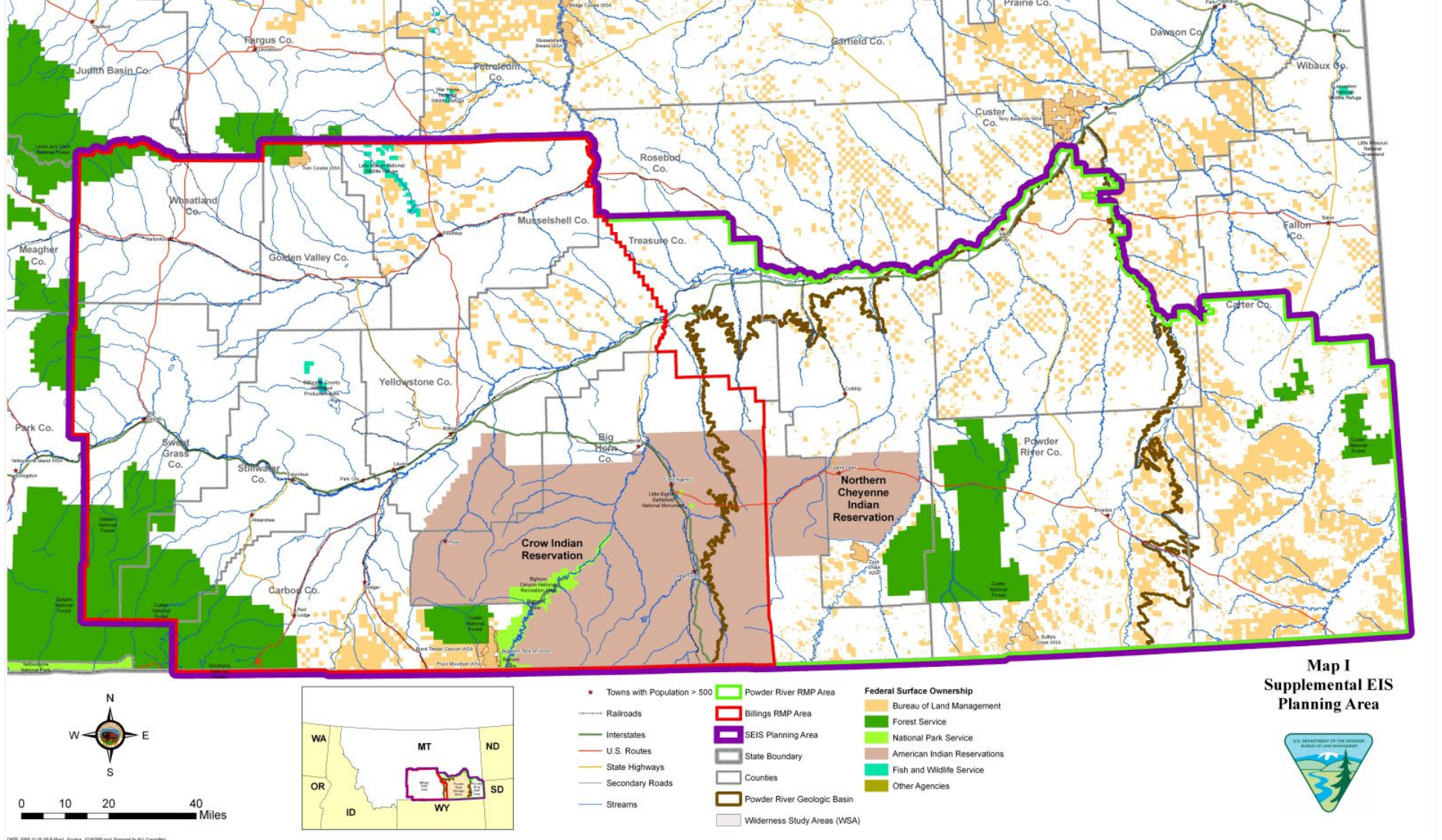
The BLM hosted four public scoping meetings during August of 2005. The registered attendance for all four meetings was 126 people (Table 1), with some people attending more than one meeting. Attendance at each public scoping meeting was recorded using a sign-in sheet. Copies of scoping meeting sign-in sheets are provided in Appendix B. The scoping meeting presentation is provided in Appendix C, and meeting minutes are provided in Appendix D.

While each public scoping meeting raised unique issues and concerns, a number of common themes emerged. When viewing the public meetings as a whole, the ideas and concerns relating to water resource impacts, socioeconomic impacts, and oil and gas infrastructure were often cited (Appendix D). Informal comments addressed to the BLM staff during conversations at the open houses were not formally recorded, but were noted in general.

**TABLE 1
PUBLIC SCOPING MEETING DATES,
LOCATIONS, AND ATTENDANCE**

Meeting Date	Meeting Location	Number of Attendees
August 22, 2005	Broadus, Montana	24
August 23, 2005	Lame Deer, Montana	65
August 24, 2005	Billings, Montana	22
August 25, 2005	Miles City, Montana	15
	Total	126

Supplemental EIS to the 2003 Final Statewide Oil & Gas EIS and Amendment of the Powder River & Billings RMPs



DATE: 2005-01-10 FILE: Map_I_Suppl_EIS_111005001.dwg Prepared by: K.C. Connelly

1.5 Cooperating Agencies

Cooperating agency status provides a formal framework for federal, state, and local government agencies and tribes to engage in active collaboration with another federal agency to implement the requirements of NEPA (42 U.S.C. 4321, et seq.). Federal and state agencies and local and tribal governments may qualify as cooperating agencies because of “jurisdiction by law or special expertise” (40 CFR 1501.6 and 1508.5).

Collaboration can be used to describe a wide range of external and internal working relationships, including the cooperating agency relationship. The BLM strongly supports the engagement of cooperating agencies in developing resource management plans. According to BLM Handbook H-1601-1, Appendix A, collaboration implies that other federal agencies; tribal, state, and local governments (cooperating agencies); and various members of the public will be involved in the plan well before the lead agency officially initiates the planning process, rather than engaging them at specific points mandated by regulation and policy.

Agency coordination is an important step in a successful collaborative process for several reasons. First, early involvement with other federal, tribal, state, and local governments establishes a solid working relationship with each agency. Next, coordination builds trust and credibility among agencies. This relationship can serve as the basis for building a similar coalition with the public. Finally, coordination helps ensure the land use decisions are supported by other jurisdictions, to the maximum extent possible. Similarly, active involvement by the public early in the process helps to ensure the alternatives considered address the diversity of public interests. The process can build trust between the BLM and the public, create public support for management decisions, and develop a working relationship to carry forward to implementation.

As part of initiating the SEIS/Amendment planning process, the BLM sent letters to more than 40 governmental agencies and Indian tribes to introduce the project, notify them of the upcoming scoping period, and invite them to

participate in a September 21, 2005, meeting to develop a phased development alternative(s) for consideration in the SEIS/Amendment. The agencies contacted are listed in Appendix E.

The BLM developed a memorandum of understanding (MOU) for those agencies choosing to become cooperating agencies (Appendix F contains an example of an MOU). The MOU outlines the roles and responsibilities of the cooperating agency and the BLM throughout the planning process. To date, 16 agencies have submitted fully executed MOUs and are cooperating agencies in the development of the SEIS/Amendment:

- Bureau of Indian Affairs, Rocky Mountain Regional Office
- Big Horn County
- Carbon County
- Crow Tribe of Montana
- Golden Valley County
- Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota
- Montana Board of Oil & Gas Conservation (MBOGC)
- Montana Department of Environmental Quality (MDEQ)
- Musselshell County
- Powder River County
- Rosebud County
- Treasure County
- U.S. Army Corps of Engineers
- U.S. Department of Energy
- U.S. Environmental Protection Agency Region VIII
- Yellowstone County

The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana is participating in the review of preliminary documents generated for the SEIS/Amendment and has been offered a MOU for cooperating agency status. The Northern Cheyenne Tribe is still evaluating their options with regard to participation, however several government to government consultations meetings have been

scheduled and held between BLM and the Northern Cheyenne Tribe to address their issues.

Comments submitted by the Northern Cheyenne Tribe and the cooperating agencies have been summarized with all other comments received during the public scoping period.

Coordination meetings with these and additional agencies will continue throughout the planning process. Other types of agreements also have been established, including an MOU between the U.S. Fish and Wildlife Service (USFWS) and the BLM regarding Endangered Species Act (ESA) Section 7 consultation.

1.5.1 COLLABORATIVE MEETINGS

An alternative development meeting was held with cooperating agencies and other collaborators on September 21, 2005, in Miles City. During the meeting, an overview of all suggested phased development alternatives received during scoping—numerical, geographical, geological, and temporal—were discussed with the participants. The participants collectively developed three phased development alternatives for analysis. Following the meeting, the three alternatives were combined into an internal “Draft Phased Development Alternative” and distributed to the cooperating agencies and collaborators for comment. As a result of the comments and further consideration of scoping comments, the BLM revised the alternative to address several issues, including the annual numerically-based approval of Applications for Permit to Drill (APDs), preservation of habitat, protection of surface water quality, inclusion of tribal reservation buffer zones, and geographical distribution of CBNG wells on a watershed basis.

A second collaborative meeting was held with cooperating agencies and other collaborators on November 9, 2005, in Miles City. The purpose of this meeting was to present the phased development alternatives (Alternatives F – High Range and G-Low Range) for discussion and feedback. This meeting resulted in the fine tuning of the alternatives prior to impact analysis.

1.5.2 SEIS PROJECT NEWSLETTER

The initial phased development alternative was disclosed to the public in a project newsletter (Volume 1, Issue 1) in early October 2005. The newsletter provided a detailed description of the phased development alternative, SEIS project milestones, and a request for comments. The BLM received several comments by late October regarding the phased development alternative, most notably were comments regarding various levels of development. These comments requested an alternative with less than full field development, which is the proposed high range as identified in the original Reasonably Foreseeable Development (RFD) report. Based on these letters, the BLM developed a second phased development alternative based on the low range of the predicted development scenario as identified in the original RFD.

1.6 Tribal Consultation

As noted in Section 1.5, the Crow Tribe of Montana and the Lower Brule Sioux Tribe have established MOUs with the BLM and are participating as cooperating agencies. The Northern Cheyenne Tribe, has not signed an MOU with the BLM, but has entered into formal Government to Government consultations with the BLM regarding the SEIS/Amendment. Consultation meetings were held at the Tribe’s headquarters facility in Lama Deer on September 7 and November 29, 2005.

The September meeting concerned the Tribe’s participation in the SEIS/Amendment process, the Tribe’s issues and concerns with CBNG development, and their definition of “phased” development. This meeting also addressed future consultation protocols and identified a minimum of three future meetings coinciding with specific SEIS/Amendment milestones. These milestones are: 1) selecting the preferred alternative, 2) issuing the Draft SEIS/Amendment, and 3) publishing the Final SEIS/Amendment.

The November meeting was held to present the two phased development alternatives to the Tribe and to collect feedback from them concerning these alternatives. Additional consultations will occur as required and in accordance with BLM policy.

2.0 Issue Summary

2.1 Summary of Public Comments

The BLM received written comments in the form of letters, comment forms, and emails. The BLM also recorded verbal comments made during the tribal coordination meeting and the four public scoping meetings.

Nineteen individuals, agencies, and organizations submitted comment forms, letters, and email messages. More than 300 comments were recorded from the letters, forms, and emails, while approximately 200 comments were recorded at the public scoping meetings. Copies of all letters, comment forms, and email submittals received during the comment period are found in Appendix G. Public scoping meeting comments are presented in Appendix D as meeting minutes.

Each unique comment form, letter, or email message was counted as a single comment submittal. Nineteen comment submittals were received. Of these, eight (42 percent) came from individual citizens. No state or local agencies submitted comments, while one comment submittal was received from a federal agency, and one was received from the Northern Cheyenne Tribe. Businesses and organizations submitted nine comment letters, with three of these comment submittals being submitted on behalf of a group of organizations. The following tribes, agencies, and organizations submitted comment letters:

Tribes

- Northern Cheyenne Tribe

Federal Agencies

- U.S. Environmental Protection Agency (EPA)

Businesses

- Bones Brothers Ranch
- Fidelity Exploration & Production Company (FEPCO)
- Patton Boggs, LLP, representing the following:
 - Anadarko Petroleum Corporation
 - Devon Energy Corporation
 - Pinnacle Gas Resources, Inc.

Organizations and Interest Groups

- Earthjustice, representing the following:
 - Natural Resources Defense Council
 - Powder River Basin Resource Council
 - Western Organization of Resource Councils
 - Wyoming Outdoor Council
- Environmental Defense
- Native Action
- Northern Plains Resource Council
- Tongue River Water Users' Association (prepared by Reynolds, Motl and Sherwood LLP)
- Western Environmental Law Center, representing the following:
 - American Lands Alliance
 - Biodiversity Conservation Alliance
 - One individual

More than 500 individual comments were received during the scoping process (Table 2). A large number of comments were received in several categories, including air quality (88), oil and gas (113), phased development (68), socioeconomic (43), water resources (69), wildlife (51), the NEPA and scoping process (34). Miscellaneous topics were discussed in 19 comments, while 55 comments addressed cultural resources and Native American concerns.

TABLE 2
SUMMARY OF SCOPING COMMENTS RECEIVED ON THE SEIS/AMENDMENT

Resource or Topic	Number of Commenters	Number of Comments	Issue Topic (and number of comments)
Air Quality	7	88	<ul style="list-style-type: none"> • General (4) • FEIS deficiencies (3) • Cumulative impacts (11) • Air quality impacts and mitigation (1) • Human health concerns (7) • Particulate matter standards (1) • Clean Air Act compliance standards (10) • Reliance on state air quality regulations (8) • Visibility impairment (13) • Visibility mitigation (3) • Protection of Class 1 areas (7) • Air quality monitoring (1) • Construction equipment impacts (1) • Fire potential (1) • Acid rain (1) • Phased development (2) • Full increment consumption analysis (14)
Cultural Resources	5	17	<ul style="list-style-type: none"> • General (2) • Cumulative impacts (1) • Spiritual connection to the land and water (2) • Environmental justice (1) • Protection and preservation of cultural resource sites (7) • Protection of tribal resources (3) • Subsistence (1)
Native American Concerns	7	38	<ul style="list-style-type: none"> • General (3) • Cultural values (3) • Scoping concerns (2) • Spiritual connection to natural resources and water (4) • Economic benefits (2) • Coordination and cooperation (5) • Aquifer recharge rate (1) • Protection and preservation of cultural resource sites (3) • Trust responsibilities (5) • Socioeconomic issues (7) • Cumulative impacts (Tongue River Railroad) (1) • Tribal water rights (1) • Phased development (1)
Oil and Gas	15	114	<ul style="list-style-type: none"> • Phased development (11) • General (18) • Supply and demand (3) • Socioeconomics (4) • Produced water management (7) • Infrastructure requirements (3) • Cumulative effects (1) • Monitoring (4) • RMP- vs. APD-level process (7) • Monitoring and enforcement assurances (3) • Visual impacts (5)

TABLE 2
SUMMARY OF SCOPING COMMENTS RECEIVED ON THE DRAFT
SEIS/AMENDMENT (continued)

Resource or Topic	Number of Commenters	Number of Comments	Issue Topic (and number of comments)
			<ul style="list-style-type: none"> • Other infrastructure uses (1) • Lease stipulations, long-term and cumulative impacts (8) • Reclamation and bonding requirements (16) • Water well mitigation agreements (1) • Alternatives (4) • Resource protection (5) • Baseline inventory needs (8) • Produced water reduction (3) • Methane migration (2)
Phased Development	17	68	<ul style="list-style-type: none"> • General (10) • Phasing already occurring (9) • Implementation uncertainties (9) • Implementation impacts (3) • Phasing impact mitigation efforts (9) • Multiple-use protection (2) • Reducing impacts (7) • Implementation strategies (11) • Alternative development (1) • Cumulative impacts (Tongue River Railroad) (3) • RMP- vs. APD-level process (3) • Tribal trust responsibilities (1)
Socioeconomics	10	43	<ul style="list-style-type: none"> • Economic benefits from CBNG development (7) • Produced water uses (2) • Water reinjection (5) • Cumulative impacts (Tongue River Railroad) (1) • Mitigation accountability (1) • Job Creation (5) • General (4) • Environmental justice (1) • Cost of baseline inventory data gathering (1) • Infrastructure costs (6) • Economic cost of delaying or phasing development (2) • Phased development (4) • Protected resources for long-term benefits (3) • Land/mineral owner rights (1)
Soils	2	3	<ul style="list-style-type: none"> • Soil remediation (1) • Irrigation impacts (1) • Health effects (1)
Vegetation	4	7	<ul style="list-style-type: none"> • Noxious weeds – control (1) • Produced water uses (2) • Preservation of natural conditions (1) • Protection of sagebrush steppe and grasslands (1) • Reclamation (2)
Water Resources	15	69	<ul style="list-style-type: none"> • General (1) • Water quality (6) • Beneficial uses of produced water (13) • Produced water reinjection (8) • Produced water management options (7) • Groundwater impacts (8) • Cumulative impacts (2)

TABLE 2
SUMMARY OF SCOPING COMMENTS RECEIVED ON THE DRAFT
SEIS/AMENDMENT (continued)

Resource or Topic	Number of Commenters	Number of Comments	Issue Topic (and number of comments)
			<ul style="list-style-type: none"> • Tribal groundwater impacts (3) • Well water mitigation agreement process (5) • Wastewater reduction (3) • Surface water quality (6) • Surface water quantity (1) • Groundwater monitoring/modeling (3) • Phased development (1) • Water rights (2)
Wildlife	9	51	<ul style="list-style-type: none"> • General (7) • Beneficial uses of produced water (5) • Water quality/quantity (3) • Cumulative effects (1) • Aquatic resource impacts (4) • Impacts associated with oil and gas development (6) • Ecosystem impacts (5) • Need for quantitative data and analyses (4) • RMP or landscape-scale analysis framework (4) • Secondary, long-term, or cumulative impacts (5) • Tribal trust responsibilities (2) • ESA species (sage grouse, prairie dog) protection (5)
NEPA/ Scoping Process	10	34	<ul style="list-style-type: none"> • Scoping process (5) • Scope of the SEIS/Amendment (4) • Alternatives (1) • Cumulative impacts (Tongue River Railroad) (6) • RMP- vs. APD-level process (10) • Phased development (5) • Baseline inventory data needs (3)
Lands and Realty	3	3	<ul style="list-style-type: none"> • Split estate management (2) • BLM/private land block managed (1)
Other Concerns	4	5	<ul style="list-style-type: none"> • General (2) • Impact mitigation (2) • Buffers (1)
Total	23*	540	

* This number includes comments recorded during the four public scoping meetings, as well as those received from the 19 individuals, agencies, and organizations submitting written comments.

2.2 Issues Identified During Scoping

The following issues were identified from comments provided during the public scoping period. These issues, presented in alphabetical order, will help guide the development of the alternative(s) for the SEIS/Amendment.

2.2.1 AIR QUALITY

Many comments regarding air quality were received from several commenters. However, two

detailed letters provided most of the individual comments for this resource.

Many of the comments concerned analysis of air quality impacts. Several comments expressed concerns regarding the original air quality analysis conducted for the Statewide Document and requested they be addressed in the SEIS/Amendment. Requests included completing a comprehensive increment consumption analysis using an updated emissions inventory, determining maximum levels of emissions allowed without causing or contributing to violations of air quality standards, considering potential sources located

outside the planning area (e.g., Wyoming), and meeting air quality standards and FLPMA requirements for air quality. Regarding the updated emissions inventory, commenters requested the BLM to include new and proposed sources, use baseline conditions, and account for contributions from minor sources.

Some comments indicated the RMPs cannot rely on the state's permitting process to meet air quality standards. One commenter stated the Statewide Document did not contain any analysis of which violations would likely be addressed through the state's permit program and which actions the BLM may be required to take to prevent other violations. The same commenter also stated that the Montana and Wyoming state permit programs have not satisfied Clean Air Act and EPA requirements to track emissions both to 1) determine whether aggregate emissions in an area have or will cause violations of air quality standards, and 2) remedy visibility impairment caused by existing sources. In addition, the states are not obligated to mitigate impacts of aggregate emissions from large numbers of minor sources before those sources are permitted. However, the commenter also believes the BLM has the responsibility to ensure its actions comply with all applicable air quality standards and BLM cannot authorize any non-compliance activities.

Impairment of visibility was identified as a concern in several comments. One commenter expressed the need for the BLM to base the analysis of perceptible visibility impairment on a threshold of a 0.5-deciview change rather than a 1.0-deciview change. Other comments stated the BLM has to 1) identify mitigation measures to protect visibility, avoid degradation, to maximize allowable emissions, 2) determine permissible amounts of new emissions that will not cause perceptible impairment before determining how much mitigation is necessary, 3) adopt sufficient mitigation measures to prevent or remedy prohibited increases in perceptible impairment of visibility, and 4) address cumulative impacts to visibility from all sources in the region. One commenter also noted that the analysis of visibility impairment has to consider all the criteria for determining perceptible impairment (i.e., discoloration of the atmosphere, reduction in visual range, perceptible light extinction).

Several commenters expressed concerns regarding the protection of air quality, including visibility, within Class I airsheds, both inside the planning area and in surrounding areas. The Northern Cheyenne Tribe designated its airshed as Class I, and the commenters identified several nearby national parks and wilderness areas already affected by existing sources. The comments request the BLM to include discussions of potential RMP mitigation measures to protect or improve visibility in Class I airsheds. Another comment requested the BLM to identify the visibility for the least impaired days in each Class I airshed where significant impacts are predicted and identify the extent to which the additional emissions from the projects, combined with other regional emissions increases, would cause degradation on those days.

Comments included requests for the BLM to identify and assess appropriate mitigation measures to ensure compliance with air quality standards. Some commenters identified phased development as a means to mitigate adverse air impacts effectively. They requested evaluation of high, medium, and low phased development scenarios in the SEIS/Amendment. One commenter noted that the Statewide Document predicted possible violations of the Northern Cheyenne Reservation's Class I increments for particulate matter (PM) and nitrous oxide (NO_x) and requested that the BLM examine whether restrictions on the number and location of facilities would reduce the potential for violations. The same commenter requested that increment consumption forecasts be made for all three phased development scenarios, and that an updated emissions inventory and increment consumption analysis incorporate the cooperative work completed by the EPA, MDEQ, and the Northern Cheyenne Tribe under a 2004 MOU. This commenter also requested that the emissions inventory include all sources permitted after the baseline date (specifically, the Colstrip #3 and #4 power plants) and that the reasonable foreseeable development scenario include the proposed Otter Creek coal mines, the Tongue River Railroad, and a proposed Ashland area coal liquefaction facility.

Two commenters expressed concerns regarding public health effects from further degradation of air quality. One of the commenters indicated that many Northern Cheyenne children suffer from

asthma. The other commenter identified the need for the SEIS/Amendment to assess the potential adverse effects to public health arising from cumulative emissions of fine particles and fine particle precursors from current and proposed sources, determine acceptable levels of exposure to avoid endangering public health, and identify mitigation measures sufficient to prevent adverse effects to public health.

One commenter recommended that the BLM collect air quality data to determine baseline conditions, while another person recommended that the BLM and the Northern Cheyenne Tribe coordinate establishment of air monitoring stations. One commenter requested that the BLM consider whether mitigation measures will prevent adverse impacts on water chemistry in high altitude lakes with little acid neutralizing capacity and asked the BLM to develop additional mitigation measures if needed to protect these lakes. One commenter identified the need to address the potential for fires from the migration of methane, and another indicated that limiting rates of Application for Permit to Drill (APD) approval would restrict the ability to run electric lines; this would cause more air impacts from diesel compression and downhole pumps.

2.2.2 CULTURAL RESOURCES

Several comments were received regarding cultural resources. Half of the individual comments came from the Broadus and Lame Deer scoping meetings.

Some of the comments discussed the Native Americans' spiritual connection to the land. These include the Northern Cheyenne people's belief in the direct links between their health and welfare and their sacred places and the Tribe's spiritual beliefs regarding culturally important springs and other water locations. One comment requested that consultation with the tribe begin immediately to identify culturally important springs that would be protected by a phased development alternative. Another commenter specified that a cultural resources center be developed to explain the importance of natural resources impacted by CBNG. Two more general comments asked that folklore and myth be considered over development and that the BLM leave their sacred land alone.

Several comments addressed the protection or preservation of cultural resources. One of these comments proposed that buffers in which no CBNG development would be allowed be placed around several traditional cultural properties. These traditional cultural properties include the Rosebud Battlefield and Wolf Mountains Battlefield; Northern Cheyenne homesteads; significant hunting, fishing, and plant gathering areas in the Tongue River Valley; and culturally important springs. Another comment addressed the protection of existing Native American burial sites.

Several commenters mentioned surface owner concerns over cultural resources and Section 106 compliance, while another stated that block surveys of whole townships would help limit cumulative impacts on cultural resources and ensure that cumulative impacts are addressed.

One commenter suggested creating a new programmatic agreement with affected tribes and interested parties to ensure the alternatives avoid, minimize, or mitigate for potential adverse effects to historic properties.

Other comments concerning cultural resource issues to be addressed in the SEIS/Amendment included:

- Address cultural resource protection on an equal basis with CBNG.
- Develop a process for phased development to close CBNG areas with traditional cultural sites or other cultural resources that cannot be mitigated by minor development alterations.
- Perform a more in-depth review of the historic and cultural resources in the area.
- Provide appropriate mitigation measures.

2.2.3 NATIVE AMERICAN CONCERNS

Regarding Native American concerns for the SEIS/Amendment, individual comments from the scoping meetings in Billings and Broadus accounted for more than half of the total number of comments submitted.

Several comments expressed concerns regarding cultural values, including the following:

- Differences between native and non-native environmental concerns
- Lack of respect for the earth
- Whether CBNG will result in the loss of wildlife
- The importance of water and vegetation to Native Americans
- How water is life and it should not be wasted
- How loss of water will affect traditions and health through the loss of important plants and animals
- How CBNG will affect their whole way of life, with people who will not understand or respect them or their ways moving into the area during a boom
- How CBNG development might affect medicinal and ceremonial plants

Two comments acknowledged potential economic benefit from CBNG development to tribes. The first comment stated that CBNG development could potentially provide a much needed economic base that would greatly benefit all tribal members and the surrounding region, while the second comment stated that CBNG could be developed in a conservative way that would recognize the tribe's religious and ethnic principles.

One commenter expressed concern that full-field CBNG development in the Powder River RMP area would lead to another boom and bust cycle, placing added stress on the Northern Cheyenne Tribe's ability to provide basic services. The commenter also stated that full-scale CBNG development around the Northern Cheyenne Reservation could result in serious cultural and socioeconomic impacts to the tribe and its members. This commenter stated the need for a detailed analysis of cultural, social, and economic effects of CBNG development on the Reservation, since the analysis from the Statewide Document was not considered adequate. This comment included a reference to the BLM's Economic, Social, and Cultural Supplement to the Powder River I Regional EIS (BLM 1989), which provides information about adverse impacts to economic, social, and cultural resources from coal mine development activities. The commenter suggested that the BLM use this document as a template for

providing a more detailed and quantitative socioeconomic analysis of all alternatives presented in the Statewide Document, as well as those evaluated in the SEIS/Amendment.

One comment stated that the Northern Cheyenne Tribe relies solely on its groundwater for domestic, commercial, agricultural, and municipal uses. The commenter stated that the measures proposed in the Statewide Document to address groundwater loss do not adequately protect the Northern Cheyenne Tribe's existing and future water resources. A buffer zone of 4 to 5 miles around the Reservation was requested to protect groundwater from CBNG development near the Reservation.

Some commenters expressed the need to protect cultural resource locations by having the BLM evaluate restrictions on location of CBNG development to avoid the most important Northern Cheyenne traditional cultural properties. The Northern Cheyenne Tribe also requested confidential consultation under Section 106 of the National Historic Preservation Act.

One comment requested the inclusion of low flow (7Q10) information in the SEIS/Amendment. Another comment expressed concern about impacts from untreated CBNG-produced water on the Northern Cheyenne Tribe's ability to use its reserved water rights for beneficial uses, as well as on native riparian vegetation, soils, and aquatic life. One commenter said the analysis in the Statewide Document underestimated the potential for violations of the Northern Cheyenne Tribe's water quality standards by not considering disposal of CBNG water through land application disposal and surface water impoundments. This commenter also requested the BLM to include an 1) evaluation of the effectiveness of surface water impoundments and land application disposal for protecting surface water quality and 2) estimation of the long-term impacts to surface water quality if surface water impoundment and land application disposal methods are used.

Some comments included concerns regarding the protection of groundwater, which is important to the Northern Cheyenne Tribe for feeding natural springs both on and off the Reservation. One of the comments stated concerns for the culturally important springs on the Reservation to be

protected from the effects of groundwater drawdown. Two comments requested the BLM to address recharge of aquifers following CBNG development and from future development, as well as potential drawdown from coal diesel development.

Several commenters mentioned the BLM's trust responsibilities to the Northern Cheyenne and Crow Tribes, and their fiduciary obligation to consider and protect tribal socioeconomic and cultural interests jeopardized by off-reservation federal mineral development. Such development may damage the reservations' mineral estate, air and groundwater resources, surface waters, and agricultural lands, which are all held in trust for the tribes by the federal government.

One comment expressed concern over CBNG development near the Northern Cheyenne Reservation, and whether this might drain the Tribe's own CBNG resources. This commenter also suggested that financial compensation for lost resources would not be adequate.

Comments indicated the Northern Cheyenne Tribe's willingness to cooperate and coordinate with the BLM. One comment expressed the Tribe's desire to be part of the solution to CBNG management, rather than an obstacle. Other comments requested the BLM to work closely with the tribes to prevent litigation and consult with the Northern Cheyenne Tribe before starting any CBNG project. Another comment expressed the sentiment that "we are all in this together to have affordable energy."

One comment indicated that some tribal members did not like the scoping meeting format, believing their comments did not fit into any of the comment categories. Another comment expressed concern regarding when cooperating agencies would be brought into this process.

Additional comments concerned the potential disturbance of native American burial sites, described the CBNG experience of one commenter on the Northern Cheyenne Reservation, and asked "why rush to doomsday?"

2.2.4 OIL AND GAS

Several comments received and classified at public scoping meetings under the Oil and Gas category dealt with phased development. As a result, these comments are addressed in greater detail in the phased development section. In general most of these particular comments either dealt with phased development already being indirectly implemented based on the lack of infrastructure to support extensive developments, or the need to concentrate development in specific areas due to infrastructure needs.

Several comments recommended the need for CBNG development to be based on the national supply and demand situation and reducing the United States' dependence on foreign energy resources.

Several comments also addressed the socioeconomic issue of short-term financial gains at the expense of future environmental conditions, and need for local jobs and local input to maintain cultural integrity.

Several commenters identified emerging technologies for controlling and dealing with produced water. These technologies included reverse osmosis, downhole separation, coal seam fracture control, and water reinjection methods. Produced water treatment was also mentioned for surface discharge processes, as well as closing wells with high water to gas production ratios.

A number of comments stated the need for better understanding and evaluation of impacts on an RMP or landscape level, rather than project-specific evaluations. Included in this process would be adequate monitoring protocols and baseline inventory information to determine if prescriptions, objectives, and disturbance thresholds are adequate to meet the overall conservation responsibilities of the BLM. Without this baseline information, the BLM should make it clear that it is proceeding with CBNG development in the face of substantial scientific uncertainty and identify appropriate mitigation options.

Several projects were identified by commenters for inclusion in the RFD. These included the expansion of existing coal mines, the proposed

Tongue River Railroad, a coal liquefaction facility proposed for the Ashland area, and potential CBNG development on the Custer National Forest.

Commenters also expressed concerns over the apparent inadequacies in the existing lease stipulations, saying they were based on the implementation of small-scale feasibility CBNG development projects or test wells rather than large-scale production facilities. They also identified concerns over how such agreements affect the BLM's ability to protect resources. Several commenters felt there was a lack of baseline resource condition information and long-term monitoring procedures in the Statewide Document affecting BLM's ability to control and manage CBNG development into the future in an adaptive management process. The uncertainty of the full extent of potential CBNG development activities throughout the state was also of concern for some commenters, as well as the long-term and cumulative impacts of this development.

Several commenters suggested that the existing infrastructure, relative to CBNG development projects, appears to be environmentally unobtrusive and represents a valuable asset to local communities and recreationists. Others requested a concerted effort be made to minimize infrastructure development by sharing infrastructure resources with other oil and gas developments or nearby communities.

Other commenters raised concerns over the mitigation plans identified in the Statewide Document, specifically their reliance water-well mitigation agreements to address most drawdown impacts. They also questioned the potential success of habitat reclamation projects to restore not only habitat features, but also ecological structure and function. Another particular concern involved bonding requirements for developers to ensure the complete and timely reclamation of lease tracts and the restoration of any lands and surface waters adversely affected by CBNG developments after abandonment or cessation of operations. One comment requested monitoring of post-closure reclamation activities to ensure their effectiveness over the long term.

Although the 1994 BLM Oil and Gas RMP Amendment/EIS identified specific areas open to

oil and gas development, several commenters wanted the BLM to reevaluate these determinations specifically for CBNG development. They further requested the BLM to close some specific areas to CBNG development or require specific protection stipulations, such as seasonal, no surface occupancy, or specific resource protection stipulations. Establishing buffer zones around specific areas identified for resource protection was another stipulation-level protection procedure suggested. A buffer zone around the Northern Cheyenne Reservation was most frequently identified in the comments. The purpose for having variable stipulation capabilities would be to ensure environmentally responsible CBNG development, and to facilitate the adaptive management process.

Several comments concerned the use and size of buffer zones to protect water wells and to minimize the potential for methane drainage, particularly with respect to tribal reservation land. Other comments concerned the potential for coal fires, the migration of methane into water wells from depressurization, and the need for a fire management plan.

2.2.5 PHASED DEVELOPMENT

A number of commenters suggested that phased development was already implemented because projects and project development plans are individually reviewed and permitted by the BLM and the MBOGC. In addition, the existing infrastructure and drilling company resources would not support the development of a large number of wells at the same time. However, other commenters wanted phased development to include a distinct planning element and phasing rationale, rather than relying on inconsistent resource limitations.

A number of benefits were identified for a phased approach to CBNG development. These identified benefits included time to assess impacts from discrete development areas more accurately, reduced volumes of produced water to manage, the ability to assess potential impacts from produced water management schemes before substantial environmental changes occurred, and time to develop and evaluate resource protection strategies and facilitate landscape- or RMP-level planning and adaptive management processes. Several

commenters supported the phased development approach to spread out the potential harm from CBNG developments temporally and geographically, and to support multiple use and sustained yield principles.

Benefits ascribed by commenters to the phased development process also include the ability to monitor and mitigate impacts in a timely manner. For instance, monitoring groundwater impacts would provide information on groundwater recharge rates, inter-aquifer flow, and fluctuations in water quality over time. A number of commenters also supported a gradual development approach to minimize the socioeconomic impacts of a boom-and-bust development scenario. These impacts would include sharp fluctuations in population, impacts to air quality, overburdening of infrastructure and services, and increases in secondary development.

While a number of commenters identified specific benefits from developing a phased approach, while others questioned the concept as economically unrealistic, which would violate the contractual and property rights of federal lessees, result in greater environmental impacts and economic losses, and could lead to drainage of federal gas resources to non-federal projects. Commenters also stated that phased development would limit the nation's ability to respond to energy emergencies and reduce its reliance on foreign energy resources.

In addition a concern was raised addressing the impact on area landowners subjected to "Phased Development." The feeling being, some land owners would prefer the development to take place in one single action rather than be saddled with multiple years of development related disruptions hindering their operation.

There were also differences of opinion regarding the required scope of phased development alternatives to be addressed. Some commenters wanted only one phased development alternative to meet NEPA requirements, while others provided rationale for multiple alternatives (such as low, medium, and high levels of development based on an annual maximum number of federal, state, and private CBNG wells). These differences are reflected primarily as levels of uncertainty regarding the best approach to a phased

development alternative. Some commenters supported the three phased development types, briefly identified in the Statewide Document, as the basis for the SEIS/Amendment. These development types are as follows:

- Control the number of wells in any one area.
- Allow more extensive development in confined and dispersed areas.
- Allow companies to develop production in one geographic area at a time and, when complete, move to another area.

Other suggestions included allowing development of only certain coal seams at any one time (i.e., deepest geological formations first) and setting an annual rate of development.

2.2.6 SOCIOECONOMICS

A number of comments received at public scoping meetings identified some of the economic benefits associated with CBNG development. Commenters said these benefits are important for the survival of southeastern Montana communities because they provide valuable tax revenues, jobs, and direct income for small ranchers and farmers.

In contrast to the income sources generated by CBNG development, commenters were concerned over the infrastructure costs often funded by local and state governments. These would include road enhancements, schools, increased potable water usage, and other government services. In addition to these direct costs, there would be cultural impacts from increased population, social pathologies (crime, alcoholism, drug use, etc), and environmental exploitation. The commenters thought that the combined effect of these activities could cause profound social and cultural changes. Similar issues were also identified in the Native American Concerns section.

In addition to the infrastructure, social, and cultural costs associated with CBNG development, some commenters were concerned over lost state and county revenues resulting from delayed or phased development. Lessees would suffer substantial financial harm, and the state would have a net present value loss in income and payroll taxes, as well as production taxes and royalties. One commenter expressed concern regarding when and how regularly governments would

receive tax revenues as compared to the immediate and constant financial commitment to provide infrastructure and government services.

Several ranching- or farming-based comments included the displacement of wildlife to livestock grazing tracts, the subsequent interference with livestock grazing, and the potential effect on sub-irrigated tracts.

Other socioeconomic issues identified in the scoping meetings were associated with the costs of produced water reinjection processes. Some commented that it would just be the cost of doing business, while others thought it would be economically unreasonable for a relatively unproven technology.

2.2.7 SOILS

Most comments related to soils were associated with other resources. For example, a number of comments referred to the effects on agriculture due to the use of produced water for irrigation. These comments were included under the Water Resources Section rather than the Soil Resources Section. The only comment specific to soils, requested a review of soil remediation methods.

2.2.8 VEGETATION

While only one comment concerning vegetation resources was recorded during public scoping meetings, four other comments identified specific concerns related to native vegetation. A number of other comments also made passing references to vegetation, however, such as the ability to use produced water for irrigating crops, or the effects of groundwater impacts on farming. The latter issues are included primarily under the water resources category rather than the vegetation category.

The comments addressing vegetation issues primarily concerned the native vegetation in the sensitive sagebrush steppe and grassland ecosystems and the difficulties in reclamation and restoration of such habitat. The relatively slow vegetative response to changes in groundwater or surface water characteristics was also a concern, making it difficult to identify and control long-term impacts. The potential spread of non-native

species was also a concern for areas impacted by development.

2.2.9 WATER RESOURCES

A substantial number of comments concerned water resources, primarily due to the issue of produced water. Several commenters identified the potential beneficial uses of produced water, including stock watering, irrigation, and wildlife habitat. However, the management of produced water was a common issue.

One particular management option mentioned was reinjection of produced water, although there was some concern about the feasibility, viability, and reliability of the reinjection process. Other methods included treatment and discharge or treatment and storage. Water quality uncertainties were commonly mentioned, however, along with the need for water quality monitoring.

Another particular concern was the potential effect of CBNG development on area aquifers and on drinking water/stock watering wells. In addition to the effect on these underground sources, the effect on surface water sources was also a concern. Another frequently raised issue was the protection of off-site water wells because aquifers do not follow terrestrial boundaries or property lines. Some comments discussed establishing buffers of various distances around CBNG development sites to minimize the potential for affecting neighboring groundwater sources. This was a distinct tribal concern with regard to protecting groundwater on the reservation, reserved water rights, and the treaty trust responsibilities of the BLM to protect those resources.

Others questioned mitigation measures, should off-site groundwater impacts occur, particularly when approved water rights are affected. Several commenters were concerned about water well mitigation agreements and whether they were adequate due to the uncertainties regarding groundwater impacts, the long-term effectiveness of such mitigation, the effectiveness of these measures, and the sources and quality of mitigation water. Others were concerned about the rights of surface land owners if they do not sign what they consider to be an inadequate agreement. Without an agreement, surface owners would be faced with proving that a CBNG development

actually affected their groundwater and, in some cases, proving which development was to blame. Others questioned heavy reliance on these agreements to mitigate drawdown impacts.

The cumulative impacts to groundwater resources were also of concern. These concerns ranged from the extensive CBNG development in Wyoming, to the increased demand for water from population increases associated with overall gas, oil, and mineral extraction development projects within relatively confined areas. The Northern Cheyenne Tribe's concerns also included the potential constraints of reservation groundwater depletion relative to future economic development. If groundwater is depleted, the Tribe may not have adequate water for increased agricultural demands or other economic opportunities. Improvements to the currently inadequate water system infrastructure may also increase demand on the Tribe's water resources.

Several commenters recommended inclusion recent information and regulations, as well as research and modeling efforts, in the analyses of impacts to groundwater aquifers and springs in the state. Others addressed emerging technologies for either reducing the volume of produced water or methodologies to use the produced water to replace existing water uses. There was considerable uncertainty about the quality of the produced water and its applicability to various uses.

The effects of discharging untreated produced water into area streams, both perennial and ephemeral, were also of concern. In particular, commenters noted the cumulative effects of produced water discharge on aquatic resources, riparian vegetation, and ultimately wildlife resources. An additional issue regarding surface discharge of produced water would be the potential transformation of intermittent or ephemeral streams into perennial waterbodies and the resulting long-term changes in natural stream morphology and native riparian vegetation communities.

2.2.10 WILDLIFE

Several commenters identified the potential benefits to wildlife from produced water ponds, including increased habitat and water availability.

However, other comments raised concerns over water quality impacts from untreated produced water discharge on wildlife (particularly fish and other aquatic species) and habitat. Terrestrial species identified as potentially affected by CBNG development included song birds, burrowing owls, and bald eagles. Sage grouse and prairie dogs were also mentioned specifically in a number of comments as indicator species of potential ecosystem degradation from CBNG development.

A number of commenters expressed the concern of wildlife impacts extending beyond site-specific locations. Many species function on broad, population, and landscape-level scales, making it difficult to establish meaningful protection objectives and disturbance thresholds to be quantified and monitored. In addition, concern was expressed over the more subtle effects of ecosystem modifications. Commenters felt, given the limited available data on populations and species interactions, chronic long-term effects might be difficult to define or quantify. Several commenters requested the acquisition of additional baseline inventory information to help identify critical habitat areas (migration, reproduction, rearing, and winter habitat areas) to develop appropriate wildlife monitoring and protection plans.

Another common concern was the identification of cumulative effects and the ability to identify, assign, and quantify impacts from various influences. In particular, several commenters were concerned about the cumulative effects of CBNG development in both Wyoming and Montana on mobile or contiguous populations of fish and wildlife. In addition to the direct effects of CBNG development, concerns were raised over the potential secondary effects of habitat fragmentation resulting from CBNG development.

Several comments discussed the potential effects of CBNG development on big game and other subsistence wildlife populations relative to tribal hunting and fishing rights. One commenter indicated the Statewide Document did not address the impacts on the abundance of tribal subsistence wildlife, in and around the Northern Cheyenne Reservation. This commenter also requested the inclusion of big game animal populations, with ranges that include the Reservation be considered

trust resources even during seasons when the animals are located off-Reservation.

Other comments requested the incorporation of information regarding fish species of concern, data from on-going macroinvertebrate studies, and current information regarding possible disturbance impacts to sage grouse.

2.2.11 NEPA/SCOPING PROCESS

A number of comments received during the public scoping period concerned the scoping process, and various NEPA stipulations and requirements.

Scoping

A number of commenters want the BLM “do the right thing” with regard to taking responsibility for the impacts of its decisions, urging the BLM to collaborate with stakeholders during the SEIS/Amendment process and to comply fully with various NEPA statutes. In addition, there were several conflicting comments regarding the right people have to enjoy the natural environment without CBNG development, while others said landowners’ rights were being violated by not allowing development to occur. Still others believe there are enough regulations in place to protect the environment; the Statewide Document was sufficient, but was not given an opportunity to work; and decisions should consider long-term rather than short-term impacts.

A number of commenters foresee difficulties or have concerns over the scoping process. Some complained about the scoping meetings, which were not organized to enable them to provide appropriate comments. Others felt the BLM restricted topics on which they were allowed to submit comments, and they question whether scoping meetings in some locations may have greater influence over the SEIS/Amendment process than others.

Various comments regarded the scope of the SEIS/Amendment, including the number of alternatives to be included. Some commenters indicated only one phased development alternative should be included, while others suggested a range of phased development alternatives would be necessary. While some commenters suggested the SEIS/Amendment should be limited to analysis of

phased development, cumulative effects of the Tongue River Railroad, and evaluation of the water well mitigation agreements (based on the court decision), others suggested a much broader scope. The requests for a broader scope included revisiting the entire management framework established by the Statewide Document and revising its entire impact analysis to address concerns raised regarding the adequacy of those analyses.

Cumulative Effects Analysis

There were also conflicting comments on the cumulative effects analysis. Several commenters questioned the likelihood of the Tongue River Railroad project occurring within the timeframe covered by the Statewide Document or SEIS/Amendment, and they thought it would be more appropriate for the Tongue River Railroad NEPA documentation to be used to assess the cumulative effects of both projects. At the same time, other comments encouraged the BLM to address the Tongue River Railroad project within the context of cumulative effects analyses. Another comment questioned the 20-year period covered for Montana’s Statewide Document, compared to the 10-year timeframe for the 2003 Wyoming BLM EIS (BLM 2003b).

Baseline Resource Inventory Data

A number of comments were received regarding the need for complete baseline resource inventory data to assess the alternatives adequately within the context of multiple use and sustained yield principles and to achieve an integrated assessment of physical, biological, economic, and social constraints.

Scale of Analysis

Others requested SEIS/Amendment analyses within an RMP- or landscape-scale process (e.g., analyses, mitigation prescriptions, and monitoring requirements) rather than applying site- or project-specific scales. This suggestion stems from the concern that site-specific assessments often do not include adequate cumulative effects analyses. In addition, waivers, exceptions, and modifications can undermine the validity of the SEIS/Amendment. Similarly, other comments suggested tiering from an RMP level to a site-

specific level to enhance the consistency of these projects with the RMP.

2.2.12 LANDS AND REALTY

Several comments concerned split estates and the management of BLM minerals beneath private lands, particularly with regard to installation of new infrastructure (i.e. pipe lines, utility corridors, roads). Commenters expressed a desire to be more involved with the selection or placement of these infrastructure facilities, and to have BLM assist them with an improved compensation package for disruptions and disturbances.

2.2.13 DATA GAPS

The BLM's Land Use Planning Handbook (H-1601-1) encourages the use of existing data compiled by other federal agencies; state, local, and tribal governments; and private organizations, as appropriate, for planning efforts. Several comments received during the SEIS/Amendment scoping period stated that the BLM did not incorporate enough baseline inventory data for the Statewide Document adequately to evaluate potential impacts from the alternatives.

Those comments that identified relevant types and sources of information that should be considered in preparation of this SEIS/Amendment include the following:

- Air Quality
 - Include all sources permitted after the baseline dates in the emissions inventory, including Colstrip #3 and #4 power plants. One comment letter identified 67 post-baseline sources that were not included in the emissions inventory completed for the Statewide Document's air quality assessment.
 - Update the emissions inventory and increment consumption analysis to reflect the emissions inventory and modeling work done by EPA, the Montana Department of Environmental Quality, and the Northern Cheyenne Tribe.
 - Identify the visibility for the least impaired days in each of the Class I areas where significant impacts are predicted applying the transmissometer data used for the visibility impact analysis and

output from the CalPUFF model to assess the extent to which visibility will be degraded on those days.

- Native American Concerns
 - Address existing Native American burial sites. One commenter identified two existing off-reservation burial sites.
 - Identify additional traditional cultural properties of concern to tribes via confidential consultation.
- Oil and Gas
 - Include in the RFD scenario the expansion of existing coal mines, the proposed Otter Creek coal mines, the Tongue River Railroad, and a coal liquefaction facility proposed for the Ashland area.
 - Incorporate the Custer National Forest's Preliminary Internal Draft RFD plan for the Ashland District.
- Socioeconomics
 - Incorporate studies that were conducted to evaluate the cost of delaying development for states and counties.
 - Incorporate information from the Economic, Social, and Cultural Supplement to the Powder River I Regional EIS (BLM 1989).
- Water Resources
 - Include information on low flows (7Q10).
 - Include groundwater monitoring data collected since preparation of the Statewide Document. Source information includes annual reports prepared by individual CNBG operators for the MBOGC within the Powder River Basin Controlled Groundwater Area and monitoring data collected by the Montana Bureau of Mines and Geology (MBMG) for various coal mining and CBNG development clients in the Powder River Basin.
 - Incorporate significant new information from Custer National Forest's detailed inventory of wells and springs, FEPCO's annual groundwater monitoring reports for its Montana operations, and reports released by the MBMG regarding work on

its regional groundwater monitoring system.

- Incorporate information regarding FEPCO's application to transfer out of state more than 5,500 acre-feet per year of produced water from its Montana methane operations.
- Incorporate information from two studies completed by the Northern Plains Resource Council that examine the economic and technical feasibility, as well as impacts, of several wastewater disposal and treatment alternatives.
- Incorporate information regarding the Montana Board of Environmental Review's proposed rule (June 2005) addressing the drainage of aquifers and wastewater discharge.
- Wildlife
 - Incorporate existing scientific studies that show a decrease in macroinvertebrates since CBNG development began. One comment identified a source of such information: Bernie Smith, a science teacher at Colstrip High School.
 - Incorporate information regarding fish species of concern (<http://www.voiceforthewild.org/general/news/fishfact02.html>).
 - Incorporate latest scientific evidence regarding no-disturbance buffer zones for sage grouse.

2.2.14 OTHER COMMENTS

Several comments received during the public scoping period were very general, and did not fit under any one specific category. These included comments about impact mitigation and buffer issues. Another general comment, received from the multiple commenters requested the incorporation by references of their previous comments on the Statewide Document.

2.3 Actions Considered and Decisions Anticipated to be Made

In accordance with FLPMA, the BLM is responsible for balanced management of public

land and its resources based on the principles of multiple use and sustained yield. Management direction is provided by land use plans, in this case RMPs, which are developed to (1) make decisions regarding appropriate multiple uses and allocation of resources, (2) develop strategies to manage and protect resources, and (3) establish systems to monitor and evaluate the status of resources and effectiveness of these management practices over time. Also, the management direction developed through the planning process has to be adaptable to changing conditions and demands over the life of the RMP. Amendment of the RMP would be consistent with the guidance set forth in BLM H-1601-1, Land Use Planning Handbook.

The SEIS/Amendment, as a supplement to the Statewide Document, will address those elements of the Powder River and Billings RMPs regarding oil and gas resource management, specifically CBNG development, as necessary to fulfill the requirements of the District Court decision. Additionally, the SEIS/Amendment will present and analyze substantial new environmental information relevant to environmental concerns and having bearing on the preferred alternative or its impacts. The planning process for the Statewide Document identified the issues used to develop and evaluate the range of alternatives presented. Planning criteria developed for the SEIS/Amendment are summarized in Section 3.

2.4 Issues Raised That Will Not Be Addressed

Several issues identified from the comments submitted in response to the BLM's request for public input are beyond the scope of the SEIS/Amendment, as defined in the planning criteria developed for the SEIS/Amendment (see Section 3).

2.4.1 REVISE AND RE-ISSUE THE STATEWIDE DOCUMENT

Some commenters expressed concerns about the lack of baseline inventory data and quantitative analyses for the assessment of potential resource impacts. Some comments also recommended the revision of the entire Statewide Document to address those concerns and to include information

on the three topics identified by the U.S. District Court for the SEIS/Amendment.

Since the Statewide Document was completed, new studies have been initiated for collection of data to address concerns raised regarding the need for additional inventory data. Significant new environmental information relevant to environmental concerns and having bearing on the preferred alternative or its impacts will be incorporated in the SEIS/Amendment.

2.4.2 LEASING

One commenter expressed concern over existing lease stipulations being inadequate for large-scale CBNG production.

The BLM analyzed its oil and gas leasing decisions and lease stipulations in its *Final Oil and Gas RMP/EIS Amendment* (BLM 1992), which was approved in the project's ROD published in February 1994. The existing lease stipulations approved in the ROD are still applicable to all CBNG development.

2.4.3 BONDING

One commenter questioned the adequacy of current bonding protocols to ensure adequate funding to complete reclamation efforts in a timely manner.

Current regulations set minimum amounts of bonding required. BLM may require an increase to any bond (43CFR3104.5B) whenever it is determined that the operator poses a risk due to factors, including, but not limited to the number and type of wells, type and amount of reclamation necessary, and operator history. The increase in bond amount may be to any level specified by BLM but in no circumstances shall it exceed the estimated costs of the total estimated amount of uncollected royalties due, monies owed because of outstanding violations, and estimated well plugging and reclamation costs.

2.5 Management Guidance That Will Be Common to All Alternatives

Oil and gas resources on the BLM-administered mineral estate within the planning area are

currently being managed with direction from the 1985 Powder River RMP, as amended, and the 1984 Billings RMP, as amended. The most recent amendment for both of these RMPs is the Statewide Document. The Statewide Document summarizes the management direction common to all alternatives evaluated, as well as those specific to the selected alternative. Since the SEIS/Amendment will supplement the Statewide Document, both documents will share common management direction, except for any modifications required as the SEIS/Amendment is developed. Consequently, the common management directions presented in the Statewide Document are incorporated here by reference.

Common management directions related to oil and gas resource management, summarized in the Statewide Document, were based on the Powder River (BLM 1985) and Billings (BLM 1984) RMPs, as amended by the Oil and Gas Final EIS and Proposed Amendment of the Powder River, Billings, and South Dakota RMPs (BLM 1994). Additional documents referenced in the Statewide Document include the Wyoming Coal Bed Methane Project Final EIS (BLM 1999) and the Board of Oil and Gas Conservation's Oil and Gas Drilling and Production in Montana EIS (MBOGC 1989).

2.6 Issues to Be Carried Forward

The following issues were identified from the public scoping comments to guide formation of the phased development alternative(s) evaluated in the SEIS/Amendment.

Air Quality/Climate

- How will air quality, including visibility, be protected and mitigated, especially when considering all existing and proposed sources within the region? Concerns include general air quality, visibility, and potential adverse effects to public health from cumulative emissions of fine particles and fine particle precursors.
- How will air quality, including visibility be protected within the Northern Cheyenne Indian Reservation airshed and other Class I airsheds?

- How will impacts on water chemistry in high altitude lakes with little acid neutralizing capacity be prevented?
- How will potential for fires from the migration of methane be avoided?
- What additional impacts will the Tongue River Railroad have on regional air quality?

Cultural Resources

- How will culturally important springs and other traditional cultural properties be affected and protected? These include all traditional cultural properties identified by the Northern Cheyenne Tribe as important such as the Rosebud and Wolf Mountains Battlefield sites and Northern Cheyenne Homestead sites in the Tongue River Valley.
- What traditional cultural properties in the RMP areas may be affected by CBNG development and how will they be managed?

Native American Concerns

- How will unique environmental, social, economic, and cultural impacts to Native Americans be addressed by phased development?
- How will phased development provide an economic base to benefit tribal members, while not leading to another boom-and-bust cycle?
- How will subsistence hunting, fishing, and gathering be affected and protected?
- How will phased development help BLM to fulfill its Native American treaty trust obligations?
- How will phased development provide protection to tribal reserved water rights?
- How will phased development include coordination and consultation with tribal representatives?

Oil and Gas

- How will phased development be structured to address the national supply and demand situation and reduce the United State's dependence on foreign energy resources?

- How will RMP- or landscape-scale effects be addressed by phased development?
- How will lease stipulations be used to mitigate for effects from phased development?
- How will phased development be structured to minimize infrastructure development (to reduce both costs and impacts), including coordination with neighboring landowners?
- How will reclamation and restoration be addressed by phased development?

Phased Development

- How will be phased development be planned to account for and protect other resources?
- How will resource impacts from development and other CBNG activities be evaluated and addressed throughout the implementation of phased development?
- How will phased development minimize fluctuations in populations, air quality impacts, overburdening of infrastructure and services, and increases in secondary development?
- How will drainage of federal gas resources and impacts to federal lessees be addressed or affected by phased development?
- What phased development implementation strategy or strategies will be included (e.g., restrictions on location [specific area or coal seam], timing, or number of wells)?
- Will more than one phased development alternative be addressed in the SEIS/Amendment?
- How will phased development reduce impacts, improve mitigation options, or protect multiple-use of resources?

Socioeconomics

- How will social and cultural changes be addressed by phased development? Specific concerns included infrastructure and service costs borne by state, local, and tribal governments, increased population, social pathologies (crime, alcoholism, drug use, etc.), and environmental exploitation.
- How will revenues (income lessees and state and local taxes) be affected by phased development, and how will these effects differ

for Reservation and off-Reservation communities?

- How will phased development affect jobs, job security, local economy, and farming and ranching activities, and how will these effects differ for Reservation and off-Reservation communities?

Vegetation

- How will phased development address impacts to and the reclamation of sagebrush steppe and grassland ecosystems?
- How will phased development account for the relatively slow vegetative response to changes in groundwater or surface water characteristics?
- How will phased development address the spread of non-native species in affected areas?
- How will phased development affect medicinal and ceremonial native plants important to Native Americans?

Water Resources

- How will produced water be managed by phased development?
- How will groundwater impacts be addressed by phased development? Concerns include groundwater drawdown in area or neighboring aquifers, effects on drinking water and stock watering wells, natural springs, and approved water rights.
- How will phased development address surface water effects and mitigation? Concerns include the consequences of changing surface water quality and transforming ephemeral or intermittent streams into perennial water bodies.
- How will effects from development outside the planning area be addressed by phased development?
- How will water well mitigation agreements mitigate the effects of aquifer drawdown and methane migration?
- How will phased development affect surface and groundwater quality?

Wildlife

- How will phased development address impacts on wildlife (particularly fish and other aquatic species) and habitat from changes to water quality?
- How will phased development address impacts (both site-specific and at the RMP, landscape, or ecosystem scale) to terrestrial wildlife species (and associated habitats), including song birds, burrowing owls, and bald eagles, but especially sage grouse and prairie dogs? Particular concerns included habitat fragmentation and cumulative effects from development outside the planning area and the ability to assign and quantify impacts from various anthropogenic influences.
- How will phased development address potential effects on big game and other subsistence wildlife populations relative to tribal hunting and fishing rights?
- How will phased development affect ESA-listed or potentially listed ESA species?

Data Gaps

The SEIS/Amendment planning process will incorporate relevant new data collected since the spring of 2002 to update information presented in the Statewide Document, as needed to meet the requirements of the Court's decision. The BLM will incorporate these new data to address the topics identified by the Court and during public scoping, evaluate project effects from phased development alternatives, and analyze significant new environmental information relevant to environmental concerns and having bearing on alternatives or their impacts.

3.0 Planning Criteria

The following planning criteria were developed by the BLM and made available for review by the public during scoping.

1. The SEIS/Amendment will supplement the *2003 Montana Statewide Final Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plans* (Statewide Document).
2. The SEIS/Amendment will be completed in compliance with FLPMA and all other applicable laws.
3. The SEIS/Amendment will incorporate the fluid minerals planning requirements of *BLM Handbook H-1624-1, Planning for Fluid Minerals* when considering a phased development alternative(s).
4. The format for the SEIS/Amendment will follow the format from the Statewide Document.
5. The SEIS/Amendment will be prepared by an interdisciplinary team with specialists in recreation, fisheries, economics, sociology, hydrology, archaeology, air quality, wildlife, realty, minerals and range management. SEIS/Amendment scoping will help define phased development, and the alternative(s) chosen will be reasonable, achievable, and measurable. The theme for the alternative(s) considered will follow those in the Statewide Document. Those alternatives, or components of those alternatives, found not to be reasonable, achievable, and/or measurable will be considered and dropped from further analysis.
6. The planning area is the BLM-administered oil and gas estate in the Powder River and Billings RMP areas: Wheatland, Golden Valley, Musselshell, Sweet Grass, Stillwater, Yellowstone, Carbon, Big Horn, Treasure, Powder River and portions of Custer, Rosebud and Carter counties.
7. Data acquisition will consist of the compilation of existing data, supplemented with data collected and research conducted since the Statewide Document was issued, data not available for the Statewide Document analyses, and appropriate literature search.
8. The purpose of the SEIS/Amendment will be to consider and analyze the effects from CBNG phased development; the cumulative effects from CBNG production, including effects from the proposed Tongue River Railroad; and a discussion of how private water well mitigation agreements will help alleviate impacts from methane migration and groundwater drawdown.
9. The SEIS/Amendment will also consider and analyze significant new environmental information relevant to environmental concerns and having bearing on the preferred alternative or its impacts.
10. SEIS/Amendment planning will help identify significant new environmental information relevant to environmental concerns and having bearing on the preferred alternative or its impacts.
11. The analysis area is any potentially affected lands, or interests therein (i.e. mineral estate), regardless of ownership.
12. Assumptions for the analyses, including the reasonably foreseeable development scenario and the reasonably foreseeable future actions from the Statewide Document, will be carried forward in the SEIS/Amendment. Cumulative projects evaluated will be carried forward with one known exception: the discussion will be modified to include the cumulative effects of the proposed Tongue River Railroad.
13. The management and mitigation measures instituted since the Statewide Document ROD will be carried forward as features of the Phased Development Alternatives in the SEIS/Amendment.

14. Native American Consultation and Coordination - The Crow and Northern Cheyenne Indian Reservations are located within the planning area. Close coordination will take place to ensure their needs, and those of any other affected tribes, are considered within the BLM trust responsibilities. The BLM will conduct nation-to-nation consultation with the tribes consistent with the BLM policy.
15. Interagency consultation will occur as needed to comply with regulations, rules, and BLM policies.
16. The BLM will strive to base new decisions in the ROD on the SEIS/Amendment and make them compatible with the existing plans and policies of adjacent tribes and federal, state, and local agencies, as long as the adjacent jurisdictional decisions are in conformance with the legal mandates for management of public lands.
17. Any new decision or new mitigation measure required as a component of the SEIS/Amendment will be enforceable, reasonable, achievable, and measurable and will lend itself to monitoring.

4.0 Summary of Future Steps in the Planning Process

The draft SEIS/Amendment will be prepared in the fall and winter of 2005/2006. The BLM hosted a meeting on September 21, 2005, to work with cooperating agencies to develop a phased development alternative(s). The alternative was described in a Project Newsletter mailed in early October 2005 to the public for review and comment. The draft SEIS/Amendment will analyze the anticipated impacts of each alternative in detail.

The SEIS/Amendment will also incorporate the proposed Tongue River Railroad into the discussion of cumulative impacts and include a discussion of how private water well mitigation agreements will help alleviate the impacts of methane migration and groundwater drawdown. As a supplement to the Statewide Document, the SEIS/Amendment will mirror the format and base its evaluation of effects on the assumptions used in the Statewide Document.

Once the draft SEIS/Amendment is complete (Spring/Summer 2006), a notice of availability (NOA) of the SEIS/Amendment will be issued in the *Federal Register*. Issuance of the NOA will start a formal public review and 90-day comment period to solicit input from tribal, state, and local governments; other federal agencies; and the public. Public meetings will also be held during this period.

Following the public review and comment period on the draft SEIS/Amendment, the final SEIS/Amendment will be prepared in the summer of 2006. Based on public comment, new information, and other necessary revisions, the final SEIS/Amendment will present the proposed decisions along with the other alternatives.

Another NOA will be issued in the *Federal Register* for the final SEIS/Amendment in the fall of 2006, followed by a 30-day protest period. Upon resolution of protests, a ROD will be issued approving the decision for the final SEIS/Amendment. The BLM anticipates the ROD to be available to the public in December of 2006.

During this process, several cooperating agency and collaborator meetings will be held as needed to discuss the various analyses being conducted for each resource under the phased development alternatives. Additional Government to Governmental consultations will be held, as required, with various tribes within the region requesting consultation. To date, the Crow Tribe of Montana; the Lower Brule Sioux Tribe of the Lower Brule Reservation, South Dakota; and the Northern Cheyenne Tribe of the Northern Cheyenne Reservation, Montana, have shown a desire to participate in the SEIS/Amendment and hold consultation meetings.

5.0 References

- BLM. 1984. Record of Decision for the Billings Resource Area, Resource Management Plan, Final EIS, March 1985. Miles City Field Office.
- BLM. 1985. Record of Decision for the Powder River Resource Area, Resource Management Plan, Final EIS, March 1985. Miles City Field Office.
- BLM. 1989. Final Economic, Social, and Cultural Supplement to the Powder River I Regional EIS.
- BLM. 1992. Final Oil and Gas RMP/EIS Amendment for the Billings, Powder River and South Dakota Resource Areas. Miles City Field Office.
- BLM. 1994. Record of Decision: Powder River, Billings, and South Dakota Oil and Gas RMP/EIS Amendment. Miles City Field Office.
- BLM. 1999. Wyodak Coalbed Methane Project Final EIS. Buffalo Field Office.
- BLM. 2003a. Final Statewide Oil and Gas EIS and Proposed Amendment of the Powder River and Billings Resource Management Plans.
- BLM. 2003b. Record of Decision and Final EIS and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project.
- MBOGC. 1989. Oil and Gas Drilling and Production in Montana: Final Programmatic EIS.

APPENDIX A

Scoping Notifications

APPENDIX B

Public Scoping Meeting Sign-In Sheets

APPENDIX C

Public Scoping Meeting PowerPoint Presentation

APPENDIX D

Public Scoping Meeting Minutes

APPENDIX E

List of Cooperating Agencies

APPENDIX F

Example Memorandum of Understanding

APPENDIX G

**Letters, Forms, and Email Messages Received During
Public Scoping**