

Chapter 1 — Purpose and Need

The purpose of this Environmental Assessment (EA) is to examine particular environmental effects of the oil and gas lease issuance decisions made between February 2000 and August 2004 and to reconsider all relevant factors and issues that were known during the time period of issuance to decide anew whether, after considering such information, these leases should have been issued at all, and if so, what stipulations should have been imposed to protect other resource programs. This EA responds to rulings of the Interior Board of Land Appeals (IBLA) and the Tenth Circuit Court of Appeals (the Court), which held that certain effects of the development of coal bed natural gas (CBNG) were not analyzed or contemplated in the 1985 BLM Buffalo Resource Management Plan (RMP) Final Environmental Impact Statement (EIS). See *Pennaco Energy v. DOI*, 377 F.3d 1147 (10th Cir., filed August 10, 2004). The Court reversed a Federal District court and affirmed the decision of the IBLA that concluded that BLM had insufficient NEPA analysis to make a decision in February 2000 to issue three leases for oil and gas in an area where CBNG was likely to be produced. The Court reinstated IBLA’s remand of the issuance of these three leases to BLM for “additional appropriate action.”

In the course of its opinion, the Court stated that the NEPA analysis upon which the BLM relied in issuing three leases “did not consider pre-leasing options, such as not issuing leases at all.” The BLM will evaluate with this EA whether to affirm, modify, or cancel the leases, which include the right to develop CBNG. Along with the three leases that were the subject of the Court and IBLA’s decisions, BLM also is including in the scope of this EA 418 additional oil and gas leases that have been issued since February 2000 within the Buffalo Field Office (BFO). Recognizing that the leases have been issued, the alternatives considered in this EA analyze whether to modify or revoke the right to develop CBNG included in the leasing decisions after consideration of the appropriate environmental issues foreseeable at the time the leases were offered for sale. In addition, the focus of the analysis and EA is solely on the effects of CBNG development on these leases.

Since 1992, BLM has conducted several specific analyses on development of CBNG on federal lands. They include the American Oil and Gas Marquiss Field Coal Bed Methane Project EA (U.S. Bureau of Land Management 1992a), Exxon Pistol Point Coal Bed Methane Project EA (U.S. Bureau of Land Management 1992b), Gillette South Coalbed Methane Project Draft Environmental Impact Statement (DEIS) (U.S. Bureau of Land Management 1995a) and FEIS (U.S. Bureau of Land Management 1997), Lighthouse Coal Bed Methane Project Environmental Assessment (U.S. Bureau of Land Management 1995b), Gillette North Coal Bed Methane Project Environmental Assessment (U.S. Bureau of Land Management 1996), Wyodak CBM DEIS and FEIS (U.S. Bureau of Land Management 1999b and 1999c), and Wyodak Drainage CBM EA (U.S. Bureau of Land Management 2000b). These reports and their associated decision docu-

ments specifically address the development of CBNG that has been occurring on federal lands since 1992.

An array of environmental issues was subject to in-depth re-examination in the Powder River Basin Oil and Gas Project (PRB O&G) Final EIS and RMP Amendment Record of Decision (ROD) that was signed April 30, 2003. The ROD amended the 1985 Buffalo RMP to raise the anticipated level of use of the resource area for oil and gas and to develop appropriate resource use restrictions to mitigate impacts to other resources. In the PRB O&G EIS, the BLM carefully analyzed the cumulative effects on air, water, and other resources of the potential development of 51,000 CBNG wells. The BLM determined that with the leasing stipulations in the 1985 Buffalo RMP and new mitigation measures approved in the PRB O&G Final EIS, the 51,000 wells would not result in any social, environmental, or economic effects that would preclude accomplishment of one or more of the 1985 Buffalo RMP objectives as long as appropriate conditions of use are required. This EA substantially incorporates by reference impact analyses from the PRB O&G Final EIS.

The rationale of the Court ruling requires that BLM consider those environmental issues associated with CBNG that differed from those analyzed in the 1985 Buffalo RMP EIS. This EA examines a broader array of environmental issues associated with CBNG leasing decisions that were reasonably foreseeable prior to the issuance of these leases.

In conducting this analysis, BLM also needs to consider the protection of the financial interest of the United States by preventing drainage of federal minerals by surrounding federal, state, and private (fee) wells. The potential for drainage of CBNG from federal leases contained in the scope of this analysis is more acute than in the PRB O&G Final EIS. The areal extent of many of the parcels that comprise the leases is quite limited (40 to 80-acre in many cases). Also, federal, state, and fee development already has occurred or is occurring around the leases. Consequently, the potential for drainage is considerably higher if CBNG wells are drilled around the individual lease parcels and no CBNG wells are drilled on the leases.

BLM recognizes the extraction of oil and natural gas is essential to meeting the nation's future needs for energy. As a result, private exploration and development of federal oil and gas reserves are integral to the agencies' oil and gas leasing programs under the authority of the Mineral Leasing Act of 1920, as amended, and the Federal Land Policy and Management Act (FLPMA) of 1976. The oil and gas leasing program managed by BLM encourages the development of domestic oil and gas reserves and reduction of the U.S. dependence on foreign sources of energy.

As noted above, BLM included in the scope of this EA 421 oil and gas leases within the BFO that were issued between February 2000 and August 2004 (U.S. Bureau of Land Management 2004). Since publication of the Notice of Intent (NOI), BLM has determined that 136 of these leases do not overlie the coal beds that are the sources of CBNG in the PRB (Figure 1-1). Because CBNG cannot be developed on these 136 leases and the Court's decision concerns the development of CBNG only, this NEPA analysis only considered the 285 leases where

CBNG can be developed because they at least partially overlie one or more of the coal beds. Thus, the 136 leases that do not overlie the coal bed are not discussed any further in this document.

The 285 leases are distributed across 10 sub-watersheds in the PRB (Table 1–1). These leases encompass almost 171,000 acres. Operators have already drilled 114 wells on 30 of the leases, half of which are in the Middle Powder River sub-watershed (Table 1–1).

Table 1–1 Distribution of Leases and Existing Wells by Sub-watershed

Sub-watershed	No. of Leases	Areal Extent of	
		Leases (acres)	No. of existing wells
Antelope Creek	9	2,123	2
Clear Creek	54	24,649	2
Crazy Woman Creek	31	35,203	15
Little Powder River	51	21,562	1
Middle Powder River	22	12,756	57
Salt Creek	3	1,912	0
Upper Belle Fourche River	20	14,288	9
Upper Cheyenne River	7	3,440	2
Upper Powder River	80	24,059	24
Upper Tongue River	36	30,671	2
Total	Na ¹	170,663	114

Note:

1. Na = not applicable. Many of the 285 leases overlap two or more sub-watersheds. Thus, the sum of the number of leases in each sub-watershed exceeds 285.

The BLM, Buffalo Field Office in Buffalo, Wyoming is the lead federal agency responsible for conducting the NEPA analysis and preparing this EA. State of Wyoming agencies specifically designated to represent the state as a cooperating agency included the Wyoming Department of Environmental Quality, Wyoming Game and Fish Department, and, Wyoming State Geological Survey, Wyoming Travel and Tourism, Wyoming State Historic Preservation Office, Wyoming Office of State Lands and Investments, Wyoming Department of Agriculture, and Wyoming Oil and Gas Conservation Commission.