

1.0 INTRODUCTION

1.1 General Location

On December 3, 1990, Northwestern Resources Co. (NWR) filed an application for a coal lease (the West Rocky Butte tract) on federal coal located west of and adjacent to Federal Coal Lease WYW-78633, otherwise known as the Rocky Butte tract. This application was made to the Bureau of Land Management (BLM) pursuant to provisions of 43 CFR 3425.1 as a Lease-by-Application (LBA).

The subject area is located approximately 10 miles southeast of Gillette, Wyoming (Figure 1-1). The existing Rocky Butte lease tract comprises approximately 4,910 acres and contains approximately 575 million tons of coal. This lease was issued to Texas Energy Services, Inc. and Northwestern Mutual Life Insurance Co. (collectively, TESI) in February 1983. The Rocky Butte lease was acquired from TESI by NWR through a lease assignment dated October 3, 1991. NWR is a subsidiary of Western Energy Company, which in turn is a wholly-owned subsidiary of Montana Power Company. The LBA area encompasses approximately 390 acres and contains about 50 million tons of federal coal.

If the West Rocky Butte (WRB) tract is acquired by NWR, NWR will apply for permission to combine it with the Rocky Butte lease tract into a Logical Mining Unit (LMU). Combining the two tracts into an LMU will enable NWR to produce higher-quality coal, achieve maximum economic recovery of the public coal resource, and preserve the existing federal coal lease. Figure 1-2 shows the location of the WRB tract with respect to the existing Rocky Butte lease tract and the mine permit boundary that would encompass the coal removal areas as well as associated disturbances for overburden benching, stockpiling, and construction of facilities such as an office, shop, railroad spur and loop, coal loading facilities and access roads. Figure 1-2 also shows two small areas which would be added by the BLM to the WRB tract under the Proposed Action to avoid bypassing coal (Option A area). This area consists of approximately 70 acres and contains about 9 million tons of federal coal.

1.2 Purpose and Need for Proposed Action

The acquisition of the WRB tract by NWR and the formation of an LMU with this tract and the Rocky Butte tract would enable the opening of a new mine. Under this scenario, the issuance of the lease constitutes a major federal action that could significantly affect "the quality of the human environment." Consequently, pursuant to Section 102 (2)(C) of NEPA, the processing of the WRB lease application requires the preparation of an Environmental Impact Statement (EIS). The BLM has prepared this EIS to identify and analyze impacts on the quality of the human environment that would result from proposed federal action and its reasonable alternatives.

1.3 Authorizing Actions

The coal lease application for the WRB tract was submitted and will be processed and evaluated under the following authorities:

- Mineral Leasing Act of 1920, as amended,
- Multiple-Use Sustained Yield Act of 1960,
- National Environmental Policy Act of 1969, as amended (NEPA),
- Federal Coal Leasing Amendments Act of 1976 (FCLAA),
- Federal Land Policy and Management Act of 1976 (FLPMA), and
- Surface Mining Control and Reclamation Act of 1977 (SMCRA).

Additionally, the lease will be processed according to the Powder River Regional Coal Team (RCT) Operational Guidelines for Coal Lease-by-Applications (Powder River RCT, 1991). On October 31, 1989, the RCT made the recommendation to the Director of BLM that the Powder River Coal Production Region be decertified and, to assure federal and state cooperation in coal development, that the RCT should remain in place to periodically review coal leasing in the region. These recommendations were accepted by the BLM Director and announced in the January 9, 1990

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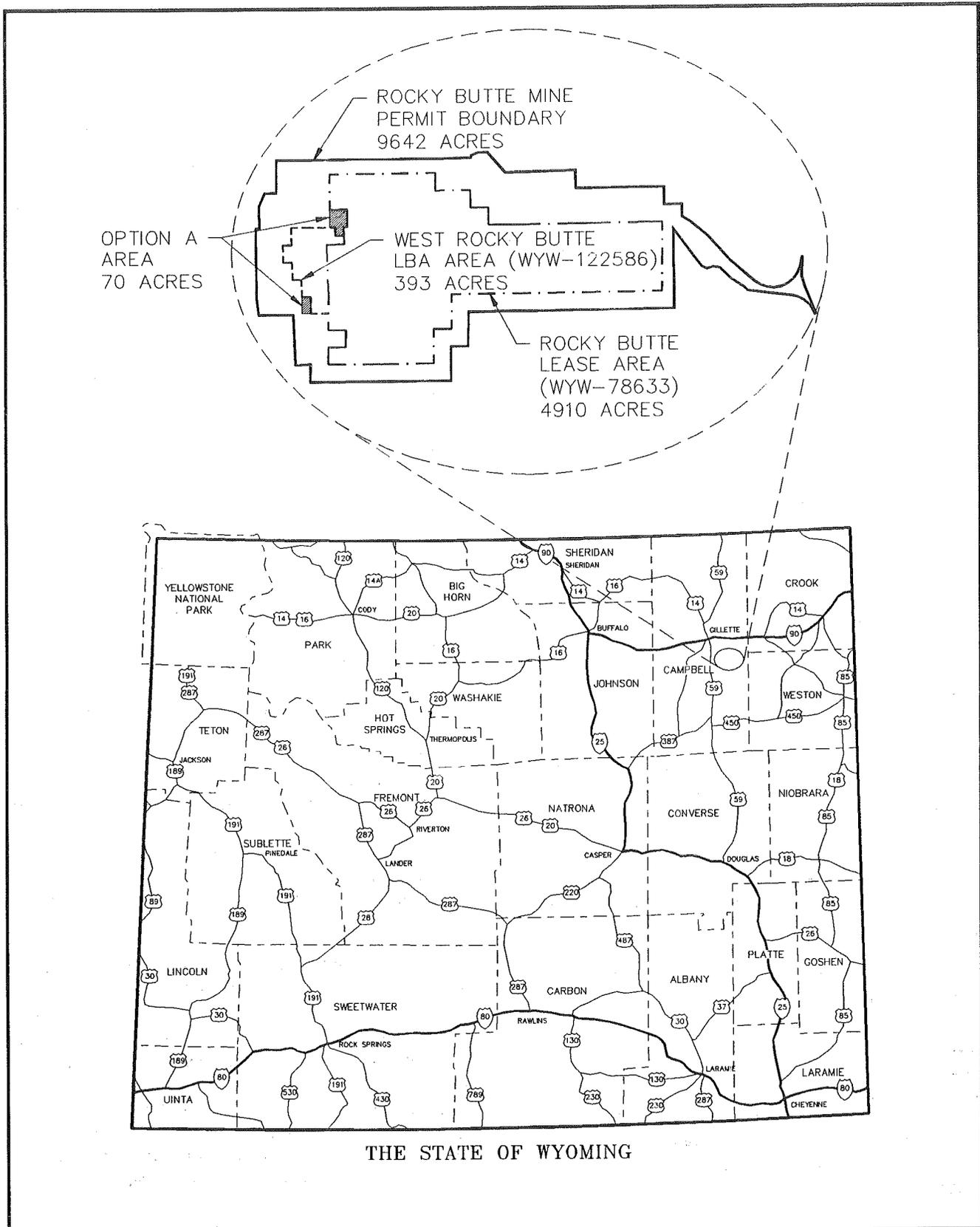


Figure 1-1. General Location Map for the West Rocky Butte LBA Area

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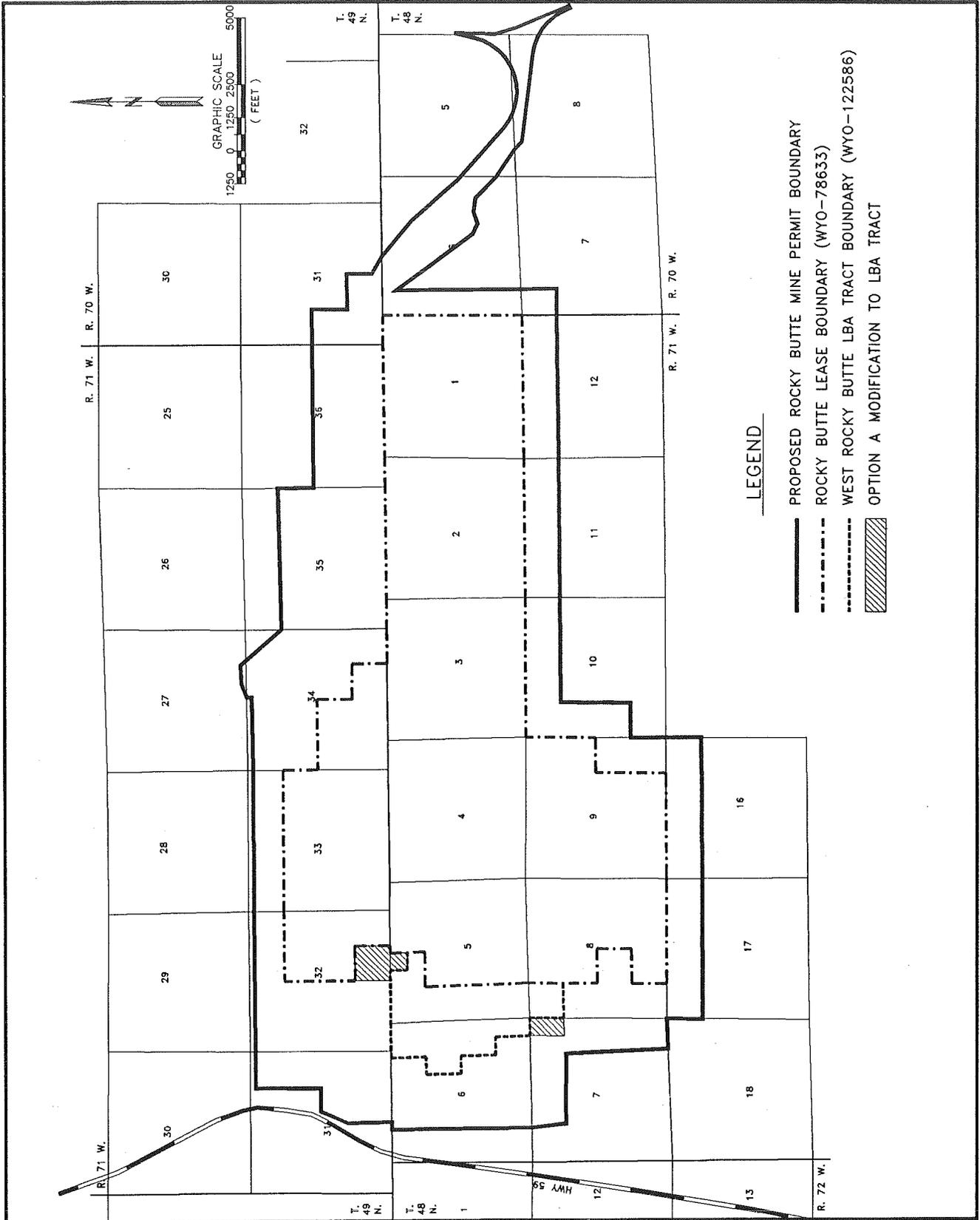


Figure 1-2. Location Map of Rocky Butte Tract, West Rocky Butte LBA Tract and Proposed LMU Permit Area

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Federal Register (55 FR 784). As of the date of that FR notice, all federal coal in the Powder River Coal Region will be leased competitively using the lease-by-application procedures as defined at Title 43 CFR 3425.

The recommendation of the RCT included a provision to retain the RCT as an oversight body to monitor leasing in the Powder River Region. This is to assure federal and state cooperation in coal leasing and to provide a review mechanism to determine when and if the region should be recertified. The guidelines for processing an application for a coal lease include the following requirements:

- The application must be filed with the BLM State Director.
 - The BLM announces to the public via a press release and FR notice that the application has been filed and begins an evaluation of the application.
 - The BLM notifies the Governor of the respective state that the lease application has been filed and invites the State to participate in the NEPA process. Consultation with any affected Indian tribes may be accomplished through a copy of this notice.
 - The BLM District Office (DO) assures that leasing is in conformance with any land use plans or Resource Management Plans; prepares an EA or EIS, as appropriate; develops mitigation measures which warrant special lease stipulations; prepares a geologic report on the LBA area; and recommends to the State Director any modification to the application that would promote better competition or maximum economic recovery of the federal coal resource.
 - The BLM prepares a Fair Market Value (FMV) assessment of the lease application tract.
 - The BLM through the applicant obtains any surface owner consent required (43 CFR 3427).
 - BLM conducts a final consultation with the surface management agency, if any, the Governor, the Attorney General, and affected Indian Tribes.
- BLM prepares a Record of Decision (40 CFR 1500), which may direct that the lease sale be held or that the application be rejected.
 - If the decision is made to hold a lease sale, it is conducted competitively (43 CFR 3422) and in accordance with BLM Manual/Handbook H-3420-1, Chapter 4. Lease awards are then conducted (43 CFR 3422.4).

Since the Powder River Coal Region was decertified and the lease-by-application rules promulgated, six lease applications have been filed in Wyoming's Powder River Basin. Only the WRB tract is associated with a new mine start. The other five are applications for production maintenance tracts at operating mines. Because the WRB tract is associated with a new mine start, this EIS addresses the environmental and socioeconomic impacts of the new mine and not just the incremental impacts of the WRB tract.

1.4 Relationship to Powder River Basin Coal Demand Forecasts

The proposal to open a new mine in the Powder River Basin (PRB) with a proposed production by 1995 of 8 million tons annually and a production of 16 million tons annually by 1997 (refer to Section 2.1 of this report) is not consistent with the published demand forecasts for the PRB. However, there is the potential for a lower production rate based on the transfer of an existing contract from the Rosebud Mine in Montana to a new mine at Rocky Butte. This contract could enable the Rocky Butte Mine to achieve a production rate of one to two million tons annually by the 1995 target, and it would have the general effect of changing the proposed production schedule by lowering production in the early years and either extending the mine life or permitting higher production rates in later years. This, in turn, would lower the initial rates of surface disturbance and employment, but would lengthen or intensify these impacts in future years. Other than timing, impacts on the environment would not be greatly different from those expected to result from the Proposed Action described in Section 2.1 of this report.

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During review of the DEIS, concerns were raised whether current market conditions justify the opening of a new mine at Rocky Butte. Currently depressed coal prices and excess production capacity in the Powder River have resulted in a relative lack of interest in coal leasing in the PRB other than leasing of production maintenance tracts at operating mines under the LBA process.

The average price of bituminous coal and lignite sold in the United States was increasing on a nominal basis up through 1982, but has steadily decreased since that time. On a real 1990 dollar basis (corrected for inflation), the average price of bituminous coal and lignite began declining as early as 1978. In Campbell County real coal prices began to decline in 1982. The average price for Wyoming coal is forecast to continue decreasing at least through 1995 (Geological Survey of Wyoming, 1992). Price decreases from 1982 through 1987 were related to the increasing amount of less expensive coal produced from PRB mines. Price decreases from 1987 through 1990 as well as projected decreases in 1991 through 1995 are related to the increasing amount of coal priced below \$5.00 per ton that is sold on the spot market, through short-term contracts, or through renegotiated long-term contracts. The amount of low-priced coal sold each year from Wyoming coal mines may account for almost half the State's coal production by 1995 (Ibid). This could lower the average price of Wyoming coal to slightly more than \$7.00 per ton by 1995, compared with \$8.21 in 1990 (Wyoming Coal Information Committee, 1991).

The declining price is due in part to the large combined production capacity of PRB mines. The total 1990 coal production of about 200 million tons was about 85 percent of the current capacity of the PRB mines and about 63 percent of their full design capacity.

If a lease sale is held for the WRB tract, it will be based on a competitive, sealed bid. The successful bidder must not only submit the highest bid for the tract but that bid must equal or exceed an undisclosed amount determined by the BLM as the "fair market value."

Current market conditions pose some unique questions for BLM in the agency's determination of the fair market value for the WRB tract. In this

determination the BLM prepares an independent analysis of production costs, performs a market analysis for the coal, assumes a reasonable rate of return and derives a value for the in-place coal reserve. The hypothetical mine plan that BLM uses in this analysis is designed to maximize the value of the coal and is not necessarily the same as the mine plan described in Section 2.2 of this EIS, which reflects an optimistic coal production rate in order to conservatively evaluate potential environment consequences of the mining operation. Important factors that will be considered by BLM in evaluating the WRB coal reserve include coal quality, depth and thickness and the fact that without this lease and the subsequent formation of an LMU (refer to Section 2.2), the existing Rocky Butte lease will expire under the diligent development regulations.

1.5 Relationship to BLM Policies, Plans and Programs

The BLM's principal authority to manage public lands is established by the Federal Land Policy and Management Act of 1976 (FLPMA). Through this authority, the BLM is responsible for managing resources on public lands in a manner that maintains or improves them. The BLM planning regulations are set forth in 43 CFR 1600. The Buffalo Resource Area Resource Management Plan (RMP) and its associated EIS is the plan which governs the management of lands and minerals in the Buffalo Resource Area, consisting of Campbell, Johnson and Sheridan counties (BLM, 1985).

The plan for coal leasing and development presented in the RMP was developed following the coal screening process described in 43 CFR 3420. This screening process included the following steps: (1) call for coal resource information, (2) assessment of coal development potential, (3) application of the coal unsuitability criteria (43 CFR 3461), (4) analysis of multiple-use conflicts, and (5) surface owner consultation.

Regarding step 1 of the screening process, no new coal resource information was received. Under step 2, four review areas were identified and carried forward into the Buffalo RMP comprising 963,000 acres with coal development potential containing 80.7 billion tons of federal coal. The proposed Rocky Butte permit area is within the Gillette Review

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Area which comprises about 154,000 acres containing 11 billion tons of federal coal.

The coal unsuitability criteria (step 3 above) were applied to all the known federal coal land that has development potential in the Buffalo Resource Area. A total of 144,000 acres containing about 9 billion tons of federal coal were declared unsuitable for leasing. About 2,400 acres containing 200 million tons of coal were within the Gillette Review Area. Appendix A provides a summary of the unsuitability findings. On the basis of the 1985 RMP and the field studies conducted in 1991 (See Section 3.0 of this EIS) no lands were found on the WRB tract which would make the tract unsuitable for leasing, and the entire tract is therefore available for further consideration.

The fourth step in the coal screening process was a multiple use analysis of the federal coal lands that remained available for leasing after the unsuitability criteria had been applied. This included the entire WRB tract. The review involved consideration of other multiple use values (not related to the unsuitability criteria) that would make an area unsuitable for coal mining. This step is intended to identify conflicts and make planning decisions that may preclude coal leasing, such as designation of community buffers, completion of oil and gas development before coal development can begin, or setting aside lands for recreation and public purpose uses. As a result of this multiple use analysis, a total of 221,000 acres containing 23 billion tons of federal coal were found to contain conflicts which may affect coal leasing. Only one of these conflicts, oil and gas development, applies to the WRB tract. Oil and gas production occurs within known geologic structures (KGSs) on the north and south sides of the WRB tract. Land use studies conducted in 1991 (see Section 3.14 of this EIS) show that there are active oil and gas wells on and adjacent to the WRB tract. The presence of these activities does not preclude leasing, but a determination is required that coal development will not interfere with the economic recovery of the oil and gas or that such conflicts can be mitigated. In the case of the West Rocky Butte tract, there are potential conflicts between the proposed development of federal coal and oil and gas production from currently existing non-federal oil and gas wells (see Section 3.14.2 for discussion). The BLM's policy on these conflicts is to encourage

resolution of the conflict by the parties involved. Resolution could include purchase and abandoning of the oil and gas wells by the coal operator or temporary plugging of the oil and gas wells during mining with the intention of reestablishing production after the area is reclaimed. In the event that economically minable coal is bypassed as a result of failure to reach a mutually acceptable agreement by the coal and oil and gas lessees, the coal lessee can be required to pay royalty to the federal government on the unmined coal. This requirement is included in the stipulations which are currently being attached to coal leases when they are issued (see Appendix D).

The final step in the coal screening process was surface owner consultation. No surface owner on the WRB tract expressed a preference against leasing. NWR has reached agreements to mine with the current resident surface owners, and therefore ownership and surface consent would not be constraints to leasing.

At the September 6, 1991 meeting of the Regional Coal Team (RCT), the decision was made for the BLM to continue with the processing of the WRB lease application. At that time the applicant was instructed by the RCT to meet with the BLM to discuss the steps necessary to process the lease application and assure compliance with NEPA. In response to these instructions, a meeting was held at the BLM State Office in Cheyenne, Wyoming on September 17, 1991 between representatives of NWR, BLM, the Office of Surface Mining Reclamation and Enforcement (OSM), and the Wyoming Governor's Office. Major decisions resulting from these two meetings were:

- BLM will process the WRB lease application as a Lease-by-Application under 43 CFR 3425.
- Because the issuance of the lease will result in new mine start, compliance with NEPA will require the preparation of an EIS prepared under the BLM format (BLM, October 1988).
- The schedules for the lease processing and EIS publication were established to accommodate a lease application sale date of October 16, 1992.
- OSM will be a cooperating agency for the preparation of this EIS and may prepare a

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separate environmental analysis prior to recommending final action on the mining plan.

Issues identified during the scoping process center around air quality, hydrology, noise, reclamation and socioeconomics as they relate to a new mine start. Short- and long-term impacts of the new mine, as well as cumulative impacts of this mine in conjunction with other mines in the region, were identified as issues during the scoping process. BLM considered each issue and concern raised during the scoping process in terms of its relevance to the proposed action. This EIS addresses the issues identified during the scoping process and provides an additional basis for public review of the proposed mine plan and the BLM's decision-making process.

1.6 Additional Permit Requirements

While the decision to lease the WRB tract is a necessary requisite for the opening of the Rocky Butte Mine, it is not in itself the enabling action that will lead to the opening of a new mine. Numerous permits must be acquired from a variety of regulatory agencies. Foremost among these are a permit to mine from the Wyoming Department of Environmental Quality, Land Quality Division (DEQ/LQD) and approval of the mining plan by the Assistant Secretary, Land and Minerals Management. All the issues raised during scoping will be fully resolved prior to completion of all necessary permitting activities.

The Mineral Leasing Act (MLA) requires that, before conducting any Federal coal development or mining operations on Federal leases or licenses, the operator/lessee shall submit and obtain approval of a resource recovery and protection plan. On any Federal lease issued BEFORE August 4, 1976, MLA requires that a resource recovery and protection plan shall be submitted no later than 3 years after the effective date of the first lease readjustment after August 4, 1976, or the effective date of the operator/lessee's election provided for at para. 3483.1(b)(1) of this title, unless a current resource recovery and protection plan has been approved. On any Federal lease issued AFTER August 4, 1976, MLA requires that a resource recovery and protection plan shall be submitted no later than 3 years after

the effective date of the Federal lease. These requirements are found in 43 CFR 3482.1(b). The lessee is obligated to mine according to an approved resource recovery and protection plan, under threat of a suspension of operations, and possible loss of the lease.

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) gives OSM primary responsibility to administer programs that regulate surface coal mining operations on federal lands and the surface effects of underground coal mining operations on these same lands. Pursuant to Section 503 of SMCRA, the Wyoming DEQ developed, and the Secretary of the Interior approved, a permanent program authorizing Wyoming DEQ to regulate surface coal mining operations and the surface effects of underground coal mining on non-federal lands within the State of Wyoming. In January 1987, pursuant to Section 523(c) of SMCRA, Wyoming DEQ entered into a cooperative agreement with the Secretary of the Interior authorizing Wyoming DEQ to regulate surface coal mining operations and the surface effects of underground mining on federal lands within the State.

Pursuant to the cooperative agreement, federal coal lease holders in Wyoming must submit permit application packages (PAPs) to OSM and Wyoming DEQ for proposed mining and reclamation operations on federal lands in the State. Wyoming DEQ reviews each PAP and determines whether the coal mining operation will meet the performance standards of the approved permanent program; if it does comply, Wyoming DEQ issues the permit applicant a permit to conduct coal mining operations. OSM and other federal agencies review the PAP to ensure that it complies with the terms of the coal lease, the requirements of the Mineral Leasing Act of 1920, NEPA, and other applicable federal laws and their attendant regulations. OSM recommends approval, approval with conditions, or disapproval of the mining plan contained in the PAP to the Assistant Secretary for Land and Minerals Management. The BLM and the surface-managing agency (if that agency is not BLM) must concur with this recommendation.

Wyoming DEQ enforces the performance standards and permit requirements during operation of the mine and has primary authority in emergency

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environmental situations. OSM retains oversight responsibility for this enforcement. BLM has authority in those emergency situations where Wyoming DEQ or OSM inspectors are unable to take action before significant harm or damage to the environment occurs.

In anticipation of acquiring the WRB tract, NWR is conducting baseline studies and designing a mining and reclamation plan for the LMU. This information will be incorporated into the PAP and submitted to Wyoming DEQ/LQD in the spring of 1992. Typically, several rounds of review by Wyoming DEQ/LQD and responses by the applicant are required before a mine permit application can be approved. Prior to issuance of the permit, opportunity is provided for public review of the mining and reclamation plan. If objections are filed, an administrative hearing is held before a final decision is made regarding the permit. The BLM reviews the mine plan for compliance with the Resource Recovery and Protection Plan requirements (43 CFR 3484).

Another major permit that must be acquired is an air quality permit from Wyoming DEQ, Air Quality Division (AQD). Prior to issuance of an air quality permit, there is another opportunity for public review and, if objections are filed, a public hearing.

NWR will be required to obtain numerous additional regulatory permits including, but not necessarily limited to:

- permits to appropriate surface and ground water from the Wyoming State Engineer's Office
- permits to construct sediment-control and other water treatment facilities from Wyoming DEQ, Water Quality Division (WQD)
- a permit to discharge treated wastewater, also from WDEQ/WQD.
- an industrial siting permit from the Wyoming Industrial Siting Administration.

These permits provide opportunities for the public to review and comment if they believe they may be adversely affected by the proposed activity being permitted.