

1.0 INTRODUCTION

1.1 BACKGROUND

On September 28, 2001, Bridger Coal Company (BCC) filed an application with the Bureau of Land Management (BLM) for federal coal reserves located adjacent to the existing Jim Bridger Mine in north-central Sweetwater County, Wyoming. On February 11, 2003, BCC filed a modified application with the BLM at the Wyoming State Office in Cheyenne for a reduced lease area (refer to Figure 1.1). This application was made pursuant to provisions of the lease-by-application (LBA) regulations found in Title 43 *Code of Federal Regulations* (C.F.R.) 3425.1. The tract applied for, known as the Ten Mile Rim Tract (TMRT), contains federal-, state-, and private-owned coal reserves. The BLM assigned the federal lease area case number WYW-154595. In addition to the federal LBA action, the project would also require BLM to issue a right-of-way (ROW) associated with the LBA for a portion of a new powerline required for the project. The ROW applications would be made pursuant to Title 43 C.F.R., Part 2800, that govern the federal approval and issuance of ROW applications.

The TMRT area and the associated ROW would be located north of Interstate 80, approximately 10 mi north of Point of Rocks, approximately 25 mi east of Rock Springs, and approximately 70 mi west of Rawlins, Wyoming (refer to Figure 1.1). The TMRT area is located in the area administered by the BLM Rock Springs Field Office.

BCC proposes to lease federal coal for a new underground mine located adjacent to the existing Jim Bridger Mine, a surface coal mine operation. According to LBA documents submitted by BCC, the coal would be required to provide fuel to the nearby Jim Bridger Power Plant for an additional 15 to 20 years. The surface ownership pattern within the TMRT area is checkerboard, where even-numbered sections are owned by the federal government, odd-numbered sections are privately owned, and select even-numbered sections are owned by the State of Wyoming. (Section 2.0 further describes surface and mineral ownership.) The Jim Bridger Mine has an

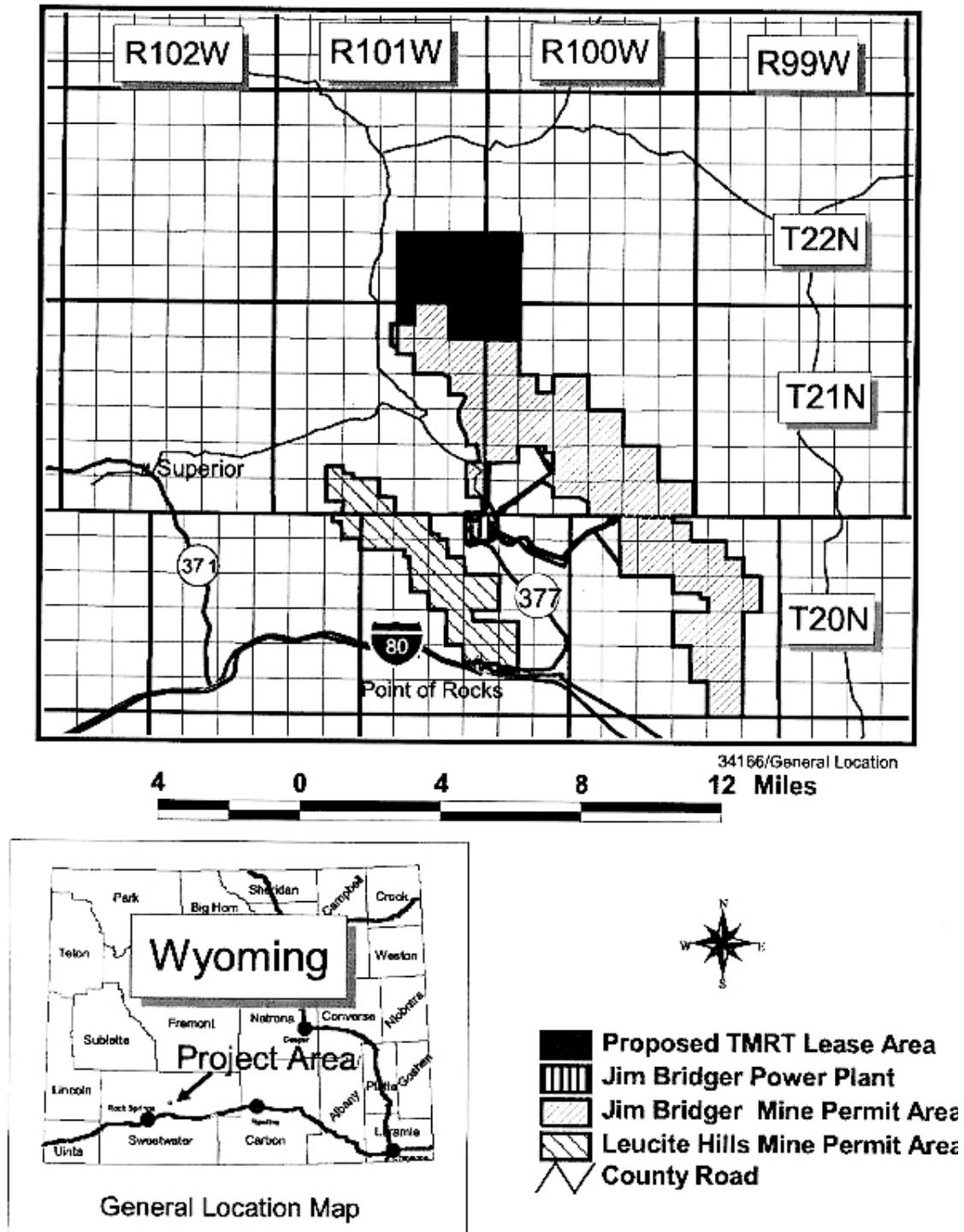


Figure 1.1 General Project Location.

approved mine and reclamation plan and permit (No. 338-T5) issued by the Wyoming Department of Environmental Quality/Land Quality Division (WDEQ/LQD) and other pertinent permits and approvals issued by other federal, state, and local regulatory agencies. As part of the federal coal-leasing process, BLM will evaluate the tract configuration and may add or subtract federal coal to avoid bypassing federal coal or to otherwise achieve maximum economic recovery. BLM will also evaluate the application to define the characteristics of the federal coal reserves and to evaluate the fair market value of the tract. No vertical shafts or inclines would be required to access the coal reserves. According to BCC, underground access to the coal reserves within the TMRT area would be gained through access from the existing highwall area at Ramp 14 of the existing surface mine. Under the Proposed Action, no new mine facilities (such as ventilation shafts or support equipment) would be required within the TMRT area. Associated mine support facilities (e.g., buildings, roads, overland conveyor, powerlines, etc.) would be located on lands that the applicant currently has legal access rights to or where legal access would be secured. These facilities are described in more detail in Chapter 2.0 of this environmental assessment (EA).

The federal government maintains a policy to encourage private industry to develop and mine domestic energy reserves in an economically and environmentally sound manner. The Secretary of the Interior has the responsibility to carry out this policy. Since the passage of the *Mineral Leasing Act of 1920* (MLA), as amended, the U.S. Department of the Interior, through its implementing agency, the BLM, has been charged with administering a leasing program that would allow the private sector to mine federally owned coal reserves. Therefore, pursuant to the MLA, "it is the continuing policy of the federal government in the national interest to foster and encourage private enterprises in 1) the development of economically sound and stable domestic mining, minerals . . . industries, 2) the orderly and economic development of domestic mineral resources, reserves . . . to help assure satisfaction of industrial, security, and environmental needs" (BLM 2001a:4). This policy is reaffirmed in the BLM's 2001 plan for the implementation of the national energy policy (BLM 2001a).

In addition, the Proposed Action would include the approval of one associated ROW for a segment of a new powerline. This associated facility would be located outside of and near to the TMRT, and this ROW would be necessary for implementation of the Proposed Action. The *Federal Land Policy and Management Act of 1976* (FLPMA), as amended (43 *United States Code* [U.S.C.] §1701 et seq.), and promulgating regulations found in Title 43 C.F.R., Part 2800, govern the federal approval and issuance of ROW applications for facilities such as the proposed powerline.

Before the federal government may hold a competitive coal lease sale or issue the associated ROW grant, the BLM must analyze the potential environmental impacts of issuing a lease or ROW grant in accordance with the *National Environmental Policy Act* (NEPA). To assess potential impacts of the Proposed Action, BLM conducted internal BLM and public scoping. Public scoping was initiated on November 15, 2001, and concluded on December 31, 2001. Based on public and BLM internal scoping comments, BLM has decided to prepare an EA for the Proposed Action. BLM also determined that no additional public scoping was necessary or required as a result of the applicant's 2003 revised application and reduction in the size of the TMRT LBA area. This EA is prepared pursuant to NEPA, as amended (42 U.S.C. 4321 et seq.), its implementing regulations found in Title 40 C.F.R. Part 1500–1508, BLM's *National Environmental Policy Act Handbook* (H-1790-1) (BLM 1988), BLM's desktop reference *Overview of BLM's NEPA Process* (BLM 1996a), and *Considering Cumulative Impacts Under the National Environmental Policy Act* (Council on Environmental Quality [CEQ] 1997).

This EA assesses the environmental impacts of the Proposed Action and appropriate alternatives, including the No Action Alternative. The Proposed Action is strictly defined as the leasing and mining of the federal coal reserves located within the TMRT and the granting of one ROW for the construction of a segment of powerline (required for the Proposed Action) that would cross federal lands. This EA assesses the potential environmental impacts of these actions on federal lands but also includes the potential environmental impacts associated with the construction and mining activities that would occur on privately owned lands. While some of these associated

activities would occur on privately owned lands, they are described as connected actions under NEPA regulations and analyzed in this EA.

The BLM will use this analysis to make a decision whether or not to hold a competitive, sealed-bid lease sale and to issue a coal lease for the federal coal within the TMRT area. If a lease sale is held, a lease will be issued to the highest bidder, if a federal sale panel determines that the highest bidder meets or exceeds the fair market value as determined by BLM's economic evaluation and if the U.S. Department of Justice determines that there are no antitrust violations if the lease is issued to the highest bidder.

The Office of Surface Mining Reclamation and Enforcement (OSM) is a cooperating agency on the EA and will use this analysis to make decisions related to mining federal coal in this tract.

The Proposed Action would comply with all relevant federal, state, and local laws and regulations. Table 1.1 lists the potential authorizing actions required for project compliance. In addition, the Proposed Action would be operated in accordance with federal Mine Safety and Health Administration (MSHA) and Wyoming Department of Employment, Division of Mine Inspections and Safety rules and regulations.

1.2 PURPOSE AND NEED

Coal production at the Jim Bridger Mine is slowing because existing privately and federally leased coal reserves are becoming too deep and uneconomical to be recovered utilizing conventional surface mining methods (i.e., draglines). As a result, additional minable coal reserves are needed to meet production requirements. Representatives of BCC plan to supplement the decreasing supply of surface-mined coal with the addition of adjacent underground mining operations. The development of underground mining operations next to the existing surface mine would allow BCC to utilize many of the existing support systems at the Jim Bridger Mine (e.g., roads, overland conveyor, administrative and maintenance facilities), thereby minimizing costs and disturbance to the environment.

Table 1.1 Potential Federal, State, and Local Agencies and Authorizing Actions, TMRT LBA Project, 2003.

Agency	Nature of Action
U.S. Bureau of Land Management	NEPA compliance Coal lease ROW easement Lease authorization and surface use
U.S. Office of Surface Mining Reclamation and Enforcement	Cooperating agency for NEPA compliance Prepare mining plan decision document Mine permit review
Assistant Secretary of the Interior	<i>Mineral Leasing Act of 1920</i> mine plan approval
U.S. Fish and Wildlife Service	Review of potential impacts on federally listed threatened, endangered, and candidate species
Wyoming Office of State Lands and Investment	Coal lease on state land
Wyoming Department of Environmental Quality, Land Quality Division	Permit to mine coal
Wyoming Department of Environmental Quality, Air Quality Division	Amendment to air quality permit to operate
Wyoming Department of Environmental Quality, Water Quality Division	National Pollutant Discharge Elimination System (NPDES) permit Storm Water Pollution Prevention permit and plan Construction permit for drinking water system
Wyoming State Engineer's Office	Surface water appropriation permit(s) Groundwater appropriation permit(s)
Wyoming Game and Fish Department	Review of potential impacts on game and fish resources, including state-sensitive species
Wyoming Industrial Siting Counsel	Review proposed project relative to applicable <i>Industrial Site Act</i> regulations
Wyoming State Historic Preservation Office	Consultation with BLM and review of potential impacts on cultural resources
Sweetwater County Planning and Zoning Department	Approval of land use change
Sweetwater County Road and Bridge Department	Approval for powerline crossing of county road and special use permit for new road intersection with County Road 15
Sweetwater County Health Department	Construction permit for septic system

The Proposed Action is needed to allow the leasing and subsequent mining of federal coal within the TMRT, and the approval of the associated federal ROW is necessary to facilitate said coal mining for the nearby Jim Bridger Power Plant for the generation of electricity.

The Jim Bridger Mine started operations in 1971 and annually mines approximately 5 to 6 million tons with approximately 350 employees. Since startup, more than 150 million tons of coal have been mined at the Jim Bridger Mine (Wyoming State Geological Survey 1998). The Jim Bridger Mine has been the primary supplier of coal to the nearby Jim Bridger Power Plant. Depending on numerous factors such as electric load requirements, the power plant burns approximately 9 million tons of coal per year (Wyoming State Geological Survey 1998). The Jim Bridger Power Plant will be obtaining the remainder of its required coal from other sources. BCC indicates that the additional coal reserves within the TMRT area will be needed within the next 2 years in order for the company to meet fuel supply requirements for the power plant.

1.3 CONFORMANCE WITH LAND USE PLANS AND RELATIONSHIP TO STATUTES, REGULATIONS, AND OTHER PLANS

1.3.1 BLM Resource Management Plan

The Green River Resource Management Plan (RMP) and Record of Decision (ROD) (BLM 1997a) allows for coal leasing and development. The Green River RMP provides land use guidance for coal leasing within the project area. The exploration and development of solid leasable minerals (i.e., coal) is subject to the appropriate level of environmental analysis. The BLM Green River RMP and ROD (1997a:13) states:

The objective for management of the federal coal resources in the planning area is to provide for both short- and long-range development of federal coal, in an orderly and timely manner, consistent with the policies of the federal coal management program, environmental integrity, national energy needs, and related demands.

With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-administered public lands and federal coal lands in the Green River planning

area, except for those identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential.

Federal coal lands within the Coal Occurrence and Development Potential area (that include the TMRA area) are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modification, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses. In addition, the LBA process would conform with BLM coal development objectives within the Green River-Hams Fork Coal Region.

The relevant management action from the Green River RMP and ROD (BLM 1997a:137) states in part:

Federal coal lands within the Coal Occurrence and Development Potential area (about 422,000 acres) are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposal, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses.

The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining may occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats, in particular. Such investigations, studies, and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing or development proposals (e.g., mine plans) or, if opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where existing raptor nests become abandoned or where new raptor nests become established, etc.), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., U.S. Fish and

Wildlife Service [USFWS], Wyoming Game and Fish Department [WGFD], etc.) with interested parties, and with industry will occur as needed or required.

A portion of the proposed powerline would require the issuance and approval of a ROW grant from the BLM and would be in conformance with the Green River Resource Area RMP and ROD. The relevant management objective from the Green River Resource Area RMP (BLM 1997a:128) states:

The objective for the management of the lands and realty program are to: 1) manage the public lands to support the goals and objectives of other resource programs; 2) respond to public demand for land use authorizations; and 3) acquire administrative and public access where necessary.

The Green River RMP also states, "Public lands will be made available throughout the planning area for rights-of-way permits and leases (for utility and transportation systems)" (BLM 1997a:86).

1.3.2 Existing NEPA Documents

Existing NEPA documents that may be related to the proposed project includes the following:

- the BLM Green River RMP and environmental impact statement (EIS) (BLM 1992, 1996b),
 - the BLM Green River RMP and ROD (1997a),
 - air quality analysis from the BLM Continental Divide/Wamsutter II natural gas project EIS (BLM 1999a, 1999b),
 - air quality analysis from the Desolation Flats natural gas field development project (DFP) draft EIS (BLM 2003a),
 - the BLM coal exploration drilling project EA of the TMRT (2001b),
 - the BLM Jim Bridger Power Plant flue gas de-sulfurization pond expansion project EA (2002a), and
 - the BLM final EIS for the regional and site specific coal development for southwest Wyoming (BLM 1979b).
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The BLM Green River RMP and ROD, referenced in Section 1.3.1 above, presents the management plan currently being administered in this RMP. This EA is tiered to the BLM Green River RMP (BLM 1992, 1996b, 1997a). The Green River RMP provides planning and objectives for the management of public lands in the BLM Rock Springs Field Office Area, including the leasing of solid mineral materials and issuance of ROW grants.

1.3.3 Review of Select Permits, Approvals, and Authorizations

Described below are a few of the major permits, approvals, and authorizations that would be required of BCC prior to the initiation of underground mining operations within the TMRT area. These descriptions do not address every regulatory or administrative requirement and provide only a brief overview of some of the permits, approvals, and authorizations required for the Proposed Action. All permits, approvals, and authorizations listed in Table 1.1 would have to be addressed by the appropriate regulatory agencies.

1.3.3.1 OSM Requirements

The *Surface Mining Control and Reclamation Act of 1977* (SMCRA), as amended, gives the OSM primary responsibility to administer programs that regulate surface coal mining operations and the surface effects of underground coal mining operations in the U.S. Pursuant to Section 503 of SMCRA, the WDEQ/LQD developed and the Secretary of the Interior approved WDEQ/LQD's permanent regulatory program. This approval authorizes WDEQ/LQD to regulate surface coal mining operations and the surface effects of underground coal mining on private and state lands within the State of Wyoming.

Pursuant to the cooperative agreement, federal coal lease holders in Wyoming must submit a permit application to OSM and WDEQ/LQD for all proposed mining and reclamation operations on federal lands in the state. WDEQ/LQD reviews the permit application package to ensure that it complies with the approved Wyoming state permanent program and other state statutes. If it complies, WDEQ/LQD issues the applicant a permit to conduct coal mining operations (i.e.,

permit to mine coal). OSM and other federal agencies review the permit application package to ensure that it contains the necessary information for compliance with the coal lease, the MLA, NEPA, and other applicable federal laws and their attendant regulations. OSM recommends one of the following to the Assistant Secretary of the Interior, Land and Minerals Management: (1) approval of the MLA mine plan, (2) approval of the MLA mine plan with conditions, or (3) disapproval of the MLA mine plan. Before making a recommendation regarding the mine plan, OSM obtains input from certain other federal agencies, including the appropriate federal surface management agency.

WDEQ/LQD enforces the environmental performance standards and permit requirements during the mine's operation and has primary authority in environmental emergencies. OSM retains oversight responsibilities for this enforcement. The surface management agency (i.e., BLM) has authority in emergency situations in which WDEQ/LQD or OSM inspectors cannot act before environmental harm or damage occurs.

1.3.3.2 WDEQ Requirements

As discussed above, the WDEQ/LQD administers and regulates surface coal mining and reclamation operations and the surface effects of underground coal mining operation in accordance with SMCRA and the *Wyoming Environmental Quality Act*. The WDEQ/LQD reviews and approves all proposed mining and reclamation plans under its jurisdiction. In addition, other WDEQ divisions (i.e., Water Quality Division [WQD] and Air Quality Division [AQD]) would review specific portions of the proposed mine and reclamation plan, and, if the plans conform to and comply with applicable rules and regulations, specific environmental permits would be issued by the appropriate agency.

1.3.3.3 Wyoming State Engineer's Office (WSEO) Requirements

The WSEO is responsible for administering and regulating water resources within Wyoming, including issuing permits and appropriations for all surface- and groundwater resources and the

adjudication of water rights issues and disputes. The WSEO would review specific applications filed by BCC for the appropriation of surface water and groundwater that would be utilized for the Proposed Action. The WSEO would issue permits and appropriations in accordance with the applicant's needs and available water resources.

1.3.3.4 Wyoming Office of State Lands and Investment (WOSLI) Requirements

The WOSLI is responsible for the administration and leasing of all subsurface minerals on State of Wyoming lands. As of March 1, 2001, BCC had applied for and received a lease (State Lease #0-040779) for state-owned coal located in Section 36, T22N, R101W. In addition to securing the state lease, BCC has also secured a lease from the owner of the private coal reserves within the TMRT.

1.3.3.5 Sweetwater County Requirements

Sweetwater County administers land use within the county in accordance with the approved land use plan, issues road encroachment authorizations, special use permits for roads, and issues permits for septic systems. BCC would apply for all necessary permits, land use changes, and/or authorizations from the appropriate Sweetwater County agency or department for the specific program to be undertaken.

1.3.4 Public Involvement

On November 9, 2001, pursuant to NEPA regulations, BLM released a scoping notice to the public. In addition, a Scoping Notice was published in the *Federal Register* on December 21, 2001. Ten comment letters were received in response to the scoping notice. In addition to releasing the scoping notice, BLM held a public meeting on December 12, 2001. As a result of BLM, OSM, and public input, the following issues and agency concerns have been identified:

- subsidence;
 - existing oil and gas leases that overlap the LBA area and potential for concurrent development;
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- wildlife considerations including potential affects to fossorial wildlife (e.g., white-tailed prairie dogs, burrowing owls) and greater sage-grouse;
 - listed species and species proposed for listing, candidate species, migratory birds, and wetland or riparian areas;
 - protection of ephemeral drainages;
 - socioeconomic impacts including workforce and housing requirements;
 - possible impact to Point of Rocks water source;
 - possible effects of construction activity and blasting on residences and businesses located in Point of Rocks; and
 - maintaining public access to public lands around the mine and power plant.
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