

1.0 INTRODUCTION

This environmental impact statement (EIS¹) presents the analysis of impacts that would result from leasing federal coal reserves in the Hay Creek II lease by application (LBA) tract (Proposed Action). The EIS also analyzes alternatives to the Proposed Action.

This EIS was prepared in accordance with the National Environmental Policy Act (NEPA) and associated rules and guidelines. As administrator of the federal coal leasing program for surface and underground mining under the Mineral Leasing Act of 1920, as amended, the U.S. Bureau of Land Management (BLM) is considered the lead agency, under NEPA, responsible for the preparation of this EIS.

The BLM will use this impact analysis to make a decision regarding unleased federal coal reserves within and adjacent to the Buckskin Mine, an operating surface coal mine in the Powder River Basin (PRB) of northeast Wyoming. Issuing a federal coal lease does not authorize mining to occur, but is the first step in that process. The lease merely grants the lessee the exclusive right to pursue a mining permit for the coal tract subject to the terms of the lease, the mining permit itself, and all applicable state and federal laws. Permits to mine are issued by authorized federal and/or state agencies only after a lease has been secured and all appropriate agencies have reviewed and approved an extensive permit application. That application document provides information describing a wide range of baseline resources, as well as detailed mining, mitigation, and reclamation plans.

A minimum of 12 other state and federal agencies will also use this EIS analysis to make decisions related to leasing and mining the federal coal reserves in the proposed tract. The Office of Surface Mining Reclamation and Enforcement (OSM) and all divisions of the Wyoming Department of Environmental Quality (WDEQ) are cooperating agencies on this EIS. The OSM is primarily responsible for administering federal programs that regulate surface coal mining operations. If a tract is leased, that agency will use this EIS to determine whether approval of the mining plan for the tract complies with the Mineral Leasing Act of 1920. The WDEQ has entered into a cooperative agreement with the Secretary of the Interior to regulate surface coal mining operations on federal and nonfederal lands in Wyoming. During the permitting process, the WDEQ incorporates input from numerous internal departments as well as various state and federal agencies.

The WDEQ has also been delegated authority by the U.S. Environmental Protection Agency (EPA) to implement federal programs of the Clean Air Act (CAA) Amendments of 1990. The WDEQ implements the Wyoming Air Quality Standards and Regulations and CAA Amendments through various air permitting programs. Input from the Wyoming Game and Fish Department (WGFD) and the U.S. Fish and Wildlife Service (USFWS) is used to ensure that adequate monitoring, mitigation, and reclamation plans are in place for wildlife and fisheries

¹ Refer to page xx for a list of abbreviations and acronyms used in this document.

resources and habitats. The Wyoming Department of Transportation may review the EIS if road construction or relocation projects are considered in the analyses.

The public has several opportunities to comment throughout the coal leasing and permitting processes. For leasing decisions, the public may participate during the initial scoping of the project, as well as through public hearings and comment periods that are held for the draft and final EIS. Once the coal is leased by the BLM, the public has several additional opportunities to comment on the actual permit to mine issued by the WDEQ and OSM, including the original permitting process, every major change to the permit after its initial approval, and every five years during the standard permit renewal process for surface coal mines in Wyoming.

1.1 Background

The Buckskin Mine is one of several mines currently operating in the PRB, where the coal seams are notably thick and the overburden is relatively thin throughout the region. The mine is operated by the Buckskin Mining Company, a directly held subsidiary of Kiewit Mining Properties, Inc. (Kiewit).

1.1.1 Buckskin Mine Application

On March 24, 2006, Kiewit filed an application to lease the federal coal reserves included in the Hay Creek II maintenance LBA tract under the regulations at 43 Code of Federal Regulations (CFR) 3425 (Leasing on Application). A maintenance coal tract is an area of federal coal reserves that is adjacent to an existing coal lease and can be excavated by an active coal mine. The maintenance tract is located approximately 12 miles north of Gillette, Campbell County, Wyoming (map 1-1), northwest of and immediately adjacent to existing federal coal leases for the Buckskin Mine. The tract would maintain current average levels of production rather than expand mine operations.

Kiewit initially applied for the Hay Creek II maintenance tract to extend the life of existing operations at the Buckskin Mine. Since submitting its original application in 2006 (see “applicant original (March 2006) tract” on map 1-2), Kiewit modified its lease application due to changing needs (see “applicant proposed tract” on map 1-2). The applicant proposed tract (proposed tract) from November 28, 2008, was analyzed in the draft EIS. That proposed tract was the bare minimum needed to provide a technically and economically feasible method for the Buckskin Mine to pass through a geologic irregularity known as the Sand Channel Basin to reach low-sulfur compliance coal in the existing Spring Draw lease (WYW-78634).

Unforeseen LBA processing delays caused Buckskin to lose the mechanical advantage needed to mine past the sand channel. Consequently, on September 3, 2010, Kiewit requested that the BLM consider a tract configuration under Alternative 2 (see chapter 2) based on the original tract configuration applied for in March 2006. Buckskin no longer needs the coal immediately and, therefore, prefers to pursue a tract with a longer-term application for its existing mining operations.

For the purposes of this analysis, the proposed tract remains unchanged from the draft EIS. Because both the BLM study area and the general analysis area, as defined in chapter 3, encompassed all configurations of Kiewit's proposed tract, the analyses performed for the draft EIS are still valid for the final EIS. Therefore, because the tract as originally applied for has been fully covered, it will not be analyzed separately in this document.

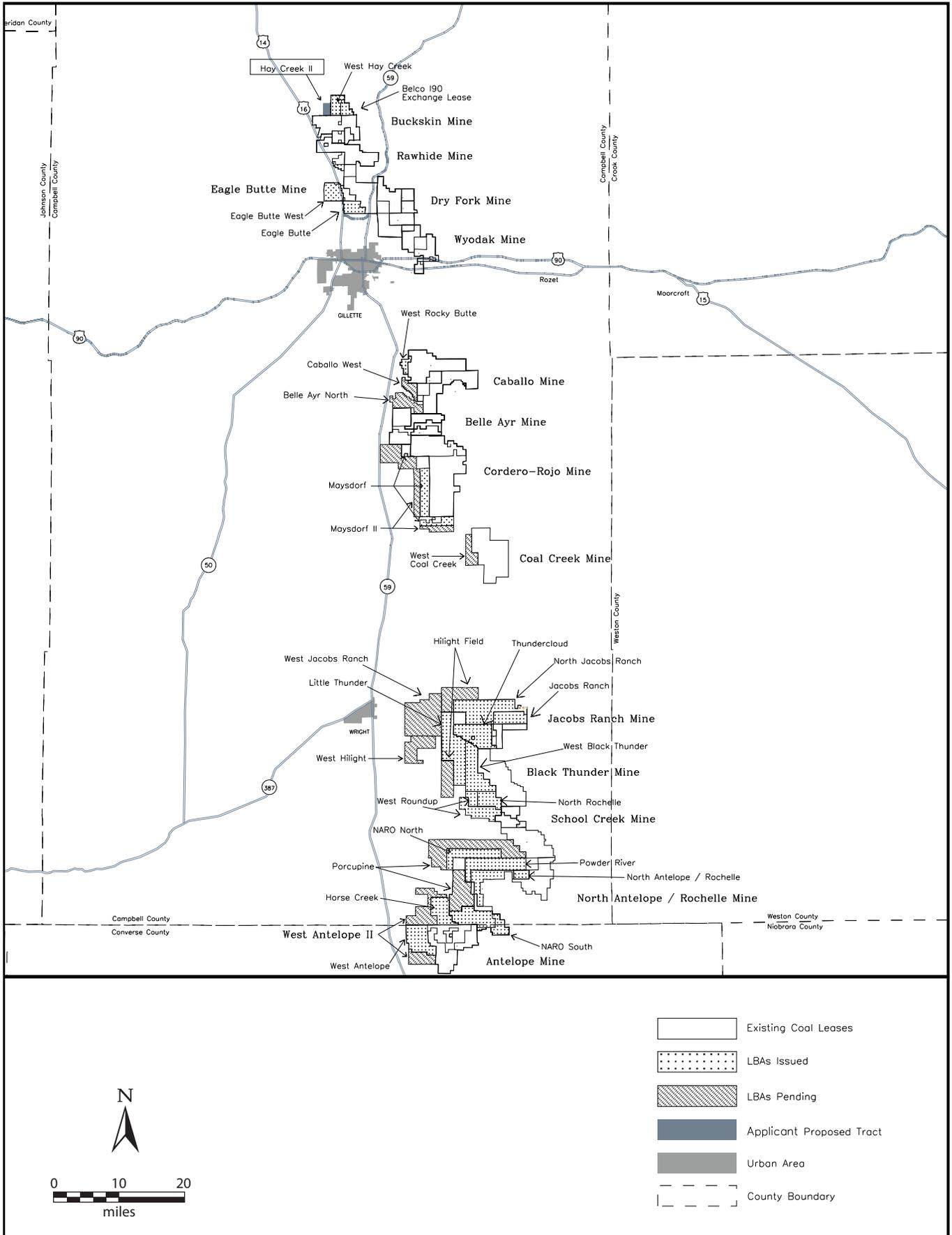
The BLM, Wyoming State Office, Division of Minerals and Lands, has reviewed Kiewit's application for the proposed tract. That office determined that the lease application meets the regulatory requirements for an LBA. Map 1-1 shows the proposed tract, other currently pending LBA tracts, and the existing federal leases, including previously leased LBA tracts, in the PRB. The proposed tract was assigned BLM case file number WYW-172684. The 2006 application was subsequently modified in May and November of 2008. The November tract modification is evaluated in this EIS.

1.1.2 BLM Coal Leasing Process

The proposed tract is located in the Powder River Federal Coal Region. That area was decertified² for coal leasing in 1990 at the recommendation of the Powder River Regional Coal Team (PRRCT). The recommendation was made in response to the declining coal market and reduced interest in leasing sufficient quantities of coal to warrant a regional sale process during the previous eight years. The PRRCT is an independent advisory board of the BLM established to provide advice and guidance regarding the federal coal management program in the PRB. The board is comprised of various federal and state agencies, with voting members limited to the BLM and the state governments of Wyoming and Montana. In a region that is decertified, the BLM can consider leasing individual coal tracts by application to continue or extend the life of an existing mine under the rules of 43 CFR 3425. As part of the 1990 decertification decision, the PRRCT has continued to meet regularly to review the BLM's leasing activity in the PRB and to offer recommendations based on a regional perspective. That board reviewed the Hay Creek II application at a public meeting held on April 19, 2006, in Casper, Wyoming, and recommended that the BLM process the application.

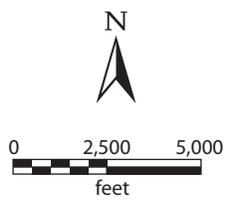
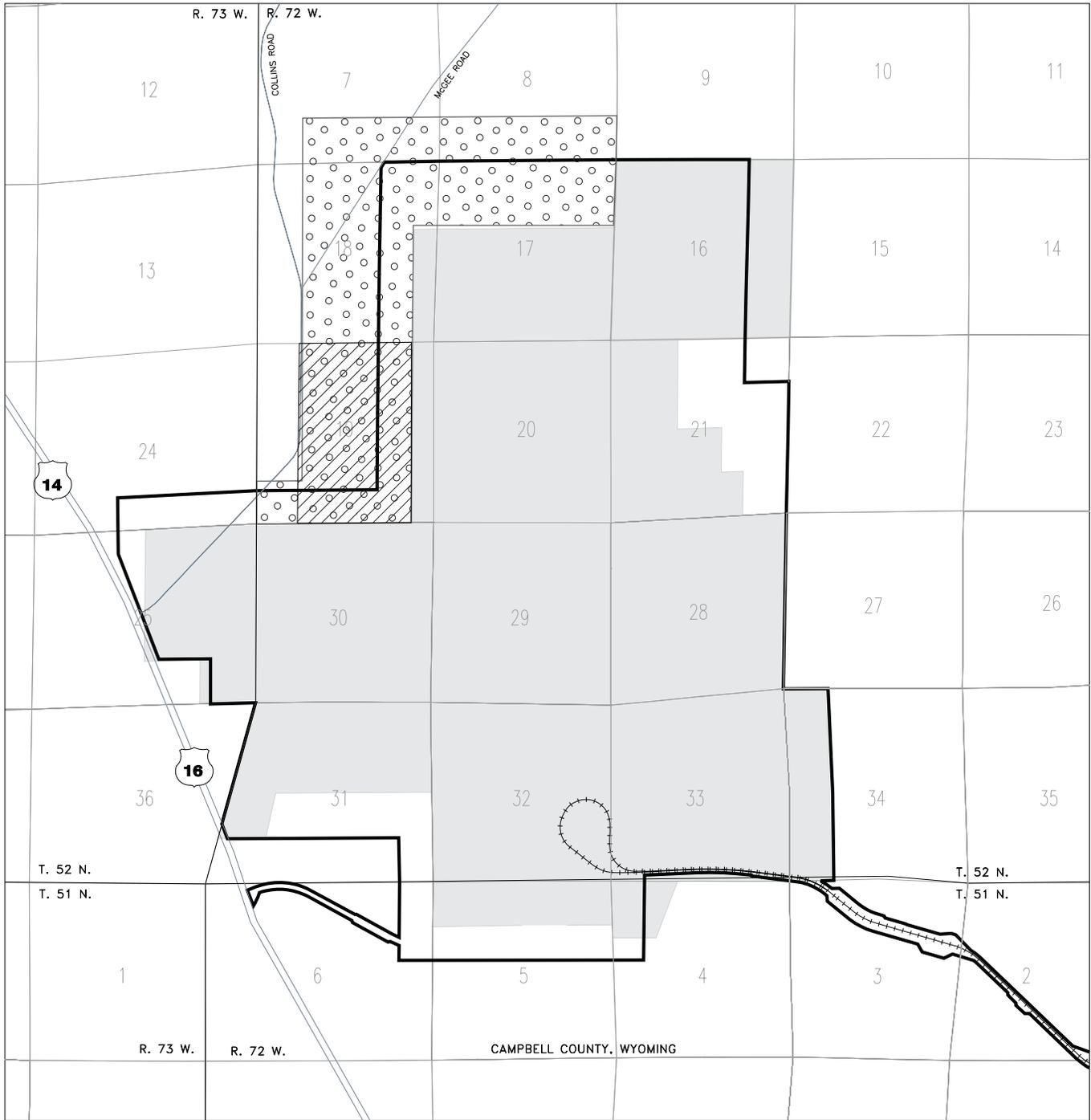
As noted, the BLM leasing process does not authorize mining of federal coal reserves; applicants must first obtain permits to retrieve the coal from appropriate federal and/or state agencies. However, because mining is a logical consequence of issuing a maintenance lease to an existing operation, the impacts of mining the coal are considered in this EIS. All impacts identified in this analysis are addressed as part of the permitting process administered by authorized state and/or federal agencies to insure that they are adequately mitigated.

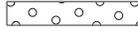
² A detailed description of the decertification process is provided in the glossary in chapter 7.



No warranty is made by the Bureau of Land Management for the use of the data for purposes not intended by BLM.

Map 1-1
General Location Map with Federal Coal Leases and LBA Tracts



-  Existing permit boundary
-  Applicant proposed tract
-  Applicant original (March 2006) tract
-  Existing Buckskin Mine coal leases
-  Buckskin Mine rail spur

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Map 1-2
Applicant Proposed and Original (March 2006) Tracts

The LBA process by law and regulation is open, public, and competitive. A coal lease is issued to the highest bidder at the sale, if a federal sale panel determines that the high bid meets or exceeds the fair market value of the coal as determined by the BLM’s economic evaluation, and if the U.S. Department of Justice determines that no antitrust violations would result from issuing the lease to the high bidder. In return for receiving a lease, a lessee must make the following payments to the federal government: 1) a bonus equal to the amount it bid at the time the lease sale was held (the bonus can be paid in five yearly installments); 2) annual rental payments; and 3) royalty payments when the coal is mined. Federal bonus, rental, and royalty payments are currently divided between the state in which the lease is located and the U.S. Treasury at a 49% and 51% ratio, respectively.

Since the Powder River Federal Coal Region was decertified in 1990, 22 federal coal leases have been sold at competitive sealed-bid sales and 3 exchanges of federal coal in the Wyoming portion of that region have been completed (table 1-1). This is the second application for a maintenance coal tract submitted by the Buckskin Mine since decertification (table 1-1 and map 1-1). Table 1-2 summarizes the 11 lease applications that are currently pending.

Table 1-1. Coal Leases Issued and Exchanges Completed Since Decertification of the Federal Coal Region in 1990, Powder River Basin, Wyoming

LBA Name (Lease Number) Applicant Mine Current Lessee Effective Date	Acres Leased ^a	Mineable Tons of Coal ^a	Successful Bid (in dollars)
LEASES ISSUED			
Jacobs Ranch LBA (WYW-117924) Jacobs Ranch Mine Jacobs Ranch Coal Co. 10/1/1992	1,708.620	147,423,560	20,114,930.00
West Black Thunder LBA (WYW-118907) Black Thunder Mine Thunder Basin Coal Co. 10/1/1992	3,492.495	429,048,216	71,909,282.69
North Antelope Rochelle LBA (WYW-119554) North Antelope and Rochelle Mines Powder River Coal Co. ^b 10/1/1992	3,064.040	403,500,000	86,987,765.00
West Rocky Butte LBA (WYW-122586) No Existing Mine ^c Caballo Coal Co. 1/1/1993	463.205	56,700,000	16,500,000.00
Eagle Butte LBA (WYW-124783) Eagle Butte Mine Foundation Wyoming Land Co. ^d 8/1/1995	1,059.180	166,400,000	18,470,400.00
Antelope LBA (WYW-128322) Antelope Mine Antelope Coal Co. ^e 2/1/1997	617.200	60,364,000	9,054,600.00

Table 1-1. Continued

LBA Name (Lease Number) Applicant Mine Current Lessee Effective Date	Acres Leased ^a	Mineable Tons of Coal ^a	Successful Bid (in dollars)
North Rochelle LBA (WYW-127221) North Rochelle Mine Ark Land Co. 1/1/1998	1,481.930	157,610,000	30,576,340.00
Powder River LBA (WYW-136142) North Antelope Rochelle Mine Powder River Coal Co. ^b 9/1/1998	4,224.225	532,000,000	109,596,500.00
Thundercloud LBA (WYW-136458) Jacobs Ranch Mine Thunder Basin Coal Co., LLC 1/1/1999	3,545.503	412,000,000	158,000,008.50
Horse Creek LBA (WYW-141435) Antelope Mine Antelope Coal Co. ^e 12/1/2000	2,818.695	275,577,000	91,220,120.70
North Jacobs Ranch LBA (WYW-146744) Jacobs Ranch Mine Jacobs Ranch Coal Co. 5/1/2002	4,982.240	537,542,000	379,504,652.00
NARO South LBA (WYW-154001) North Antelope Rochelle Mine BTU Western Resources, Inc. 9/1/2004	2,956.725	297,469,000	274,117,684.00
West Hay Creek LBA (WYW-151634) Buckskin Mine Kiewit Mining Properties, Inc. 1/1/2005	921.158	142,698,000	42,809,400.00
Little Thunder LBA (WYW-150318) Black Thunder Mine Ark Land LT Co. 3/1/2005	5,083.500	718,719,000	610,999,949.80
West Antelope LBA (WYW-151643) Antelope Mine Antelope Coal Co. ^e 3/1/2005	2,809.130	194,961,000	146,311,000.00
NARO North LBA (WYW-150210) North Antelope Rochelle Mine BTU Western Resources, Inc. 3/1/2005	2,369.380	324,627,000	299,143,785.00
West Roundup LBA (WYW-151134) North Rochelle Mine West Roundup Resources, Inc. 5/1/2005	2,812.510	327,186,000	317,697,610.00

Table 1-1. Continued

LBA Name (Lease Number) Applicant Mine Current Lessee Effective Date	Acres Leased ^a	Mineable Tons of Coal ^a	Successful Bid (in dollars)
Eagle Butte West LBA (WYW-155132) Eagle Butte Mine Foundation Wyoming Land Co. ^d 2/20/2008 ^f	1,427.770	255,000,000	180,540,000.00
South Maysdorf (Mt. Logan) (WYW-174407) ^g Cordero Rojo Cordero Mining Co. 4/22/2008	2,900.240	288,081,000	250,800,000.00
North Maysdorf (Mt. Logan) (WYW-154432) ^g Cordero Rojo Cordero Mining Co. 1/29/2009	445.890	54,657,000	48,098,424.00
West Antelope II North (WYW-163340) ^h Antelope Mine Antelope Coal, LLC Coal Lease Sale 5/11/2011	2,837.630	350,263,000	297,723,228.00
West Antelope II South (WYW-177903) ^h Antelope Mine Antelope Coal, LLC Coal Lease Sale 6/15/2011	1,908.600	56,356,000	49,311,500.00
Total Leases Issued	53,929.870	6,188,181,776	3,509,478,179.69
EXCHANGES COMPLETED			
EOG (Belco) I-90 Lease Exchange (WYW-150152) EOG Resources (formerly Belco) ⁱ I-90 Lease Exchanged for New Lease 4/1/2000	599.170	106,000,000	Lease rights to Belco I-90 Lease (WYW0322794)
Pittsburgh & Midway Coal Exchange (WYW-148816) Pittsburgh & Midway Coal Mining Co. Private Land Exchanged for Federal Coal 1/27/2005	2,045.530	84,200,000	6,065.77 acres of land and some minerals in Lincoln, Carbon, and Sheridan Counties, Wyoming
Powder River Coal Company Gold Mine Draw (WYW-003397 and WYW-83394) Powder River Coal Co. ^p AVF Coal Lease 6/30/2006	623.000	47,700,000	Lease rights to 921.6 acres of leased federal coal underlying an AVF exchanged for adjacent bypass coal
Total Exchanges Completed	3,267.70	237,900,000	

Table 1-1. Continued

LBA = lease by application AVF = alluvial valley floor

- ^a Information from sale notice.
- ^b Name changed to Powder River Coal, LLC in August 2006 and Peabody Powder River Mining, LLC in 2011.
- ^c The West Rocky Butte LBA was originally leased to Northwestern Resources Company. The lease has been assigned and incorporated into the Caballo Mine.
- ^d Ownership of the Eagle Butte Mine and Belle Ayr Mine changed from Foundation Coal West, Inc., to Alpha Coal West, Inc. as of July 31, 2009. Notification of new ownership was submitted to the BLM in August 2009.
- ^e Notification of a name change to Antelope Coal, LLC was submitted to the WDEQ in August 2008.
- ^f Sale date.
- ^g The applied-for LBA (original and modified) was classified under one serial number (WYW-154432) until a later determination was made to split it into North and South.
- ^h The applied-for LBA (original and modified) was classified under one serial number (WYW-163340) until a later determination was made to split it into North and South.
- ⁱ The EOG Resources Belco Exchange lease is now owned by the Buckskin Mine.

Source: BLM Lease by Application Data Sheets (BLM 2009a).

Table 1-2. Pending Coal Leases by Application, Powder River Basin, Wyoming

LBA Name (Lease Number) Applicant Mine	Application Date	Acres as Applied for	Estimated Coal ^a as Applied for (million tons)	Status
Belle Ayr North (WYW-161248) Belle Ayr Mine	7/6/2004	1,578.74	191.90	Final EIS available 8/20/2009 Record of Decision available 7/30/2010
North Hilight Field (WYW-164812) Black Thunder Mine	10/7/2005	2,613.50	263.40	Final EIS available 7/30/2010 Record of Decision in preparation
South Hilight Field (WYW-174596) Black Thunder Mine	10/7/2005	1,976.69	213.60	Final EIS available 7/30/2010 Record of Decision available 3/4/2011
West Hilight Field (WYW-172388) Black Thunder Mine	1/17/2006	2,370.52	377.90	Final EIS available 7/30/2010 Record of Decision in preparation
West Coal Creek (WYW- 172585) Coal Creek Mine	2/10/2006	1,151.26	57.00	Final EIS available 8/20/2009 Record of Decision available 6/10/2011
Caballo West (WYW-172657) Caballo Mine	3/15/2006	777.49	81.80	Final EIS available 8/20/2009 Record of Decision available 8/6/2010
West Jacobs Ranch (WYW-172685) Jacobs Ranch Mine	3/24/2006	5,944.37	669.60	Final EIS available 7/30/2010 Record of Decision in preparation

Table 1-2. Continued

LBA Name (Lease Number) Applicant Mine	Application Date	Acres as Applied for	Estimated Coal ^a as Applied for (million tons)	Status
Hay Creek II (WYW-172684) Buckskin Mine	3/24/2006; Modified 5/19/2008, 11/28/2008, and 9/3/2010	419.04	77.2	Draft EIS available 3/12/2010 Public hearing 4/22/2010 Final EIS available 7/29/2011
Maysdorf II (WYW-173360) Cordero Rojo Mine	9/1/2006	4,653.84	474.50	Final EIS available 8/20/2009 Record of Decision in preparation
North Porcupine (WYW-173408) North Antelope Rochelle Mine	9/27/2006; Modified 10/12/2007	5,795.78	601.20	Final EIS available 7/30/2010 Record of Decision in preparation
South Porcupine (WYW-176095) North Antelope Rochelle Mine	9/29/2006; Modified 10/12/2007	3,185.96	309.70	Final EIS available 7/30/2010 Record of Decision in preparation
Total LBAs Pending		30,467.19	3,317.80	

LBA = lease by application; EIS = environmental impact statement

^a Estimated tons of in-place or mineable coal, as reported in the lease application, or of recoverable coal as reported by the applicant, depending on the mine.

Source: BLM Lease by Application Data Sheets (BLM 2009a).

1.1.3 Existing Buckskin Mine

1.1.3.1 General Description

The WDEQ approved the current Buckskin Mine permit (Permit 500 Term T7) on May 22, 2006. The existing Buckskin Mine permit area is approximately 8,011.5 acres and encompasses previously permitted federal and state coal leases (5,877.9 and 659.5 acres, respectively). Map 1-3 shows the proposed tract in relation to the existing mine permit area and leases.

Approximately 6,727.8 acres is expected to be disturbed by activities related to extracting existing coal reserves. The total anticipated disturbance area exceeds the leased area because of the need for mine support activities, described below in section 1.1.3.3. The permit area is larger than the leased or disturbed area to ensure that all disturbed lands are within the permit boundary and to allow for an easily defined legal land description.

As of December 2008, Kiewit estimates the in-place coal reserves in the existing Buckskin Mine leases to be 460.9 million tons, of which 344.3 million tons are recoverable. Through December 2008, the mine had produced a total of 339.8 million tons of coal. Annual production averaged 20.6 million tons over the previous seven years, with a maximum of 25.3 million tons in any single year (Buckskin Mining Company 2002, 2003, 2004, 2005, 2006, 2007, 2008, and 2009). The Buckskin Mine's current air quality permit, as approved by the WDEQ, allows mining of as much as 42 million tons of coal per year. Kiewit estimates that the average annual production at

the mine after January 1, 2009, will be 25 million tons per year. If production continues at that rate, Kiewit estimates that the post-2008 recoverable reserves at the Buckskin Mine would be depleted within approximately 14 years.

Surface ownership within the existing permit area is private. Existing land uses in the proposed tract include rangeland livestock grazing, wildlife habitat, pastureland, dryland cropland, and coal bed natural gas (CBNG) development. All oil and gas production facilities located in the proposed tract are also privately owned. Surface ownership is discussed further in section 1.5 and section 3.11; ownership of oil and gas estates is discussed in section 3.11.

1.1.3.2 Mine Facilities and Employees

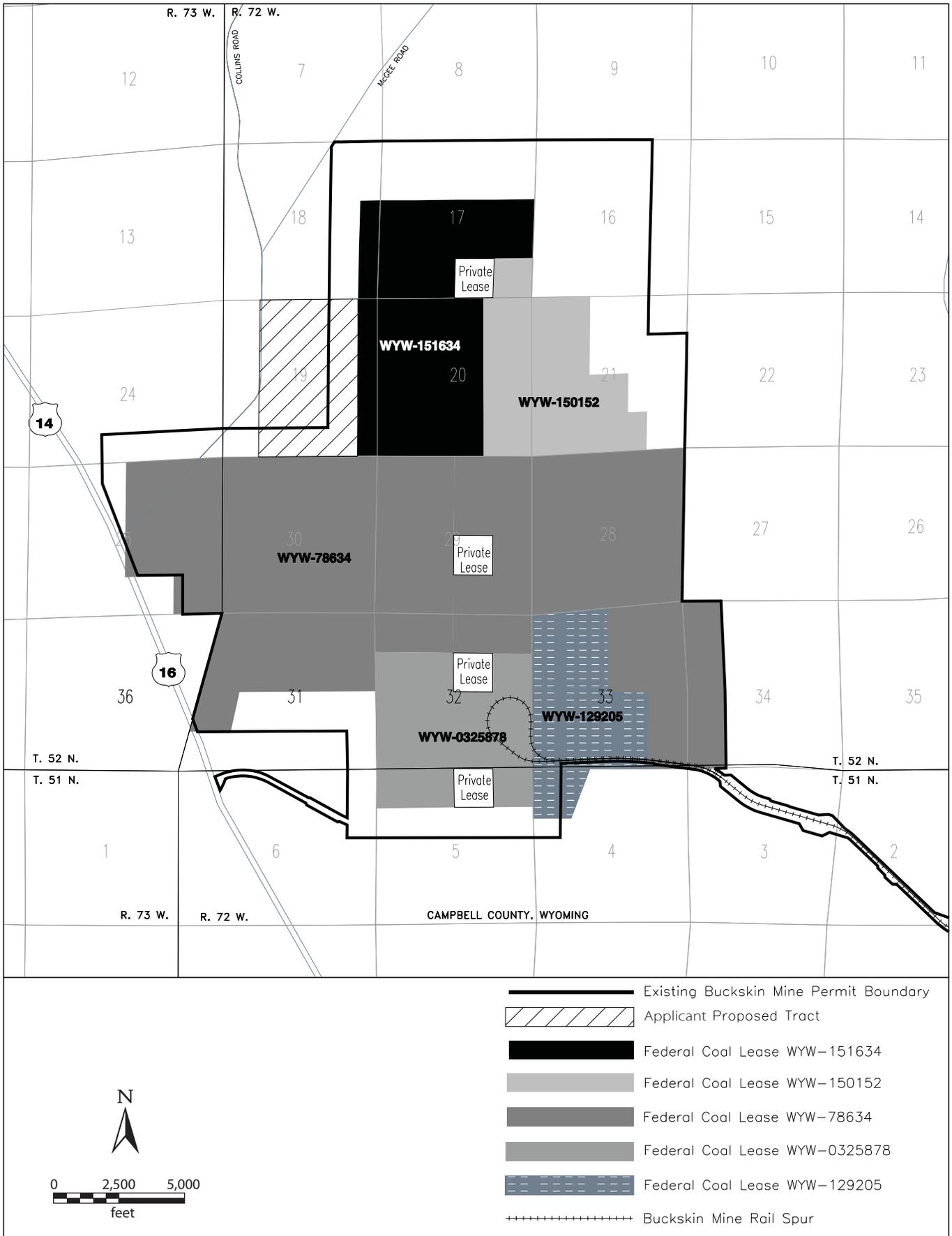
The Buckskin Mine uses one coal crushing facility, which is located at the coal preparation plant. Five active coal storage silos are currently in use at the mine. These facilities provide the capacity to produce, store, and distribute coal at the permitted tonnage. All coal transfer location points and crushing operations are controlled by baghouse-type dust collectors or passive enclosure control systems. The truck dumping operation uses a stilling shed to control fugitive dust. While sufficient production and storage capacity currently exist at the Buckskin Mine, future modifications to those facilities may be implemented to improve operating efficiency and air quality protection.

The Buckskin Mine work force currently totals 338 employees. Kiewit is seeking 10 additional employees to meet staffing needs for existing operations.

1.1.3.3 Mining Methods and Activities

Prior to disturbance and in advance of mining, mine support structures such as roads, power lines, substations, and flood- and sediment-control measures are built as needed, and any public utility lines and oil and gas pipelines are relocated, as necessary. During mining, disturbance typically occurs beyond the lease as a result of mine support activities including, but not limited to, highwall reduction, topsoil stripping, stockpile storage, matching reclaimed topography to premining contours, and constructing flood- and sediment-control structures.

The first step of the mining process is soil salvage with suitable heavy equipment such as rubber-tired scrapers. Topsoil—the upper portion of soil that is usually darkly colored and rich in organic material—is removed during initial pit development. Whenever possible, topsoil is hauled from salvage areas and placed directly on recontoured lands, but some topsoil is temporarily stockpiled due to scheduling for later use in pit closure and reclamation. If stockpiling is necessary, topsoil is immediately seeded with a temporary plant mix approved by the WDEQ to provide vegetative cover and prevent wind and water erosion.



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Map 1-3
Buckskin Mine's Existing Federal Coal Leases and Applicant Proposed Tract

After soil salvage operations are complete, overburden removal is conducted primarily with truck/shovel fleets. Other equipment used during this phase includes dozers, scrapers, excavators, front-end loaders, graders, and water trucks. When necessary, blasting is used to loosen the overburden; however, the Buckskin Mine does not use cast blasting to move overburden. Blast holes are drilled down through the overburden—the rock and soil above the coal seam, excluding topsoil—to the top of the upper-most mineable coal seam. The drill holes are then loaded with explosives—a mixture of ammonium nitrate and fuel oil—and detonated to fragment the overburden to facilitate efficient excavation. Overburden is placed directly into already mined pits or stockpiled for later use as backfill. The perimeter of the open pit consists of sheer highwalls with vertical heights equal to the combined depth of the overburden, the coal seam, and interburden—the layer of sedimentary rock that separates two mineable coal beds—if present. If necessary, streams are diverted into temporary channels around active mining areas or contained in temporary reservoirs to prevent pits from being flooded.

Coal is currently produced at the Buckskin Mine from two coal seams, the Anderson (averaging 45 feet thick) and the Canyon (averaging 70 feet thick). The blasting and shovel/truck fleet methods used to remove overburden are also used to recover the coal. Coal is mined at several working pit faces at the same time to enable blending of the coal to meet customer quality requirements, to comply with the BLM lease requirements for maximum economic recovery of the coal resource, and to optimize coal removal efficiency with available equipment. Exposed coal seams are cleaned with a dozer, drilled, and blasted to facilitate efficient excavation. Coal is loaded with electric-powered shovels or hydraulic excavators into off-highway haul trucks for transport to the coal preparation plant. Coal haul roads are temporary structures constructed in the mine areas. Haul roads are watered and sprayed with dust suppressant to protect air quality.

Coal from the Buckskin Mine is sold to a variety of domestic power utilities in an open market and is shipped by commercial rail to the purchasing utilities; none of the coal from the mine is used in power plants currently located in the PRB or sold to international markets.

1.1.3.4 Reclamation Activities

Reclamation activities follow mining activities according to the WDEQ-approved reclamation plan. A direct permanent impact of coal mining is topographic moderation. Mined-out areas must be reclaimed to the original contours or other topographic configurations approved by the WDEQ to the extent possible. All topographic features such as upland draws, channel bottoms, and elevations are reconstructed to closely mimic premining conditions and ensure proper drainage of water across the reclaimed backfill. While the postmining topography is similar to the premining topography, it is typically gentler and more uniform in appearance. The removal of the coal is temporarily and partially offset by the swelling that occurs when overburden and interburden are blasted, excavated, and backfilled; the influence of swelling is diminished or lost once the backfill has settled. Any disturbed drainages are reclaimed to follow premining patterns. In-channel stockponds and playas (shallow topographic depressions) are replaced to provide livestock and wildlife watering sources. As indicated, all postmining topography, including reconstructed drainages, must be approved by the WDEQ. After mining, the land is

reclaimed to support the premining uses described in section 1.1.3.1. Oil and gas wells, pipelines, and utility easements are reestablished as required.

Most overburden is placed directly into areas where coal has already been removed. Replaced overburden is graded to reflect an approved postmine surface contour, as required by WDEQ and OSM rules. Elevations consistent with an approved postmining topography plan are established as quickly as possible. Once the overburden has been replaced and recontoured, it is sampled and analyzed to verify its suitability as subsoil. Material found to be unsuitable for use in reestablishing vegetation or that could affect groundwater quality due to high concentrations of certain parameters, such as selenium or adverse pH levels, is either removed and treated or adequately covered with suitable overburden material prior to depositing topsoil. Under certain conditions, the postmining topography is not immediately achievable. This occurs when an excess material requires temporary stockpiling, when insufficient material is available from current overburden removal operations, or when future mining could redisturb an area already mined.

Once the postmining topography has been completed, the regraded backfill is ripped to relieve soil compaction. Topsoil is then redistributed using rubber-tired scrapers or haul trucks, dozers, and blades and a seedbed is established by ripping or plowing the soil. Once topsoil preparation is completed, it is immediately seeded using native grasses, forbs, and shrubs that are consistent with the postmining land use. Permanent reclamation must be seeded with WDEQ-approved seed mixes. Reseeded areas are monitored for a minimum of 10 years to evaluate the success of vegetation growth and the establishment of a variety of plant species prior to the final (Phase III) release of the reclamation bond. Other parameters, such as successful use of reclaimed areas by livestock and wildlife, also must be demonstrated before Phase III bond release is achieved. All reclamation goes through rigorous monitoring and a process of success verifications dictated by the WDEQ before any bonds are released on reclaimed lands.

Chapter 4, Section 2(b)(i) of the WDEQ Coal Rules and Regulations requires that rough backfilling and grading follow coal removal as closely as possible based on the mining conditions. According to a recent OSM evaluation of the Wyoming coal mining industry, the 2007 reclamation-to-disturbance ratio was approximately 80% (12,258 total acres reclaimed versus 15,321 total acres disturbed) (OSM 2008). The remaining 20% of disturbance consists of long-term facilities and infrastructure such as coal storage silos and processing plants, roads, and rail lines. Those lands will be reclaimed when mine operations cease and all infrastructure has been removed from the site. The WDEQ also requires that mining companies post a reclamation bond on all acres disturbed by their activities within their own permit boundary. The bond must be large enough to cover the cost of completing reclamation, should the company default on its obligations. One major condition for receiving Phase III bond release is to document that the reclaimed area has achieved the vegetative cover and production, and plant species diversity equal to a predetermined native comparison area, the reference area. For example, if shrubs were present during baseline vegetative inventories, the reclaimed area must also have a shrub density of one plant per square meter over 20% of the area. The Buckskin Mine has a vigorous annual

program of vegetation monitoring to ensure that reclamation efforts are proceeding in a positive manner to achieve final bond release.

Land Status categories are calculated on an annual basis and reported in the Annual Report to the WDEQ. The parameters of each phase of bond release are described in detail in WDEQ Guideline 20, available on the agency's website at <http://deq.state.wy.us/lqd/guidelines>.

Table 1-3 provides a general summary of reclaimed acreages at the Buckskin Mine and their respective stages of bond release. As of December 31, 2008, Buckskin had disturbed approximately 3,815 acres over the life of the mine, of which about 1,035 (27.3%) are associated with long-term mining facilities that will not be reclaimed until all mining operations have ceased. Approximately 1,256 (33%) of the 3,815 disturbed acres had been permanently reclaimed through that year. Approximately 4,018 acres and 1,271 acres were disturbed and reclaimed, respectively, through 2009. Because the analyses for the draft EIS were performed using data collected through 2008, data from 2009 is not included in further discussions in this document with the exception of certain specific resources in response to public comments on the draft EIS.

Permanently reclaimed areas refer to all affected lands that have been backfilled, graded, re-topsoiled, and permanently seeded according to approved practices specified in the WDEQ approved Reclamation Plan for the mine. Permanently reclaimed lands must then meet various benchmarks associated with vegetative conditions as well as wildlife and livestock grazing before they achieve Phase III bond release.

Reclaimed lands often fall into multiple bond release categories at the same time due to two primary factors: the overlap between activities in a given reclamation area; and the time-lag between reclamation actions, such as reseeding with permanent seed mixes, and responses to those actions (e.g., vegetation growth and production) necessary to receive Phase III bond release. Consequently, the reclaimed acreages shown in table 1-3 for three phases of bond release do not add up to the total 1,256 acres of reclaimed land through 2008.

To achieve Phase III Bond Release, reclaimed lands must also support the postmining land use (i.e., domestic livestock grazing and wildlife use), as determined through grazing trials and by monitoring wildlife use during the reclamation period. At the Buckskin Mine, reclamation is typically grazed by fencing multiple fields together to create a larger pasture; multiple pastures are sometimes also combined. The mine first began grazing cattle in 1998 and continued grazing efforts in 9 of the 10 subsequent years (1999 through 2008). The number of cattle grazed during a given period ranged from 107 to 200 during that period, with an average grazing time of 34 days (range 12 to 63 days) in a given pasture. Grazing cattle consisted primarily of cow-calf pairs, with a few bulls included in some years. Annual wildlife monitoring efforts at the Buckskin Mine are described in section 3.10, and have included reclaimed lands as they became established. The WGFD reviews the annual wildlife report each year to ensure that proper survey protocols have been followed and to monitor impacts to wildlife populations in the

vicinity of the surface coal mines in the PRB. That agency has not identified any deficiencies in the Buckskin Mine annual wildlife reports.

Table 1-3. Summary of Land Status Acreage at the Buckskin Mine through December 2008

Land Status	Acres	Approximate Percentages
Undisturbed areas	4,196	52% of 8,011 total acres in permit area
Disturbed areas	3,815	48% of 8,011 total acres in permit area
Long-term facilities ^a	1,035	27% of disturbance
Active mining and reclamation	1,525	40% of disturbance
Reclaimed land ^b	1,256	33% of disturbance
Phase I ^c bond release	1,212	96% of reclamation
Phase II ^d bond release	250	20% of reclamation
Phase III ^e final bond release	250	20% of reclamation

^a Long-term facilities includes stockpiles, hydrologic control structures, mine buildings, coal-loading facilities, the main access road, electrical substations, vehicle parking areas, the railroad loop, environmental monitoring areas, and other similar structures and features that will not be reclaimed until all mining operations have ceased.

^b Reclaimed land refers to previously disturbed areas that have been planted with permanent seed mixes.

^c Phase I refers to areas where backfilling, re-grading, topsoil replacement, contouring, and drainage control have been completed in a bonded area in accordance with the mine's approved reclamation plan.

^d Phase II refers to areas that have achieved Phase I release, and also have vegetation species composition commensurate with that of the seed mix(es) and species composition required by the WDEQ-approved Reclamation Plan. Mines often go directly from Phase I to Phase III due to the overlap between Phase II and Phase III.

^e Phase III refers to lands that have been reclaimed to the approved postmine land use and with successful restoration of wildlife habitat; where revegetation performance standards, shrub establishment goals, and tree replacement requirements have been met; the postmining groundwater, and surface water quality and quantity support land uses; any approved postmining road types and corridors on evaluated acreage are in place and functional; and any temporary structures present on lands being evaluated have been removed.

1.1.3.5 Hazardous and Solid Waste

Wastes produced by current mining activities at Buckskin are handled according to the procedures described in WDEQ Mine Permit 500 Term T7, approved May 22, 2006. Solid waste produced at the existing Buckskin Mine consists of floor sweepings, shop rags, lubricant containers, welding rod ends, metal shavings, worn tires, packing material, used filters, and office and food wastes. A small portion (< 5%) of the solid wastes produced at the mine is disposed of within the Buckskin Mine permit boundary in accordance with WDEQ approved solid waste disposal plans. Solid waste is also disposed of at the Campbell County landfill. Sewage is handled by WDEQ-permitted sewage systems present within the existing mine facilities.

Maintenance and lubrication of most of the equipment takes place at existing shop facilities at the Buckskin Mine. Major lubrication, oil changes, and other maintenance operations for most equipment are performed inside the service building bays. Used oil and grease are contained and deposited in storage tanks in that building. All collected used oils and grease are then beneficially recycled off site or used for energy recovery.

The Buckskin Mine has reviewed the EPA's "Consolidated List of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Re-authorization Act (SARA) of 1986 (as amended)" and the EPA's "List of Extremely Hazardous Substances," as defined in 40 CFR 355 (as amended), for hazardous substances used at the mine. Hazardous substances are designated under Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended; extremely hazardous substances are listed in Section 302 of the Emergency Planning and Community Right to Know Act. The mine maintains files containing Material Safety Data Sheets for all chemicals, compounds, and/or substances that are or would be used during the course of mining.

The Buckskin Mine is responsible for ensuring that all production, use, storage, transport, and disposal of hazardous and extremely hazardous materials that occur as a result of mining activities are in accordance with all applicable existing or future federal, state, and local government rules, regulations, and guidelines. All mining activities involving the production, use, and/or disposal of hazardous or extremely hazardous materials are and would continue to be conducted to minimize potential environmental impacts.

The mine must also comply with emergency reporting requirements for releases of hazardous materials. Any release of hazardous or extremely hazardous substances in excess of the reportable quantity, as established in 40 CFR 117, is reported as required by CERCLA, as amended. The materials for which such notification must be given are listed in Section 302 of the Emergency Planning and Community Right to Know Act and Section 102 of CERCLA, as described above. If a reportable quantity of a hazardous or extremely hazardous substance is released, immediate notice is given to the WDEQ and all other appropriate federal and state agencies.

Each mining company is expected to prepare and implement several plans and policies to ensure environmental protection from hazardous and extremely hazardous materials. These plans/policies include:

- spill prevention control and countermeasure plans;
- spill response plans;
- stormwater pollution prevention plans;
- inventories of hazardous chemical categories pursuant to Section 313 of SARA, as amended; and
- emergency response plans.

In addition, all mining operations must comply with regulations promulgated under the Resource Conservation and Recovery Act, Federal Water Pollution Control Act (Clean Water Act), Safe Drinking Water Act, Toxic Substances Control Act, Mine Safety and Health Act, and the CAA. In addition, mining operations must comply with all attendant state rules and regulations relating to hazardous material reporting, transportation, management, and disposal.

Compliance with these regulations is the current practice at the Buckskin Mine. Kiewit's acquisition of the proposed tract or alternative tract configuration would not change these practices, nor the type and quantity of any wastes generated and disposed of by the mine.

1.2 Purpose and Need for Action

As described in section 1.1.1, the purpose of the Proposed Action is to extend the life of existing operations at the Buckskin Mine. The Proposed Action would not expand operations at the Buckskin Mine, but would maintain current levels of production and extend the life of the mine by approximately two years³. The permitting process that follows the lease sale takes approximately five years to complete. Kiewit is applying for the federal coal reserves in the proposed tract now so that it can secure coal resources to market, enter into new contracts, and complete the permitting process in time to mine the new lease in a logical progression.

More broadly, the Proposed Action responds to the continued demand for coal in the United States, primarily for the purpose of generating electricity. According to the U.S. Energy Information Administration (2008a), the United States has the world's largest known coal reserves. Demand for this coal is driven by the electric power sector, which accounts for about 92% of coal consumption (U.S. Energy Information Administration 2008a, 2008b).

Approximately half of the electricity currently generated in the United States comes from coal (U.S. Department of Energy 2009a). Wyoming coal is used to generate electricity in 37 other states (Wyoming Mining Association 2009).

The Energy Policy Act of 2005 directs federal agencies to undertake efforts to ensure energy efficiency and the production of secure, affordable, and reliable domestic energy. A primary goal of the National Energy Policy is to increase domestic energy supplies from diverse sources such as oil, gas, coal, hydropower, wind, solar, and nuclear power in a long-term effort to reduce the United States' dependence on foreign energy sources. The BLM recognizes that the continued extraction of coal is essential to meet the nation's future energy needs and goals. Consequently, private development of federal coal reserves is integral to the BLM's coal leasing program under the authority of the Mineral Leasing Act of 1920, as well as the Federal Land Policy Management Act (FLPMA) and the Federal Coal Leasing Amendments Act of 1976. Under FLPMA, the BLM is mandated to manage public lands for multiple-use so that the lands are utilized in the combination that will best meet the present and future needs of the American people. FLPMA authorizes the BLM to manage the use, occupancy, and development of public lands through leases and permits (43 CFR 2710).

Management—leasing, mining, and selling—of federal coal resources in the PRB contributes to a reliable supply of coal for electric power generation in the United States. The low-sulfur compliance coal from the PRB enables coal-fired power plants to meet current CAA requirements and increasing demand without potentially significant increases in power costs

³ Assuming that coal production would continue at the most recent (2008) average annual coal production rate of 25 million tons per year.

while new technologies are developed to improve efficiency and reduce emissions. Management of federal coal resources in the PRB also generates revenue—in the form of bonus, annual rental, and royalty payments—that is used to fund numerous infrastructure and social projects in Wyoming.

1.3 Regulatory Authority and Responsibility

The authorities and responsibilities of the BLM and other concerned regulatory agencies are described in this section, including a detailed description of the permitting process that follows BLM leasing of federal coal reserves.

The Hay Creek II application was submitted and will be processed and evaluated under the following federal authorities:

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

As described previously, the BLM is the lead agency responsible for leasing federal coal reserves under the Mineral Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act in 1976. The BLM is also responsible for preparing this EIS to evaluate the potential environmental impacts of issuing a coal lease and the subsequent mining of that coal, which would be the logical outcome of any leasing action. As part of the EIS and leasing processes, the BLM also has a responsibility to consult with and obtain the comments and assistance of cooperating agencies, such as the OSM and WDEQ, as well as other state and federal agencies that have jurisdiction by law or special expertise with respect to potential environmental impacts.

After a federal coal lease is issued, the SMCRA gives the OSM primary responsibility to administer programs that regulate surface coal mining operations, as well as the surface effects of underground coal mining operations. Pursuant to Section 503 of the SMCRA, the WDEQ developed a permanent program authorizing that agency to regulate surface coal mining operations and surface effects of underground mining on nonfederal lands within Wyoming. In November 1980, the Secretary of the Interior approved that program. In January 1987, pursuant to Section 523(c) of the SMCRA, the WDEQ entered into another cooperative agreement with the Secretary of the Interior authorizing the WDEQ to regulate surface coal mining operations and surface effects of underground mining on federal lands within the state; no federal surface is included in any of the analysis areas for the Hay Creek II EIS.

The net result of those actions was to give the WDEQ the authority to serve as an agent of the OSM to issue permits to mine coal in Wyoming. Before a newly leased area can be disturbed, the lessee must submit an extensive permit application package to the WDEQ to amend the current permit document to include any proposed coal mining and reclamation operations associated with the newly leased coal reserves. That agency acts as the conduit for distributing the package to other divisions within the WDEQ, as well as other state and federal agencies with a vested interest or cooperator status in the permitting process and future impacts of mining.

The WDEQ carefully reviews the permit application package to ensure that it complies with the permitting requirements, and that the coal mining operation will meet the performance standards of the approved Wyoming program. The BLM and other state and federal agencies also review the application package to ensure that it complies with the terms of the coal lease, applicable state requirements, the Mineral Leasing Act, NEPA, and other state and federal laws and their associated regulations.

If the permit application package complies, the WDEQ issues a permit to the applicant to conduct coal mining operations. The final permit application document and the actual permit are then submitted to OSM, which recommends approval, approval with conditions, or disapproval of the Mineral Leasing Act mining plan to the Assistant Secretary of the Interior, Land and Minerals Management. Before the mining plan can be approved, the BLM must approve the Resource Recovery Protection Plan for mining the tract.

If a proposed LBA tract is leased to an existing mine, the lessee is required to revise its coal mining permit before the coal can be extracted, following the processes outlined above. As a part of that process, a detailed new plan must be developed showing how the newly leased lands would be mined, mitigated, and/or reclaimed. The total disturbance area typically exceeds the leased area because of the need for mine support activities, described in section 1.1.3.3. As noted, the mining, mitigation, and reclamation plans must all be approved by appropriate state and federal agencies before mining can proceed in newly leased coal tracts. All special provisions within the existing permit document, such as species-specific protective measures for plant and animal species of concern, also apply to additional lands within new coal tracts.

The WDEQ enforces the performance standards and permit requirements for reclamation during a mine's operation and has primary authority in environmental emergencies. The OSM retains oversight responsibility over the WDEQ for this enforcement. Appendix A presents other federal and state permitting requirements that must be satisfied to mine the proposed tract.

1.4 Relationship to BLM Policies, Plans, and Programs

In addition to the federal acts listed under section 1.3, guidance and regulations for managing and administering public lands—including the federal coal reserves in the Kiewit application—are set forth in 40 CFR 1500 (Protection of Environment), 43 CFR 1601 (Planning, Programming, Budgeting), and 43 CFR 3400 (Coal Management).

Specific guidance for processing applications follows BLM Manual 3420, *Competitive Coal Leasing* (BLM 1989) and the 1991 *Powder River Regional Coal Team Operational Guidelines for Coal Lease-By-Applications* (BLM 1991). The *National Environmental Policy Act Handbook* (BLM 2008b) has been followed in developing this EIS.

1.5 Conformance with Existing Land Use Plans

The Federal Coal Leasing Amendments Act of 1976 requires that lands considered for leasing be included in a comprehensive land use plan and that leasing decisions be compatible with that plan. The *BLM Approved Resource Management Plan (RMP) for Public Lands Administered by the Bureau of Land Management Buffalo Field Office* (BLM 2001), governs and addresses the leasing of federal coal in Campbell County. The 2001 document is an update of the previous *Buffalo Resource Area RMP* (BLM 1985), and will be referred to as the 2001 RMP update throughout this EIS.

The major land use planning decision that the BLM must make concerning federal coal resources is a determination of which coal reserves are acceptable for further consideration for leasing. The BLM uses four screening procedures to identify these coal reserves. These screening procedures require the BLM to:

- estimate the development potential of the federal coal reserves;
- apply the unsuitability criteria listed in the regulations at 43 CFR 3461;
- make decisions related to multiple land uses that eliminate federal coal deposits from consideration for leasing to protect other resource values; and
- consult with surface owners who meet the criteria defined in the regulations at 43 CFR 3400.0-5(gg)(1) and (2).

Only those federal coal reserves that pass these screens receive further consideration for leasing. The BLM has applied these coal screens to federal coal reserves in Campbell County several times, beginning in the early 1980s. In 1993, the BLM began the most recent process of reapplying these screens in Campbell, Converse, and Sheridan counties in eastern Wyoming. This screening analysis process, which includes the portion of Campbell County where the proposed tract is located, was adopted in the 2001 RMP update, and the results were included as Appendix D of that update. That document can be viewed in the 2001 documents section on the Wyoming BLM website at: <http://www.blm.gov/rmp/WY/application/index.cfm/rmpid=101>.

Under the first coal screening procedure, a coal tract must be located within an area that has been determined to have coal development potential in order to be acceptable for further consideration for leasing (43 CFR 3420.1-4(e)(1)). In the coal screening analyses published in its 2001 RMP update, the BLM identified the proposed tract as being in an area with this coal development potential.

The second screening procedure requires the application of coal mining unsuitability criteria listed in the federal coal management regulations (43 CFR 3461). The coal mining unsuitability criteria were applied to lands in the PRB with high to moderate coal development potential, including the proposed tract and adjacent coal reserves identified by the BLM, during the coal screening conducted for the 2001 RMP update. Appendix B of this EIS summarizes the unsuitability criteria, describes the general findings for the 2001 RMP update, and presents a validation of these findings for the proposed tract, as well as adjacent unleased federal coal reserves. Chapter 2 provides detailed descriptions of the proposed tract and those adjacent coal reserves, as well as the result of the review of the unsuitability criteria specific to both areas. As indicated in appendix B, several criteria will be further evaluated during the leasing process.

The third coal screening procedure consists of a conflict analysis for multiple-use activities on the lands associated with the coal reserves that are under consideration for leasing. In accordance with 43 CFR 3420.1-4(e)(3), that analysis must be completed to identify and “eliminate additional coal deposits from further consideration for leasing to protect resource values of a locally important or unique nature not included in the unsuitability criteria.” The 2001 RMP update addresses two types of multiple land-use conflicts: municipal/residential conflicts and multiple mineral development (coal versus oil and gas) conflicts. The proposed tract does not lie within or near an identified buffer zone surrounding an existing community; therefore, no federal coal reserves within that tract configuration have been eliminated from further consideration for leasing due to municipal/residential conflicts.

The 2001 RMP update includes two decisions related to multiple mineral development conflicts in Campbell, Converse, and Sheridan counties. With respect to oil and gas leasing in coal mining areas, it determined that oil and gas tracts that would interfere with coal mining operations would not be offered for lease but that, where possible, oil and gas leases would be issued with specific conditions to prevent a development conflict with coal mining operations. With respect to coal leasing in oil and gas fields, the 2001 RMP update states that coal leasing in producing oil and gas fields would be deferred unless or until coal development would not interfere with the economic recovery of the oil and gas resources, as determined on a case-by-case basis.

The BLM’s evaluation of the potential for conflict with the development of oil and gas resources within the proposed tract is discussed in section 3.3. The BLM’s policy and guidance on conflicts between surface coal mining and CBNG development is to optimize the recovery of both resources and to ensure that the public receives a reasonable return, as explained in BLM Instruction Memorandum No. 2006-153 (BLM 2006a).

The fourth coal screening procedure requires consultation with surface owners who meet the criteria defined in the regulations at 43 CFR 3400.0-5(gg)(1) and (2)⁴. Surface owner consultation was conducted as part of the coal screening analyses published in the 2001 RMP update. Private surface owners in the Gillette coal development potential area (including Campbell County and northern Converse County) were provided the opportunity to express their preference for or against surface mining of federal coal under their private surface estate during that screening. At that time, no attempt was made to distinguish qualified surface owners. Appendix D of the 2001 RMP update states that “no area should be dropped from further consideration for leasing as a result of responses received from surface owners.” Therefore, no federal coal reserves within the proposed tract have been eliminated from further consideration for leasing due to qualified surface owner conflicts at this time.

Private surface owners who are found to be qualified must consent to leasing before the BLM can offer the underlying federal coal reserves for lease. The BLM will review the current surface ownership in the final tract configuration. Prior to offering any tract for lease, consent to leasing must be provided for any lands held by any qualified surface owner.

In summary, the proposed tract has been subjected to the four coal planning screens and determined acceptable for further consideration for leasing. Thus, a decision to lease the federal coal reserves in this application would be in conformance with the 2001 RMP update.

1.6 Consultation and Coordination

1.6.1 Initial Involvement

The BLM received the Hay Creek II coal lease application on March 24, 2006. The BLM, Wyoming State Office, Division of Minerals and Lands, initially reviewed the application and ruled that the application and lands involved met the requirements of regulations governing coal leasing on application (43 CFR 3425).

On September 18, 2006, the BLM Wyoming State Director notified the Governor of Wyoming that Kiewit had filed a lease application with the BLM for the proposed tract. The PRRCT reviewed this lease application at a public meeting held in Casper, Wyoming, on April 19, 2006, following Kiewit’s presentation about the existing Buckskin Mine and the pending lease application for the proposed tract. The PRRCT recommended that the BLM continue to process this application. The major steps in processing a coal LBA, including permitting steps once the lease is issued, are shown in appendix C.

The BLM published a notice of intent to prepare an EIS and a notice of public meeting in the *Federal Register* on Friday, December 21, 2007. The publication announced the time and location of a public scoping meeting and requested public comment on the application. Letters

⁴ Chapter 7 includes a definition of the term “qualified surface owner,” based on these regulations.

requesting public comment and announcing the time and location of the public scoping meeting were mailed to all parties on the distribution list.

The BLM published a notice of public scoping meeting in the *Federal Register* and *Gillette News-Record* newspaper. A BLM news release announcing preparation of the Hay Creek II coal lease application EIS was issued on January 17, 2008. The public scoping meeting was held on January 31, 2008, in Gillette, Wyoming. At the public meeting, the BLM presented information and accepted public comments about the application.

Chapter 5 provides a list of all federal, state, and local governmental agencies that were consulted in preparation of this EIS, all contributors to and reviewers of the information provided in this document, and the distribution list for this EIS.

1.6.1.1 Issues and Concerns

Issues and concerns expressed by the public and government agencies relating to the potential impacts of leasing the proposed tract, specifically, and/or to previous coal lease applications in general include:

- potential conflicts between coal mining and both existing and proposed conventional oil and gas development and CBNG development;
- potential cumulative impacts of coal leasing decisions combined with other existing and proposed development in the PRB;
- validity and currency of resource data;
- potential impacts on public access;
- potential impacts on cultural and paleontological resources;
- potential impacts on greater sage-grouse and other wildlife;
- potential impacts on threatened and endangered species and other species of concern;
- potential impacts on wetland resources;
- potential impacts related to coal loss during transport;
- potential impacts on air quality (including cumulative impacts on visibility);
- potential impacts on surface and groundwater quality and quantity;
- potential impacts of and possible mitigation for nitrogen oxide emissions resulting from blasting of coal and overburden;
- potential impacts on human health;
- the need to include reasonably foreseeable actions such as the construction and operation of the Dakota, Minnesota & Eastern Railroad and power plants in the cumulative analysis;
- the need to address coal combustion residues and other byproducts from coal-fired power plants;

- the need to address increasing coal production in the PRB in the cumulative analysis;
- the need to lease enough coal that the revenues generated are sufficient for use in the local community;
- the need to address site-specific greenhouse gas emissions; and
- climate change.

1.6.1.2 Draft Environmental Impact Statement

Copies of the draft EIS were sent to all parties on the distribution list and copies were made available for review at the BLM offices in Casper, Buffalo, and Cheyenne, Wyoming. The document was also made available for review on the BLM Wyoming website at: <http://www.blm.gov/wy/st/en/info/NEPA/cfodocs/HayCreekII.html>.

The EPA published a notice in the *Federal Register* on March 12, 2010, announcing the availability of the draft EIS. A 60-day comment period on the draft EIS commenced with publication of that notice. The BLM also published a notice of availability/notice of public hearing in the *Federal Register* on March 12, 2010. That notice announced the date and time of a public hearing to be held during the 60-day comment period. The purpose of the hearing, held in Gillette, Wyoming on April 22, 2010, was to solicit public comments on the draft EIS and on the fair market value, maximum economic recovery, and proposed competitive sale of federal coal from the proposed tract. The BLM also published a notice of public hearing in the *Gillette News-Record* and other local newspapers.

1.6.1.3 Final Environmental Impact Statement

All substantive written comments received on the draft EIS have been included, with corresponding responses from the BLM, in appendix D of this final EIS. Both the BLM and the EPA will publish a notice of availability of the final EIS in the *Federal Register*. After a 30-day availability period, the BLM will make a decision to hold or not to hold a competitive lease sale for the federal coal reserves within the LBA area.

1.6.2 Future Involvement

1.6.2.1 Record of Decision

The record of decision (ROD) for the tract is mailed to all parties on the mailing list and others who commented on the draft EIS during the comment period. Members of the public and/or the applicant can appeal the BLM decision to hold or not to hold a competitive sale and issue a lease for the final tract configuration. An appeal of the BLM's decision must be filed within 30 days from the date that the notice of availability for the ROD is published in the *Federal Register*. The decision can be implemented at the end of the 30-day appeal period, if no appeal is received. If a competitive lease sale is held, it will follow the procedures set forth in 43 CFR 3422, 43 CFR 3425, and BLM Handbook H-3420-1 (Competitive Coal Leasing).

1.6.2.2 U.S. Department of Justice Consultation

After a competitive coal lease sale is held, but before the lease is issued, the BLM must solicit the opinion of the U.S. Department of Justice on whether the planned lease issuance creates a situation inconsistent with federal antitrust laws. The Department of Justice has 30 days to make this determination. If the Department of Justice has not responded in writing within the 30 days, the BLM can issue the lease.