INFORMATION/BRIEFING MEMORANDUM
FOR THE ASSISTANT SECRETARY – LAND AND MINERALS MANAGEMENT

DATE: February 9, 2017
FROM: Kristin Bail, Acting Director, Bureau of Land Management (BLM)
SUBJECT: Input to Leadership on Five Promising Areas for Coal Leasing and Development, Production Trends, Leasing Information and Regulation/Administrative Challenges and Opportunities

The purpose of this memorandum is to provide an overview of the status of coal mining in the U.S. and the state of the coal mining industry. Specifically, the memorandum addresses the following questions: 1) What are the five areas in the U.S. where coal leasing and development is most promising? 2) How much coal mining is occurring in the U.S. and where is it occurring? 3) What are we doing in the way of regulatory activity and how is that impacting coal mining? 4) What coal companies are still in business? 5) How can we spur coal mining in the US?

BACKGROUND

The BLM's coal program was audited by both the Office of the Inspector General (OIG) and the Government Accountability Office (GAO) with reports published in 2013. A total of 21 recommendations were made by the audits covering topics of transparency, royalty rate reductions, inspection & enforcement and coal leasing & exports. All recommendations were corrected and both audits have been closed.

In 2016 at the direction of the then Secretary of the Interior through Secretarial Order (S.O.) 3338, the BLM began a Programmatic Environmental Impact Statement (PEIS) of the Federal coal program. The S.O. directed the BLM to address the topics of; 1) how, when and where to lease; 2) fair return; 3) climate impacts of coal production and combustion; 4) socio-economics; 5) exports; and 6) energy needs of the nation. Along with development of the PEIS, S.O. 3338 directed the BLM to stop issuing new Federal coal leases during this process, with limited exclusions and exceptions.

As of the end of Fiscal Year 2016 (FY16), the BLM managed over 306 coal leases in 11 states.

DISCUSSION

What are the five areas in the U.S. where coal leasing and development is most promising?
The BLM was asked to identify five areas within the United States where coal leasing and development are most promising, including, but not limited to, areas where leasing and operations are ongoing and reserves are located. The five areas that were identified to be the most promising for coal leasing and development, in order from greatest to least promise, include the Powder River Basin, Unita-Piceance Basin, Green River Basin, San Juan Basin, and areas of Oklahoma and North Dakota. Attachment 1 provides a detailed summary of each of these areas and Attachment 2 depicts Coal Fields within the lower 48 states.

How much coal mining is occurring in the U.S. and where is it occurring?
In Calendar Year 2015[1], the U.S. produced approximately 895 million tons of coal. Of that total, approximately 383 million tons were produced from Federal leases. Attachment 3 shows total and Federal production by state for 2015. Over 42 percent of all coal produced in the U.S. comes from Federal leases. The Powder River Basin (PRB) of Wyoming and Montana produces the greatest amount of coal, most of which is Federal. Other significant areas of Federal coal production include the Uinta-Piceance Basin, Green River Basin, and the San Juan Basin (Attachment 2). Outside of the PRB, most U.S. production comes from the Illinois Basin and the Central and Northern Appalachian Basins of Alabama, Illinois, Kentucky, Pennsylvania and West Virginia. The majority of these states' production is from private coal, though there is some limited Federal leasing and production in Alabama and Kentucky.

Total U.S. and Federal production has been in steep decline in recent years. Total U.S. production is down approximately 25 percent and Federal production is down approximately 37 percent from peak production in 2008 of 1,186 and 480 million tons, respectively.

What are we doing in the way of regulatory activity and how is that impacting coal mining?
Federal coal is leased in one of two ways. The first is the lease-by-application (LBA) process whereby an applicant applies to lease a specific tract of Federal coal, the lease for which ultimately is offered in a competitive lease sale. The second is the non-competitive lease modification application (LMA) process whereby an existing leaseholder may request that a tract of Federal coal be added to its lease if it meets certain regulatory requirements showing, among other things, that the tract would not be of competitive interest and would otherwise be permanently bypassed.

At the end of FY16, the BLM administered 306 coal leases. As of February 1, 2017, the BLM is processing 28 LBAs and 16 LMAs in six state offices (Attachment 4). As shown, seven of these leasing actions have been placed on hold by the applicant due to economics (four in Wyoming, two in Colorado and one in Montana).

Presently, the only regulatory actions being pursued by the BLM with respect to coal leasing are related to the S.O. 3338 and the PEIS. While no rule makings have been initiated from the PEIS at this time, the administrative pause on coal leasing directed by the Secretary while the PEIS is being prepared has effectively halted a number of leasing actions and the acceptance of new leasing applications (with very limited exceptions).

In addition to the PEIS and leasing pause, the results of recent audits by the OIG and the GAO required the BLM to coordinate with the Office of Valuation Services (OVS), in preparing the pre-lease sale estimate of the fair market value (FMV). The FMV is used to establish the minimum acceptable bid for which a lease may be sold, either competitively or through non-competitive lease modifications. The new process in place with OVS has added approximately six to eight months to the most recent sales.

[1] Data on coal production for the United States is collected by the Energy Information Administration and is reported in calendar years. Federal coal production is collected by the Office of Natural resources Revenue and is reported in fiscal years.

Federal coal leasing in the PRB has the additional regulatory requirement of consulting with and deferring to the Regional Coal Team (RCT) with respect to whether an LBA should be processed in a public forum. The RCT is an independently-functioning advisory board of the BLM and is comprised of the BLM Wyoming (Chairman) and Montana State Directors, the BLM Wyoming Deputy State Director for Minerals and Lands, and the Governors of Wyoming and Montana. This additional regulatory requirement typically adds several months or more to the processing time for leasing.

What coal companies are still in business?
Currently, there are 34 companies with either existing Federal leases or applications pending with the BLM (Attachment 5). The top three coal mining companies, Peabody Energy (Peabody), Arch Coal (Arch), and Alpha Natural Resources (Alpha), all filed for Chapter 11 bankruptcy protection in 2015 or 2016. Arch and Alpha have both emerged from Chapter 11. Peabody is still in bankruptcy proceedings. Peabody, Arch and Alpha companies represent nearly half of all U.S. coal production.

How can we spur coal mining in the U.S.?
Federal coal leasing is demand-driven, and invigoration of Federal coal leasing depends to a large extent on the national coal markets for electrical generation, a factor beyond the control of the BLM. Some factors that are within the control of the Department of the Interior and identified as potential pathways to encourage leasing include:

1. <u>Remove regulatory and administrative burdens and uncertainty through:</u>

    a. Lifting the pause on coal leasing mandated by S.O. 3338

Lifting the pause would provide assurance that coal will be made available to lease in a timely manner after site-specific environmental analyses (environmental impact statements or environmental assessments) are completed.

    b. Re-evaluate the relationship and roles of the BLM and the OVS in the preparation of the pre-lease sale estimates of the FMV. This would include ways to streamline the process and ensure there are adequate resources to meet the intended objective.

    c. Streamline Mine Plan Decision Document (MPDD) Approval Process

After the BLM leases the coal, the lessee still needs to get approval to mine the coal from the Office of Surface Mining, Reclamation and Enforcement (OSMRE). Historically, the OSMRE (or the states with primacy) wait until after a lease is issued before moving forward with its review. This generally takes two years, in addition to the time it takes to issue a lease.

    d. Revisit the need for the PRB RCT

Consistent with input received during the scoping for the PEIS, it may be timely to revisit the need for the PRB RCT. Since notification to the Governors when leasing actions are undertaken is already a regulatory requirement, and both Governors are generally in favor of coal leasing, the RCT meetings are generally redundant. Furthermore, the National Environmental Policy Act (NEPA) requires robust public involvement at various stages of the leasing process, so having a public meeting before work on processing an application has even begun does not provide the public much in terms of additional information.

2. Reduce the amount of time it takes from application to lease sale

While some of the above recommendations intended to decrease industry uncertainty will also reduce the amount of time needed to process a lease application, additional reductions could also be gained through:

a. Streamlining the internal approval process to reduce delays associated with publication of the many required public notices in the Federal Register

There are five points in the leasing process (when an EIS is prepared) that generate a Federal Register Notice (FRN). Combined, the review time for these notices is approaching two years. Expediting and prioritizing these reviews, removing redundant layers of review, and establishing mandatory review time limitations could significantly reduce the time it takes from application to lease sale, providing industry more certainty in its long-term planning.

Similar review times occur for other coal-related actions, such as requests for concurrence on approvals of royalty rate reductions. Expediting reviews of these often critical decisions, that may determine the economics of the production of certain tracts of Federal coal, would likewise help remove some of the uncertainty felt by industry.

b. Prioritizing and expediting site-specific NEPA analyses for lease and lease modification applications

Generally, the BLM does not have dedicated technical field staff that work only on processing coal leasing NEPA analyses. Most of the technical staff that is involved in the coal leasing NEPA process (e.g., wildlife specialists, natural resource specialists, archaeologists, etc.) is concurrently tasked with other important work, such as supporting grazing permit renewal, granting of rights-of-way, and resource management planning. Adding capacity at the field level to enable staff to be dedicated to coal leasing NEPA analyses could potentially cut a year or more off the time it takes to complete an EIS.

c. Fund and perform national modeling of coal markets and regional air quality modeling to provide a baseline for site-specific NEPA analyses.

One of the significant factors that adds time to the NEPA process is the modeling that needs to be completed for socioeconomics and air quality assessments. Because coal leasing is performed under cost recovery, the BLM has not recently performed any regional models that could be used to support these NEPA documents. Having these models available to incorporate or tier to in site-specific NEPA analyses would likely be a significant time savings in the leasing process.

d. Update policy and procedural handbooks.

While the BLM revised two key manuals and handbooks in the last several years (covering coal evaluation and inspection, enforcement, and production verification), the program is still working from some policies developed in the late 1980s. It can be difficult for new personnel or, in some cases, seasoned staff to know how they should proceed in any one particular aspect of the program.

NEXT STEPS

The intent of this memorandum is to provide information and next steps have not been identified at this time.

Attachments:
1. Five Promising Areas for Coal Leasing and Development
2. United States Total and Federal Coal Production by State in 2015
3. Coal Fields of the Lower 48 States
4. Summary of Pending Leasing Applications
5. Companies with Existing Federal Leases or Pending Federal Applications

Attachment 1: Five Promising Areas for Coal Leasing and Development

1. **Powder River Basin (PRB) (Northeast Wyoming and Southeast Montana)**
    - 85% of Federal coal comes from reserves in this area.
    - Most mine development in this area has occurred since 1975.
    - Coal is sub-bituminous used primarily for electric power production.
    - Supports 10 mines in Wyoming and 3 mines in Montana.
    - Currently all low cost surface mining.
    - Low production costs and considerable transportation infrastructure support continued production in this area and supply reaching electrical power plants across the United States.

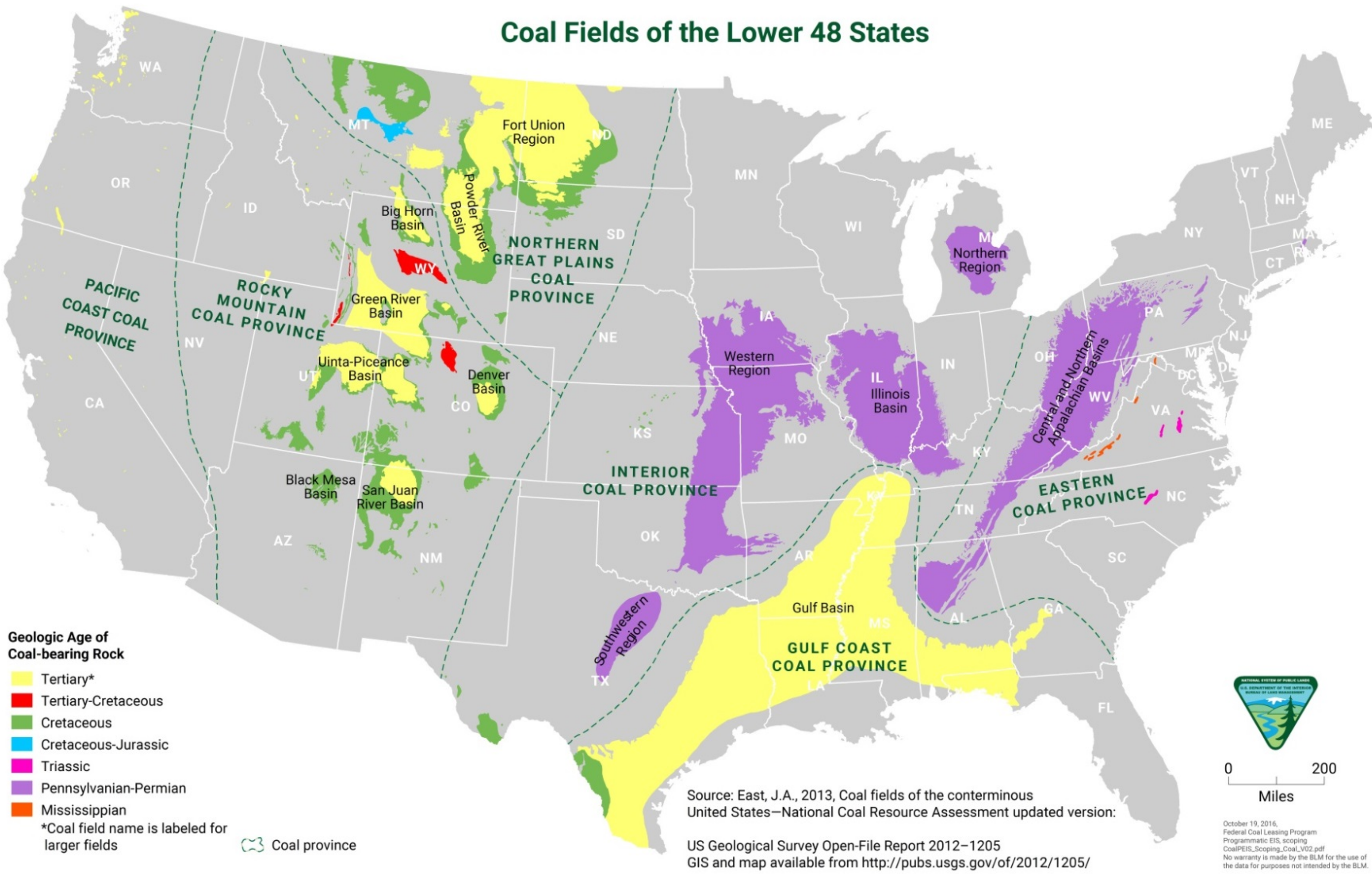
2. **Unita-Piceance Basin (East-Central Utah and Western Colorado)**
    - Long history of coal production.
    - High quality bituminous coal that commands high prices and can sustain high production and transportation cost.
    - Primarily used for electric power production but some may be chemically suitable for use in steelmaking.
    - Almost all production from high cost underground mining.
    - Locally important source of energy due to limited transportation infrastructure (i.e., typically not transported to the extent PRB coal is).

3. **Green River Basin (Southwest Wyoming and Northwest Colorado)**
    - Long history of coal production.
    - High quality bituminous coal, which demands higher prices and can sustain higher production and transportation cost.
    - Almost all production from high cost underground mining.
    - Locally important source of electric power production due to limited transportation infrastructure.

4. **San Juan Basin (Northwest New Mexico and Southwest Colorado)**
    - Coal production primarily used for local electric power production.
    - Mixture of surface and underground mining.
    - Power plants in the area are under pressure to reduce or close.
    - Poor infrastructure to move coal to other markets.

5. **Other areas**
    - Other areas with lesser leasing potential include Oklahoma, North Dakota, and sporadic hold areas of Federal coal deposits and mines in the eastern United States.
    - Typically development of Federal resources in these areas is dependent on development of adjoining non-Federal resources.

Attachment 2: Coal Fields of the Lower 48 States



Attachment 3: United States Total and Federal Coal Production by State in 2015 (Tons)

	Total	Federal	Fed % of Total
Alabama	13,191,000	36,210	0.27%
Alaska	1,177,000	0	
Arizona	6,805,000	0	
Arkansas	91,000	0	
Colorado	18,879,000	11,539,780	61.12%
Illinois	56,101,000	0	
Indiana	34,295,000	0	
Kentucky	61,425,000	32,550	0.05%
Louisiana	3,439,000	0	
Maryland	1,922,000	0	
Mississippi	3,143,000	0	
Missouri	138,000	0	
Montana	41,864,000	22,006,307	52.57%
New Mexico	19,679,000	7,392,787	37.57%
North Dakota	28,802,000	5,317,809	18.46%
Ohio	17,041,000	0	
Oklahoma	780,000	614,839	78.83%
Pennsylvania	50,031,000	0	
Tennessee	897,000	0	
Texas	35,918,000	0	
Utah	14,419,000	12,266,194	85.07%
Virginia	13,914,000	0	
West Virginia	95,633,000	0	
Wyoming	375,773,000	323,635,582	86.13%
Total	**895,357,000**	**382,842,058**	**42.76%**

Attachment 4: Summary of Pending Leasing Applications

State Office	LBA	Approx. Acreage	Estimated Tons (M)	LMA	Approx. Acreage	Estimated Tons (M)
CO	2	15,538	87.0	4	2986	16.7
ES	6	16,210	57.5	--	--	0
MT	5	5,497	430.1	3	620	31.3
NM	4	9,596	11.3	5	3,050	5.17
UT	3	13,048	125.8	--	--	0
WY	8	17,863	2077.0	4	1,717	52.3
Total	28	77,752	2788.7	16	8,373	105.5

Six of the LBAs (2 in CO and 4 in WY) are on hold per the applicant's request.
Four of the LMAs (2 in CO and 4 in WY) are in litigation.
One LMA in MT is on hold per the applicant's request.

Attachment 5: Companies with Existing Federal Leases or Pending Federal Applications

Company Name	**State(s) with the lease and/or pending application**
Alton	UT
Antelope	WY
Belle Ayr West	WY
Best Coal	AL
Black Butte	WY
BNI	ND
Bridger	WY
CAM-Colorado	CO
Czar Coal	KY
Deadman Wash	WY
Decker Coal Company	MT
Evans Coal Co	OK
Falkirk Mining Company	ND
Farrell Cooper Mining Company	OK
GCC Energy	CO
Georges Colliers Inc.	OK
Greens Hollow	UT
Hay Creek II	WY
Haystack	WY
Maysdorf II South	WY
Mining System Corp	OK
Mountain Coal	CO
New Elk Coal Co.	CO
North Hilight	WY
OURO Mining	AR, OK
Peabody	CO
Rawhide	WY
Spring Creek Mining Company	MT
Warrior Met Coal	AL
West Antelope III	WY
West Hilight	WY
Western Energy	MT
Westmoreland Coal	OH
Williams Draw	UT