Environment Assessment

Finding of No Significant Impact
November 1, 2016 Competitive Lease Sale Parcels
DOI-BLM-WY-D040-2016-0138-EA

November 2016

BLM

High Desert District Office

The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

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Environmental Assessment

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INTRODUCTION:

The Bureau of Land Management (BLM) has prepared an Environmental Assessment (EA) (DOI-BLM-WY-D040-2016-0138-EA) to address offering certain lease parcels within the High Desert District (HDD) in Carbon, Sweetwater, Sublette, Lincoln, and Uinta counties at the November 1, 2016 BLM Wyoming Competitive Oil and Gas Lease Sale. Under the Proposed Action, the BLM would offer for sale twenty-one (21) parcels, containing approximately 30,197.030 acres of Federal minerals. These parcels are located in a combination of Priority Habitat Management Areas (PHMA) (6 parcels) and General Habitat Management Areas (GHMA) (15 parcels) for the Greater Sage Grouse (GSG), administered by the Kemmerer, Rawlins, Pinedale, and Rock Springs Field Offices (FOs). Standard terms and conditions as well as parcel specific timing limitation, no surface occupancy, and controlled surface use stipulations have been attached to the parcels as specified through the EA to be issued. Lease stipulations were added to each parcel consistent with the HDD FO Resource Management Plans (RMP), as amended by the Wyoming Approved Resource Management Plan Amendment for Greater Sage-Grouse (ARMPA) t and Record of Decision (ROD)

Two whole parcels and one partial parcel in the Rawlins Field Office are closed to leasing and are not available for competitive lease sale. These parcels, totaling 1,368.360 acres, are closed to leasing because they are inside the Upper Muddy Creek Watershed/Grizzly WHMA: Parcel WY-1611-001 (containing 648.360 acres), Parcel WY-1611-002 (containing 80.000 acres), and partial Parcel WY-1611-003 (containing 640.000 acres). The RFO Record of Decision (ROD) and Approved Resource Management Plan (RMP) states that “The area is closed to new oil and gas leasing.”

Parcels 32 through 105 (74 parcels) in the Rock Springs Field Office, containing 155,366.85 acres in the Wind River Front and South Pass areas, are deferred pending completion of the Rock Springs RMP Revision. These parcels were not analyzed in detail in the EA.

Forty-three (43) whole parcels, containing approximately 71,816.700 acres (See Appendix A), are located within the Rock Springs Field Office. The BLM has exercised its discretion and determined that it is appropriate to defer these parcels from the set of the preliminary parcels analyzed in detail in the Environmental Assessment for the November 2016 oil and gas lease sale. These deferrals are consistent with the BLM's sage grouse conservation plans and strategy, which direct the BLM to prioritize oil and gas leasing and development in a manner that minimizes resource conflicts in order to protect important GSG habitat and reduce development time and costs. Based on the foregoing, these parcels are deferred through State Director discretion. These parcels were not analyzed in detail in this EA and are not discussed further.

As a result, total deferrals under State Director Discretion are approximately 228,551.910 acres; this acreage could be offered at a future sale.

Even though several of the nominated parcels were deferred, and not analyzed in detail, the Proposed Action would offer 21 whole or partial parcels containing approximately 30,197.030 acres, meets the EA's purpose and need (see the following excerpt from the EA):

> "*The BLM's purpose for offering parcels and subsequent issuance of leases in the November 1, 2016 lease sale is to provide for exploration and development of additional oil and gas resources to help meet the nation's need for energy sources, while protecting other resource values in accordance with guiding laws, regulations, and Land Use Planning decisions. Wyoming is a major source of natural gas for heating and electrical energy production in the United States. The offering for sale and subsequent issuance of oil and gas leases is needed to meet the requirements of MLA, FLPMA, and the minerals management objectives in the Pinedale, Kemmerer, Rawlins, Pinedale, and Green River Resource Management Plans (RMP), as amended (2015). Oil and gas leasing provides the opportunity to expand existing areas of production and to locate previously undiscovered oil and gas resources to help meet the public's energy demands.*
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> *Decisions to be made based on this analysis include which parcels would be offered for lease, which parcels would be deferred, which parcels are not available for leasing, and what stipulations will be placed on the parcels that would be offered for lease at the November 1, 2016 competitive lease sale.*"

In addition to the Proposed Action, a No Action Alternative was analyzed in the EA, and one other Alternative was considered but eliminated from detailed analysis. The EA for the November 1, 2016 Competitive Lease Sale is attached, as is a White Paper which discusses issues associated with the use of Hydraulic Fracturing (HF) which may be used in the oil and gas completion process. This HF White Paper was incorporated by reference into the EA, and subjected to public comment/review during the 30-day public comment period.

FINDING OF NO SIGNIFICANT IMPACT:

Based upon a review of the EA and the supporting documents (i.e., the governing land use plans and a White Paper that was incorporated by reference in to the EA-also circulated for public comment with the EA and Draft FONSI), I have determined that the project is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively, with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and identified impacts do not exceed those effects described in the Pinedale, Kemmerer, Rawlins, Pinedale, and Green River RMPs/Final Environmental Impact Statements (FEISs), as amended (2015). Therefore, an EIS is not required.

This finding is based on the context and intensity of the project as described:

Context:

The Proposed Action would occur within the Pinedale, Kemmerer, Rawlins, Pinedale, and Rock Springs FO boundaries and would have local impacts on the resources similar to and within the scope of those described and considered within the Pinedale, Kemmerer, Rawlins, Pinedale, and Green River RMPs, and their respective FEISs/Records of Decision (ROD), as amended (2015).

The project is an administrative action involving approximately 30,197.030 acres of BLM administered land and/or mineral estate. Certain resource considerations associated with the proposed lease parcels, such as Greater Sage-Grouse, lands with wilderness characteristics, and energy developments have state-wide, regional, and national importance. Site specific development of the parcels could occur in the future if the parcels are sold and leases issued. Some aspects of the assumed development process, have been addressed in this EA; however, other aspects of the development process are speculative at this time, and therefore, are not ripe for review under this EA, including, for example, whether a proposed development project would be protective of usable water zones. The BLM retains discretion to deny lease actions that are found to not be protective of usable water zones in accordance with regulations found at 43 CFR 3162.5-2(d) and Onshore Order #2. This discretion remains in place regardless of any lease stipulations that may be incorporated into a lease contract. Any proposal is authorized contingent upon compliance with all applicable Federal laws including the Clean Air Act, Clean Water Act, Endangered Species Act, etc.

Intensity:

The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and incorporated into resources and issues considered (includes supplemental authorities Appendix 1 H-1790-1) and supplemental Instruction Memoranda, statutes, regulations and Executive Orders.

The following have been considered in evaluating intensity for this proposal:

1. **Impacts may be both beneficial and adverse**.

   The Action/Alternatives would affect resources as described in the EA and in the base RMP environmental documents, as amended (2015). Direct beneficial impacts include socioeconomic inputs to the federal and state coffers from both the sale of the individual parcels and from future production of the minerals and these direct beneficial impacts trickle down through to the local governments. Adverse effects could also occur to federal, state and local governments should the parcels not be sold and developed. Adverse impacts could result to managed resources from the development of these parcels if they are sold and developed. Mitigating measures to reduce impacts to the various resources were incorporated in the design of the action alternatives and the stipulations that will be applied to the parcels (see Table 4 and Appendix B of the EA). Additional mitigation, including applicable required design features, for potential impacts would be identified at the site-specific level if and when development is proposed. The BLM retains discretion to deny the approval of future drilling/completion activities if they are found to violate a federal or state law, or if the proposal is not in compliance with regulations found at 43 CFR 3160 and various Onshore Orders and Notice to Lessee(s). None of the environmental effects associated with offering the proposed lease parcels for sale, as discussed in detail in the EA were determined to be significant, nor do the effects, both beneficial and/or adverse, exceed those described in the Pinedale, Kemmerer, Rawlins, Pinedale, and Green River RMPs and their respective FEISs/RODs, as amended (2015).

2. **The degree to which the selected alternative will affect public health or safety**.

   The Proposed Action, as modified following the 30-day public comment period, is to offer 21 lease parcels for sale. Several parcels contain lands with private surface

overlying federal minerals (i.e., split-estate), as identified in Table 3.1 of the EA. The private surface lands have the potential for development of private residences and associate facilities such as domestic water supply wells. Residences near active drilling and completion operations would likely experience increased traffic and noise, as well as night lighting. Traffic and drilling operations in close proximity to residences or public use areas may increase the potential for collisions with the public, the general workforce, pets, and livestock, as well as an increased potential for fire, hydrocarbon release, and explosion from well blow-out during drilling operations. Lease Notice No. 1 is applied to all parcels and restricts occupancy within ¼ mile of occupied dwellings for public safety.

The subject parcels are located distant from incorporated towns, are not located on agricultural lands, and exist in a rural landscape with limited developed recreation facilities but may be used for various dispersed recreational activities including but not limited to hiking, camping, and OHV uses. Noise, concentrated development activities and the potential emissions associated with development of the O&G resources may create a nuisance but the establishment of travel speeds, the imposition of timing limit and controlled surface use stipulations, compliance by the oil and gas companies with all OSHA related requirements, and the receipt of air quality emission permits from the WY Department of Environmental Quality would mitigate impacts. As well, all proposals would be reviewed for their potential to impact sources of usable waters and would be denied if their operations would not be protective of the resources as defined in 43 CFR 3160 and Onshore Order #2.

No other aspect of the action alternative would have an effect on public health and safety. If the parcels are subsequently sold and the leases enter into a development stage, public health or safety would be addressed in more detail through additional site specific analysis and compliance with state and federal laws and regulations, as required.

3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wilderness, wild and scenic rivers, or ecologically critical areas**.

There are no park lands, prime farm lands, congressionally designated wilderness areas, or wild and scenic rivers in or within proximity to any of the parcels to be offered for lease through the Proposed Action. Unique characteristics present within the project area are primarily historic and cultural resources. These characteristics have been deemed to be not affected by the action alternatives with mitigating measures as attached to the lease parcels. The proposed action is designed to offer lease parcels for sale. No aspect of the Proposed Action/Alternatives would have an effect on cultural resources at the lease sale or lease issuance stage. If the leases enter into a development stage, cultural resources would be further addressed through site specific NEPA.

Numerous parcels contain, adjoin, and/or are within the viewshed setting of one or more historic trails. Anticipated impacts to these resources are mitigated through a controlled surface use stipulation that restricts or prohibits surface use or disturbance unless a satisfactory plan to mitigate the potential impacts to public safety is developed.

A number of parcels do contain streams and riparian areas (wetlands), which would be protected through Lease Notice 1, which is attached to all parcels. An NSO prohibiting surface occupancy within 100 year floodplains has been attached to four parcels.

While certain parcels proposed to be offered at the November 1, 2016 oil and gas lease sale are located within areas with sensitive or important resources values, none have been determined to be within an ecologically critical area not previously analyzed. Additionally, mitigation in the form of lease stipulations has been applied to all parcels as determined through the Leasing EA, in conformance with their respective RMP, as amended (2015).

No parcels are located within a Wilderness Study Area.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Under 40 C.F.R. § 1508.27(b)(4), controversy is whether there is a scientific dispute about the level or nature of anticipated effects – not political controversy or expressions of opposition to the action or preference among the alternatives analyzed within the EA. Individual or groups of federal oil and gas leases have frequently been protested by a variety of non-governmental organizations based on their perceived environmental impacts associated with offering a specific parcel, which could be correlated to some level of public controversy, but as the Interior Board of Land Appeals has repeatedly noted, whether a proposed action/Alternatives are likely to be controversial is not a question about the extent of public opposition, but, rather, about whether a substantial dispute exists as to its size, nature or effect. See, e.g., *Oregon Natural Resources Council* 116, IBLA 355, 362 (1990) and the cases cited therein.

The BLM received nine letters or emails providing comments on the November 1, 2016 lease parcel EA prepared by the High Desert District. Comments pertained to a variety of issues including: big game habitat and migration routes, surface owner concerns over potential development on split estate lands and conservation easements, parcel deferrals, tax revenues from energy, reclamation and control of invasive plants, hydraulic fracturing, sage grouse, social cost of carbon, climate change, and lands with wilderness characteristics. This shows a varying level of concern, but does not demonstrate a substantial level of controversy within the meaning of 40 C.F.R. § 1508.27(b)(4). Concerns expressed over the November 1, 2016 Lease Sale are expected to be very similar to those expressed at previous lease sales. As the EA for the November 1, 2016 Oil and Gas Lease Parcels concludes, impacts to the quality of the human environment from the offering, sale, and issuance of the November 1, 2016 lease parcels are not expected to be significant, or beyond what has previously been addressed in the respective RMP EIS', as amended (2015).

Further, the lease parcels identified for offer under Alternatives B are within areas designated by the Kemmerer, Rawlins, Pinedale, and Green River RMPs, as amended (2015) as available for oil and gas leasing with the designated stipulations and are largely surrounded by valid existing lease rights. The existing RMP decisions were made through

an open, public process. Site specific evaluation will be conducted to address specific effects on resources and the need for additional mitigation at the time of development.

5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks**.

The lease sale, and the act of offering parcels for lease, is not unique or unusual. Oil and gas leasing and post-lease development have been ongoing in the United States, including portions of the High Desert District for more than a century. The BLM has experience implementing similar actions in similar areas. The environmental effects to the human environment are considered in the corresponding RMPs/FEISs/RODs, as amended (2015). Gas exploration and drilling operations are regulated for health and safety through other agencies of local, State and Federal government. Should there be discovered risks, these agencies would act accordingly. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks. One area of particular interest is the use of hydraulic fracturing (HF) in the oil and/or gas well completion process. The BLM recognizes there is a concern regarding HF operations, specifically the potential to impact drinking water supplies either from downhole migration, from spills on the surface, or the perceived potential for induced seismic activity. Everyone agrees that significant impacts to useable water resources must be avoided. This EA, through incorporation of an attached HF White Paper, has disclosed that there are adequate water supplies available in Wyoming to meet the reasonably foreseeable development scenarios described in each of the subject RMPs. There is still doubt whether HF results in induced seismic activity. Seismic activity in oil and gas development areas has repeatedly been shown to be associated with the reinjection of waste waters in disposal wells and/or through heavy pumping of groundwater combined with drought effects, and not related to HF. There is also uncertainty whether a HF operation is capable of inducing the formation of a fracture network capable of intersecting unknown faults or extending into a formation containing usable water supplies. To date, this has not been proven after decades of oil and gas development in Wyoming and recent studies by the EPA indicate that the possibility of fault reactivation creating a pathway to shallow groundwater resources is remote (EPA, Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources: Progress Report Dec 2012, pg 74*).*

Also, the Wyoming Oil and Gas Conservation Commission recently passed rules requiring both pre- and post-development groundwater sampling to document baseline groundwater conditions and to assess any subsequent changes in water quality post development. The BLM, at all times, with or without any applicable lease stipulations, has retained full authority to deny an APD whose proposed drilling/completion program would adversely impact usable water zones. This authority can be found at 43 CFR 3165-2(d), Onshore Order #2, and applicable laws and regulations. Again, our ability to analyze many of the potential site-specific drilling and completion impacts are limited, if not impossible, at the leasing stage; and therefore, are not ripe for review in this environmental document.

It is more appropriate to analyze drilling and completion operations and anticipated impacts at the site-specific level, when an APD has been submitted. Information that will be considered when an APD is submitted will include the following:

- The names and estimated tops of all geologic formations.
- The estimated depth and thickness of formations that contain, oil, gas, and useable water.
- The proposed casing program, including casing size, grade, weight, and setting depth of each casing string in order to properly isolate oil, gas, and useable water formations.
- Casing shoes must be set in competent formations in order to prevent fluid migration.
- The expected bottom-hole pressure, pressure anticipated during HF operations, any abnormal pressures, abnormal temperatures, or other potential hazards, such as lost circulation zones, or hydrogen sulfide.
- The type and volume of cement expected to be used in order to properly isolate all oil, gas, and useable water formations.
- The minimum specifications for blowout prevention equipment.
- Whether adequate spill prevention plans are in place
- The proposed wellbore path and HF design's potential for intersecting or compromising any nearby abandoned drill holes.
- Whether the proposed production zone is confined by competent strata overlying and underlying the producing zone to verify adequate separation between the production zone and usable water zones.
- Whether the proposed production zone is proposed within a formation containing usable water zones, or is known to interact with a zone containing freshwater and/or usable waters. If yes, whether the completion fluids contain hazardous or toxic materials which would render those waters unusable. The proposed completion program would also be reviewed to determine whether the completion fluids would include diesel; the use of diesel under the Safe Drinking Water Act, would require a Underground Injection Control permit from the Environmental Protection Agency.

As such, the degree of uncertainty and consideration of unknown or unique risks, does not rise to the level of significance requiring an EIS.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

This project neither establishes a precedent nor represents a decision in principle about future actions. The actions considered in the selected alternative were considered by the interdisciplinary team within the context of past, present, and reasonably foreseeable future actions. A decision to lease for the November 1, 2016 sale would not limit later resource management decisions for areas open to development proposals, many of which have extensive existing leaseholds (including PHMA and GHMA for the Greater Sage Grouse). Significant contributions to cumulative effects are not expected from the November 1, 2016 Lease Sale. Further, the decision to lease, even without an NSO over the entire lease, does not prevent BLM from denying all development of the lease if an Operator cannot submit an APD which would comply with all federal laws, rules and/or regulations including the requirements of 43 CFR 3162.5-2(d) and Onshore Order #2.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts - which include connected actions regardless of land ownership.

The EA did not reveal any cumulative effects beyond those already analyzed in the Kemmerer, Rawlins, Pinedale, and Green River RMPs/FEISs, as amended (2015). The interdisciplinary team evaluated the possible actions in context of past, present and

reasonably foreseeable actions. Significant cumulative effects are not expected beyond what has been analyzed in the underlying RMPs, as amended (2015).

8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places (NRHP) or may cause loss or destruction of significant scientific, cultural, or historical resources.**

   There are no features within the project area listed or eligible for listing in the NRHP that would be adversely affected by a decision to offer for sale the subject parcels. If the leases enter into a development stage, NRHP resources would be further addressed through site specific NEPA analysis. Known sites occurring in any the parcels that would be offered for sale are protected by either a controlled use or no surface occupancy stipulation.

9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973, or the degree to which the action November adversely affect: 1) a proposed to be listed endangered or threatened species or its habitat, or 2) a species on the BLM sensitive species list**.

   Refer to the individual parcel descriptions and to the sensitive species controlled surface use stipulations in Appendix B of the EA for a listing of the various sensitive species found in various parcels. Although listed species, or those found to warranted but precluded, may occupy habitat within a parcel, it has been determined that they will not be adversely affected because surface use restrictions, including timing limitation stipulations (TLS), no surface occupancy (NSO) stipulations, and controlled surface use (CSU) stipulations, will be applied to the lease parcels in conformance with the respective RMPs, as amended (2015). Furthermore, post-lease actions/authorizations (i.e., Application for Permit to Drill (APDs), road/pipeline Right-of-Ways (ROWs)), would be encumbered by TLS and CSU restrictions as applied, and through project-specific environmental clearance in consultation with the US Fish and Wildlife Service if T&E species are found.

   On September 21, 2015, the USFWS decided that the Greater Sage Grouse was not warranted for listing.

10. **Whether the action threatens a violation of a federal, state, local, or tribal law, regulation or policy imposed for the protection of the environment, where non-federal requirements are consistent with federal requirements.**

    The offering of the recommended parcels does not violate, or threaten to violate federal, state, local or tribal laws or requirements imposed for the protection of the environment. In addition, the lease sale is consistent with applicable land management plans, policies, and programs, and development of any leases subsequently granted is conditioned on compliance with all applicable laws and regulations.

_____ _____

Authorized Officer Date