



U.S. Department of the Interior  
Bureau of Land Management

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# Finding of No Significant Impact

2019 Second Quarter Competitive Lease Sale Parcels DOI-BLM-WY-0000-2019-0005-EA

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February 2019

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.

**DOI-BLM-WY-0000-2019-0005-EA**

**FINDING OF NO SIGNIFICANT IMPACT  
Environmental Assessment**

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**2019 Second Quarter Competitive Lease Sale**

**INTRODUCTION:**

The Bureau of Land Management (BLM) has prepared an Environmental Assessment (EA) (DOI-BLM-WY-0000-2019-0005-EA) to address offering 180 parcels within the High Desert District (HDD), the High Plains District and the Wind River/Bighorn Basin at the Second Quarter 2019 BLM Wyoming Competitive Oil and Gas Lease Sale (CLS) following the deletion of portions of two parcels.

Under the Proposed Action analyzed in the EA, the BLM would offer for sale 160 parcels, containing approximately 205,167 acres of Federal minerals. 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. Lease stipulations were added to each parcel consistent with the applicable Resource Management Plans (RMP) Records of Decision (ROD).

The Proposed Action meets the EA's purpose and need (see the following excerpt from the EA):

*It is the policy of the BLM as derived from various laws, including the Mineral Leasing Act of 1920, as amended (MLA) and the Federal Land Policy and Management Act of 1976 (FLPMA) to make mineral resources available for disposal and to encourage development of mineral resources to meet national, regional, and local needs. Continued sale and issuance of lease parcels in conformance with the approved Resource Management Plans (RMPs) would allow for continued production of oil and gas from public lands and reserves.*

*The need is to respond to Expressions of Interest, as established by the Federal Onshore Oil & Gas Leasing Reform Act of 1987 (FOOGLRA), MLA, and FLPMA*

*Decisions to be made based on this analysis include which parcels would be offered for lease and what stipulations will be placed on the parcels that would be offered for lease under this sale, in conformance with the approved RMPs.*

In addition to the Proposed Action, a No Action Alternative was analyzed in the EA that would not offer any of the 180 parcels that are in areas open to oil and gas in the underlying RMPs. The EA also analyzed offering all 180 parcels. The EA for the Second Quarter 2019 Competitive Lease Sale is attached, which includes as an attachment 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 public comment period.

Three additional alternatives were considered but not analyzed in detail: offer all parcels subject to Standard Lease Terms and Conditions, Offer all parcels subject to No Surface Occupancy stipulations; and defer all parcels located in Greater Sage-grouse habitats. These alternatives were not analyzed in detail because they would not be in conformance with the respective RMPs.

### **FINDING OF NO SIGNIFICANT IMPACT:**

Based upon a review of the EA and the supporting documents, 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 applicable approved RMPs and their Final Environmental Impact Statements. Therefore, an EIS is not required.

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

#### **Context:**

The action would occur within the Buffalo, Casper, Lander, Newcastle, Pinedale, Rawlins, Rock Springs, and Worland Field Office boundaries and would have local impacts on the resources similar to and within the scope of those described and considered within the RMPs and their respective EISs. The project is an action on BLM administered land and/or mineral estate that by itself does not have known or identified international, national, regional, or state-wide importance.

The project is an administrative action involving approximately 205,167 acres of BLM administered land and/or mineral estate based on a modified Proposed Action. 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 or result in specific climate change impacts. 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. Direct beneficial impacts include economic contributions to the federal and state coffers from both the sale of the individual parcels and from future production of the minerals and these direct economic contributions 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 (Attachment 5.1 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 determined to be reasonably foreseeable, 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 applicable approved RMP and/or their respective FEISs/RODs.

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

The Proposed Action addressed by this FONSI is to offer 160 lease parcels for sale.

Several parcels to be offered however do contain lands with private surface overlying federal minerals (i.e., split-estate). 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 Wyoming 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 No. 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 stipulations, 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 or environmental justice populations at the lease sale or lease issuance stage. If the leases enter into a development stage, cultural resources and environmental justice populations 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 and WSAs. Anticipated impacts to these resources are mitigated through controlled surface use (CSU) stipulations that restricts or prohibits surface use or disturbance where required by the underlying RMP, unless a satisfactory plan to mitigate the potential impacts are developed. Where lease parcels do not contain a CSU, impacts to setting are mitigated through a VRM II CSU and will still be subject to the requirements of the Section 106 process which will determine affects to setting where it contributes to a National Historic Trail, and could require additional mitigation.

A number of parcels may contain perennial waters or and riparian areas (wetlands), which would be protected through Lease Notice 1, which is attached to all parcels, in addition to other stipulations in place for these resources as required by the respective RMP ROD .

While certain parcels proposed to be offered at the 2019 Second Quarter 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.

A few parcels, all in the HDD, contain lands with wilderness characteristics as identified through interdisciplinary inventory. These parcels are being managed according to the current RMP decisions as directed by policy, and will be offered. All parcels that have been nominated through Citizen Wilderness Proposals have been inventoried and determined to not contain any lands with wilderness characteristics or are not managed as

such under the existing RMP. A portion of one parcel has not been inventoried for Wilderness Characteristics; however, this portion is deferred at the request of the WGFD.

**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.

During the public comment period, the BLM received comments letters from 11 individuals or groups. Comments pertained to a variety of issues including: climate change and greenhouse gas emissions, Greater Sage-grouse, mule deer migration corridors, and the Greater Little Mountain area.

Concerns expressed over the 2019 Second Quarter Lease Sale are similar to those expressed at previous lease sales. As the EA concludes through analysis, impacts to the quality of the human environment from the offering, sale, and issuance of the 2019 Second Quarter lease parcels are not expected to be significant, or beyond what has previously been addressed in the respective RMP EIS’.

Further, the lease parcels identified for offer are within areas the underlying RMP RODs identified as open to oil and gas leasing with the required stipulations. 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. 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. 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.

The administrative act of leasing would not result in any direct greenhouse gas (GHG) emissions. Regarding potential future development of the lease parcels, the assessment of GHG emissions and climate change is in its formative phase. While it is not possible to accurately quantify and assess potential impacts from the emission of GHGs in the affected areas as a result of making the proposed tracts available for leasing, some general assumptions can be made: subsequent development/production of the proposed parcels will result in additional emissions of GHGs, both direct and indirect. The total amount of production from the parcels to be leased cannot reasonably be estimated at this time. While GHG emissions are also associated with the use of produced substances, estimates of those emissions depend upon how produced substances are used, how the various GHG parameters is regulated by delegated agencies, and whether any Best Available Control Technologies are utilized at the upstream or downstream activity location(s). Nevertheless the EA has incorporated information from the RMP FEIS' regarding total projected direct GHG emissions from development of the planning area's reasonably foreseeable development (RFD) scenario. Information regarding current development levels confirm that the existing development levels are within these projections; as such, the future development of these parcels is also expected to be within what was previously analyzed. This EA has also provided information regarding the projected future production from the planning area's RFD and calculated the total indirect emissions of GHGs that could result from the future use of the produced product. The uncertainty surrounding estimates of direct and/or indirect GHG emissions are described in the EA.

“Social cost of carbon” estimates are one approach that an agency can take to examine climate consequences from greenhouse gas emissions resulting from a proposed action. However, this EA provides no quantitative monetary estimates of any benefits or costs. NEPA does not require an economic cost-benefit analysis (40 C.F.R. § 1502.23), although NEPA does require consideration of “effects” that include “economic” and “social” effects (40 C.F.R. 1508.8(b)). Quantifying only the costs of oil and gas development by using the social cost of carbon metrics but not the benefits (as measured by the economic value of the proposed oil and gas development and production generally equaling the price of oil and gas minus the cost of producing, processing, and transporting the minerals) would yield information that is both inaccurate and not useful for the decision-maker, especially given that there are no current criteria or thresholds that determine a level of significance for social cost of carbon monetary values.

Instead, BLM's approach to GHG and climate change impacts analysis in this EA includes calculations to show estimated direct and indirect GHG emissions from potential future development of the 160 lease parcels, and from oil and gas activities in Wyoming and the region. BLM also includes a qualitative discussion of potential climate impacts at global and regional scales. BLM's approach recognizes that there are adverse environmental impacts related to climate change associated with the development and use of fossil fuels, provides potential GHG emission estimates, and discusses potential climate change impacts qualitatively. This effectively informs the decision-maker and the public of the potential for GHG emissions and the potential implications of climate change. This approach presents the data and information in a manner that follows many of the guidelines for effective climate change communication developed by the National



Academy of Sciences (National Research Council 2010) by making the information more readily understood and relatable to the decision-maker and the general public.

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 usable 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.

Based on the foregoing, 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 offer the lease sale parcels 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 2019 Second Quarter 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 No. 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 applicable RMPs/FEISs. The interdisciplinary team evaluated the possible actions in context of past, present and reasonably foreseeable actions. The EA has projected the cumulative direct and indirect GHG emissions for the full Reasonably Foreseeable Development (RFD) scenario in each of the field offices. The proposed parcels represents less than one-tenth of one percent of the total federal mineral estate acreage in the State of Wyoming, if developed to the full RFD and assuming 100% combustion of the

production stream, would produce less than 1% of all GHG emissions, both direct and indirect, from oil and gas development in these field offices. The BLM has determined that this analysis adequately addresses the cumulative impacts for climate change from the proposed action and its alternatives, and therefore a separate cumulative effects analysis for GHG emissions is not needed. Additionally, the referenced RMPs/EISs provide cumulative effects analysis for oil and gas development based on the RFD scenario. Significant cumulative effects are not expected beyond what has been analyzed in the underlying RMPs, as amended.

**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. Significant 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 may 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 the EA (Attachment 5.1) for a listing of the various sensitive species found in various parcels. Although listed species, or those found to be 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.

The lands within the PHMA parcels are assumed to provide nesting, wintering, and/or breeding habitat for Greater Sage-Grouse GSG as described in the EA and in Attachments 5.4 and 5.7. All potential impacts are expected to be within the range analyzed in the RMPs as revised or amended, which was found to be acceptable by the USFWS. All parcels will be offered with the stipulations specified within the underlying RMPs.

Based on GIS data from May, 2015, at the time the ARMPA ROD was issued, approximately 16% of all existing leases in WY were located within PHMA (15,485 total, 2,427 wholly or partially within PHMA). Based on GIS data from February 2019,

this percentage has increased to 2,492 leases wholly or partially in PHMA. All potential impacts are within the analysis contained in the underlying RMPs, as revised or amended, as it relates to Greater Sage-grouse.

**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.

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Authorized Officer

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Date