



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

Finding of No Significant Impact

2019 Second Quarter Competitive Lease Sale

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

June 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

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 (HPD) and the Wind River/Bighorn Basin (WRB) 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 development have state-wide, regional, and national importance. Development of specific well-sites on the parcels could occur in the future, resulting in direct and indirect impacts to surface resources, including the generation of greenhouse gas emissions. The EA discusses these direct and indirect impacts, to the extent they are reasonably foreseeable. Specific to direct and indirect emissions of greenhouse gases, the EA considers their relative contribution to state, regional, national, and global emissions, individually and cumulatively. The EA also describes the relationship between GHG emissions and climate change, as well as the impacts of climate change at various scales (local, regional and national).

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 C.F.R. § 3162.5-2(d) and Onshore Order No. 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.

Many potential environmental effects of leasing and subsequent development of the lease parcels were considered in the lease sale EA. None of the environmental effects from the Proposed Action analyzed in the EA are considered significant. Future development of these leases will result the emission of direct and indirect GHGs and will contribute to cumulative GHG emissions at the state, regional, national, and global scales. Adverse effects could result from the contribution to global climate change and its effects. If development of the leases is proposed, BLM will identify and consider mitigation, including Best Management Practices, to minimize GHG emissions. BLM retains discretion to deny development proposals that do not accord with applicable Federal statutes, regulations, and lease terms, including the requirement to comply with applicable state laws.

The beneficial effects of production are discussed in the EAs prepared for the lease sales; these include the production of fossil fuels to contribute to the national, state, and local supply. In addition, development of leases has economic impacts on local, state, regional and national economies, which may be perceived as either positive or negative, depending on the standpoint of a stakeholder.

None of the reasonably foreseeable environmental effects associated with potential future development of the lease parcels, as discussed in detail in the EA, are determined to be significant; nor are the effects of lease development expected to contribute significantly to existing impact levels at any scale, the type of impacts, or the magnitude of effects in either a beneficial or adverse way.

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 off-highway vehicle use. 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 C.F.R. § 3160 and Onshore Order No. 2.

The emission of GHGs could affect public health and safety in various ways through changes in climatic conditions and the resultant response of the environment. The degree of change directly attributable to emissions resulting from development of the lease parcels, including where on the planet those changes occur, and how they may manifest, cannot be determined due to the global nature of climate change and the lack of necessary scientific tools and models to detect effects at the scale of this EA. However, in the EA the BLM quantified emissions that could be reasonably expected from the development of the leases in the Proposed Action, as well as potential indirect emissions resulting from the combustion of minerals extracted from the leased lands (using an assumption that all Federal production from the leased lands would be combusted). BLM considered those estimated emissions in the context of existing and cumulative emission projections, and found that the contribution from the Proposed Action to existing statewide levels would be approximately 1.16%. Since GHGs are mobile, the effect would be cumulative to all global emissions, and may contribute equally to the potential for climate change impacts identified in the EA, as they relate to public health and safety.

In addition to BLM, local, State, and other Federal agencies regulate oil and gas exploration and drilling operations to protect health and safety. BLM continues to coordinate with the Wyoming Department of Environmental Quality in the implementation of monitoring and mitigation, and the Wyoming Oil and Gas Conservation Commission on the approval of APDs and general oil and gas issues. As a result, impacts to public health and safety are not expected to be significant.

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 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.

As a factor for determining whether to prepare a detailed environmental impact statement, “controversy,” within 40 CFR 1508.27(b)(4), is not “the existence of opposition to a use.” *Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003)

“controversial” refers to situations where “substantial dispute exists as to the size, nature, or effect of the major federal action”) (quoting *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1182 (9th Cir.1982); see also *Fund for Animals v. Frizzell*, 530 F.2d 982, 988 n.15 (D.C. Cir. 1975) (per curiam) (“certainly something more is required” for a highly controversial finding “besides the fact that some people may be highly agitated and be willing to go to court over the matter.”)

The lease sales, that is, the act of offering oil and gas parcels for lease, is not unique or unusual. Oil and gas leasing and post-lease development have been ongoing for many years. The BLM has experience implementing similar actions in similar areas. The environmental effects to the human environment are considered in the corresponding RMP FEISs. 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. The predicted effects on the human environment described in the EA, such as temperature and precipitation changes, are not highly uncertain, nor do they involve unique or unknown risks. To the extent that GHGs can influence changes in local climates, the EA has analyzed and disclosed those relationships. The Proposed Action is not expected to significantly affect the rate of change in those effects, bring forth impacts that are not already identified in existing literature, or cause a change in the magnitude of those impacts at the local, state, regional, national or global scale.

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

As noted above, the act of offering oil and gas parcels for lease is not unique or unusual. Oil and gas leasing and post-lease development have been ongoing for many years, with development dating back to the early 1900's, and the BLM has experience implementing similar actions in similar areas.

While the administrative act of issuing a lease does not result in any direct greenhouse gas (GHG) emissions, the BLM considered in the EA those emissions that may be reasonably foreseeable from the future development of the resources, including any GHGs from the downstream combustion of products. While it is not possible to precisely quantify and assess potential impacts from the emission of GHGs in the affected areas as a result of making the proposed tracts available for development, BLM has made some general assumptions. For example, subsequent development and production of minerals from the parcels will result in additional emissions of GHGs, both direct and indirect. The total number of wells to be installed, and whether they will produce economic volumes of product cannot reasonably be estimated due to the variable geologic conditions across the parcels and ongoing exploratory work on Federal lands in Wyoming.

While GHG emissions are also associated with the use of produced substances, estimates of those emissions involve uncertainty including how produced substances are used, how the various GHG parameters are regulated by delegated agencies, and whether any Best Available Control Technologies are utilized at the upstream or downstream activity locations. Nevertheless the EA has provided estimates of the direct and indirect emissions of GHGs arising from these lease parcels should they be developed. The uncertainties

surrounding estimates of direct and/or indirect GHG emissions are also described in the EA.

The environmental effects from direct GHG emissions to the human environment are considered in the corresponding RMP FEISs, as amended, and supplemented by the analysis in the attached EA. Should there be newly discovered risks that were previously unknown, BLM would cooperate with other Federal and state agencies to respond as appropriate. The predicted effects on the human environment from the GHG emissions resulting from the Proposed Action, in terms of climate change and the level of existing emissions, are not considered to be highly uncertain or involve unique or unknown risks.

Our ability to more precisely analyze the GHG emissions, and the potential impacts from site-specific drilling, completion, production or downstream combustion, is limited due to the aforementioned uncertainty, and the inability to translate a level of GHG emissions into specific effects at a scale of the Proposed Action.

When an Application for Permit to Drill (APD) has been submitted, specific information will be available that can further the assessment of precise emission estimates. Information that will be available or reviewed, when an APD is submitted includes the following:

- Target formation characteristics
- Well type
- Drilling and completion methods
- Expected types and volumes of products to be produced
- Production equipment
- Production accounting and measurement
- The degree to which there are any connected actions

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

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 C.F.R. § 3165-2(d), Onshore Order No. 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 the EA beyond what has been analyzed.

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, or preclude other uses of those lands in accordance with the Federal Land Policy and Management Act, and regulation at 43 C.F.R. Part 3000. The analysis did not reveal any interactions with future projects that will have significant impacts. A decision to offer the parcels for lease would not represent a decision regarding any future lease actions. Ultimately, the decision to lease, even without an NSO over the entire lease(s), does not prevent BLM from denying all development of the lease if an operator cannot submit a development proposal that complies with all federal laws, rules and/or regulations.

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

This EA is tiered to the information and analysis and conforms to the decisions contained in the applicable Record of Decisions (RODs) and RMPs for each planning area with lands considered in this EA (2015 Lander and Bighorn Basin RMP RODs, and 2019 Greater Sage-grouse Land use Plan Amendment ROD), and associated FEISs. The RODs and RMPs are in compliance with all Federal laws, regulations, and policy. The direct, indirect, and cumulative effects of oil and gas leasing were considered at the appropriate scale for the full Reasonably Foreseeable Development Scenario (RFD) for the Field Offices in the FEISs for the RMPs. The decisions on what areas to not lease, lease with standard, moderate, or major stipulations is done at the RMP level in order to look at the larger picture of impacts (including cumulative impacts).

There are no surface-disturbing activities authorized at the leasing stage. The Proposed Action by itself or in connection with other activities would not have significant impacts. In fact, data from BLM's Public Land Statistics indicates that of all the leases offered for sale in Wyoming in the last 10 years, only 47% of leases are currently producing. If there is no subsequent development on a lease parcel, then there are no cumulative effects.

However, the EA recognizes that some level of impacts are reasonably foreseeable as a result of subsequent oil or gas development on a lease. In the EA, the BLM quantified direct and indirect GHG emissions that could be produced utilizing existing reasonably foreseeable development well information, and existing predictions of the emissions from those well estimates. Current well development data provided in the EA, confirms that the existing level of development in Wyoming is within the RFD projections, but currently below the rates predicted.

In the EA, the annual direct and indirect GHG emissions from the Proposed Action were compared to the total BLM Wyoming planning projections; these estimates represent 0.55% and 0.58% of the total predicted, respectively.

The cumulative effects analysis also considers information from a 2018 USGS Supplemental Information Report, which produced estimates of the GHGs resulting from the extraction and end-use combustion of fossil fuels produced on Federal lands in the United States, as well as estimates of ecosystem carbon emissions and sequestration on those lands. Compared to nationwide fossil fuel emissions, CO₂ from Federal lands in 2014, accounted for 23.7%, 7.3% for CH₄, and 1.5% for N₂O over a ten year period (2005-2014). Based on the USGS report, in 2014 Federal fossil fuel GHG emissions from extraction and combustion in Wyoming was 1.63 million metric tons (MMT) CO₂e, or 0.13% of total Federal emissions (all Federal fossil fuel sources). BLM also extrapolated from the information contained in the 2018 USGS report to estimate the average annual emissions for the time period 2014-2018, across all states within the Rocky Mountain and Northern Great Plains Regions, as defined by the Energy Information Agency.

From that estimate, the average annual gross emissions of CO₂e for the combined Rocky Mountain and Northern Great Plains regions (excluding Wyoming), is 167.1 MMT [167,116,089 metric tons(mt)/year(yr)]. In comparison, the cumulative estimated GHG emissions from existing and reasonably foreseeable oil and gas related actions for Federal lands in Wyoming is 26.8 MMT (26,831,456 mt/yr); this amount represents approximately 16%. Resultantly, the Proposed Action's estimated gross emissions of 495,100.4 mt/yr is approximately 0.29% of the combined regional oil and gas total gross emissions.

The EA also evaluated the Proposed Action and cumulative GHG emissions against national estimates provided by the U.S. Environmental Protection Agency. BLM Wyoming's projected cumulative average annual gross emissions of CO₂e from oil and gas related operations, represents 0.42% of EPA's total (6,456.7 MMT). On a national level, the cumulative GHG emissions represent 0.41%. Likewise, based on a U.S. fossil fuel emission estimate of 4.0 Gt of CO₂e by the Global Carbon Project for the year 2018, BLM Wyoming's cumulative contribution from Federal oil and gas related operations should the cumulative gross direct and indirect emissions be realized, is projected to be approximately 0.70%.

These calculations support the conclusion that development of these leases would represent only a small fraction of the potential emissions at the state, regional, national and global scales, and would be expected to have little to no impact on total GHG levels, the rate of climate change, or the magnitude of effects from climate change.

- 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 of the parcels that would be offered for sale are protected by either a controlled surface use or no surface occupancy stipulation.

All future projects are required to comply with the Federal law and regulation regarding the protection of eligible historic properties. Where tribal consultation has not been completed, those parcels have been deferred until that process is complete. Should lease development be proposed on any of the parcels considered in this EA, future environmental review will consider actual conditions, and the potential for site-specific or cumulative impacts, at that time.

- 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 (Section 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 or revised. 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 U.S. Fish and Wildlife Service if Threatened or Endangered species are found.

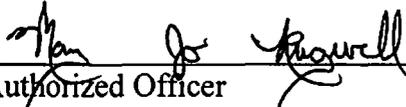
The lands within the PHMA parcels are assumed to provide nesting, wintering, and/or breeding habitat for Greater Sage-grouse described in the EA and in Sections 5.4 and 5.7. All potential impacts are expected to be within the range analyzed in the RMPs as revised or amended, which was found to be acceptable 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 April 2019, this percentage has increased to 2,558 leases (19%) 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.

Any future environmental review, should lease development be proposed, will take into consideration of actual conditions at that time. Should there be new or modified listing decisions, those will be addressed at the time lease operations are proposed.

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 Proposed Action 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 Proposed Action is consistent with applicable land management plans, policies, and programs, and development of the leases would be conditioned on compliance with all applicable laws and regulations. The projected impacts from the Proposed Action are not expected to result in a significant change in the rate or magnitude of impacts in a way that would threaten a violation of any law or regulation. All Federal lease contracts are issued contingent upon compliance with all Federal laws and regulations.



Authorized Officer

6/24/19

Date