

# Montana / Dakotas March 27, 2019 Oil and Gas Lease Sale

## Response to Comments

This response summary includes substantive issues of concern raised during the EA comment period for the December 2018 sale for the 76 parcels that were moved to the March 2019 sale

### Resource Management Plans

Comment No.	Commenter	Subject	Comment
1	TRCP	Planning	No comprehensive planning process has been done to evaluate oil and gas leasing in this iconic landscape and the potential effects on wildlife resources. The RMP also has not been amended to reflect the new Department of the Interior guidance (S.O.s 3362, 3356, and 3347). Once a lease is sold a contractual obligation to develop the energy resources is created and the ability to plan energy developments and protect other public resources is largely forfeited. Upfront planning prior to leasing is a necessary component of responsible energy development and helps the agency fulfill its multiple-use/sustained-yield mandate.
<p><b>Response:</b> Comprehensive planning is done for Resource Management Plans, which provides comprehensive land use plan decisions for a large planning area.</p> <p>In 2015, the BLM approved a Record of Decision (ROD) and Approved Resource Management Plan Amendments (ARMPAs) for the Rocky Mountain Region Greater Sage-Grouse Sub-Regions of Lewistown, North Dakota, Northwest Colorado, and Wyoming; and Approved Resource Management Plans (ARMPs) for the Billings Field Office, Buffalo Field Office, Cody Field Office, HiLine District, Miles City Field Office, Pompeys Pillar National Monument, South Dakota Field Office, and Worland Field Office. The BLM also approved resource management plan amendments (ARMPAs) for the Great Basin Region GRSG Sub-Regions (Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, and Utah).</p> <p>For example, the Billings RMP made management decisions on approximately 434,154 acres of BLM-administered surface and 889,479 acres of BLM administered minerals in the Billings Field Office (BiFO; Table 1-1). The regulations for making and modifying land use plan decisions, which comprise an RMP, are found in 43 Code of Federal Regulations (CFR) Part 1600. Land use plan decisions consist of desired outcomes (goals and objectives) and allowable uses and management actions. This ARMP replaces the land use decisions within the 1985 Billings RMP, as amended. The purpose of the RMP is to provide a single, comprehensive land use plan to guide management of BLM-administered lands in the BiFO. This plan provides goals, objectives, land use allocations, and management direction for the BLM-administered surface and mineral estate based on multiple use and sustained yield, unless otherwise specified by law (Federal Land Policy and Management Act [FLPMA] Section 102[c], 43 USC, Section 1701 et seq.).</p> <p>Refer to the Response for Federal Laws, Litigation, and Policy, #1.</p>			

2	TRCP	Geographically-Phased Development and Directional Drilling	<p>While timing stipulations are important, they do not fully address impacts on wildlife or how an area will be developed in a way to minimize those impacts. Planning geographically-phased energy exploration and development prior to the leasing stage to responsibly balance the needs of fish and wildlife with energy extraction should be considered wherever possible and relevant. Large geographic areas to be offered for oil and gas leasing first should be subdivided into smaller parcels to be leased – each identifying crucial habitats and migration corridors that maintain fish and wildlife populations and ecological function of the area. Proper planning should identify appropriate scales and ensure that development does not exceed levels that would cumulatively disturb and exacerbate impacts across the landscape unless earlier parcels are restored, and impacts mitigated. Lease sale EAs should include an assessment of overall habitat conditions in a larger, surrounding area, including what is needed to sustain the populations at management objectives set by the Montana Fish, Wildlife, and Parks throughout the development process.</p> <p>Leasing must also address the potential impacts to other important habitats due to behavioral displacement by development activities during seasonal stipulation periods. Any game migration corridors must be identified, and migration disturbance addressed, per Secretarial Order 3362.</p>
<p><b>Response:</b> Please refer to response #1 above.</p> <p>The Miles City Planning area contains the largest number of parcels that would be offered for lease in the March 2019 sale. The RMP planning area consists of BLM-administered lands and minerals in eastern Montana in Carter, Custer, Daniels, Dawson, Fallon, Garfield, McCone, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Treasure, and Wibaux counties and portions of Big Horn and Valley counties. The Miles City Field Office Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS) describes and analyzes five alternatives for managing the public lands and resources in the planning area. Refer to the Response to #4 in the Federal laws, litigation and policy response section. The FEIS for the RMP evaluated impacts to wildlife and important habitats. The leasing EA, incorporates by reference and tiers to the RMP analysis for each applicable planning area.</p> <p>Additional analysis is completed during the NEPA process at the APD stage.</p>			
3	TRCP	Funds for Management, Monitoring and Restoration	<p>Long-term funding to monitor, evaluate and protect fish and wildlife populations influenced by energy development through post-development habitat and population restoration is essential. Funding appropriated for fish and wildlife management should be used to manage habitats and populations, not just mitigate damage, process energy permits, or plan for energy projects. Funding increases for energy development must be matched by increases for fish and wildlife management. Funding assurances should be given for the duration of the development and subsequent restoration.</p>
<p><b>Response:</b> In accordance with the Federal Onshore Oil and Gas Leasing Reform Act of 1987 and BLM Manual 3120, each BLM state office will hold sales at least quarterly if lands are available for competitive leasing. The BLM receives appropriated funds each year to carry out its multiple use mission including lease sales, wildlife management, and monitoring. These appropriated funds are allocated by congress, and would be outside the scope of this lease sale analysis and decision.</p>			
4	TRCP	Implementation,	<p>Given the nature of leasing and the need for upfront comprehensive planning, energy leasing should</p>

		Monitoring, and Mitigation	clearly articulate how provisions will be established for mitigation, including detailed wildlife monitoring and the use of adaptive management strategies to avoid, minimize or mitigate impacts of oil and/or gas exploration and development for future parcels offered for leasing. Planning should reference and clearly state how mitigation will effectively minimize and mitigate impacts to result in, at minimum, no-net-loss of habitat value and recreational opportunity. Plans must ensure that areas developed mitigate residual impacts and ensure habitats eventually are restored. Funds for mitigation must be commensurate with impacts spatially and temporally to ensure effectiveness and achieve at least a no-net-loss standard. This includes accounting for behavioral modifications from disturbance that likely exceed acres of habitat actually disturbed and lost. If the BLM moves forward with leasing prior to conducting adequate planning, the agency will be sacrificing their ability to adequately avoid, minimize, and mitigate impacts on the public's fish and wildlife habitat, and likely trigger undue and unnecessary degradation of habitats.
<p><b>Response:</b> The 2015 RMPs and RMP amendments describe monitoring, adaptive management strategies, and mitigation requirements. For example, in the Billings RMP, the plans contain Appendix F: Greater Sage-Grouse Mitigation, Appendix G: Adaptive Management Strategy for Sage-Grouse Habitat Management, Appendix H: Best Management Practices, and Appendix L Wildlife Resources, including implementation protocols, inventory and monitoring, and lease stipulations and mitigation measures.</p> <p>There have been recent policy changes to BLM's mitigation policy. IM 2019-018 (12/6/2018) states: <i>Except where the law specifically requires or as described in this IM, the BLM must not require compensatory mitigation from public land users. While the BLM will consider voluntary proposals for compensatory mitigation, and state-mandated compensatory mitigation, the BLM will not accept any monetary payment to mitigate the impacts of a proposed action. In all instances, the BLM must refrain from authorizing any activity that causes unnecessary or undue degradation (UUD), pursuant to FLPMA Section 302(b)...</i></p> <p><i>... The BLM may consider voluntary compensatory mitigation proffered by a project proponent, or compensatory mitigation requested by a State or required as part of a state plan, program or authorization for the proposed project or a connected action associated with the proposed project, including as a means to reach a Finding of No Significant Impact (FONSI) or as part of a proposed design feature of a project...</i></p> <p>As described in this EA, Chapter 3 with respect to sage-grouse, Montana's sage-grouse program ensures statewide consistency across all lands for implementing the mitigation hierarchy including first avoiding and minimizing impacts, and then compensating for residual impacts of development. The State of Montana's sage-grouse policy guidance document includes provisions for in lieu fee contributions to a stewardship account, and the Habitat Quantification Tool is used to calculate functional acres lost/gained on credit and debit projects.</p>			
5	WEG	Dillon RMP	The BLM is proposing to offer for lease 15 parcels within the Dillon Field Office. But, based on the age of the Dillon Resource Management Plan and FEIS (approved in 2006), it is unlikely that the RMP provides a full environmental analysis or adequate level of protections regarding unconventional oil and gas development and the use of hydraulic fracturing.
<p><b>Response:</b> Twelve parcels in the Dillon Field Office were moved from the December 2018 sale to the March 2019 sale (3 parcels were deferred from the December 2018 sale but not carried forward to the March 2019 sale). All twelve parcels in the Dillon Field Office in Beaverhead and Madison County are being deferred. Additional analysis is required to determine the appropriate level of protection for the area.</p>			

6	WEG, Northern Plains, & others	Billings RMP	<p>Although we appreciate the fact that the BLM proposes to defer some of the parcels within the Billings Field Office, it is puzzling as to why the BLM fails to defer all of the parcels within this field office. The BLM has deferred numerous parcels <i>pending further review of the adequacy of the Billings Resource Management Plan to provide the appropriate level of protection for this area</i>. If the Billings RMP does not provide adequate protection for some parcels, why would it provide adequate protection for the remaining parcels? These deferrals lack consistency, and the BLM should address and amend that by recommending any parcels that fall within the Billings, Butte, and Lewistown Resource Management Plan areas for deferral.</p>
<p><b>Response:</b> Some parcels in the Billings Field Office planning area are being deferred due to internal and external scoping discussions regarding the Absaroka Beartooth Front. Lease parcels in the Lewistown Field Office area are being deferred due to a court order on the RMP prohibiting leasing in areas of wildlife concern pending completion of a new Lewiston RMP. All of the RMPs, including Butte’s, designate land use allocations of areas open to leasing for the respective field offices, and our leasing activity is consistent with those RMPs.</p>			
7	WEG, Northern Plains & others	Miles City RMP	<p>First, it is improper for BLM to propose leasing parcels in areas guided by flawed Resource Management Plans (“RMPs”). In March 2018, the U.S. District Court in Montana held that portions of the Miles City Field Office (“MCFO”) RMP violated the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4331, et seq., on several grounds. <i>W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.</i>, 4:16-cv-00021-BMM (March 26, 2018) at 46-48. As a result, the court ordered any “new or pending leases of coal, oil, or gas resources” subject to the MCFO RMP “must undergo comprehensive environmental analysis.” <i>Id.</i> at 51-52.</p> <p>Any new or pending leases of coal, oil, or gas resources in the planning areas subject to the Buffalo RMP and the Miles City RMP must undergo comprehensive environmental analyses in compliance with the above Order and all existing procedural requirements under NEPA and the APA. BLM must consider whether to close areas in the planning areas for the purpose of reducing climate impacts. BLM did not do so in the RMP or in the EA at issue here.</p>
<p><b>Response:</b> On 7/31/2018, Judge Morris issued an order directing the BLM to complete, new coal screening and remedial NEPA analyses by November 29, 2019 in compliance with the Court’s March 26, 2018 (<i>Western Organization of Resource Councils v. U.S. Bureau of Land Management</i>, CV 16-21-GF-BMM, 2018 WL 1475470), (D. Mont. Mar. 26, 2018) (hereinafter “WORC”). In his 7/31/2018 order, Judge Morris states, “The ROD addresses twelve RMP revisions and amendments spanning millions of acres of federally owned lands across the western United States. Were the Court to set aside the ROD, such action would invalidate all underlying RMPs...the Court deems it inequitably disproportionate to the scope of the instant action, which challenged only the Buffalo RMP and the Miles City RMP, to issue a vacatur of the ROD. The Record of Decision (ROD) remains in place subject to the restrictions of the Court’s March 26, 2018, Order.” The order further states any new or pending leases of coal, oil, or gas resources in the planning areas subject to the Buffalo RMP and the Miles City RMP must undergo comprehensive environmental analyses in compliance with the Court’s March 26, 2018, Order and all existing procedural requirements under NEPA and the APA. The BLM has prepared the March 27, 2019 Oil and Gas Lease Sale EA in compliance with the terms of the court order, NEPA, and the APA. Refer to the Federal Laws, Litigation, and Policy responses for additional information.</p>			

## Range of Alternatives

Comment No.	Commenter	Subject	Comment
1	TWS, MWA, others	Resource allocations/stipulations	<p>NEPA requires the BLM to conduct an alternatives analysis “for any proposed which involves unresolved conflicts concerning alternative uses of resources” 42 U.S.C. § 4332(2)(E). An EA offering a choice between leasing every proposed parcel, and leasing nothing at all, does not present a reasonable range of alternatives. See <i>The Wilderness Society v. Wisely</i>, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007) and <i>Muckleshoot Indian Tribe v. U.S. Forest Serv.</i>, 177 F.3d 800, 813 (9th Cir. 1999).</p> <p>BLM seems to believe the stipulations it has attached to the lease parcels meet its obligations because the applicable RMPs have not closed these areas to leasing. EA at 65. But designating lands as open to leasing in an RMP only makes them available to lease but does not require that they be leased. It is entirely reasonable to consider an alternative that defers those parcels.</p> <p>Failing to consider alternatives that would protect other public lands resources from oil and gas development would also violate FLPMA. Considering only one alternative in which BLM would offer all nominated oil and gas lease parcels for sale, regardless of other values present on those public lands that could be harmed by oil and gas development, would indicate a preference for oil and gas leasing and development over other multiple uses. Such an approach violates the agency’s multiple use and sustained yield mandate, as discussed in another section of these comments.</p>
<p><b>Response:</b> The BLM has the authorization, per the Mineral Leasing Act of 1920, to grant any qualified applicant a permit to prospect for oil and gas upon lands where such deposits belong to the united states. In accordance with the Federal Onshore Oil and Gas Leasing Reform Act of 1987 and BLM Manual 3120, each BLM state office will hold sales at least quarterly if lands are available for competitive leasing. In accordance with the applicable RMP, the BLM applied stipulations to avoid/minimize impacts to other resources.</p> <p>Based upon public comment, consideration of relevant science, and additional analysis, the BLM added Alternative C. Alternative C defers 1 parcel in Bowman County ND, 3 parcels in Harding County, SD, 1 parcel and parts of 4 others in Valley County, MT in part because BLM found that stipulations could not adequately avoid/minimize effects to resource values including off-site impacts. In addition, the BLM received extensive public comment raising numerous resource concerns for parcels in the Dillon Field Office. All 12 parcels in the Beaverhead and Madison County, Montana were deferred pending additional analysis to determine appropriate protection for the area.</p>			
2	TWS, MWA, others	Big Hole, Beaverhead watersheds	<p>Leasing could impact aquatic habitat and resources, including trout fisheries in the Big Hole and Beaverhead Rivers. Fifteen leases covering 12,889 acres are proposed for leasing in these valuable habitats. Given the low likelihood of development, why is the BLM proposing to lease these parcels?</p>
<p><b>Response:</b> All parcels in Beaverhead and Madison County have been deferred from the March 2019 lease sale under Alternative C pending additional analysis to determine the appropriate level of protection for the area.</p>			
3	WELC, TWS,	Sage-grouse	The EA fails to evaluate a middle-ground alternative that would defer leasing of at least some important

	MWA, CBD, others	parcels	<p>sage-grouse habitat. At a minimum the BLM should analyze the following alternatives:</p> <ul style="list-style-type: none"> <li>• an alternative that defers leasing in PHMA and GHMA,</li> <li>• an alternative that defers leasing parcels in areas with low potential for oil and gas development until BLM demonstrates that these parcels are “lands . . . which are known or believed to contain oil or gas deposits (30 U.S.C. § 226(a)), and</li> <li>• an alternative that would minimize or mitigate greenhouse gas emissions, such as deferring leases, phasing leasing, and requiring technology to mitigate emissions.</li> </ul> <p>Failing to analyze such middle-ground options violates NEPA.</p>
<p><b>Response:</b> BLM added discussion of an Alternative Considered but Dismissed to the EA that considers deferring Category 7 and 8 parcels from the lease sale, which represent the best sage-grouse habitat available (p. 12). In addition, BLM developed Alternative C, which defers 12 parcels in Dillon Field Office, 3 parcels in South Dakota, 1 parcel in North Dakota, and 1 parcel and parts of 4 others in the Glasgow Field Office. All of the deferred parcels provide sage-grouse habitat. The Dillon parcels were deferred because more analysis of resource concerns is needed to determine the adequate level of protection for the area. The North and South Dakota parcels were deferred because off site development would negatively affect active sage-grouse leks, and the Glasgow parcels were deferred to protect a State of Montana designated migratory corridor (refer to Chapter 3).</p>			
4	Earthjustice	Groundwater	<p>In the EA, BLM evaluated only the Proposed Action (leasing all parcels) and a No Action Alternative. This was inadequate. BLM should have evaluated alternatives that, among other things, would have protected usable groundwater, including an alternative whereby parcels would not be leased in areas overlying usable groundwater, and an alternative that includes other measures to ensure that all usable groundwater zones are protected. This might involve preleasing groundwater testing and adding a lease stipulation or lease notice requiring specified casing and cementing depths. Alternatively, BLM should consider requiring a lease stipulation or lease notice requiring the lessee to perform groundwater testing prior to drilling to identify all usable water, and consultation with US Geological Survey and other agencies to identify those waters with up to 10,000 ppm.</p>
<p><b>Response:</b> With the obvious importance of ground and surface water in these systems, oversight and proper development of oil and gas within them is of extreme importance. With the extensive protocols that is required from the State of Montana and Federal agencies, the development of the sites and there operation will be closely monitored.</p> <p>With this said, oil and gas development in Montana is governed primarily by state constitutional provisions (art. II, § 3, art. IX, §§ 1-2), statutory provisions of the Montana Code (Mont. Code Ann. § 82-10-101, et seq. - § 82-11-101, et seq.), and rules promulgated by the Montana Board of Oil and Gas Conservation (MBOGC) (ARM 36.22.101, et seq.). The MBOGC also issues drilling permits, oversees industry activity, and implements Montana’s oil and gas laws in a manner consistent with the goals of conservation, efficient resource development, waste prevention, and protection of surface owner rights and subsurface mineral rights. Montana’s Environmental Policy Act (§ 75-1-101, et seq.), Clean Air Act (§ 75-2-101, et seq.), and Water Quality Act (§75-5-101, et seq.) also play significant roles in regulating the environmental impacts of oil and gas development in Montana. These Acts are administered by the Montana Department of Environmental Quality (MDEQ) and are supplemented by MDEQ-issued rules and regulations pertaining to air and water quality. Additionally, the MBOGC and the MDEQ issue a variety of policy statements and guidance documents to guide the future of oil and gas development in Montana in an environmentally conscious manner.</p> <p>The EA includes three Alternatives- see response to Comment 1 above in this section. The EA analyzed and disclosed potential impacts to water resources</p>			

from future oil and gas development and measures to mitigate those potential impacts.

Offering the parcels for lease would have no direct impact to surface or groundwater resources. Any potential effects on water from the sale of lease parcels would occur at the time the leases are developed (at the APD stage) and could be both short and long-term. Potential indirect and cumulative impacts from oil and gas leasing on water resources are also discussed in the applicable ARMP and FEIS for each field office, and incorporated by reference. EA at 51.

Fluid mineral development could affect water resources during exploration, drilling, production, and/or abandonment. The magnitude of these impacts would depend largely on the specific activity, season, proximity to waterbodies, location in the watershed, density of development, effectiveness of mitigation, time until reclamation success, and characteristics of any hydrologically connected aquifers. Adherence to applicable regulations (i.e. Onshore Orders No. 1 and 2), as well as stipulations regarding steep slopes, erosive soils, streams, waterbodies, floodplains and wetlands would reduce indirect impacts that may be associated with future development (see Appendix A). However, alterations in watershed hydrology outside of the exclusion zones could affect the water resources in these systems, but such impacts would likely be small and proportional to the limited footprint of the disturbance (noted below), relative to the size of the watershed in which the disturbance were to occur. EA at 51.

To ensure that drilling and completion operations are conducted in a safe and environmentally sound manner, the BLM approves and regulates all drilling and completion operations, and related surface disturbance associated with Federal and Indian oil and gas mineral development. Operators must submit APDs to the agency in accordance with Onshore Oil and Gas Order No.1. Prior to approving an APD, the BLM identifies all potential subsurface formations that will be penetrated by the wellbore. This includes groundwater aquifers and any zones that would present potential safety or health risks that may need special protection measures during drilling, or that may require specific protective well construction measures. All well casing and cementing operations that occur on Federal/Indian lands would be reviewed and approved by BLM and conducted in accordance with the applicable requirements specified in Onshore Oil and Gas Order No. 2, and American Petroleum Institute (API) standards. EA at 52.

5	WELC	Ecological resiliency	BLM can also help promote ecological resiliency and adaptability by reducing external anthropogenic environmental stresses—like oil and gas development—as a way of best positioning public lands and the communities that rely on those public lands to withstand what is acknowledged ongoing and intensifying climate change degradation. In other words, in order to satisfy the BLM’s multiple use mandate and protect the broadest range of public resources, both now and for future generations, it might be necessary to forego additional oil and gas development on public lands altogether—an action that should be considered in the BLM’s alternatives analysis. As noted above, the BLM must consider the resilience of our communities and their ability to adapt and respond to climate change in its NEPA analysis.
---	------	-----------------------	---

**Response:** Current Federal regulations require the BLM to conduct quarterly oil and gas lease sales in each State when lands are available for leasing. See response to Comment #1 above and #6 below. Any changes to this requirement would require an Act of Congress; therefore developing an alternative to “forego additional oil and gas development on public lands altogether” would not be considered to be within the range of reasonable alternatives at this time. At the leasing stage, a no action alternative is considered.

6	WELC, WEG	Oil/gas leasing	The BLM must give detailed consideration to alternatives that address the likelihood that industry is only seeking the proposed leases in order to stockpile reserves and not actually produce oil and gas.
---	-----------	-----------------	---

			<p>We request the BLM give detailed consideration to the following alternative actions:</p> <ul style="list-style-type: none"> <li>• An alternative that imposes a minimum bonus bid higher than \$2.00 per acre.</li> <li>• An alternative that defers offering the proposed lease parcels for sale until at least 50% of all leased federal oil and gas acres in Montana are put into production.</li> </ul>
<p><b>Response:</b> BLM must comply with statutory and policy requirements with respect to the timing of lease sales. In accordance with the Federal Onshore Oil and Gas Leasing Reform Act of 1987 and BLM Manual 3120, each BLM state office will hold sales at least quarterly if lands are available for competitive leasing. There is no legal requirement to defer parcels based on development potential.</p> <p>The \$2 minimum bonus bid is determined by regulation.</p> <ul style="list-style-type: none"> <li>• 43 C.F.R. § 3120.1-2 (c)- The national minimum acceptable bid shall be \$2 per acre or fraction thereof on the payable on the gross acreage, and shall not be prorated for any lands in which the United States owns a fractional interest.</li> </ul> <p>The BLM cannot, by regulation, defer offering lease parcels for sale until at least 50% of all leased federal oil and gas acres in Montana are put into production. See response above to Range of Alternatives Comment #1.</p>			
7	WELC	Alternatives	<p>We also request that the BLM consider the following alternatives:</p> <ol style="list-style-type: none"> <li>(1) An alternative that analyzes and applies the best available information and science through stipulations aimed to protect federally listed species and their habitats.</li> <li>(2) An alternative that analyzes and applies best available methane reduction technologies as a stipulation attached to all parcels in the lease sale.</li> </ol>
<p><b>Response:</b> At the leasing stage, the location and extent of development is unknown, however stipulation TES 16-2 (Endangered Species Act Section 7 Consultation Stipulation) is applied to all lands of every parcel in every lease sale. The EA discloses presence/absence information for each county with proposed parcels. TES 16-2 states that the BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The development of a lease parcel undergoes a complete NEPA analysis during the Application for Permit to Drill (APD) stage of development. TES 16-2 stipulates that the BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.</p> <p>The BLM Montana/Dakotas does not have any existing methane reduction stipulations that it can apply to parcels. LN 14-18 is applied to every parcels, which provides: The lessee/operator is given notice that prior to project-specific approval, additional air resource analyses may be required in order to comply with the NEPA, FLPMA, and/or other applicable laws and regulations. Analyses may include equipment and operations information, emission inventory development, dispersion modeling or photochemical grid modeling for air quality and/or air quality related value impact analysis, and/or emission control determinations. These analyses may result in the imposition of additional project-specific control measures to protect air resources.</p>			

### Proposed Action / Effects analysis

Commen	Commenter	Subject	Comment
--------	-----------	---------	---------

t No.			
1	USEPA	RFD	The reasonably foreseeable development (RFD) and number of wells projected for many of the parcels is low, with an estimated total of 55 wells on the 322 parcels. Since oil and gas leases are sold for the purpose of oil and gas development, we recommend that the BLM assume that at least a minimum level of development would occur on each parcel offered for lease. This would allow the BLM to consider specific potential effects that could occur after the leasing stage.
<p><b>Response:</b> In order to quantify effects, the EA evaluates effects based upon a Reasonably Foreseeable Development scenario (RFD) based upon development potentials identified in the applicable RMP. The BLM uses the RMP development potential to identify the development potential for every parcel and sums up the total to estimate the number of wells that may be subsequently drilled. At the leasing stage, the location and extent of development is unknown. However, the EA considers effects of development in/around all of the parcels in question. The EA does not dismiss the effects because development potential is low.</p>			
2	USEPA	Split estate	Since the lease sale will include split estate lands, we also recommend that BLM's final decision document describe how BLM applies stipulations, BMPs and mitigation measures when managing development of federal minerals on private lands. Based on past experience, we understand BLM may have limitations in applying protective measures on private surface.
<p><b>Response:</b> With few exceptions, the BLM manages split estate the same as BLM surface, including stipulations, conditions of approval, required design features, and best management practices. When an APD is received for a split estate situation, an onsite is conducted with the landowner and operator to agree on development activities that mitigate potential adverse impacts, and enable successful interim and final reclamation.</p> <p>The one notable exception, is the BLM cannot apply visual standards for public land to private lands. The BLM may not designate land use plan visual management standards for private surface.</p>			
3	Trout Unlimited	Proposed Action	In our review of the parcel listings, their stipulations in Appendix A and B, and the EA, it has come to our attention that many parcels identified in the two appendices are not identified as being in the March 2019 sale in the Parcel List Timeline document provided by BLM. In addition, the EA does not provide a list of parcels offered for the sale. Finally, the BLM website does not provide a Lease Sale Notice containing all the parcels offered. This has us confused as to which parcels are being offered and which parcels have been withdrawn. We ask the BLM to review these lists for consistency and in the meantime, we are commenting on our identified parcels as per Appendices A and B information for the March 2019 sale.
<p><b>Response:</b> : All 322 parcels are listed on the Parcel List Timeline document as proposed for, and carried forward from previous sales, to the March 2019 Lease Sale. The same 322 parcels are reflected in Appendix A of the EA with proposed stipulations. Appendix B is a listing of stipulation definitions only, and therefore would not contain actual parcel numbers. The Sale Notice is required to be posted for public review at least 45 days before the lease sale date, which in this case is February 8, 2019.</p>			
4	Trout Unlimited	Proposed Action	Please note that it was difficult to find the Lease Sale Notice that identifies all the parcels offered for sale or deferral. We have read Appendix A and were not able to find the Dillon Parcels MTM 105431-GG, MTM 105431-GD and MTM 105431-GH. If these three parcels were withdrawn, we support that, but we could find no mention of their withdrawal.
<p><b>Response:</b></p>			

<p>The three Dillon Field office lease parcels in question, MTM 105431-GG, MTM 105431-GD, and MTM 105431-GH, were deferred from the December 2018 lease sale. Refer to the Decision Record, available on ePlanning. The three parcels are located within 3.1 miles of an active lek, which is located outside of BLM-designated and State of Montana designated habitat for greater sage-grouse. Additional time and coordination with the State of Montana to determine if sage-grouse habitat boundary adjustments are necessary, or if additional protective stipulations are warranted. Until that time, these three parcels will not be offered.</p>			
5	Trout Unlimited	Proposed Action Effects analysis watersheds/fish	<p>Maintaining healthy ecosystems and watersheds is the focus of TU and its members and TU is concerned about the lack of consideration for Montana’s important watersheds and sensitive fisheries ecology. Lack of analysis on fisheries and aquatic habitat in the EA is alarming, particularly with the presence of Westslope cutthroat trout and Arctic grayling habitat. These important watersheds can easily be jeopardized by surface and groundwater disturbance from oil and gas development activities.</p> <p>The Dillon FO has failed in its attempt to adequately complete a thorough and considerate environmental review of the impacts from the sale of those identified lease parcels. Trout Unlimited requests the BLM to review those parcels located in Westslope cutthroat and Arctic grayling habitat and withdraw them from this sale; failure to do this makes both species extremely vulnerable to future extirpation.</p>
<p><b>Response:</b> All parcels in Beaverhead and Madison County have been deferred from the March 2019 lease sale under Alternative C pending additional analysis to determine the appropriate level of protection for the area.</p>			
6	CBD, WEG	Foreseeable impacts	<p>NEPA requires “reasonable forecasting,” which includes the consideration of “reasonably foreseeable future actions . . . even if they are not specific proposals.” See N. Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067, 1079. It is entirely foreseeable that oil and gas activities will lead to significant environmental impacts. Even as early as this scoping stage, when BLM has not released data on the resource values particular parcels contain, a cursory glance at the maps reveal a number of resource issues raised by exploration and development. BLM must not move forward with leasing until it discloses these issues and analyzes the impacts from, and alternatives to, the December 2018 sale. (Comment includes parcel specific review in a table).</p>
<p><b>Response:</b> Lease parcels were reviewed by an Interdisciplinary Team and applicable stipulations were assigned to avoid and minimize impacts to resources. For example, if there is a stream on a parcel, the BLM applied a no surface occupancy stipulation to protect water resource values. Additionally, site specific NEPA analysis would be conducted at the APD stage of development.</p>			
7	Northern Plains	NEPA analysis	<p>Northern Plains finds the draft EA and associated documents prepared by the BLM for its December 2018 lease sale to be inadequate. The BLM’s environmental analysis lists “potential” and perhaps even expected impacts that pose more than a minor threat to land, air, water, and the viability of farm and ranch operations in the areas proposed for leasing. Impacts like “spills or produced fluids” that “could potentially impact surface and groundwater” or “contaminate aquifers with salts, drilling fluids, fluids and gases from other formations,” and more are impacts that cannot be mitigated, and impacts that threaten the livelihoods of Northern Plains members across Montana. As such, Northern Plains requests that the BLM refrain from proceeding with the December lease sale until the BLM completes a comprehensive environmental impact statement (“EIS”), instead of the less comprehensive environmental analysis done</p>

			within an environmental assessment (“EA”). An EIS is required for major federal actions significantly affecting the environment. See 40 C.F.R. § 1502.3.
<b>Response:</b>			
<p>Council on Environmental Quality (CEQ) regulations include ten considerations for evaluating intensity, one of which considers the degree to which effects are highly uncertain or involve unique or unknown risks (40 CFR § 1508.27(b)(5)). As with controversy, there will always be some uncertainty about the effects of land management actions, and the decision-maker must exercise some judgment in evaluating the degree to which the effects are likely to be highly uncertain. Similarly, there will always be some risk associated with land management actions, but the decision-maker must consider whether the risks are unique or unknown.</p> <p>The proposed action of selling oil and gas leases is not unique or unusual. The State and private mineral owners also sell oil and gas leases. The EA describes typical exploration and development activities that could occur on a federal lease along with the potential impacts from those activities as well as applicable stipulations designed to minimize or eliminate impacts. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks.</p> <p>Offering parcels for lease does not authorize any lease exploration or development activities. At the leasing stage, the BLM reviews parcels and assigns stipulations that by their very nature, are designed to avoid/minimize impacts to public health and safety. Upon receipt of an APD, the BLM would initiate a site-specific NEPA analysis that considers the direct, indirect, and cumulative effects of a specific action, and identify additional mitigation needed to protect public health and safety.</p> <p>In all potential exploration and development scenarios, the BLM would require the use of Best Management Practices (BMPs) documented in “Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development” (USDI and USDA 2007), also known as the “Gold Book.” Standard federal lease terms and conditions, and federal regulations would apply to each parcel offered for sale. For example, spill prevention plans would be required and any drilling operations would be conducted in accordance with the safety requirements of 43 C.F.R. § 3160, the Federal Onshore Oil and Gas Orders (“Onshore Orders”), BMPs recommended by the American Petroleum Institute, and other industry requirements for the protection of worker safety and public health. The BLM could also identify COAs based on site-specific analysis that could include moving the well location, restrict timing of the project, or require other reasonable measures to minimize impacts to other resource values, land uses, or users not addressed in the lease stipulations at the time operations are proposed (43 CFR § 3101.1-2). Thus, effects of leasing, whereby protective stipulations are added to parcels offered for sale, would mitigate potential impacts to public health and safety, and the BLM has provided sufficient evidence and analysis to support a Finding of No Significant Impact (40 CFR § 1508.9).</p> <p>The leasing incorporates by reference the respective RMPs, and these RMPs contain cumulative impacts at the appropriate scales for the full RFDs done in each Field Office. The decisions on what areas to not lease, lease with standard, moderate, or major stipulations are 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. Offering the parcels for lease would not result in any significant impacts beyond those analyzed in the RMP-level FEISs to which this EA references.</p>			
8	WEG	Multi-resources	The BLM does not include quantitative information about the amount of water that will be used to develop the specific lease parcels, the amount of wastewater generated by fracking, the acreage of land that will be

			disturbed for wastewater and drilling mud impoundments, the increase in truck traffic associated with fracking, the impacts on roads, the socioeconomic impacts on small towns from the influx of oil and gas workers, the air pollutants released from deeper wells, the increase in greenhouse gas emissions such as methane, the impacts to human health, or the impacts to wildlife to name a few.
<p><b>Response:</b> The EA contains coarse estimates of the amount of water and acres disturbed that could result from subsequent development of lease parcels. Any site specific considerations would be looked at in more detail at the APD stage. The BLM completed air emissions modeling and those effects are disclosed in Chapter 3. Socioeconomic considerations are considered in the applicable RMP for each planning area.</p>			
9	WEG, Northern Plains, & others	Site specific NEPA analysis	The BLM should conduct site-specific NEPA analysis prior to issuing leases, rather than postponing it to the Application Permit to Drill (“APD”) stage. The issuance of a lease indicates the right to develop; any stipulations placed on a lease would be contingent upon site-specific NEPA analysis. However, if that site-specific analysis is not occurring until after the full lease has been issued, the window to shape a lease with specific stipulations has already been closed. Additionally, the BLM frequently approves APDs without further NEPA analysis. BLM must complete a site-specific NEPA analysis for all other impacts before it proceeds with the proposed lease sale.
<p><b>Response:</b> Surface disturbance is not part of the proposed action. At the time of this review, it is unknown whether or not a particular parcel will be sold and a lease issued, and what potential impacts to those resources may occur. The EA uses RFD scenarios based on the RMPs to estimate potential impacts. A detailed site-specific analysis and mitigation of activities associated with any particular lease would occur when a lease holder submits an Application for Permit to Drill (APD). This could include re-evaluating the area for additional Conditions of Approvals (COAs), and Required Design Features (RDFs), based on the proposed action. The level of NEPA completed for future APDs would be based on site-specific considerations and the level of impacts.</p> <p>At the leasing stage, site-specific drilling locations are unknown. The BLM reviews proposed parcels and identifies stipulation based on what is known about the parcels such as the presence of streams, wetlands, steep slopes, known nest sites, or designated habitat. These stipulations were developed during the last RMP revisions, and are essentially incorporated as design criteria in any future proposal. Site-specific NEPA analysis cannot occur until there is an APD. However, the EA does disclose potential indirect impacts of leasing to the issues identified from internal and external scoping. In this EA, those resources are air, water, socioeconomics and greater sage-grouse.</p> <p>Site-specific analysis and corresponding mitigation would be provided at the APD stage. Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, alternatives would be considered and any additional mitigation would be identified to address potential future impacts that arise in the site specific analysis. This would include a thorough inventory of any resources that may be impacted and more in-depth, site-specific analysis of potential impacts to those resources.</p>			
10	Western Energy Alliance	Effects analysis	The Alliance also appreciates the analysis on page 60 of the EA, stating that “leasing does not result in direct habitat impacts. A BLM decision to offer parcels in a lease sale does not result in immediate well construction, and the specifics of any particular proposal are unknown.” While plainly true, groups opposed to all leasing continue to press BLM to conduct overly-detailed, speculative analysis at the leasing stage when it should instead be properly conducted at the permitting stage. The

			Alliance supports BLM’s analysis and urges it to move forward with leasing all parcels analyzed in the EA.
<b>Response:</b> Thank you for your comment.			
11	TWS, MWA	NEPA Hard Look sage-grouse	<p>BLM has not taken the required “hard look” at potential environmental impacts. Under NEPA, BLM must evaluate the “reasonably foreseeable” site-specific impacts of oil and gas leasing, prior to making an “irretrievable commitment of resources.” <i>New Mexico ex rel. Richardson</i>, 565 F.3d at 718; see also <i>Sierra Club v. Hodel</i>, 848 F.2d 1068, 1093 (10th Cir. 1988); <i>Sierra Club v. Peterson</i>, 717 F.2d 1409, 1411 (D.C. Cir. 1983).</p> <p>Here, BLM is in fact making an “irretrievable commitment of resources” by offering leases without reserving the right to prevent all future development. The site-specific impacts are “reasonably foreseeable” and should be analyzed in this EA, or, probably, in an environmental impact statement (EIS), rather than waiting until a leaseholder submits an application for permit to drill (APD).</p> <p>NEPA requires that BLM analyze and disclose all reasonably foreseeable impacts from development before it issues the leases. The environmental effects of reasonably foreseeable future actions analyzed in the 2015 ARMPA were premised on the implementation of the conservation measures contained in the plan amendments, including, prioritizing oil and gas leasing and development outside of PHMAs and GHMAs, implementing the net conservation gain requirement, requiring compensatory mitigation... etc. For the analysis of impacts to be accurate, it must examine the direct, indirect and cumulative effects of habitat-disturbing actions in sage-grouse habitat without the implementation of those conservation measures, which have recently been abandoned by BLM or may be abandoned in the near future. See, e.g., Instruction Memorandum (IM) 2018-093 (eliminating the compensatory mitigation requirement). See also EA at 64 (outlining proposals to weaken the Wyoming sage-grouse plans).</p> <p>Moreover, BLM cannot rely for this sale on the plan-level analysis conducted for the 2015 RMPs. Tiering is only appropriate when a subsequent NEPA document incorporates by reference earlier general matters into a subsequent narrower statement; but it does not allow a subsequent analysis to ignore the specific environmental issues that are presented in the later analysis. 40 C.F.R. § 1508.28. The RMPs do not address the site-specific impacts associated with issuing these particular lease parcels.</p>
<b>Response:</b>			
<p>This EA tiers to the RMPs and associated FEISs. The FEISs identify areas a low, moderate, or high development potential, and the ARMP made management decisions for areas open or closed to leasing. The RMPs also allows development of oil and gas resources and put suitable constraints on these development activities. There is a large portion of the RMP areas that have major constraints on activities (e.g., exclusion areas for wind or other rights-of-ways, no surface occupancy for oil and gas, etc.). The RMPs were developed under the FLMPA and NEPA requirements and follow multiple use and sustained yield requirements. This lease sale analyzed and attached all the appropriate stipulations to allow both development of minerals and protection of resources. BLM analyzed all parcels in the EA to determine what stipulations from the RMPs needed to be applied and if those stipulations are still adequate (i.e., still</p>			

provide the protections they were designed to provide).			
At the leasing stage, site-specific drill locations are unknown. The BLM reviews proposed parcels and identifies stipulations based on what is known about the parcels such as presence of streams, wetlands, steep slopes, known nest sites, or designated habitat. These stipulations are essentially incorporated as design criteria in any future proposal. These stipulations were developed during the last RMP revision. Site specific NEPA analysis cannot occur until there is an APD; however, the Lease EA does disclose potential “indirect” impacts of leasing to the issues identified from internal and external scoping (in this EA, those resources are water, air, socio-econ, and greater sage-grouse).			
12	TWS, Earthjustice	Cumulative effects	BLM has not prepared an adequate cumulative impacts analysis evaluating the effects of the lease sale with other recent lease sales. It has ignored the cumulative impact of many past lease sales in Montana. It has ignored the massive lease sales taking place in neighboring Wyoming. The sales in Wyoming include many parcels in the Powder River Basin, immediately adjacent to Montana and the lease parcels in the Miles City Field Office. In addition to the December 2018 sale, BLM has sold, and has proposed to sell millions of acres of other oil and gas leases in Montana, North Dakota, Colorado, Wyoming and other western states.
<b>Response:</b> This EA does contain cumulative impacts discussion by resource issues, and is tiered to the information and analysis and conforms to the decisions contained in the Resource Management Plans and associated FEISs. The RMPs are in compliance with all Federal laws, regulations, and policy. The direct, indirect, and cumulative effects of oil and gas leasing across the various field office were evaluated in the FEISs for the ARMP. The decisions on what areas to not lease, lease with standard, moderate, or major stipulations is done at the RMP level as well in order to look at the larger picture of impacts (including cumulative impacts). There are no ground-disturbing activities authorized at the leasing stage; any potential site-specific cumulative impacts not addressed in the RMP would be completed at the APD stage (when there is an actual proposal to drill).			
13	WELC	Cumulative effects	In addition, the BLM must consider the impact of the Lease Sale in light of the additive impacts caused by global warming. For example, the BLM should consider the impact of the Lease Sale on erosion and sedimentation in light of the additive impacts caused by global warming. This should be done on a resource-by-resource basis.
<b>Response:</b> BLM has applied stipulations to avoid and minimize impacts to resource values. Climate change was addressed in the applicable RMP.			
14	WELC	Farmlands	The BLM fails to consider impacts to farmland, including both direct effects, e.g., direct surface-disturbance from roads and well pads, and indirect or cumulative effects, e.g., the effects of air pollution, water shortages, or climate change. BLM must consider prime and unique farmlands in their NEPA analysis, as emphasized in a U.S. Department of the Interior (“DOI”) Environmental Statement Memorandum, which provides: “Bureaus and offices will analyze impacts on prime or unique farmlands as an integral part of the NEPA process.” DOI Memorandum No. ESM94-7 (August 17, 1994) (Exhibit I).
<b>Response:</b> The EA discusses the effects of air pollution and climate in <u>Air Resources / Climate and Climate Change</u> and <u>Environmental Impacts / Air Pollutant and GHG Emissions</u> sections of the EA. The adequacy of water resources are discussed in the <u>Water Resources</u> section of this EA.			

The BLM recognizes the importance of farming and farmland preservation. The underlying regulations mentioned in this DOI Memorandum come from the Farmland Protection Policy Act (FPPA) (7 U.S.C. 4201 et. seq., implementing regulations 7 CFR Part 658, of the Agriculture and Food Act of 1981, as amended). The goal of the FPPA is to minimize the effects of Federal policies and programs which may lead to the conversion of farmland to nonagricultural uses. See the USDA Natural Resource Conservation Survey Web Soil Survey at <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> for more information on the land classification of Prime and Unique farmland.

The BLM considered this issue in the land-use plans covering the areas where lease parcels are located. See Soil Resources (page 126) in HiLine Proposed RMP/Final EIS and page 1-8 of the *Miles City Field Office Approved RMP (Sept. 2015)* for more information.

By requiring no surface occupancy within floodplains, NSO 11-70 would also afford protection to prime farmland that occurs along stream and river valleys. There are farmlands of statewide importance (a slightly lower classification), however the soil types associated with these soil types do not require additional requirements for reclamation over and above those required on all soil types.

15	WELC	Cumulative effects Traffic impacts	<p>The BLM must consider impacts from increases in vehicle traffic that authorized development would induce. As noted above, fracking requires huge amounts of water, and consequently a great number of tanker truck trips to transport this water and chemicals to the site and to transport waste from the site. In addition, heavy truck trips result from rig moves, hydraulic fracturing trucks, for well pad and pipeline construction, and for workover drilling and maintenance. Given that fracking can require thousands of round trips by heavy trucks when developing each well— the impacts of which are compounded exponentially for development of an entire oil and gas field—it is clear that this heavy industrial transport activity will result in dramatic impacts.</p> <p>This analysis must include the quantification of air quality impacts from increased truck traffic, estimate increased maintenance demands, consider safety costs for increased roadway use, increased traffic accidents and associated medical impacts and burdens on local hospitals, consider burdens on first responders and the criminal justice system, and project where or how many miles of access roads will be constructed.</p>
<p><b>Response:</b> It is not known at the leasing stage where the locations for oil and gas development will occur and what level of track traffic will be proposed. Truck traffic and water transport, use and disposal activities would be proposed in the Drilling and Surface Use Plan components of the Application for Permit to Drill (APD).</p> <p>However, the BLM has recently completed a regional photochemical grid modeling study for the Montana Dakotas region to determine potential impacts to air quality and AQRVs from predicted future oil and gas development across the region. This regional modeling study supplements and expands on previous modeling completed to support the MCFO RMP air analysis. The BLM Montana Dakotas State Office Photochemical Grid Modeling (PGM) Study (BLM 2016) analyzed potential impacts from reasonably foreseeable oil and gas development within Montana, and parts of North and South Dakota. The analysis included estimates of criteria air pollutants, hazardous air pollutants, and greenhouse gas emissions from a multitude of oil and gas development sources and scenarios. Refer to the Air Quality analysis.</p>			
16	WELC	Cumulative	The BLM must provide a clear assessment of what pipelines are required, what pipelines are “feasible,”

		effects pipelines	<p>whether they would be limited in what they transport, how many barrels per day they would transport, and how much truck traffic this would displace (if any, since the pipelines ultimately are transferring product to trucks). This should include estimates of how many pipelines will be constructed, how many miles of pipe will be laid, what their diameter would be, how many water-bodies they would cross, or where they will be located. Existing pipelines that would be utilized must also be disclosed, noting their age, diameter, how many barrels per day they do and would transport, water-bodies they cross, location, and what they transport. Relatedly, the BLM must also provide an assessment of the need for new compressors and/or whether additional compression capacity is needed.</p> <p>The BLM must consult agencies with pipeline safety jurisdiction to consider the environmental, public safety, and human health impacts associated with a web of unregulated gas gathering pipelines. Rural gas gathering pipelines are exempt from federal pipeline safety regulations and therefore state regulation. 49 CFR § 192. Unregulated gas gathering pipelines are at higher risk of failure than regulated pipelines. BLM must consider the impact of extreme weather causing flooding, mudslides and geological instability, which can compromise the integrity of pipelines and result in leaks and potential explosions. BLM must consider forest fire risks from pipeline explosions. BLM must consider lack of pipeline safety inspections. BLM must consider the risks associated with undisclosed incremental pipeline failures on wildlife, ground water and surface water contamination, grazing cattle, human health, and uptake of oil and gas chemicals by crops.</p>
<b>Response:</b> It would be too speculative at the leasing stage to consider the effects from pipeline construction. Effects from potential future pipelines would require site specific NEPA analysis.			
17	WELC	Cumulative effects seismic activity	The threat of seismic activity induced from oil and gas development practices must be considered by the BLM. As noted above, Ohio officials placed a five-mile buffer around waste injection wells. Given the recognized correlation between oil and gas development practices and the inducement of earthquakes, taking such a precautionary approach, here, through required stipulations is prudent and would help stem potential future impacts. At the very least, however, the BLM must take a hard look at possible seismicity impacts from the proposed action.
<b>Response:</b> There are no documented cases of earthquakes in Montana, North Dakota and South Dakota caused by oil and gas development. The geology here is different from Oklahoma and other places with documented incidents.			
18	Ogle	Stipulations	We are surface owner of parcels MTM 105431-P6, P7 and P* in Big Horn County, MT. We have included discussion of MTM 108952-HQ in this comment letter because it is adjacent to P6, P7 and P8. Parcels 108952-HQ was offered in the December 11, 2018 oil and gas lease sale. We believe the stipulations for MTM 108952-HQ and MTM 105421-P6, P7 and P8 should be the same since they are adjacent. This means adding stipulations CSU 12-26, CSU 12-33 and NSO 11-80 to P6; adding CSU 12-26 and CSU 12-33 to P7; and adding CSU 12-26 and 12-33 to P8.
<b>Response:</b> BLM reviewed the parcels cited in the comment. Some stipulations may be applied to one parcel and not others based on resources			

present. The Visual Resource Management stipulation (CSU 12-33) was applied to BLM surface on Parcel 108952-HQ, but this stipulation may not be used on split estate. Big game winter range (CSU 12-26) stipulations are assigned based upon MT FWP mapped habitat boundaries, which covers part of parcel HQ but not the others. NSO 11-80 only applies to BLM mapped GHMA sage-grouse habitat, which covers all of P8 and part of P7.

### FONSI Context / Intensity Factors

Comment No.	Commenter	Subject	Comment
1	WELC	1 <sup>st</sup> , 2 <sup>nd</sup> , and 3 <sup>rd</sup> intensity factor	<p>The first intensity factor under NEPA is “the degree to which the proposed action affects public health and safety.” Id. § 1508.27(b)(2). There is no doubt the proposed action, which would allow for the use of fracking, impacts public health and safety. As discussed above, the use fracking presents risks to human health and water due to air pollution and risks of contamination. Thus, the BLM must fully analyze and disclose the impacts of fracking in a future EIS.</p> <p>A similar argument applies to the second and third intensity factors, which require, respectively, a look at the degree to which impacts are highly controversial and the degree to which impacts are highly uncertain or involve unique and unknown risks. Indeed, the situation here is directly similar to the situation in Center for Biological Diversity v. U.S. Bureau of Land Management, where the court held that the BLM’s “unreasonable lack of consideration of how fracking could impact development of the disputed parcels . . . unreasonably distort[ed] BLM's assessment of at least three of the ‘intensity’ factors in its FONSI,” including the aforementioned factors. 937 F. Supp. 2d at 1157. Specifically, the court reasoned that fracking was highly controversial based on the possibility of significant environmental degradation, public outcry, and potential threats to health and safety. Id. at 1157–58. There is no doubt that similar reasoning applies here. Fracking presents a significant risk of contamination.</p> <p>For example, the Pavillion well contamination occurred within a related geological formation connected to the formation which stretches into Carbon County, Montana. Compare, EPA Draft Report, Investigation of Ground Water Contamination Near Pavillion, Wyoming 1 (Dec. 2011), <a href="https://www.epa.gov/sites/production/files/documents/EPA_ReportOnPavillion_Dec-8-2011.pdf">https://www.epa.gov/sites/production/files/documents/EPA_ReportOnPavillion_Dec-8-2011.pdf</a>, with USGS, Subsurface Stratigraphic Cross Sections Showing Correlation of Cretaceous and Lower Tertiary Rocks in the Bighorn Basin, Wyoming and Montana 2, 3 (2010), <a href="https://pubs.usgs.gov/dds/dds-069/dds-069-v/REPORTS/69_V_CH_6.pdf">https://pubs.usgs.gov/dds/dds-069/dds-069-v/REPORTS/69_V_CH_6.pdf</a>.</p>
<p><b>Response:</b> In CBD v. BLM 937 F. Supp. 2d 1440 (2013); Case # C 11-06174 PSG, the court held that that the BLM violated NEPA in its environment assessment of (oil and gas) leases by unreasonably relying on an earlier single-well development scenario. That scenario did not adequately consider the development impact of hydraulic fracturing techniques popularly known as "fracking" when used in combination with technologies such as horizontal drilling. The court notes that the BLM analysis relied on a Reasonable Foreseeable Development (RFD) scenario that did not account for increased development potential due to fracking. The EA briefly discussed "existing credible scientific evidence" concerning fracking, but did not discuss fracking in</p>			

great detail beyond noting that it was "not relevant to the analysis of impacts ... because the reasonable foreseeable development scenario anticipates very little (if any) disturbance to the human environment." BLM reserved its analysis of the impacts of fracking until applications for a permit to drill ("APD") were submitted because analyzing site-specific impacts would be more feasible.

The Court cited *Conner v. Burford*, in which the Ninth Circuit found that non-NSO leases, even if subject to substantial government regulation, do constitute an "irretrievable commitment of resources."

The court further noted: On this record, it was unreasonable for BLM not to at least consider reasonable projections of drilling in the area that include fracking operations, or else limit its sale to leases with NSO provisions that would permit it to prohibit all surface disturbances until more specific information becomes available. This unreasonable lack of consideration of how fracking could impact development of the disputed parcels went on to unreasonably distort BLM's assessment of at least three of the "intensity" factors in its FONSI. First, BLM erroneously held that the leases were not highly controversial. There was controversy regarding the nature of the drilling to occur on the leases and the potential impacts drilling would impose on the nearby communities. The Court found the risk of water pollution to be the most compelling and the most supported by the record.

The facts presented in *CBD v. BLM* 937 F. Supp. 2d 1440 (2013); Case # C 11-06174 PSG are not the same as those presented for the Montana/Dakotas March 2019 EA for the oil and gas lease sale.

1. The Montana/Dakotas EA acknowledges hydraulic fracturing is increasing in use, and includes a robust discussion on the impacts of fracking with respect to water quality.
2. All five parcels in a designated source water protection area are No Surface Occupancy. In *Conner v. Burford*, the court found that the NSO leases absolutely prohibited any surface disturbing activities and were more akin to a right of refusal than an actual lease for drilling. The NSO leases therefore did not constitute an "irretrievable commitment of resources."
3. The MT/Dak March 2019 lease EA notes: Standard stipulation STD 16-3 requires the Agency to furnish data on any special areas, which may include domestic water supplies within 1,000 feet of parcels, and stipulates that surface use or occupancy will be controlled to prevent damage to surface or other resources. The water resources analysis notes that there are no known domestic water supply wells within 1000 feet of the proposed parcels.
4. The only specific area of concern cited by WELC is along the Montana/Wyoming border and they cite studies documenting water quality contamination from the Pavilion gas field. The EA provides water resources analysis specific to the Tongue River basin, which occupies the Montana/Wyoming border.
5. WELC cites similarities between the geology on the Pavillion geographic area by citing a USGS study that notes similar geology in the Powder River Basin along the Montana/Wyoming border. However, Pavillion is located in the Wind River Basin in central Wyoming, not the Powder River Basin.
6. In the Pavillion study, the research noted *With the exception of two production wells, surface casing of gas production wells do not extend below the maximum depth of domestic wells in the area of investigation. Shallow surface casing combined with lack of cement or sporadic bonding of cement outside production casing would facilitate migration of gas toward domestic wells.*
7. The EA describes the review process that occurs at the APD stage. The Gold Book, Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (BLM and USFS 2007), would be followed, and site-specific mitigation measures, BMPs, and reclamation standards would be implemented and monitored in order to minimize effects to water resources. All proposed actions must comply with local, state, and federal regulations, including Montana and North Dakota water laws.
8. WELC states that BLM assumes, without evidence, that federal and state regulations will prevent aquifer contamination and ignores the large and growing body of evidence highlighting the full range of risks of hydraulic fracturing. BLM completes inspections of wells drilled on federal mineral

estate. For example, during FY's 2017 and 2018 19 wells were drilled on lands under the Miles City Field Office jurisdiction. The BLM completed drilling inspections on 15 of those wells, and noted compliance with existing federal laws. Three of the four wells that were not inspected were in a known producing unit with little to no associated risk. Those inspection records have been included in the project record.

2	WELC, WEG	4 <sup>th</sup> intensity factor Cultural and other resources	Based on the proximity of the December 2018 lease sale parcels to the Blackfeet Indian Reservation, Glacier National Park, the Northern Cheyenne Indian Reservation, the Crow Indian Reservation, Rosebud Battlefield State Park, and the Tongue River Reservoir, there is no doubt that the fourth intensity factor—the unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas—is also implicated.
---	-----------	--	---

**Response:**

Offering 305 parcels for lease would have no direct impacts on cultural resources. At the leasing stage, the BLM applied lease terms and cultural resource lease notices (LN 14-2, LN 14-5, LN 14-14, LN 14-22, LN 14-25, LN 14-32, LN 14-33, LN 14-34, LN 14-38) to protect cultural resources. The BLM will not approve any ground disturbing activities that may affect such properties or resources until it completes its obligations associated with the stipulations applied to each respective parcel, as well as applicable requirements of the National Historic Preservation Act and any other authorities. Any eligible site, or site for which a clear eligibility determination cannot be obtained, would become subject to a stipulation requiring an avoidance buffer. Effects to historic or cultural resources located within the lease parcels at the APD stage are unlikely because of stipulations in place via this EA (Appendix A).

The non-ALL Lands NSO parcels include 215 parcels in Miles City Field Office, 1 in Glasgow, 4 in Havre, and 1 in South Dakota (USFS parcel). The Miles City RMP identified prime farmland as an issue addressed, but not analyzed further. Prime farmland is those agricultural lands best suited to producing food, forage, feed, fiber, and oilseed crops. Although soils considered prime farmlands (if irrigated) occur in the planning area, the unavailability of dependable water in these areas prevents their classification as prime farmland. Therefore, there are no classified prime farmlands on BLM-administered lands in the planning area.

The HiLine RMP notes if a surface-disturbing activity is proposed on a prime farmland, special attention will be required during construction and reclamation to ensure there will be no unnecessary and irreversible conversion of prime farmland to nonagricultural uses (30 U.S.C. 1260, P.L. 95-87, Section 510(d)(1)). The HiLine FEIS for the RMP notes:

*Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Its soils are permeable to water and air. Prime farmland is not excessively eroded or saturated with water for long periods of time, and it either does not flood frequently during the growing season or is protected from flooding (7 CFR 657.5 (a)). Approximately 15,462 acres of potential prime farmland soil mapping units are on BLM lands and approximately 131,598 acres are on the federal mineral estate (designated by the USDA-NRCS). Most of the prime farmland occurs along stream and river valleys and terraces as well as on gently sloping upland areas. To meet the criteria of a prime farmland unit, most soils on BLM lands would require additional moisture, such as dependable irrigation water which is lacking on BLM lands.*

None of the parcels contain designated parklands, wild and scenic rivers, or ecologically critical areas. Aquatic resources, including wetlands are protected by various stipulations, such as NSO 11-70, which prohibits surface occupancy and use within perennial or intermittent streams, lakes, ponds, reservoirs, 100-year floodplains, wetlands, and riparian areas. By requiring no surface occupancy within floodplains, NSO 11-70 would also afford protection to prime farmland that occurs along stream and river valleys.			
3	WELC, WEG	5 <sup>th</sup> intensity factor Cumulative Effects	Finally, because the December 2018 lease parcels are directly adjacent to both the December 2017 and June 2018 lease parcels, the fifth intensity factor, cumulative impacts, is also implicated by the lease sale, further underscoring the need for an EIS.
<p><b>Response:</b> This EA is tiered to the information and analysis and conforms to the decisions contained in the applicable ROD and ARMP for each planning area included in this EA (2015 Rocky Mountain and Great Basin Regions Records of Decision (RODs), 1988 North Dakota ROD, and associated Records of Decision and Final Environmental Impact Statements (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).</p> <p>There are no surface-disturbing activities authorized at the leasing stage. Offering the parcels for lease would not result in any significant impacts beyond those analyzed in the RMP-level FEISs to which this EA references. Exploration and development projects will be analyzed at the APD stage to determine the significance of site- specific cumulative impacts.</p> <p>In all potential exploration and development scenarios, the BLM would require the use of Best Management Practices (BMPs) documented in “Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development” (USDI and USDA 2007), also known as the “Gold Book.” Standard federal lease terms and conditions, and federal regulations would apply to each parcel offered for sale. For example, spill prevention plans would be required and any drilling operations would be conducted in accordance with the safety requirements of 43 C.F.R. § 3160, the Federal Onshore Oil and Gas Orders (“Onshore Orders”), BMPs recommended by the American Petroleum Institute, and other industry requirements for the protection of worker safety and public health. The BLM could also identify COAs based on site-specific analysis that could include moving the well location, restrict timing of the project, or require other reasonable measures to minimize impacts to other resource values, land uses, or users not addressed in the lease stipulations at the time operations are proposed (43 CFR § 3101.1-2). Thus, effects of leasing, whereby protective stipulations are added to parcels offered for sale, would mitigate potential impacts to public health and safety, and the BLM has provided sufficient evidence and analysis to support a Finding of No Significant Impact (40 CFR § 1508.9).</p>			

### Federal Laws, Litigation, & Policy

Comment No.	Commenter	Subject	Comment
1	TRCP	DOI policy	The Department of Interior has issued three crucial directives that have significant implications for managing fish and wildlife, their habitat, and hunting and fishing that apply to public land oil and gas

			<p>leasing. We ask that the BLM consistently use this direction when assessing lease sale parcels and their potential impacts on these values.</p> <ul style="list-style-type: none"> <li>• Secretarial Order 3362 - Improving Habitat Quality in Western Big-Game Winter Range and Migration Corridors</li> <li>• Secretarial Order 3356 - Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities</li> <li>• and Coordination with States, Tribes, and Territories</li> <li>• Secretarial Order 3347 - Conservation Stewardship and Outdoor Recreation.</li> </ul>
<p><b>Response:</b> The RMPs associated with the parcels proposed for lease were developed under the FLMPA and NEPA requirements and follow multiple use and sustained yield requirements. This lease sale analyzed and attached all the appropriate stipulations to allow both development of minerals and protection of resources. BLM analyzed all parcels in the EA to determine what stipulations from the RMPs needed to be applied and if those stipulations are still adequate (i.e., still provide the protections they were designed to provide). Stipulations applicable to the listed secretarial orders are as follows:</p> <p>Secretarial order 3362 – Migration: CSU 12-26 Big Game Crucial winter Range Miles City, CSU 12-39 Big Game Winter Range South Dakota, CSU 12-39 Big Game Winter Range Billings, CSU 12-66 Crucial Winter Range – Big Game and/or Sage Grouse Hiline, TL 13-7 big Game Winter/ Spring Range Dillon, TL 13-8 Elk Calving/Big Game Birthing Areas Dillon, TL 13-28 Big Game Range Butte, TL 13-29 Big Game Birthing Areas Butte, TL 13-48 Winter range – Big Game and Greater Sage Grouse</p> <p>Secretarial Order 3356 – Hunting, Fishing, Recreational Shooting, Conservation opportunities and coordination with States, Tribes, and Territories – CSU 12-32 Miles City, NSO 11-21 Dillon, NSO 11-43 Butte, NSO 11-132 State Lands Billings,</p> <p>Secretarial Order 3347 – Conservation Stewardship and Outdoor Recreation – CSU 12-6 Dillon, CSU 12-12 Butte, Dillon, CSU 12-19 Butte, CSU 12-34 Miles City, CSU 12-36 South Dakota, CSU 12-40 South Dakota, CSU 12-42 South Dakota, CSU 12-46 North Dakota, CSU 12-50 Billings, LN 14-1, LN 14-19, LN 14-31, LN 14-37, NSO 11-13 Dillon, NSO 11-16 Dillon, NSO 11-21 Dillon, NSO 11-28 Butte Dillon, NSO 11-43 Butte, NSO 11-55 Butte, NSO 11-81 Miles city, NSO 11-81 Miles city, NSO 11-105 South Dakota, NSO 11-106 South Dakota, NSO 11-117 Billings, NSO 11-131 Billings, NSO 11-134 Billings, NSO 11-140 Hiline, Standard 16-3, TES 16-2.</p> <p>Stipulations have been applied to parcels as necessary. Lease Notices, Standard 16-3, and TES 16-2 are applicable to all lands in all field office areas.</p>			
2	WELC, WEG, TWS, MWA, CBD, others	WORC v BLM Miles City	<p>The BLM cannot lease parcels within the Miles City Field Office until the BLM complies with the decision in Western Organization of Resource Councils v. U.S. Bureau of Land Management, CV 16-21-GF-BMM, 2018 WL 1475470, (D. Mont. Mar. 26, 2018) (hereinafter “WORC”). For the March 2019 lease sale, the BLM is planning to lease approximately 233 parcels within the Miles Field Office (of a total of 322 parcels in the lease sale).</p> <p>The BLM deferred all parcels from leasing in the Miles City Field Office at the June lease sale due to the decision in Western Organization of Resource Councils v. BLM, 2018 U.S. Dist. LEXIS 48500 (D. Mont, Mar. 23, 2018). In its decision the court found the BLM had not adequately considered the climate change and greenhouse gas emissions implications of coal and oil and gas extraction in the land use planning process</p>

			<p>for the Miles City, Montana and Buffalo, Wyoming Field Offices.</p> <p>The question is presented, if deferral was appropriate for the June lease sale, why shouldn't we see deferral again for parcels in the December lease sale? So far as we know, the BLM has not completed the additional environmental analysis the court ordered, so the effect of that case should be the same for the December lease sale as it was for the June lease sale, at a minimum in the Miles City Field Office.</p>
<p><b>Response:</b> The BLM remains in compliance with the decision in <i>Western Organization of Resource Councils v. U.S. Bureau of Land Management</i>, CV 16-21-GF-BMM, 2018 WL 1475470, (D. Mont. Mar. 26, 2018) (hereinafter "WORC"). On 7/31/2018, Judge Morris issued an order directing the BLM to complete, new coal screening and remedial NEPA analyses by November 29, 2019 in compliance with the Court's March 26, 2018. The Notice of Intent to prepare an EIS was published in the Federal Register on November 28, 2018. In his 7/31/2018 order, Judge Morris states, "<i>The ROD addresses twelve RMP revisions and amendments spanning millions of acres of federally owned lands across the western United States. Were the Court to set aside the ROD, such action would invalidate all underlying RMPs...the Court deems it inequitably disproportionate to the scope of the instant action, which challenged only the Buffalo RMP and the Miles City RMP, to issue a vacatur of the ROD. The ROD remains in place subject to the restrictions of the Court's March 26, 2018, Order.</i>" The order further states <i>any new or pending leases of coal, oil, or gas resources in the planning areas subject to the Buffalo RMP and the Miles City RMP must undergo comprehensive environmental analyses in compliance with the Court's March 26, 2018, Order and all existing procedural requirements under NEPA and the APA.</i> The BLM has prepared the March 27, 2019 Oil and Gas Lease Sale EA in compliance with the terms of the court order, NEPA, and the APA.</p>			
3	WELC, WEG, TWS, others	WORC v BLM Miles City	<p>The BLM has announced that it will prepare a supplemental environmental impact statement for the Miles City Field Office RMP, which may lead to amendment of the RMP. To comply with the court's opinion the BLM will be reconsidering the amount of coal potentially available for leasing; provide an analysis of the environmental consequences of downstream combustion of coal, oil and natural gas that is open for development under the RMP; and present an "analysis of global warming potential over an appropriate planning period consistent with evolving science." 83 Fed. Reg. 61167. The need to conduct this additional analysis raises the question of whether oil and gas leasing is appropriate in the Miles City Field Office at this time. The RMP could be amended in a way that affects leasing and the BLM should not assume that leasing will not be changed by conducting lease sales while the amendment process is underway.</p> <p>Furthermore, where an "[i]nterim action prejudices the ultimate decision on the program," NEPA forbids the action. 40 C.F.R. §§ 1506.1(c)(1)-(3). An action prejudices the outcome "when it tends to determine subsequent development or limit alternatives." <i>Id.</i> Again, proceeding to lease 233 parcels within the Miles City Field Office—or any other major Federal action impacting resources in the planning area—is impermissible due to the inherent prejudice that this action will cause to the pending SEIS.</p>
<p><b>Response:</b> See response to #3 above. Per the court order, the Supplemental EIS and potential plan amendment being prepared for Miles City is to develop an alternative that would decrease the amount of coal potentially available for leasing, and analyze the environmental consequences of downstream combustion of coal, oil, and gas open to development under the Approved RMP. The SEIS is not developing an alternative that would change the area or amount of oil and gas potentially available for leasing.</p>			
4	CBD	WORC v BLM Miles City	<p>The MCFO EIS/RMP failed to consider reducing the areas open to oil and gas leasing in order to reduce climate impacts. In considering this issue as applied to coal leasing, the Court held that BLM violated NEPA</p>

by failing to consider a reasonable range of limits on coal leasing as a method of reducing climate impact. W. Org of Res. Councils, 4:16-cv-00021-BMM at 23. This same principle applies to oil and gas leasing as well: BLM must consider whether to close areas in the planning areas for the purpose of reducing climate impacts. BLM did not do so in the RMP or in the EA at issue here.

**Response:** The Miles City Field Office Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS) describes and analyzes five alternatives for managing the public lands and resources in the planning area. The planning area consists of BLM-administered lands and minerals in eastern Montana in Carter, Custer, Daniels, Dawson, Fallon, Garfield, McCone, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Treasure, and Wibaux counties and portions of Big Horn and Valley counties. Table 2-5 on pages 2-77 and 78 of the FEIS summarize the following alternatives for oil and gas:

Resource or Resource Use	Alternative A (No Action)	Alternative B	Alternative C	Alternative D	Alternative E (Proposed Plan, Preferred Alternative, as modified)
Oil & Gas	<b>Action 10</b> – Oil and gas leasing would be open and surface occupancy and use would be prohibited with an NSO stipulation on approximately 566,000 mineral acres.	<b>Action 10</b> – Oil and gas leasing would be open and surface occupancy and use would be prohibited with an NSO stipulation on approximately 2,311,000 acres.	<b>Action 10</b> – Oil and gas leasing would be open and surface occupancy and use would be prohibited with an NSO stipulation on approximately 240,000 acres.	<b>Action 10</b> – Oil and gas leasing would be open and surface occupancy and use would be prohibited with an NSO stipulation on approximately 60,000 acres.	<b>Action 10</b> – Oil and gas leasing would be open and surface occupancy and use would be prohibited with an NSO stipulation on approximately 1,850,000 acres.
	<b>Action 11</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with a timing stipulation or a CSU stipulation on approximately 555,000 (CSU) 3,466,000 (Timing) acres.	<b>Action 11</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with a CSU stipulation on approximately 3,075,000 acres.	<b>Action 11</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with a CSU stipulation on approximately 4,565,000 acres.	<b>Action 11</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with a CSU stipulation on approximately 4,524,000 acres.	<b>Action 11</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with a CSU or timing stipulation on approximately 3,645,000 (CSU) 179,000 (Timing) acres.
	<b>Action 12</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with lease terms on approximately 1,316,000 acres.	<b>Action 12</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with lease terms on approximately 432,000 acres.	<b>Action 12</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with lease terms on approximately 818,000 acres.	<b>Action 12</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with lease terms on approximately 889,000 acres.	<b>Action 12</b> – Oil and gas leasing would be open and surface occupancy and use would be allowed with lease terms on approximately 987,000 acres.
	<b>Action 13</b> – BLM-administered mineral acres within WSAs would be closed to oil and gas leading and development (87,000 acres).	<b>Action 13</b> – Oil and gas leasing and development would be closed on approximately 1,481,000 acres.	<b>Action 13</b> – BLM-administered mineral acres within WSAs would be closed to oil and gas leasing and development (83,000 acres).		
	<b>Action 14</b> – Geophysical	<b>Action 14</b> – Geophysical	<b>Action 14</b> – Geophysical	<b>Action 14</b> – Geophysical	<b>Action 14</b> – Geophysical

		exploration would not be allowed on approximately 148,000 acres and allowed in the remainder of the planning area.	exploration would not be allowed on approximately 1,260,000 acres and allowed in the remainder of the planning area.	exploration would not be allowed on approximately 92,000 acres and allowed in the remainder of the planning area.	exploration would not be allowed on approximately 111,000 acres and allowed in the remainder of the planning area.	exploration would not be allowed on approximately 151,000 acres and allowed in the remainder of the planning area.
5	WELC	FLPMA, unnecessary and undue degradation	<p>Pursuant to the Federal Land Policy and Management Act (“FLPMA”), 43 U.S.C. § 1701 et seq., “[i]n managing the public lands,” the agency “shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.” This protective mandate applies to agencies planning and management decisions, and should be considered in light of its overarching mandate that the BLM employ “principles of multiple use and sustained yield.”</p> <p>Here, that action is oil and gas drilling and production as authorized by the Lease Sale. The inquiry, then, is whether the agency has taken sufficient measures to prevent degradation unnecessary to, or undue in proportion to, the development the proposed action permits. Therefore, drilling activities may only go forward as long as unnecessary and undue environmental degradation does not occur. This is a substantive requirement, and one that the BLM must define and apply in the context of oil and gas development authorized through the lease sale. In other words, the BLM must define and apply the substantive UUD requirements in the context of the specific resource values at stake.</p>			
<p><b>Response:</b> The Field Office RMPs incorporate the full multiple use policy of FLPMA and include areas prioritized for ACEC management, management of visual resources and/or National Scenic and Historic Trails, and areas prioritized for the management of recreation and wildlife habitat. The RMPs also allow for development of oil and gas resources and put suitable constraints on these development activities. All BLM oil and gas leasing is in compliance with all Federal rules, regulations, and laws, including NEPA, MLA and FLPMA.</p>						
6	Northern Plains	Oil & gas leases	<p>The BLM did not quantify the number of oil and gas lease acres across Montana that have already been leased but not drilled, nor did they make an argument why continued leasing is necessary, useful, or viable</p>			
<p><b>Response:</b> It is the policy of the BLM to make mineral resources available for use and to encourage development of mineral resources to meet national, regional, and local needs. This policy is based on various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976 (FLPMA). The Federal Onshore Oil and Gas Leasing Reform Act of 1987 Sec. 5102(a)(b)(1)(A) directs the BLM to conduct quarterly oil and gas lease sales in each state whenever eligible lands are available for leasing. Refer to #7 below. The BLM included maps of parcels offered for lease across Montana/Dakotas since the 2015 RMP were approved.</p>						
7	CBD	NEPA Hard Look Multiple resources	<p>Leasing Constitutes an Irretrievable Commitment of Resources, Triggering Site-Specific NEPA Review. The analysis of site-specific impacts must occur at the leasing stage, i.e. before BLM offers a lease for sale. This is because leasing is highly likely to result in development of the parcels at issue and production of fluid mineral resources. Selling a lease constitutes an “irretrievable commitment of resources.” See <i>id.</i>; <i>Pennaco Energy, Inc. v. U.S. Dep’t of Interior</i>, 377 F.3d 1147, 1160 (10th Cir. 2004); <i>Conner v. Burford</i>, 848 F.2d 1441, 1451 (1988); <i>Sierra Club v. Peterson</i>, 717 F.2d 1409, 1414 (D.C. Cir. 1983).</p> <p>Specific development plans are not necessary to predict that development in the Lease Area would entail</p>			

		<p>significant impacts. The problem of increased surface disturbance, water pollution, degradation of air quality, greenhouse gas emissions, and wildlife impacts from new oil and gas leasing are “readily apparent,” and there are “enough specifics to permit productive analysis of [oil and gas development], including proposals for alternative ways of dealing with the problem.” <i>Kern v. BLM</i>, 284 F.3d 1062, 1073 (9th Cir. 2002).</p>
<p><b>BLM Response:</b> The respective Field Office RMPs do incorporate the full multiple use policy of FLMPA. The RMPs have areas prioritized for ACEC management, management of visual resources and/or National Scenic and Historic Trails, areas prioritized for the management of recreation and various wildlife species. The RMPs also allow development of oil and gas resources and put the suitable constraints on these development activities. There are large portions of the RMP planning areas that have major constraints on activities (e.g., exclusion areas for wind or other rights-of-ways, no surface occupancy for oil and gas, etc.). This RMP was developed under the FLMPA and NEPA requirements and follows multiple use and sustained yield requirements. This lease sale analyzed and attached all the appropriate stipulations to allow both development of minerals and protection of resources.</p> <p>It is the policy of the BLM to make mineral resources available for use and to encourage development of mineral resources to meet national, regional, and local needs. This policy is based on various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976 (FLPMA). The Federal Onshore Oil and Gas Leasing Reform Act of 1987 Sec. 5102(a)(b)(1)(A) directs the BLM to conduct quarterly oil and gas lease sales in each state whenever eligible lands are available for leasing.</p> <ul style="list-style-type: none"> <li>• 43 C.F.R. § 3120.1-2. Each proper BLM State Office shall hold sales at least quarterly if lands are available for competitive leasing.</li> <li>• Mineral Leasing Act of 1920 as amended- Subtitle B Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOOGLRA). Lease sales shall be held for each State where eligible lands are available at least quarterly....</li> <li>• Washington Office Instruction Memorandum 2010-117 Oil and Gas Leasing Reform. State offices will continue to hold lease sales four times per year, as required by the Mineral Leasing Act, section 226(b)(1)(A) when eligible lands are determined by the state office to be available for leasing.</li> <li>• Montana State Office Oil and Gas Leasing Reform Implementation Plan August 2010. All Montana Oil and Gas Competitive Lease Sales are subject to the following laws, regulations and policies: Required by law and regulation to hold lease sales at least quarterly if lands are available (Public Law 100-203, Sec. 5102, dated 12/22/87 (FOOGLRA)).</li> </ul> <p><b>MLA statements</b></p> <ul style="list-style-type: none"> <li>• MLA page 40- Sec. 16- "That all leases of lands containing oil or gas, made or issued under the provisions of this Act, shall be subject to the condition that the lessee will...use all reasonable precautions to prevent waste of oil or gas developed in the land..."</li> <li>• MLA page 15- Sec. 30- "Each lease shall contain provisions for the purpose of insuring...and for the prevention of undue waste..."</li> </ul> <p>No surface disturbance would occur as a result of issuing leases. Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a more site-specific NEPA analysis with public review opportunities to more fully analyze and disclose site-specific effects of specifically identified activities. This analysis would include resources and resource uses proposed on or adjacent to the lease parcel lands. The BLM analyzes all proposed federal actions in a NEPA document (whether they are for range, vegetation treatments, recreation, etc.). All actions are reviewed for compliance with the land use plan at the start of the NEPA process. Having areas available for oil and gas leasing does not mean that this activity is prioritized over other uses or that it is the only use on BLM lands. The RMP has areas closed and/or avoided for certain resource uses, prioritized</p>		

for ACEC designation, wilderness study areas, etc.			
8	TWS, MWA	FLPMA multiple use mandate	<p>Under the Federal Land Policy Management Act (FLPMA), BLM is required to manage the public lands on the basis of multiple use and sustained yield. 43 U.S.C. § 1732(a). Development of public lands is not required, but must instead be weighed against other possible uses, including conservation to protect environmental values. The multiple use framework’s emphasis both on environmental resources and on the need to balance between present and future generations are highly relevant to consideration of impacts to wildlife and recreation.</p> <p>The mere fact an RMP makes lands available for leasing does not mean that actually leasing the lands meets BLMs’ multiple use obligations. Given BLM’s acknowledged discretion to engage in leasing, or not leasing, under the Mineral Leasing Act, it is clear the leasing stage, as much as the planning stage, is when multiple use decisions should be made. None of the overarching legal mandates under which BLM operates – be it multiple-use or non-impairment – authorizes DOI to establish energy development as the dominant use of public lands.</p> <p>Federal courts have consistently rejected efforts to affirmatively elevate energy development over other uses of public lands. In the seminal case, <i>New Mexico ex rel. Richardson v. BLM</i>, the Tenth Circuit put to rest the notion that BLM can manage chiefly for energy development, declaring that “[i]t is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses.” Thus, any action by BLM that seeks to prioritize oil and gas leasing and development as the dominant use of public lands would violate FLPMA.</p>
<p><b>Response:</b> It is the policy of the BLM to make mineral resources available for use and to encourage development of mineral resources to meet national, regional, and local needs. This policy is based on various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976 (FLPMA). The Federal Onshore Oil and Gas Leasing Reform Act of 1987 Sec. 5102(a)(b)(1)(A) directs the BLM to conduct quarterly oil and gas lease sales in each State wherever eligible lands are available for leasing. The BLM considered and complied with all applicable laws and regulations of the Field Office RMPs, FEISs and associated RODs. For leasing and development of fluid minerals, these include, but are not limited to, NEPA, FLPMA, ESA, NHPA, MLA, and the regulations at 43 CFR 3100 and 3160.</p>			
9	TWS	Mineral Leasing Act	<p>The Mineral Leasing Act (MLA) is structured to facilitate actual production of federal minerals, and thus its faithful application should discourage leasing of low potential lands. The MLA directs BLM to hold periodic oil and gas lease sales for “lands . . . which are known or believed to contain oil or gas deposits . . .” 30 U.S.C. § 226(a). These sales are supposed to foster responsible oil and gas development, which lessees must carry out with “reasonable diligence.” However, BLM’s oil and gas leasing program facilitates, and perhaps even encourages, speculative leasing, leading to unproductive leasing of public lands which does not carry out the provisions or intentions of the MLA or FLPMA.</p> <p>Yet in Montana we are seeing extensive speculative leasing and abuse of the competitive lease sale system. As shown in the attached article from the <i>New York Times</i>, as a result of the December 2017 lease sale a</p>

			<p>speculator in the Miles City Field Office was able to nominate about 200,000 acres for the lease sale but when the lease sale took place he offered no competitive bids, instead sitting idly by and then snapping up nearly 67,000 acres the next day via a noncompetitive sale where he only had to pay \$ 1.50 an acre.</p> <p>According to a study by Taxpayers for Common Sense, these noncompetitive sales have surged to the highest level in over a decade. This has led to “major drops in the price companies pay per acre in certain states, like Montana, where the average bid has fallen by 80 percent compared to the final years of the Obama administration.” This is cutting taxpayers out of the royalties they should be getting, often leaving them with only trivial rent payments. It has led to more than 11 million acres of leased land sitting idle, about half of all the leased land. And this prevents many lands from being used for other multiples uses,</p> <p>BLM’s own estimates the vast majority of the parcels being offered in this lease sale in Montana have a low or very low development potential. The likelihood of more speculative leasing where bids are not offered and the lands are then put up for noncompetitive sale where they can be bought at fire sale prices is evident. The BLM cannot allow this. Proceeding with leasing lands with low potential for development is inconsistent with the direction set in the MLA.</p>
<p><b>Response:</b> The BLM is conducting lease sales and issuing leases according to the requirements of the Code of Federal Regulations and the Mineral Leasing Act.</p>			
<ul style="list-style-type: none"> <li>• 43 C.F.R. § 3120.1-2. Each proper BLM State Office shall hold sales at least quarterly if lands are available for competitive leasing.</li> <li>• Mineral Leasing Act of 1920 as amended- Subtitle B Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOOGLRA). Lease sales shall be held for each State where eligible lands are available at least quarterly....</li> </ul>			
<p>The BLM issues noncompetitive leases as a requirement of 43 CFR § 3110.1 (b):</p>			
<p>Only lands that have offered competitively under subpart 3120 of this title, and for which no bid has been received, shall be available for noncompetitive lease. Such lands shall become available for a period of 2 years beginning on the first business day following the last day of the competitive oral or internet-based auction, or when formal nominations have been requested as specified in §3120.3-1 of this title, or the first business day following the posting of the Notice of Competitive Lease Sale, and ending on that same day 2 years later. A lease may be issued from an offer properly filed any time within the 2-year noncompetitive leasing period.</p>			
<p>Low development potential does not indicate the absence of oil and gas in the area. There are numerous factors that contribute to development potential in an area. The Reasonably Foreseeable Development scenarios for the parcels are an estimate based on historical drilling, geologic data, resource expertise, and current development in the area. Development potential can change as the above factors change and influence development.</p>			
10	Cynthia Harrison	Opposition to leasing	<p>I'm writing to object to the lease sale of 180,366 acres in Beaverhead, Big Horn, Blaine, Carbon, Carter, Custer, Dawson, Fallon, Madison, Musselshell, Powder River, Richland, Rosebud, Toole, Valley, and Wibaux counties, Montana, Bowman county, North Dakota, and Fall River and Harding counties, South Dakota, at its March 2019 quarterly oil and gas lease sale. Many groups, including the Outdoor Alliance, have demonstrated the financial importance of leaving untouched wilderness intact which contributes hundreds</p>

			of millions of dollars per country per year.
<p><b>Response:</b> Under the Mineral Leasing Act of 1920 and FLPMA, the BLM manages Federal leasable mineral resources under the principles of multiple use and sustained yield. The BLM recognizes the important contributions that recreation and tourism make to the area economies. Analysis of these issues are discussed in the HiLine Proposed RMP/Final EIS (Chapter 2 Alternatives beginning on page 111 and Chapter 3 Affected Environment starting on page 384); Chapter 2, Alternatives Considered in Detail (page 2-80) and Chapter 3, Affected Environment (page 3-112, 114, and 143) of the Miles City PRMP/Final EIS; Chapter 3, Social and Economic Conditions (page 257-285) of the Billings and Pompeys Pillar National Monument PRMP/FEIS; Chapter 3, Social and Economic (page 530-548) of the South Dakota PRMP/FEIS. The parcels proposed for lease in the North Dakota Field Office area, Harding County in the South Dakota Field Office area, and Dillon Field Office area have been deferred. Additional site-specific analysis and coordination with the state of South and North Dakota is needed to determine the appropriate level of protection for these areas.</p>			

### Beaverhead and Madison County parcels (Dillon Field Office)

Comment No.	Commenter	Subject	Comment
1	Environment Montana and Numerous individuals	Recreation Fisheries Economics Drinking water Big Hole River Beaverhead River	<p>Opposed to the oil and gas lease in the Big Hole in SW Montana / 12 parcels in Beaverhead and Madison counties. Concerns about impacts to water quality and fisheries including arctic grayling and cutthroat trout. This is one of the treasures of this country for hunting, fishing and other outdoor recreation.</p> <p>Beaverhead and Madison counties are hugely important to resident and visiting anglers, and to the hundreds of businesses that cater to those anglers.</p> <p>Given that these are projected to be low-yield parcels, the risk simply isn't worth the paltry reward. I make a living on the Big Hole and Beaverhead rivers. I do not favor ANY action that threatens to harm the pristine ecosystems which provide a livelihood to me and many others. Nor do I approve of such a risk to the sustainable tourist dollars spent here annually. Much of that revenue is wholly dependent on the health of these watersheds. Headwater streams (in this case, to the Missouri River) are no place for exploratory oil &amp; gas missions. Beyond the threat to these two world-class trout fisheries, the Big Hole is the last refuge of the native Arctic Grayling, these proposals stand to negatively impact Dillon's drinking water and multiple wilderness study areas, including important winter range for game.</p> <p>The economic driver in the Big Hole Valley is ranching and recreation. Oil and gas exploration and mining will take away from the economic drivers that need clean water and pristine resources to survive.</p>
<p><b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.</p> <p>It is worth noting that areas are designated open or closed to mineral leasing in the Dillon Resource Management Plan. Development of the RMP goes through public review and comment periods as it is developed. The 2006 Dillon RMP made approximately 145,554 acres unavailable for oil and gas leasing (see Map 21, oversized) in the following areas:</p>			

- Bear Trap Wilderness Area
- All nine Wilderness Study Areas
- Federal minerals under lands administered by the Agricultural Research Service
- Lands within the boundaries of National Historic Landmarks

The RMP made the remainder of federal mineral estate in the planning area (approximately 1,209,278 acres) available for leasing, subject to the stipulations specified in Table 5 or under Standard Lease Terms.

- Approximately 433,797 acres are available for oil and gas leasing, subject to No Surface Occupancy stipulations.
- Approximately 632,061 acres are available for oil and gas leasing, subject to Timing Limitations and/or Controlled Surface Use stipulations.
- Approximately 143,420 acres are available and subject to standard lease terms (and to the CSUs listed on Table 5 that apply to the entire planning area)

The 2015 sage-grouse plan amendments also made leasing decisions for designated sage-grouse habitat, and various alternatives were considered to withdraw areas from mineral entry or to make areas available for leasing subject to required design features (refer to Table 2-12 of the Idaho and Southwestern Montana Proposed LUPA/Final EIS, available on ePlanning).

2	Jason Keith	Review Process and Information	<p>I am a resident of Beaverhead County. While I recognize the multi-use importance of BLM land, I oppose the sale of parcels for Oil and Gas leases scheduled for March, 2019 for the following reasons:</p> <ol style="list-style-type: none"> <li>1) There has not been adequate information about the leases made public to all the citizens of the County.</li> <li>2) As a tax payer and resident of the Beaverhead County, I expect to have public meetings explaining the location and science behind release of these particular parcels.</li> <li>3) There is not enough time between now and March to accomplish 1) and 2).</li> <li>4) I live and enjoy recreation in the County and want to make sure that these parcels will not pollute the streams, rivers, and ground water in the County.</li> <li>5) That the parcels will not interfere with the economic value to the State and County of sportsmen and others who use the area for recreational purposes.</li> </ol>
<p><b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.</p>			
3	Buszmann and numerous others	Value of natural environment	<p>The leases being proposed for sale, especially ones near the Big Hole and Beaverhead River are near-sighted and do not represent the public interest. The minimal amount of revenue created from these leases is not worth the enormous and irreversible risks being taken by drilling wells. Furthermore, there is ample supply of gas and oil on the market today and with prices so low it does not make economic sense. This area is too valuable and is the headwaters of the Missouri river. These wells could contaminate water for thousands of miles making a huge impact on people, fish, animals and habitat. These wells are also low in development potential making even less sense to sell them.</p>
<p><b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.</p>			
4	Bernard Kailey	Recreation	<p>I am writing you today to express my concern about the March 2019 oil and gas lease auction for BLM in</p>

		Economics	<p>both Madison and Beaverhead counties. There is no evidence that there is an opportunity for any person or company to be competitive in the energy market.</p> <p>I rely on clean rivers and healthy fisheries in order to make my living. The rivers that will be affected by these leases have native Cuthroat trout that are a species of special concern as well as arctic grayling. We have a series of issues on these watersheds already including dewatering, heavy silting, warm summer temperatures, invasive species, and a slew of other things that we are already dealing with in order to keep our fisheries healthy and continue our recreational opportunities in this amazing place. Any negative affect that potentially come from these leases would negatively affect my business, which is sustainable through healthy rivers. Eleven of the parcels for lease are expected to be low with almost half being very low prospect of development. One of the parcels being moderate with the idea of one well being tapped.</p> <p>I just don't see how any company or person can be competitive in today's energy market with the acquisition of any of these parcels. I do believe the sale and development of these parcels will negatively impact the outdoor recreation industry. In both Madison and Beaverhead counties outdoor recreation is a leading industry. When the Beaverhead had a bad case of turbidity back in 2015 the community list nearly 5 million dollars in tourism profits. These communities rely on tourism and outdoor recreation to survive</p>
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.			
5	Robert and Linda Flynn and others	Economics Drinking water	<p>Our lives and livelihoods depend on rivers like the Madison, Big Hole and Beaverhead, and they depend on a clean, healthy environment. Whether we're talking about the traditional agriculture-based economy or the growing recreation and outdoors-based based economy, local businesses and citizens of Montana all depend on untrammled landscapes, healthy waterways, and clean living. So do the region's thousands of annual visitors, and the millions of tourism dollars they spend when they visit our public lands.</p> <p>Oil and gas exploration is proposed in areas northwest of Dillon which are adjacent to Rattlesnake Creek, part of the city's water supply, the Beaverhead River, and the Big Hole River. Backing up to National Forest lands on the Pioneer Mountains, this would significantly affect game and wildlife corridors. In areas near Glen, oil and gas drilling would increase noise, light, and sound pollution. It would also increase the risk of wastewater or toxic substances spilling near headwaters of the Big Hole River, home of the last native population of fluvial Arctic grayling. And east of Dillon, which is adjacent to the Ruby Mountains Wilderness Study Area, a key game and wildlife habitat would be threatened as the area's last untrammled, wild and scenic nature preserve.</p>
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.			
6	Big Hole River Foundation	NEPA analysis Economics	<p>The Big Hole River Foundation is concerned that this environmental assessment contains no substantive analyses of these parcel locations nor their suitability for industrial development or exploration activities. For instance, the assessment did not analyze the potential for erosion and sedimentation, industrial storm-water discharges, fracking wastewater discharges or other pollution events that are reasonably</p>

			<p>foreseeable impacts associated with exploratory drilling and oil and gas development.</p> <p>In this Environmental Assessment, there was no consideration of impacts to aquatic life or sensitive species; such as native cutthroat trout or the fluvial arctic grayling; which are known to reside in headwaters of the Big Hole River, and which could be affected by development on leases proposed for sale. Fracking requires millions of gallons per well and the Big Hole has enough water in it annually to sustain aquatic life. The grayling are already on a slippery slope and we fear they will one day be listed as an endangered or threatened species even without the threat of loss of water to fracking. Leasing these lands for oil and gas development will undermine private property rights, local business, and is not the highest nor best use of our Nation's public lands. Oil and gas development at these sites poses a threat to the free-flowing Big Hole River and its unique culture, fisheries, and wildlife and is in direct conflict with our foundation's mission.</p> <p>We specifically protest the proposal to open any of the following parcels to oil or gas development, and we respectfully request that they be permanently withdrawn from any future lease sales: MTM 105421-GY; MTM 105431-GQ; MTM 105431-GR; MTM 105431-GK; MTM 105431-GL; MTM 105431-GU; MTM 105431-GV; MTM 105431-GW; MTM 105431-GM; MTM 105431-GF; MTM 105431-GJ; and MTM 105431-GX.</p>
<p><b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.</p>			
7	Bill Ehinger	Connected Actions	<p>Separating your NEPA analyses and decisions into 2 separate analyses and decisions is inconsistent with NEPA regulations. One of these decisions is the one addressed in this EA...the decision to offer these parcels for sale for oil and gas development. But the second and connected action which you state will come in a later analysis and decision is the consideration of an APD (application for permit to drill). This is not consistent with NEPA regulations requiring separate, but connected actions be addressed within a single analysis and decision. You even stumble over this in Chap 1, Resource Issues for Analysis, Issue 3 - Water Resources where you identify the following issue: How would development of these parcels, through construction, drilling and production activities as well as the use of hydraulic fracturing, impact water resources? You cannot adequately evaluate this issue for any of the 322 parcels within this EA without disclosing the site specific development activities, impacts and mitigations associated with construction, drilling, production and reclamation. Postponing that analysis as you've stated in Chap 3, until a subsequent Environmental Assessment for the APD simply highlights that your analysis in this EA has failed to address this water resource issue adequately. Based on this point alone I'd suggest you postpone your decision until the proper analysis can be completed.</p>
<p><b>Response:</b> BLM manages federal onshore oil and gas resources subject to the requirements of the MLA and the Federal Land Policy and Management Act ("FLPMA"). Under the FLPMA, BLM is required to undergo a "three phase decision-making process" in granting access to public lands for oil and gas development. In the first phase, BLM must prepare a Resource Management Plan ("RMP") covering a general regional area. In the second phase,</p>			

BLM leases specific parcels. In the third phase, lessees submit applications for drilling permits to BLM.			
The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.			
8	Bill Ehinger	Effects analysis	<p>I know that there is a very close interaction between ground and surface waters within these 2 watershed. As I read your analysis I found it lacking in quantifying the site specific effects on water quality (both ground and surface) and potential impacts to wetlands resulting from the sale of these 12 parcels, and subsequent actions by a successful bidder. The water resources within the 64 acres affected were not clearly illustrated. The subsequent actions following the sale, conducted by a successful bidder such as road construction for access, or vegetative clearing, both examples potentially posing risks to water resources, were not adequately disclosed. Site-specific Best Management Practices for Water Quality, as well as other mitigation measures were not identified. While some general practices were identified, these were not geographically linked to specific leases and were not developed site specifically.</p> <p>Based on the inadequacies in your EA, and the high values of water resource and wetland in the Beaverhead, Big Hole and Madison River watersheds, I request these parcels be withdrawn from your EA, or your agency adopts the No Action Alternative</p>
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.			
9	Eve Wills	Unique geology, habitat Economics	<p>As a resident of Beaverhead County who has lived in this area since 2001, and as a natural resource specialist with a good background in geology, geomorphology and botany, I am well aware of the uniqueness of the landscapes of SW Montana. It really is much different than the rest of the state, and the areas targeted for exploration most likely contain sensitive species as well as incomparable scenic and geologic values. For example, Beaverhead County, home to University of Montana-Western is host to over a dozen capstone geology field camps, some of which visit the areas targeted for exploration. This influx of students during the summer represents a significant economic boost to the town of Dillon during the summer. Also, Beaverhead County, since it is similar to Eastern Idaho compared to the rest of the state, also has a correspondingly large proportion of sensitive animal and plant species, several of which could and do occur in the areas of exploration. According to Montana's Natural Heritage Program, these could include birds such as greater sage grouse and animals such as pygmy rabbit. For these reasons, as well as the unspoiled nature of Beaverhead County's wild landscapes, I oppose all sales of parcels in Beaverhead within the Dillon Field Office's jurisdiction and request BLM withdraw these parcels from the March 2019 sale. At best, due to the geologic types, these leases will be low production, yet the permanent impact on the local landscapes will be profound. Again, I express my strong opposition to oil and gas leasing within the Dillon Field Office.</p>
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area. Refer to Response to Comment #1 in this section.			
10	Wild Earth Guardians	Block Mountain ACEC / Dillon FO	The BLM fails to assess the impacts of fracking on the Block Mountain ACEC, located approximately 5 miles west of some of the Beaverhead County parcels. According to the Dillon RMP-DEIS, this ACEC was

			designated to protect important geologic features. Dillon RMP-DEIS at 64. These features “draw professors, students and research scientists from all over the United States and the world[.]” Id. at 171. As the BLM is aware, the disposal of wastewater from fracking has the potential to cause induced seismicity. See Won-Young Kim, Induced Seismicity Associated with Flued Injection Into a Deep Well in Youngstown, Ohio, 118 J. of Geophysical Research: Solid Earth 1 (2013), <a href="http://im.ft-static.com/content/images/7c4754d60a81-11e3-9cec-00144feabdc0.pdf">http://im.ft-static.com/content/images/7c4754d60a81-11e3-9cec-00144feabdc0.pdf</a> . The BLM must study whether opening up this geologically important area to fracking could cause significant impacts beyond those analyzed in the Dillon RMP-EIS or the lease sale EA.
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area. Refer to Response to Comment #1 in this section.			
11	Numerous	Drinking water	Parcels located a few miles NW of Dillon are adjacent to Rattlesnake Creek, which is part of the City of Dillon’s water supply. Leasing on these parcels would threaten the community’s water supply and important game and fish wildlife corridors.
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area. Refer to Response to Comment #1 in this section.			
12	Headwaters Ranch	Water quality	Headwaters would like to stress the importance of the water resources on these parcels and surrounding Headwaters' properties. The aquifers located on the Headwaters' lands are the headwater sources for five creeks known as Axes Canyon, Van Camp, Timber Creek, Cabin Creek, and Benson Creek/Hoffman Gulch. If disturbed by oil and gas development, Headwaters as well as several adjacent landowners who rely on these aquifers and sources of water for various uses, will be injured. These source water aquifers must be protected, and therefore, should be removed from the oil and gas leasing sale.
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area. Refer to Response to Comment #1 in this section.			
13	Several individuals	Support responsible economic development	It is important that we have a working landscape that supports all uses for the benefit of the landscape and the communities that live on it. Past environmental activism has changed the public land portion of the landscape into a recreational playground that generates little tax revenue to support the county infrastructure and no significant revenue to support the agencies that manage the public resources. It is important to the economic viability of Beaverhead County to embrace all multiple uses, especially those that pay property taxes and support high paying jobs that benefit this rural community and its infrastructure (schools, roads, hospital and etc.). It is important to this county, the state and the nation to find and responsibly develop energy sources that may be present. To do otherwise is irresponsible. Having worked with the NEPA process since its inception gives me the confidence that the exploration and development of any leased land will done properly.
<b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area. Refer to Response to Comment #1 in this section.			

## Air Resources

Comment No.	Commenter	Subject	Comment
1	USEPA	Air quality	A number of parcels are located close to the towns of Sunburst (MTM108952K7, LN, LD and LC) and Forest Park (MTM 108952LK and JL), which may warrant an evaluation of local effects to air quality that could result from development of the parcels.
<p><b>Response:</b> All lease parcels are in areas that are in attainment for all criteria air pollutants. Air quality and Air Quality Related Values impacts are analyzed under Alternative B, and incorporated by reference from the BLM Montana Dakotas State Office Photochemical Grid Modeling (PGM) Study. The modeling study shows that none of the NAAQS or state ambient air quality standards are exceeded. Since the modeling study analyzes potential impacts from all reasonable foreseeable oil and gas development within the region over the next 20 years, the lease sale accounts for only a small fraction of the potential development that was included in the modeling study and would be expected to have little to no impact on air quality, visibility, or atmospheric deposition.</p> <p>At the time of this review it is unknown whether or not a particular parcel will be sold and a lease issued, what would be included in a plan of development (emission source, duration, location, etc.) and, what potential impacts to air resources may occur. The EA uses a reasonable foreseeable development scenarios based on the RMP to estimate potential effects. A detailed site-specific analysis and mitigation of activities associated with any particular lease would occur when a lease holder submits an application for permit to drill (APD). This could include re-evaluating the area for additional conditions of approval (COAs), Required Design Features, based on the proposed action. The level of NEPA completed for future APDs would be based on site-specific considerations and the significance of effects.</p>			
2	TWS	Climate change Consideration of Science	<p>The BLM should fully consider two new reports in its climate change analysis for this EA.</p> <p>First, the U.S. Geological Survey prepared its report, Federal Lands Greenhouse Gas Emissions and Sequestration in the United States: Estimates for 2005-14. <a href="https://pubs.usgs.gov/sir/2018/5131/sir20185131.pdf">https://pubs.usgs.gov/sir/2018/5131/sir20185131.pdf</a>. The USGS found that greenhouse gas emissions from public lands in Montana outweighed all but those from five other states, with 20.2 million metric tons CO<sub>2</sub>-e being emitted from Montana public lands in 2014. USGS Report at 17-18 (Table 6).</p> <p>Second, the U.S. Global Change Research Program published the Fourth National Climate Assessment, available at <a href="https://nca2018.globalchange.gov/">https://nca2018.globalchange.gov/</a>. This work of 300 authors, many scientists, concluded that climate change presents great threats to the U.S, including massive impacts on the economy and our lives in general.</p>
<p><b>Response:</b> Both reports were published after the analysis for the draft EA was complete and posted for public comment. The USGS report provides new information about cumulative GHG emissions and sequestration from energy development on federal lands. The Fourth National Climate Assessment provides greater detail on regional scale impacts. The EA has been updated to include new information from both reports to better inform the decision maker and public.</p>			
3	WELC, WEG	Social Cost of Carbon	The BLM must ensure that it includes a discussion on the social cost of carbon protocol, a valid, well-accepted, credible, and interagency-endorsed method of calculating the costs of greenhouse gas emissions and understanding the potential significance of such emissions. Not only does BLM's failure to use this best

			<p>available science violate NEPA’s hard look mandate, but because the agency includes an extensive analysis of the economic benefits from leasing, the BLM’s analysis is also misleading and in violation of the decision in High Country Conservation Advocates v. U.S. Forest Service. 52 F.Supp. 3d 1174, 1193 (D. Colo. 2014) .</p> <p>Although often utilized in the context of agency rulemakings, the protocol has been recommended for use and has been used in multiple project-level decisions, including in Montana. The social cost of carbon provides a useful, valid, and meaningful tool for assessing the climate consequences of the proposed leasing, and the BLM must discuss it in its forthcoming NEPA analysis.</p>
<p><b>Response:</b> The BLM chose not use social cost of carbon estimates for several reasons. First, social cost of carbon estimates are an economic metric meant to monetize the net effects associated with an increase in carbon dioxide emissions. As such, social cost of carbon estimates are developed through an economic cost-benefit analysis. NEPA does not require an economic cost-benefit analysis (40 C.F.R. § 1502.23). Without a complete monetary cost-benefit analysis, which would include the social benefits of energy production to society as a whole and other potential positive effects, inclusion of a global social cost of carbon analysis would be unbalanced, potentially inaccurate, and not useful.</p> <p>Furthermore, social cost of carbon estimates are just one approach that an agency can take to examine climate consequences from GHG emissions associated with the proposed leasing action. The fact that climate impacts associated with GHG emissions were not quantified in terms of monetary costs does not mean that climate impacts were ignored in this EA. This EA quantifies greenhouse gas emissions as the common metric and then qualitatively discusses potential climate impacts. Climate change and potential climate impacts, in and of themselves, are often not well understood by the general public (Etkin and Ho 2007, National Research Council 2009). This is in part due to the challenges associated with communicating about climate change and climate impacts, stemming in part from the fact that most causes are invisible factors (such as greenhouse gases) and there is a long lag time and geographic scale between causes and effects (National Research Council 2010). Research indicates that for difficult environmental issues such as climate change, most people more readily understand if the issue is brought to a scale that is relatable to their everyday life (Dietz 2013); when the science and technical aspects are presented in an engaging way such as narratives about the potential implications of the climate impacts (Corner, Lewandowsky, Phillips, and Roberts 2015); use examples and make information relevant to the audience while also linking the local and global scales (National Research Council 2010). In order to more effectively convey the potential climate impacts the BLM quantified greenhouse gas emissions as a common metric, presented emissions in an equivalent related to everyday life, and discussed narratively climate impacts. 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. The approach taken by the BLM for this EA to discuss climate change provides impacts at several scales whereas the social cost of carbon metric only provides an impact metric at the global scale. This limits the usefulness for the decision-maker given the lack of information on more localized impacts. The BLM approach in the EA meets the “hard look” requirement by presenting the environmental impacts of the proposal and the alternatives in comparative form (quantified greenhouse gas emissions), and discusses cumulative climate impacts, providing for the definition of issues and environmental consequences ensuring that an informed decision can be made.</p>			<ul style="list-style-type: none"> <li>• Corner, A., Lewandowsky, S., Phillips, M. and Roberts, O. (2015). The uncertainty handbook-A practical guide for climate change communicators. Bristol: University of Bristol.</li> <li>• Dietz, T. (2013). Bringing values and deliberation to science communication. Proceedings of the National Academy of Sciences (PNAS) 110(3): 14081-14087.</li> </ul>

<ul style="list-style-type: none"> <li>• Etkin, D. and Ho, E. (2007). Climate change: Perceptions and discourses of risk. Journal of Risk Research 10(5): 623-641.</li> <li>• National Research Council. (2009). Informing decisions in a changing climate: Washington D.C., The National Academies Press.</li> <li>• National Research Council. (2010). Informing an effective response to climate change: Washington D.C., The National Academies Press.</li> </ul>			
4	WELC	Social cost of methane	In August 2016, the Interagency Working Group (“IWG”) provided an update to the social cost of carbon technical support document, and, for the first time, adopted a similar methodology for evaluating the climate impact of each additional ton of methane and nitrogen oxide emissions. Given its recent endorsement by the IWG, BLM should use the social cost of methane to quantify the expected climate damage caused by the extraction and combustion of natural gas under the Lease Sale.
<p><b>Response:</b> See response to Air Resources Comment 3. Greenhouse gas emissions, including methane, are quantified in Table 4 and 5 of the EA as carbon dioxide equivalent and climate impacts discussed narratively.</p> <p>Moreover, a recent Executive Order (EO) entitled, “Promoting Energy Independence and Economic Growth,” issued March 28, 2017, directed that the Interagency Working Group (IWG) be disbanded and that technical documents issued by the IWG on social costs of carbon, methane and nitrous oxide be withdrawn as no longer representative of governmental policy (Section 5 of the EO).</p>			
5	WEG	Climate change	BLM should end all new leasing in areas that it manages to limit the climate change effects of its actions; at a minimum, it should defer any such leasing until such time as it can conduct a comprehensive review of the climate consequences of its leasing activities, at the national and/or regional scale.
<p><b>Response:</b> This EA includes a comprehensive environmental analysis and provides an estimated quantification of both direct GHG emissions from parcel development and from the downstream combustion of potential production from the proposed lease parcels. Estimated GHG emissions are analyzed and global warming potentials discussed. Cumulative downstream GHG emissions are presented in Table 8 of the EA and are based on cumulative oil and gas production information in the MCFO RMP. Additionally, since posting this EA for public comment the U.S. Geological Survey (USGS) released a report on Federal lands GHG emissions and sequestration in the United States. This report produces estimates of cumulative GHG emissions resulting from the extraction and end-use combustion of fossil fuels produced on Federal lands. Relevant information from the USGS has been added to the EA.</p> <p>Furthermore, it is the policy of the BLM to make mineral resources available for use and to encourage development of mineral resources to meet national, regional, and local needs. This policy is based on various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976 (FLPMA). The Federal Onshore Oil and Gas Leasing Reform Act of 1987 Sec. 5102(a)(b)(I)(A) directs the BLM to conduct quarterly oil and gas lease sales in each State whenever eligible lands are available for leasing.</p>			
6	WEG, WELC	Cumulative effects	<p>BLM take a hard look at greenhouse gas (“GHG”) emissions stemming from the development it authorizes, but the BLM’s decision must be reflective of the challenges we face. BLM has failed to provide any analysis of the severity or significance past reported greenhouse gas emissions of leasing decisions.</p> <p>BLM cannot ignore the larger relationship that oil and gas management decisions have to the broader climate crisis that we face. Here, the agency’s analysis must include the full scope of GHG emissions. See <i>Neighbors of Cuddy Mountain v. U.S. Forest Service</i>, 137 F.3d 1372, 1379 (9th Cir. 1998) (“To ‘consider’ cumulative effects, some quantified or detailed information is required. Without such information, neither</p>

			<p>the courts nor the public, in reviewing the [agency’s] decisions, can be assured that the [agency] provided the hard look that it is required to provide.”).</p> <p>Even though greenhouse gas emissions from this Lease Sale may look minor when viewed on the scale of the global climate crisis we face, when considered cumulatively with all of the other GHG emissions from BLM-managed land, they become significant and cannot be ignored.</p>
<p><b>Response:</b> BLM took a hard look at GHG emissions from other oil and gas development. Table 8 in the EA presents estimated downstream/indirect GHG emissions from combustion of all reasonably foreseeable oil and gas development over the 20 year life of the MCFO RMP. Additionally, since posting this EA for public comment the U.S. Geological Survey (USGS) released a report on Federal lands GHG emissions and sequestration in the United States. This report produces estimates of cumulative GHG emissions resulting from the extraction and end-use combustion of fossil fuels produced on Federal lands. Relevant information from the USGS has been added to the EA.</p>			
7	WELC, CBD, WEG	Air analysis	<p>Although BLM quantifies downstream GHG emissions for the Miles City Planning Area, as directed by court order, the BLM fails to produce a complete cumulative impacts analysis of the lease sale, including an assessment of the cumulative greenhouse gas emissions that will result. Specifically, the BLM must analyze greenhouse gas emissions from similar, collectively significant oil and gas lease sales within Montana, throughout the Rocky Mountain West, and from the entire federal oil and gas leasing program.</p> <p>Meaningful consideration of greenhouse gas emissions (GHGs) is within required NEPA review. Courts have ruled that federal agencies must consider indirect GHG emissions resulting from agency policy, regulatory, and leasing decisions. For example, agencies cannot ignore the indirect air quality and climate change impact of decisions that would open up access to coal reserves. NEPA requires “reasonable forecasting,” which includes the consideration of “reasonably foreseeable future actions . . . even if they are not specific proposals.” The final CEQ Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Review is dispositive on the issue of federal agency review of greenhouse gas emissions as foreseeable direct and indirect effects of the proposed action. 81 Fed. Reg. 51,866 (Aug. 5, 2016). The guidance provides clear direction for BLM to conduct a lifecycle greenhouse gas analysis because the modeling and tools to conduct this type of analysis are readily available to the agency.</p> <p>Although the 2016 CEQ guidance has been “withdrawn for further consideration,” (82 Fed. Reg. 16,576 (April 5, 2017)), the underlying requirement to consider climate change impacts under NEPA, including indirect and cumulative combustion impacts foreseeably resulting from fossil fuels leasing decisions, has not changed.</p> <p>For the proposed lease sale, BLM must calculate the amount of greenhouse gas emissions that will result on an annual basis from:</p> <p>(1) each of the fossil fuels that can be developed within the planning area;</p>

			<p>(2) each of the well stimulation or other extraction methods that can be used, including, but not limited to, fracking, acidization, acid fracking, and gravel packing; and</p> <p>(3) cumulative greenhouse gas emissions expected over the long-term (expressed in global warming potential of each greenhouse pollutant as well as CO2 equivalent), including emissions throughout the entire fossil fuel lifecycle.</p>
<p><b>Response:</b> Cumulative GHG emissions from the development of oil, natural gas, and coal bed methane from the MCFO RMP are included in the Air Resources Cumulative Impacts section of Chapter 3. This includes estimated downstream/indirect emissions from combustion of all reasonably foreseeable oil and gas development. Specifics are not known at the RMP and leasing stages regarding plans for drilling, including extraction methods, so the reasonable estimates of cumulative emissions are presented. See responses to comment 5 and 6, Air Resources.</p>			
8	WELC, CBD	carbon budgets economic resilience	<p>BLM Must Consider Rapidly Shrinking Global Carbon Budgets When Authorizing Additional Fossil Fuel Development on Public Lands. Scientific research has established that there is no room in the global carbon budget for new fossil fuel extraction if we are to avoid the worst dangers from climate change. Instead, new fossil fuel production and infrastructure must be halted and most existing production must be phased out to meet the Paris Agreement climate targets and avoid catastrophic climate dangers.</p> <p>Any new leasing of federal fossil fuel resources is inconsistent with a carbon budget that would seek to avoid catastrophic climate change.</p> <p>Climate action is directly tied to economic resilience, and the longer action is delayed the larger the lead balloon becomes. This is not only a problem for the fossil fuel industry, but for our economy and the wellbeing of our communities. These financial implications also bear directly on BLM’s decisionmaking relative to the leasing and development of our public lands for fossil fuel resources. Not only do each additional acre leased and well authorized contribute to societies collective carbon burden, but inherent financial risk and market instability has far reaching implications for public lands remediation.</p>
<p><b>Response:</b> The BLM did not include a discussion of global carbon budgets for several reasons. There are multiple carbon budgets to choose from, with each carbon budget representing a different amount of global warming. According to the Intergovernmental Panel on Climate Change (IPCC) 2018 Special Report (SR), “uncertainties in the size of these estimated remaining carbon budgets are substantial.” For a carbon budget that limits warming to 1.5°C warming above pre-industrial levels the uncertainties are nearly the size of the budget, and are several orders of magnitude larger than the total estimated GHG emissions from the leasing action. Additionally, carbon budgets are inherently reduced with any GHG emissions. Based on the disclosed GHG emissions in the EA and the substantial uncertainties in the size of carbon budgets, inclusion of carbon budgets would not provide additional useful information to the decision maker and public.</p> <p>Furthermore, the IPCC SR further states that policy actions across sectors and spatial scales are needed to reduce emissions and limit warming. Evaluations of such policy actions are beyond the scope of this EA.</p> <ul style="list-style-type: none"> <li>IPCC, 2018: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W.</li> </ul>			

Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)). World Meteorological Organization, Geneva, Switzerland, 32 pp.

9	WELC, CBD	Lifecycle emissions	<p>BLM Must Analyze the Full “Lifecycle” Emissions from Fossil Fuels Extracted on the Parcels. BLM should not be committing to new fossil fuel development and infrastructure on our public lands that locks in carbon intensive oil production for years into the future. Failure to do so falls short of NEPA’s mandate to fully inform the public of the impacts of a proposed action. 40 C.F.R. § 1502.1. Under NEPA’s requirement to analyze indirect as well as direct impacts, BLM’s environmental review must therefore include not only emissions from drilling operations, but the full “lifecycle” emissions from the transportation, refining, processing, leakage, and combustion of the oil and gas produced.</p> <p>While we commend BLM’s attempt at quantifying potential downstream GHG emissions, the assumptions, calculations and methodology of this analysis leave much to be desired. BLM can and should have calculated potential lifecycle greenhouse gas emissions using a tool such as the lifecycle greenhouse gas emissions model developed by EcoShift consulting.<sup>30</sup> Courts have upheld the viability and usefulness of lifecycle analyses, and adoption of this trend is clearly reflected in the CEQ Guidance on Climate Change. <sup>81</sup> Fed. Reg. 51, 866 at 11 (Aug. 5, 2016)</p>
---	-----------	---------------------	---

**Response:** New development has not been proposed as part of the lease sale to base emissions assumptions on. A reasonably foreseeable development scenario was prepared for this EA to disclose the nature of any future development impacts. The scenario does not guarantee that development will be proposed or approved, or that the projected emissions will occur (given changes in regulation and technology). Base on the reasonably foreseeable development scenario the BLM estimates potential GHG emissions from well to combustion in the EA. The BLM uses EPA’s scientifically developed and recognized emissions factors for greenhouse gas inventories in this EA.

It is important to note that the BLM does not exercise control over the specific end use of the oil and gas produced from any individual federal lease. The BLM has no authority to direct or regulate the end use of the produced oil and/or gas. As a result, the BLM can only provide an estimate of potential GHG emissions using assumptions about the end use. Oil, condensate, and natural gas could be used for combustion of transportation fuels, fuel oils for heating and electricity generation, as well as production of asphalt and road oil, and the feedstocks used to make chemicals, plastics, and synthetic materials.

10	WELC	Cumulative effects	<p>The BLM must take a hard look at the air quality impacts from oil and gas development in the Lease Sale area. In addition to impacts from development from the Lease Sale, cumulative air quality impacts from sources in and around the proposed development area may result in serious impairments to air quality standards. The BLM fails to look at cumulative air quality impacts. The BLM fails to take into account the air quality impacts resulting from other proposed BLM lease sales in Montana and surrounding Western states... The EA is devoid of any such consideration. BLM should also consider the cumulative effect of climate change on air quality, such as through consideration of the effect of increased forest fire, the lease sale, and other sources in and around the proposed development together.</p>
----	------	--------------------	--

**Response:** Cumulative impacts from oil and gas development on air resources are analyzed in the associated Proposed Resource Management Plan and Final EIS for the Miles City field office, Billings field office, Glasgow field office, and Havre field office, and incorporated by reference into the Alternative B

<p>section of Air Resources. Additional cumulative impacts information is incorporated by reference from <i>the BLM Montana Dakotas State Office Photochemical Grid Modeling (PGM) Study</i>. The cumulative impacts section for air resources has been updated to clarify this.</p>			
11	WELC	Background air pollutants	The BLM also fails to provide background monitored concentrations of pollutants. The current status of air quality in an area is a fundamental consideration for analysis in the BLM’s NEPA analysis. Given the increasing development in the area, there may be higher concentrations that should be reflected.
<p><b>Response:</b> The BLM uses the EPA air quality index (AQI) as a means for understanding background pollutant conditions and to represent the current state of air quality in areas lease parcels are located. The AQI is an index for reporting daily air quality and identify how clean or unhealthy the air is. The AQI is calculated for air pollutants regulated by the Clean Air Act. An AQI value of 100 corresponds to the National Ambient Air Quality Standard for the pollutant, which is the level EPA set to protect public health. When the AQI is below 100 (Good and Moderate categories) the air is generally thought of as clean. AQI data from 2015-2017 is presented in Table 3 of the EA. All counties, except for Rosebud, had over 90% of days from 2015-2017 rated as good (AQI less than 50). Rosebud county had 84% of days rated as good. The AQI information is sufficient for showing the decision maker and public that current air quality is good, and including monitored concentration data is redundant and unnecessary.</p>			
12	WELC	Ozone	BLM also fails to analyze ozone impacts of the lease sale, beyond quantifying foreseeable VOC and NOx emissions. BLM also does not analyze the health effects of increased ozone caused by the lease sale... BLM must consider the science supporting EPA’s revision of the NAAQS, as well as the impacts of climate change on ozone levels, in its preparation of the EA for the Lease Sale.
<p><b>Response:</b> Ozone impacts are analyzed under Alternative B, and incorporated by reference from the <i>BLM Montana Dakotas State Office Photochemical Grid Modeling (PGM) Study</i>. The modeling study showed that none of the NAAQS or state ambient air quality standards, including ozone, were exceeded. Since the modeling study analyzed potential impacts from all reasonable foreseeable oil and gas development within the region over the next 20 years, the lease sale accounts for only a small fraction of the potential development that was included in the modeling study and would be expected to have little to no impact on air quality, visibility, or atmospheric deposition.</p>			
13	WELC	Mitigation	BLM also must identify mitigation measures for controlling air pollution emissions, 40 C.F.R. § 1508.25, and consider all reasonable alternatives.
<p><b>Response:</b> New development has not been proposed as part of the lease sale. A reasonably foreseeable development scenario was prepared for this EA to disclose the nature of any future development impacts. The scenario does not guarantee that development will be proposed or approved, or that the projected emissions will occur (given changes in regulation and technology). Should the parcels be leased and developed in the future, a site-specific analysis will be completed as part of the required NEPA review that will address the increase in emissions including the regulatory requirements at the time development is proposed, as well as mitigation measures which may be required to ensure compliance with ambient air quality standards and the CAA. The attached lease notices and stipulations, as well as any future NEPA review, are sufficient to allow for the implementation of additional mitigation measures as necessary.</p>			
14	WELC	NAAQS	Also critical to the BLM’s analysis of air quality impacts is the relationship to human health. Logically, adherence to NAAQS would have a positive relationship to human health, however, the agency cannot rely on these standards or other indicators such as the Air Quality Index (“AQI”) or National Air Toxics Assessment (“NATA”) and assume that this alone would satisfy the BLM’s hard look NEPA obligations. Oil and gas development is one of the largest sources of VOCs, ozone, and sulfur dioxide emissions in the

			United States. The relationship between air quality and human health must be analyzed in the agency's NEPA analysis.
<p><b>Response:</b> The NAAQS, AQI, and NATA are standards set to protect human health. In the EA the BLM analyzes air pollutant concentrations with respect to these established health standards and reported anticipated concentrations from oil and gas development. Air pollutant concentration information is incorporated by reference from the MCFO RMP, and the BLM Montana Dakotas State Office Photochemical Grid Modeling Study. The CAA requires periodic review of the science upon which the standards are based and the standards themselves. State regulatory agencies may also establish air pollutant standards. As a rigorous scientific assessment is undertaken when developing State and National standards, it would be arbitrary for the BLM to set a significance threshold below the NAAQS or state standard in its NEPA analysis. Additionally, the BLM has reported anticipated pollutant concentrations in the EA regardless of concentration standards and other health standards.</p>			
15	WELC	Methane emissions	<p>The BLM must take a hard look, and meaningful action, to address the serious issue of methane (“CH4”) emissions and waste in the oil and gas production process. Such action must include an estimate of the projected methane emission rates from drilling and production activities authorized by the proposed action, as well as detailed analysis of measures employed to mitigate such emissions.</p> <p>Methane mitigation measures should be adopted and analyzed. The BLM can determine COAs and mitigation measures that must be met prior to proceeding with drilling. Notably, 43 C.F.R. § 3101.1-2 permits BLM to use “reasonable measures” to minimize adverse impacts to public resources, thereby reserving to BLM the authority to impose COAs on oil and gas leases. So long as the COAs can be characterized as reasonable measures to minimize adverse environmental impacts—such as necessary mitigation measures to reduce methane pollution—the BLM has the authority and, indeed, responsibility, to require these additional measures under 43 C.F.R. § 3101.1-2.</p>
<p><b>Response:</b> Estimated methane emissions from possible drilling, production, and combustion are included in the EA. See response to Comment 13, Air Resources.</p>			
16	WELC	Waste prevention rule	<p>On November 18, 2016, BLM published a methane waste rule in the Federal Register (Waste Prevention, Production Subject to Royalties, and Resource Conservation) 43 CFR Parts 3100, 3160 and 3170. On September 18, 2018, BLM issued a final rule repealing the key requirements of the Waste Prevention Rule, on the basis that the Waste Prevention Rule would “unnecessarily encumber energy production, constrain economic growth, and prevent job creation.”</p> <p>In the absence of a robust uniform rule to control waste, the BLM must, on a project-level basis, consider alternatives to prevent waste, including restricting the timing and location of new leasing and drilling to areas where gas capture infrastructure will be available to enable produced gas to be marketed. The BLM is also obligated to consider imposing methane waste controls in lease stipulations and conditions of approval on drilling permits.</p>
<p><b>Response:</b> On September 28, 2018, the BLM published in the Federal Register a rescission or revision of certain requirement of the Waster Prevention, Production</p>			

Subject to Royalties, and Resource Conservation. These revisions to the waste rule became effective on November 27, 2018. With this final rule, the BLM is discouraging excessive venting and flaring by placing volume and/or time limits on royalty-free venting and flaring during production testing, emergencies, and downhole well maintenance and liquids unloading. The BLM also retained the 2016 rule’s subpart 3178 provisions, which incentivize the beneficial use of gas by making gas used for operations and production purposes royalty free. Revisions to the rule allows operators to continue implementing waste reduction strategies and programs that they find successful and to tailor or modify their programs in a manner that makes sense for their operations.

States have also developed rules to minimize waste and protect the health and safety of the public. In Montana, Administrative Rule R36.22.1220(3)(b) imposes a flaring limit as a drilling permit condition of approval. North Dakota Administrative Code 40-02-03-16 requires a gas capture plan as a condition on drilling permits.

Additionally, BLM is applying stipulation CSU 12-23 and lease notice LN 14-18 to all parcels. The stipulation and notice, as well as state regulations, and the BLM final Waste Prevention Rule sufficiently address waste and methane emissions for this leasing action.

### Wilderness Study Areas

Comment No.	Commenter	Subject	Comment
1	Numerous	Ruby Mountain WSA	Parcels to the east of Dillon back up to the Ruby Mountains Wilderness Study Area. Development in these parcels would threaten the areas untrammelled, wild and scenic nature.
<p><b>Response:</b> The BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area. Refer to Response to Comment #1 in Beaverhead/Madison County section and responses to #2 and 3 below.</p>			
2	TWS, MWA	Ruby Mountain WSA	<p>Parcel Number MTM105431-GY appears to potentially overlap with the Ruby Mountains Wilderness Study Area (WSA). BLM is prohibited from issuing oil and gas leases in WSAs. BLM Manual 6330 confirms: “New leasing of oil and gas minerals, including leasing with "no surface occupancy" stipulations, is prohibited within WSAs under the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (30 U.S.C. § 181).” Manual 6330 § 1.6(D)(5)(c).</p> <p>Manual 6330 also directs that in order to ensure no leasing occurs in WSAs, “where the exact legal description of the WSA boundary is not known due to the lack of an official survey, leasing should be set back from the WSA boundary.” <i>Id.</i> BLM must confirm that the lease parcel does not overlap with the Ruby Mountains WSA, and set back the parcel boundary if necessary per agency guidance.</p>
<p><b>Response:</b> Mineral resources within the boundaries of Wilderness Study Areas would not be offered for oil and gas leasing consistent with the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (30 U.S.C. § 181). While the parcel is proposed for deferral in the current sale, the BLM may offer lands for lease up to the WSA boundary in the future. However, where the exact legal description of the WSA boundary is not known due to the lack of an official survey, leasing should be set back from the WSA boundary at a distance determined by the manager to be sufficient to guarantee that wilderness characteristics of the lands within the WSA boundary are not impaired. This decision would be made if and when the parcel is offered for leasing in the</p>			

future.			
3	TWS	Bitter Creek WSA	Several parcels in the Glasgow Field Office appear to potentially overlap with the Bitter Creek Wilderness Study Area (WSA). EA at 6-7. BLM is prohibited from issuing oil and gas leases in WSAs. BLM Manual 6330 confirms: "New leasing of oil and gas minerals, including leasing with "no surface occupancy" stipulations, is prohibited within WSAs under the Federal Onshore Oil and Gas Leasing Reform Act of 1987." 30 U.S.C. § 181; Manual 6330 § 1.6(D)(5)(c)
<b>Response:</b> Mineral resources within the boundaries of Wilderness Study Areas would not be offered for oil and gas leasing consistent with the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (30 U.S.C. § 181). While the parcel is proposed for deferral in the current sale, the BLM may offer lands for lease up to the WSA boundary in the future. However, where the exact legal description of the WSA boundary is not known due to the lack of an official survey, leasing should be set back from the WSA boundary at a distance determined by the manager to be sufficient to guarantee that wilderness characteristics of the lands within the WSA boundary are not impaired. This decision would be made if and when the parcel is offered for leasing in the future.			

### Cultural Resources

Comment No.	Commenter	Subject	Comment
1	Northern Plains	Lack of analysis	Finally, BLM ought to account for the proximity of many of these lease parcels to areas with unique cultural histories and characteristics, and conduct a thorough cultural inventory prior to completing the environmental assessment phase. Parcels fall within or adjacent to the Crow Indian Reservation, the Northern Cheyenne Indian Reservation, the Tongue River Reservoir (as mentioned above), Rosebud Battlefield State Park, Makoshika State Park, Blackfeet Indian Reservation, and the Fort Peck Indian Reservation. Despite that, the BLM conducted no analysis of cultural resources specific to this document, and merely referenced "prior NEPA reviews."
<b>Response:</b> The lease parcels have been reviewed by a BLM Archaeologist and stipulations applied to applicable parcels to mitigate any potential adverse impacts to National Historic Trails, Battlefield Sites and archaeological and cultural locales. For example, any lease parcels in proximity to the Nez Pierce NHT have a No Surface Occupancy Stipulation 11-119 applied to prohibit oil and gas development within one-half-mile of National Historic Trails. Lease Notice 14-33 is a Cultural Inventory Requirement requiring a site-specific inventory prior to undertaking surface-disturbing activities. Additionally, No Surface Occupancy stipulation 11-126 applied to these parcels to protect locations of particular importance to Native American groups, and Lease Notice 14-38 is applied which requires Tribal consultation prior to approving any surface-disturbing activities.			
2	Comanche Nation	Review of parcels	The March 2019 lease sale project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of "No Properties" have been identified.
<b>Response:</b> Comment Noted			
3	Patrick Baird, Nez	Scoping	Im writing because I received the above Oil and Gas Lease Parcel Preliminary Review for comment on 7/10/2018. I am concerned that despite statements to the contrary in the specialists report, several of the parcels include, or are adjacent to, the Nez Perce National Historical Trail (NPNHT). These parcels are:

	Pierce Tribe		<p>MTM108952H8          MTM108952HC          MTM108952HW          MTM108952KB          MTM108952KC          MTM108952KG</p> <p>We expect that the BLM will not permit oil and gas development in locations near the NPNHT, as it is hugely important to the Tribe.</p>
<p>The lease parcels have been reviewed by a BLM Archaeologist and stipulations applied to applicable parcels to mitigate any potential adverse impacts to National Historic Trails, Battlefield Sites and archaeological and cultural locales. For example, any lease parcels in proximity to the Nez Pierce NHT have a No Surface Occupancy Stipulation 11-119 applied to prohibit oil and gas development within one-half-mile of National Historic Trails. Lease Notice 14-33 is a Cultural Inventory Requirement requiring a site-specific inventory prior to undertaking surface-disturbing activities. Additionally, No Surface Occupancy stipulation 11-126 applied to these parcels to protect locations of particular importance Native American groups, and Lease Notice 14-38 is applied which requires Tribal consultation prior to approving any surface-disturbing activities.</p>			

### Locatable Minerals

Comment No.	Commenter	Subject	Comment
1	Headwaters Ranch	Mineral exploration	<p>Surface properties owned by Headwaters on Parcels MTM 105431-GR and GQ are the subject of Notices of Intent to Locate Stock Raising Homestead Act Mineral Entry claims for a total of 1,280 contiguous acres. A private US citizen is actively exploring for minerals on 1,280 acres of surface owned by Headwaters. The EA, however, states that locatable minerals were not addressed or considered. In light of this information, the Headwaters parcels should be removed from leasing consideration.</p> <p>While several lease stipulations are included in the EA for the Headwaters parcels, the stipulations provide the resources and property with minimal protection from the effects of an oil and gas lease. The water resources on the Headwaters properties are especially important to its farming operation and livestock production. Any leasing and development of oil and gas on the Headwaters parcels will impact the water resources, the grazing resource, which includes disturbance of cattle grazing. The high potential from spread of weeds and introduction of noxious weeds on the Headwaters property is just one example of significant affect that is not addressed by the EA or a Stipulation.</p>
<p><b>Response:</b> LN 14-1 Land Use Authorization would address your concern. It provides:          Land Use Authorizations incorporate specific surface land uses allowed on Bureau of Land Management (BLM) administered lands by authorized officers and those surface uses acquired by the BLM on lands administered by other entities. These BLM authorizations include rights-of-way, leases, permits,</p>			

conservation easements, and Recreation and Public Purpose leases and patents. The rights acquired, reserved, or withdrawn by the BLM for specified purposes include non-oil and gas leases, conservation easements, archeological easements, road easements, fence easements and administrative site withdrawals. The existence of such land use authorizations shall not preclude the leasing of the oil and gas. The locations of land use authorizations are noted on the oil and gas plats and in the BLM's automated database (LR2000). The plats are a visual source noting location; LR2000 provides location by legal description through the Geographic Cross Reference program. The specifically authorized acreage for land use should be avoided by oil and gas exploration and development activities. All authorized surface land uses are valid claims to prior existing rights unless the authorization states otherwise. The right of the Secretary to issue future land use authorizations on an oil and gas lease is reserved by provision of Section 29 of the Mineral Leasing Act, 30 U.S.C.

However, parcels MTM 105431-GR and GQ (as well as all other parcels in Beaverhead and Madison County) have been deferred from the March sale under Alternative C pending additional analysis to determine the adequate level of protection for the area.

### Social Economics / Recreation / Eco-tourism / Private Surface

Comment No.	Commenter	Subject	Comment
1	USEPA	Recreation	Several parcels (MTM105431PA, PK, MY, MX, M7 and M8) are located close to Tongue River Reservoir and State Park and could potentially affect use of the reservoir by the public.
<p><b>Response:</b> Leasing would not restrict access or use of the reservoir or state park. NSO and CSU stipulations are proposed to protect a variety of resources, including streams, wetlands, waterbodies, riparian resources, cultural and wildlife resources that would minimize development in areas where the recreating public is likely to visit, such as shorelines. Although leasing does not create a direct impact to recreation uses, future development would have the potential to detract from the natural setting by introducing new infrastructure, sounds and smells that could impact the recreation setting of lease parcels and adjacent lands.</p>			
2	Environment Montana	Recreation	We disagree with the Bureau's finding that the proposed leases will not directly impact recreational opportunities (EA, pg. 7). In particular, we are aware that at least four parcels (MTM 105431-GF, MTM 105431-GJ, MTM 105431-GX, and MTM 105431-GH) are used regularly as recreational land for hunting antelope, and three connected parcels are located along a fishable tributary of the Big Hole River, Willow Creek (MTM 105431-GU, MTM 105431-GV, and MTM 105431-GW).
<p><b>Response:</b> Surface disturbance is not part of the proposed action. At the time of this review it is unknown whether or not a particular parcel will be sold and a lease issued and, what potential impacts to those resources may occur. At the leasing stage, site-specific drill locations are unknown. Site-specific NEPA analysis cannot occur until there is an APD; however, the Lease EA does disclose potential "indirect" impacts of leasing to the issues identified from internal and external scoping (in this EA, those resources are water, air, socio-econ, and greater sage-grouse). Additionally, all parcels within the Dillon Field Office area and a portion of MTM 105431-GH in Valley County have been deferred pending additional analysis to determine the appropriate level of protection for the area.</p>			
3	Public Land Solutions	Recreation	As recreation advocates, Public Land Solutions is concerned that the BLM does not adequately analyze potential impacts from this proposed lease sale to specific recreation assets and other important values. We believe that the BLM should take a harder look at the potential impacts of this proposed lease sale on

			<p>specific recreation assets. Because the direct, indirect, and cumulative effects that would result from implementation of this lease sale could be detrimental to recreation and the local communities that have invested in recreation assets, the BLM should fully evaluate the cumulative impacts of this competitive lease sale on the region’s recreation economy and how it would impact future growth opportunities in the local business community and socioeconomics regionally. We urge the BLM to conduct a hard look environmental analysis and propose leasing stipulations or other measures to minimize/mitigate oil and gas development impacts on recreation assets and associated socioeconomics.</p>
<p><b>Response:</b> The EA contains coarse estimates of the amount of water and acres disturbed that could result from subsequent development of lease parcels. Any site-specific considerations would be looked at in more detail at the APD stage. Socioeconomic considerations are considered in the applicable RMP for each planning area, including the contribution of agriculture and recreation to area economies.</p>			
4	Public Land Solutions	Recreation	<p>Through this lease sale Environmental Analysis (EA) the BLM has failed to take the required “hard look” at potential environmental impacts on recreation from oil and gas leasing. The EA states, without analysis, that</p> <p><i>No direct impacts to recreational opportunities would occur as a result of offering leases for sale. The leasing action would be considered in compliance with all relevant recreation regulations, protocols and policies. Impacts on recreation from potential future exploration and development would be analyzed at the APD stage and included design features, and mitigation would be integrated to avoid or minimize potential impacts to recreation consistent with the RMP for the respective planning area.</i></p> <p>Under NEPA, the BLM must consider the “reasonably foreseeable” impacts of oil and gas leasing on recreation before committing to these lease sales.</p> <p>Regarding a socioeconomic review of how these lease sales might affect other economic sectors, this EA fails to bring meaningful consideration because it does not take a hard look at how these proposals might affect socioeconomics related to recreation. The EA offers a brief assessment of how development might “inconvenience” residents, disrupting community cohesion driven by rapid social change. But mostly the socioeconomic analysis in the EA considers how local and regional economics might benefit from these leases, not how these leases might affect other economic sectors such as Montana/Dakotas’ recreation economy.</p> <p>The BLM’s multiple-use mandate prohibits the management of public lands primarily for energy development or in a manner that unduly or unnecessarily degrades other “co-equal” uses such as “outdoor recreation, fish and wildlife, grazing, and rights-of-way must receive the same consideration as energy development.” 43 U.S.C. § 1732(a), 43 U.S.C. § 1702(l). While this EA directs limited and undefined no surface occupancy (NSO) and controlled surface use (CSU) stipulations for oil and gas exploration and development “within developed and undeveloped recreation areas receiving concentrated public use.”</p>

			<p>These protections for recreation assets is limited in that it only generally directs developments that are “conducted in a manner that minimizes encounters and conflicts with recreation users” and that do “not alter or depreciate important recreational values.” To accomplish the goals of these stipulations the BLM should provide much more specificity in its leasing stipulations.<sup>1</sup> Therefore, we urge the BLM to develop an EA for this statewide lease sale that specifically implements the following standards for protecting recreation assets:</p> <ul style="list-style-type: none"> <li>• NSO stipulation for a 1-mile radius from developed recreation site boundaries.</li> <li>• NSO stipulation within 0.5 miles of the centerline of high use routes (motorized) and trails (non-motorized).</li> <li>• NSO stipulation for a 0.5-mile radius around other high use recreation areas.</li> <li>• NSO stipulation to all VRM Class II areas in Special Recreation Management Areas and a Baseline CSU stipulation throughout the remainder of SRMAs.</li> <li>• Apply an NSO stipulation to Recreation Focus Areas.</li> </ul>
<p><b>Response:</b> No surface occupancy and controlled surface use stipulations are proposed to protect a variety of resources, including streams, wetlands, waterbodies, riparian resources, cultural and wildlife resources that would minimize development in areas where the recreating public is likely to visit, such as shorelines. Although leasing would not create a direct impact to recreation uses, future development would have the potential to detract from the natural setting by introducing new infrastructure, sounds and smells that could impact the recreation setting of lease parcels and adjacent lands.</p>			
5	Northern Plains	Water/economic s	<p>When an exploratory well was drilled in Belfry several years ago, operators illegally withdrew water from a private water impoundment for use in their drilling. The BLM should consider and account for where operators will access water—legally—before leases are sold. A lease conveys the right and ability to develop; if the water resources in an area needed to bring development to fruition do not exist, or perhaps more importantly, if relying on those water resources would significantly impact local agricultural operations, recreational trade, and other local uses, the BLM should consider disqualifying or deferring the lease in question. The BLM should consider conducting an economic impact study of how drilling, water contamination, and water loss could impact the agriculture and recreation economies of central Montana, Dawson County, the Tongue River Valley, Carbon County, and other areas within which leasing is proposed.</p>
<p><b>Response:</b> Any proposal for water use and/or disposal is made in the Surface Use Plan component of an Application for Permit to Drill (APD). At the APD stage the BLM Field Office will review and analyze any proposal for water use and only approve the APD with conditions of approval, best management practices and required design features. At the leasing stage, it is unknown where development would occur and what water use would be required.</p>			
6	J. Guercio, OW Ranch	Access on Private Surface	<p>The recent schedule of federal minerals to be nominated in our area are located upon some of our fee ranch lands. MTM 10543 1-N6, T. 8 S, R. 42 E, PMM, MTSEC. 26 S1/2NE1/4, S1/2NW1/4;BIG HORN COUNTY 160.00 AC</p> <p>My comments are specific to this part of our ranch. This area is one of the most diverse and sensitive areas out of the 100 square miles we operate on. Because of topography, it will be incumbent upon any</p>

			operator to consider access and its impact the biggest challenge to any development. I must insist that any access and development of these parcels be conducted from the existing road network so as to mitigate and limit any disturbance.
<b>Response:</b> At the leasing stage, it is unknown where development will occur and what access may be necessary. Any proposal for new or use of existing access roads will be made in the Surface Use Plan component of the Application for Permit to Drill (APD). Before the APD, the BLM will conduct an onsite inspection with the operator, and if private surface, also with the landowner. This inspection enable the parties to reach an agreement on development, including access, with best management practices, required design features, conditions of approval, and reclamation.			
7	Tripp Parks	Access to private surface / proximity to residence Property values	<p>We are not opposed to the sale of oil and gas leases on Bureau of Land Management (BLM) land in general; however, we are opposed to these three specific parcels: MTM105431GU, MTM105431GV, MTM105431GW.</p> <p>This private property is our year-round residence upon which we built a house and took up full time residence in 2016. Our house is within approximately 1,500 feet of parcels MTM105431GU and MTM105431GV. The sale of oil and gas leases on the three mentioned parcels has the high probability of negatively impacting multiple aspects of our life. Our opposition to these leases is rooted in the following areas.</p> <ol style="list-style-type: none"> <li>1. We believe the sale of these leases on these three parcels and the associated activity it will bring will in all likelihood cause a significant reduction in the value of our property with the possibility of making it all but impossible to sell at such time as that becomes necessary.</li> <li>2. Our property and the surrounding area (including the mentioned lease parcels) does not contain any surface water. In order to obtain sufficient water for our daily lives, we have one of the deepest water wells in Beaverhead County. As oil/gas exploration/development/production requires significant amounts of water, water wells will need to be drilled. This alone has the potential to seriously reduce our available water. Also, the actual oil/gas drilling has the potential to damage our underground water supply (draining the water supply or contamination of the water supply). Without clean water at our property, as stated in Item 1, the property has no value.</li> <li>3. The exploration/development/production of oil/gas on these parcels will require a significant investment in infrastructure. Currently, there are no actual roads leading into our property or these leases. The ingress/egress is made over two-track &amp; across either Montana State Department of Natural Resources land or National Forest Service land. In order to support the proposed activity, actual roads will likely be put in to place to facilitate movement of all necessary supplies and equipment. These actual roads will negatively impact our quality of life by causing more traffic, noise, airborne dirt, and trash. An increase in traffic presents a danger to our animals as well as bringing the likelihood of more illegal activity in the area (including to/on our property).</li> <li>4. On a more aesthetic level, the proposed activity will also require electricity which means a significant</li> </ol>

			<p>increase in the amount of above ground power lines crisscrossing the area causing less enjoyable views. The actual drilling and producing equipment will have the same negative impact on the overall views from our property.</p> <p>Anecdotal evidence appears to point to the poor value of these parcels for oil/gas production. The likely value of these parcels for oil/gas production cannot possibly outweigh the damage it would cause to our life. We made a conscious choice to purchase a secluded piece of property to live the life we wanted. The proposed sale of oil/gas leases on these three parcels has a high likelihood of negatively changing our life indefinitely.</p>
<p><b>Response:</b> Lease parcels MTM 105431-GU, MTM 105431-GV, and MTM 105431-GW are being deferred from the March 2019 lease sale. Additional analysis is required to determine the appropriate level of protection for this area.</p>			

### Fisheries / Dillon Field Office

Comment No.	Commenter	Subject	Comment
1	Trout Unlimited	<p>Westslope cutthroat trout</p> <p>Consideration of science</p>	<p>Several of the parcels in the Dillon FO are located in Westslope cutthroat trout (<i>Oncorhynchus clarkii lewisi</i>) habitat, which is a BLM and USFS sensitive species. Protecting this species' population strongholds remains a high priority for both the state and federal agencies. A Conservation Agreement signed by nine government agencies and conservation groups, including TU, was established in 1992 and provides guiding prioritization measures for protecting these unique native species. Assessments are conducted every five years to provide status updates and to determine conservation goals and priorities.</p> <p>Cutthroat trout are sensitive to changes in their coldwater habitat. As demonstrated by studies on streams once occupied by Colorado River cutthroat trout (CRCT) populations, oil and gas development can have long-term repercussions unless forward-thinking protection measures occur. <b>New studies recently completed illustrate the lingering effects oil and gas development can have on cutthroat trout waters.</b> In Wyoming, a study on the eastern flank of the Bridger-Teton National Forest revealed significant persistent impacts on CRCT populations. Impacts from oil and gas development to native CRCT streams in the Wyoming Range established a direct connectivity between poor water quality, location of wells, and low populations of CRCT. Streams in the disturbed area of Dry Piney Creek, where well pad density was 3.4 wells per square mile and where an oil spill had occurred in 2012 (affecting fish populations), showed poor habitat conditions, decreased willow cover, increased stream incision and greater prevalence of bare dirt. Additionally, the macroinvertebrate populations, so important to trout survival, were low, leading to the disappearance of native trout along Dry Piney Creek.</p> <p>Other lingering effects from oil and gas development can impact the viability of cutthroat trout-occupied streams. <b>Again, referencing a Wyoming study, the Wyoming Department of Environmental Quality</b></p>

			<p><b>described concerns in its 2016 303-Report</b>, where oil seeps and physical degradation are affecting the headwaters of LaBarge Creek, Dry Piney Creek and South Piney Creek drainages within the Upper Green River Sub-basin. Oil and gas wells and gas processing facilities are located within this Sub-basin and these creeks were all at one-time important CRCT habitat. Dry Piney Creek no longer contains CRCT populations and LaBarge Creek and South Piney Creek only contain CRCT populations in their upper headwaters.</p> <ul style="list-style-type: none"> <li>• Westslope Cutthroat Trout Conservation Agreement. Montana Department of Fish, Wildlife &amp; Parks. 1999. Memorandum of understanding and conservation agreement for westslope cutthroat trout (<i>Oncorhynchus clarki lewisi</i>) in Montana. 28 pp.</li> <li>• Girard, Carlin E. 2015. The Effects of Oil and Natural Gas Development on Water Quality, Aquatic Habitat, and Native Fish in Streams along the Wyoming Range: A thesis submitted to the University of Wyoming. Zoology and Physiology. Laramie. August 2015.</li> <li>• Wyoming Department Environmental Quality. 2016. "Wyoming's' 2014 Integrated 305(b) and 303(d) Report." February 25, 2016. Prepared by Wyoming Department Environmental Quality, Water Quality Division, Cheyenne, Wyoming. Document #16-0126.</li> </ul>
<p><b>Response:</b> The BLM consulted with MT Fish, Wildlife, and Parks to determine presence/absence of westslope cutthroat trout in the vicinity of the proposed parcels in the Big Hole watershed. MTFWP provided the following information:</p> <p><i>There is only 1 location where a conservation population (&gt;90% WCT) of westslope cutthroat trout has been documented in Willow Creek and that is near the headwaters (near the confluence of Gorge Creek). This is roughly 10 miles upstream of the lease areas. These samples were collected in 1994. Other samples collected nearby have shown hybridization levels of hybridization greater than 10%. Mike Young of the Forest Service collected 10 genetic samples from this headwater region in 2010 and found only pure fish. FWP collected 20 samples upstream of this area in 2014 and found heavily hybridized (50%) cutthroat trout and 2 pure fish (pure fish likely tricked down from Tendoy Lake where WCT are stocked on top of the Yellowstone cutthroat hybrids). FWP's findings were much more consistent with previous samples from the general area where hybridization downstream of Mike Youngs samples has been near 25%. The lakes upstream (Tendoy and Gorge Lakes) have self-sustaining populations of Yellowstone cutthroat trout hybrids. Therefore, both upstream and downstream of the Mike Young samples had heavily hybridized fish so we do not have an explanation for his findings of only pure fish. The likelihood of a conservation population of cutthroat trout being present as far downstream as the leases is low. It is possible that individual cutthroat are present but they would likely be hybridized more than 10%. The stream does have rainbow trout, brook trout and is a great little fishery. Willow Creek is one area that has the potential for WCT restoration. FWP is currently attempting to swamp the Yellowstone cutthroat hybrids in the headwater lakes. No formal plan for restoring WCT to the stream exists at this time.</i></p> <p><i>Birch Creek has no conservation populations of WCT that we are aware of at this time. Hybrids are present along with rainbow and brook trout.</i></p> <p><i>The sites on the Rattlesnake are downstream of WCT distribution, although there are Brook Trout present as indicated.</i></p> <p>1/9/2019 email forwarded from Renee Lemon in the project record.</p> <p>Regardless, all Beaverhead and Madison County parcels have been deferred from the March sale under Alternative C pending additional analysis to determine the adequate level of protection for the area.</p>			

2	Trout Unlimited	Arctic grayling	Arctic grayling habitat is found in the Big Hole River watershed (Dillon FO) where lease parcels are located. Arctic grayling are a BLM and U.S. Forest Service sensitive species which has been reduced to a single, native population in the Big Hole River in southwest Montana. Considerable efforts have been invested in mitigating habitat-related threats such as fragmentation, dewatering, thermal stress, riparian habitat loss, and effects from climate change which has helped stabilize populations. The Big Hole Watershed Committee's Drought Management Plan, originating in 1997, designates target river flow and temperature conditions for fish health in 5 river sections of the Big Hole River and is designed to support the health of the fishery. Due to the sensitive nature of this unique species and its requirement for clean, cold and plentiful water, TU and MTU remain concerned that any type of oil and gas activities will threaten this species stability. We request the BLM remove the identified parcels from the sale.
<b>Response:</b> MT FWP reviewed all of the parcels in the March 2019 sale and provided extensive comments to the BLM. Refer to the Wildlife Section. They did not identify arctic grayling as an issue of concern, nor did they suggest that the BLM apply any grayling stipulations. None of the parcels are adjacent to the Big Hole River. Regardless, the BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.			
3	WEG, CBD	Arctic grayling	Among the reasonably foreseeable impacts from potential oil or gas development on headwaters of the Big Hole is increased sedimentation, increased turbidity, nutrient loading, and higher temperatures in the waterways. These types of impacts could exacerbate ongoing conditions inimical to viability of the Big Hole fluvial arctic grayling population, and likewise create impacts to 303d listed and TMDL waterways' abilities to attain designated uses. BLM must both take a hard look at these reasonably foreseeable direct, indirect, and cumulative impacts, and must confer with the Fish and Wildlife Service to determine whether those impacts may jeopardize the continued existence of the arctic grayling, including the Big Hole population.  In 2014, the Fish and Wildlife Service determined that listing of grayling was not warranted. On August 17, 2018, however, the United States Ninth Circuit Court of Appeals held "that the 2014 Finding's decision that listing the arctic grayling was "not warranted" was arbitrary and capricious.
<b>Response:</b> Refer to the response to #2 above.			
4	Trout Unlimited	WCT Big Hole/ Beaverhead watersheds	Three of those parcels are not identified in Appendix A (parcels MTM 105431-GG, -GD and -GH) and we can find no deferral notice for these parcels. We believe that the stipulations currently offered by the BLM fail in their adequacy to protect the unique fisheries resources in this area.
<b>Response:</b> These parcels were deferred from the December 2018 sale pending review of the ARMP to provide the appropriate level of protection for the area to address sage-grouse concerns, and were not moved to the March 2019 sale. Refer to the Decision Record and FONSI for the December 2018 sale, available on the BLM ePlanning web site.			
5	Trout Unlimited	Westslope cutthroat trout / Big Hole River	Parcels MTM105431GU and MTM105431GV are located on the south side of Willow Creek which contains Westslope cutthroat trout conservation populations. The BLM has applied CSU stipulations for several measures but failed to include any watershed protection stipulations such as CSU-12-25 for riparian/wetlands

			<p>buffers of 300 feet. In fact, these parcels do not contain stipulation CSU12-13 which is specific to Westslope cutthroat trout protection, nor do they contain any NSO stipulation for rivers, riparian areas, or streams (NSO 11-2). Due to the sensitive nature of this Creek and its occupants, we believe no amount of stipulations will offer adequate protection measures to reduce the risk of impacts.</p> <p>Because the likelihood of development in this area is low according to the RFD scenario provided with this sale, and the ecological value of this area is high, the best option for these parcels, is to remove them from the sale. Our second strongest preference is to remove those parcels containing Westslope cutthroat trout habitat and attach the recommended stipulations to the remaining parcels.</p> <p>BLM must treat the arctic grayling as a “candidate” species under Section 7(a)(4) of the Endangered Species Act, which requires the BLM to confer with the U.S. Fish and Wildlife Service to determine whether the proposed action may jeopardize the candidate species or adversely modify its potential critical habitat.</p>
<p><b>Response:</b> Refer to Fisheries/Dillon responses 1 and 2. All Beaverhead and Madison County parcels have been deferred from the March sale under Alternative C pending additional analysis to determine the adequate level of protection for the area.</p>			
6	Trout Unlimited	Recreational Fisheries / Big Hole River	<p>MTM105431GW lies north of Birch Creek which is a popular recreational fishery with the public. Several small streams in this parcel drain into Birch Creek. Wild Brown trout, Westslope hybrids and Brook trout occur along this stream stretch which eventually flows into the Big Hole River. Any contamination or sedimentation events from oil and gas activities or dewatering of the stream will negatively impact these resources. Again, this parcel lacks important stipulations such as CSU 12-13, CSU 12-25, NSO 11-2 or other NSO measures. We request that the BLM remove this parcel as well, in the interest of protecting the long-term viability of future Westslope cutthroat reestablishment goals and recreational opportunities for the public. Should the BLM fail to remove this parcel, we ask for NSO and CSU stipulations that are the strongest and to limit any waivers or exceptions.</p>
<p><b>Response:</b> Refer to Fisheries/Dillon responses 1 and 2. All Beaverhead and Madison County parcels have been deferred from the March sale under Alternative C pending additional analysis to determine the adequate level of protection for the area. It is also worth noting that CSU 12-25 only applies to the RMPs for HiLine, Billings, Miles City, and South Dakota, and cannot be applied to Dillon.</p>			
7	Trout Unlimited	Recreational Fisheries / Beaverhead River	<p>MTM105431GF drains to the Beaverhead River, a popular recreational fishery. We appreciate that NSO stipulations 11-2 for riparian, rivers, and flood mitigation. We would like to recommend the BLM apply CSU stipulations 12-13 and 12-25 in addition to NSO stipulations so that adequate measures occur for all portions of the parcels located in this watershed.</p>
<p><b>Response:</b> As noted in the response for Fisheries/Dillon #1, WCT do not occur in the vicinity of parcel GF. Regardless, all Beaverhead and Madison County parcels have been deferred from the March sale under Alternative C pending additional analysis to determine the adequate level of protection for the area.</p>			
8	Trout Unlimited	Recreational Fisheries /	<p>Parcels MTM105431-GJ and -GX abut and lie within the Rattlesnake Creek drainage, again a popular recreational fishery. Rattlesnake Creek drains into Beaverhead River and any contamination events from oil</p>

		Beaverhead River	and gas activities can have devastating effects to a fishery. These two parcels lack any CSU stipulations such as CSU-12-25 which helps protect riparian areas. Since there are several streams that flow through these parcels, we recommend the strongest stipulations possible. All aliquots of these parcels should contain NSO and CSU stipulations.
<p><b>Response:</b> The sites on the Rattlesnake are downstream of WCT distribution, although there are Brook Trout present as indicated. 1/9/2019 email forwarded from Renee Lemon in the project record.</p> <p>CSU 12-25 does not apply to the Dillon Field Office (only HiLine, Billings, Miles City and South Dakota). If applicable, the Dillon RMP includes several stipulations that can be used to address fisheries resource concerns including CSU 12-13 for WCT, NSO 11-2 for riparian, floodplains, rivers, streams, and waterbodies, NSO 11-18 for WCT, NSO 11-19 for arctic grayling, and NSO 11-20 for blue ribbon trout streams. The BLM applied NSO 11-2 to aliquot portions of 105431-GJ and GX.</p> <p>Regardless, all Beaverhead and Madison County parcels have been deferred from the March sale under Alternative C pending additional analysis to determine the adequate level of protection for the area.</p>			

### Fisheries / Billings Field Office

Comment No.	Comment	Subject	Comment
1	Trout Unlimited	Recreational Fisheries / Clarks Fork / Riparian Stipulations	<p>MTM108952KG, MTM108952KB, MTM108952HC, MTM108952H8 exist along the Clarks Fork of the Yellowstone River (Figure 2). Our review found a considerable amount of stipulations attached to protect everything from the badlands geology to plants, yet there were no CSU or NSO stipulations that were attached protecting Riparian, wetlands (CSU 12-25) or streams, waterbodies, rivers, etc. (NSO 11-125). While one of the parcels had stipulation measure NSO 11-131 (Special Recreation Management Area for the Yellowstone River), we believe all four of the parcels should have NSO 11-131. This area is a highly popular recreational fishery for residents and tourists and is located adjacent to a major highway bordering Montana and Wyoming.</p> <p>All of these parcels have been identified as having moderate potential for coalbed methane gas (CBNG) development according to the RFD scenario. Due to the increased interest in further development of CBNG fields in northern Wyoming and southern Montana, we recommend the strongest protections possible. Our first recommendation is for withdrawal of these four parcels; should withdrawing them not be an option, we ask for the strongest protection measures possible to protect the integrity of the river system, a highly popular recreational fishery, water quality and quantity.</p>
<p><b>Response:</b> The BLM reviewed the parcels in question and added the following stipulations:</p> <ul style="list-style-type: none"> <li>• MTM108952KG should have CSU 12-25 &amp; NSO 11-125 with aliquot parts of: T.9S.,R.22E., Sec. 08, LOT 5.</li> <li>• MTM108952KB should also have CSU 12-25 with aliquot part T.9S.,R.22E, Sec. 09, NW1/4NE1/4. And NSO 11-125 E1/2NE1/4, E1/2SE1/4;</li> <li>• MTM108952HC should have NSO 11-125 with aliquot parts T.9S., R.22E., Sec. 24, NE1/4NW1/4, S1/2NW1/4, N1/2SW1/4;</li> </ul>			

<p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM’s conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.</p>			
2	Trout Unlimited	Recreational Fisheries / Clarks Fork / Riparian Stipulations	<p>Parcel MTM108952KG has four aliquots associated with this parcel and they are scattered on either side of the Clarks Fork of the Yellowstone River. The aliquot furthest from the river does contain streams that drain into the Clarks Fork and have the potential to impact that ecology in a negative way, should it be developed. This section of river is a highly prized wild Brown trout fishery and all aliquots of this parcel must include strong protection measures, should they not be withdrawn.</p> <p>We recommend the BLM attached NSO 11-125 to protect streams, waterbodies, riparian and wetlands, with no exceptions to reduce this stipulation measure. The tiny triangle portion of this parcel located right on the north side of the river should be withdrawn, as no amount of stipulations can adequately protect the river from the hazards of oil and gas drilling activities.</p>
<p><b>Response:</b> The BLM reviewed the parcels in question and added the following stipulations:</p> <ul style="list-style-type: none"> <li>• MTM108952KG should have CSU 12-25 &amp; NSO 11-125 with aliquot parts of: T.9S.,R.22E., Sec. 08, LOT 5.</li> <li>• MTM108952KG should also have CSU 12-25 with aliquot part T.9S.,R.22E, Sec. 09, NW1/4NE1/4. And NSO 11-125 E1/2NE1/4, E1/2SE1/4;</li> </ul> <p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM’s conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.</p>			
3	Trout Unlimited	Recreational Fisheries / Clarks Fork / Riparian Stipulations	<p>Parcel MTM108952KB is within one-half mile from the Clarks Fork and has at least two streams draining into the Clarks Fork. While the BLM applied stipulations to protect air quality, badland outcrops, plants, visual and national historic trail protections, there are no stream, riparian or wetland stipulations attached to this parcel. This is the parcel that does have NSO 11-131 for Special Recreation Management Area for the Yellowstone River for a portion of the parcel. It should be noted that erosion issues exist in this landscape and protecting on a portion of the parcel will not prevent sedimentation and erosion from surface damages that occur from all aspects of oil and gas drilling, including leaking diesel from transportation trucks and heavy equipment. We recommend further review by the BLM and should it not be withdrawn, we request CSU 12-25 and NSO 11-125.</p>
<p><b>Response:</b> The BLM reviewed the parcels in question and determined no additional stipulations were necessary.</p> <ul style="list-style-type: none"> <li>• <b>MTM108952KB</b> – 11-125 and 12-25 would not be applied as there are no known wetlands or waterbodies in the parcel, based on MTNHP’s Montana Rivers Information System.</li> </ul> <p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations</p>			

measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM’s conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.			
4	Trout Unlimited	Recreational Fisheries / Clarks Fork / Riparian Stipulations	Parcel MTM108952HC has two aliquots both which are located furthest from the Clarks Fork but do have streams accessing them and thus, sedimentation and erosion issues exist. We recommend that the BLM attach CSU 12-25 and NSO 11-125 for those stream drainages existing on these parcels, should the BLM not withdraw them pending their review of the RMP.
<p><b>Response:</b> The BLM reviewed the parcels in question and added the following stipulations:</p> <ul style="list-style-type: none"> <li>• MTM108952HC –12-25 would not be applied as there are no known wetlands or waterbodies in the parcel, based on based on MTNHP’s Montana Rivers Information System.</li> <li>• MTM108952HC should have NSO 11-125 with aliquot parts T.9S., R.22E., Sec. 24, NE1/4NW1/4, S1/2NW1/4, N1/2SW1/4;</li> </ul> <p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM’s conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.</p>			
5	Trout Unlimited	Recreational Fisheries / Clarks Fork / Riparian Stipulations	Parcel MTM10895H8 is located east of the Clarks Fork but has a stream drainage running through the parcel, which drains into the Clarks Fork. Stipulations have been applied that cover a variety of resource protections but there are no stream or riparian protection measures attached to this parcel. We recommend, again, CSU 12-25 and NSO 11-125 upon completion of a review of the RMP.
<p><b>Response:</b> The BLM reviewed the parcels in question and determined no additional stipulations were necessary.</p> <ul style="list-style-type: none"> <li>• MTM108952H8 - 11-125 and 12-25 would not be applied as there are no known wetlands or waterbodies in the parcel, based on based on MTNHP’s Montana Rivers Information System.</li> </ul> <p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM’s conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.</p>			

### Fisheries / Glasgow Field Office

Comment No.	Commenter	Subject	Comment
1	Trout Unlimited	Pallid Sturgeon	Our review of the stipulations for these parcels in the Rock Creek drainage in the Glasgow FO came up with one parcel that we recommend have stronger stipulations. For the most part, we are pleased that the BLM has applied sufficient stipulations to these parcels. The river system in this area contains habitat for the Pallid sturgeon, an endangered species. Blacktail Coulee has been identified as containing populations of

			this unique species and we find that adequate protection measures have not been applied in a few parcels. All of these parcels have been identified as having very low potential for oil and gas development and should be considered as to whether even putting them in the sale is necessary, given the sensitive nature of the Pallid sturgeon.
<p><b>Response:</b> The BLM consulted with MT Fish, Wildlife, and Parks to determine presence/absence of pallid sturgeon in the vicinity of the proposed parcels in Valley County. MTFWP provided the following information:</p> <p><i>Blacktail Coulee is an intermittent drainage that flows into Lime Creek then Bear Creek before entering the Milk River (approximately 15 miles downstream). There are no records of pallid sturgeon in Blacktail Coulee. 1/2/29 email forwarded from Renee Lemon, MT FWP</i></p> <p>In addition, the BLM Fisheries Biologist noted the following: The Glasgow parcels do not have fish bearing streams running through them; they are near Rock Creek but not on it. Rock Creek is not shown as pallid habitat, only the Milk River is from the mouth upstream to 30N 37E Sec 7. All parcels received the TES 16-2 stipulation, which states that all parcels may now or in the future contain T&amp;E species or their habitat. This stipulation would protect these parcels later down the road at an APD stage if or when we receive an application to drill.</p> <p>Lastly, on December 14, 2018, the USFWS sent the BLM a letter regarding a List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project that specifically reviewed the Glasgow Field Office parcels. This letter did not identify pallid sturgeon as a species that may occur or be affected by the project. The USFWS Revised Recovery Plan for the Pallid sturgeon does not identify the area as inhabited habitat. These documents are in the project record.</p>			
2	Trout Unlimited	Pallid Sturgeon	MTM102757GH is north of Blacktail Coulee (Figure 3) does have NSO-70 and CSU 12-25 applied which offer protections from drilling activities as long as the entire parcel have these stipulations. In light of the presence of Pallid sturgeon in this coulee, this parcel might be considered for withdrawal.
<p><b>Response:</b> Please see response to Fisheries/Glasgow #1.</p>			
3	Trout Unlimited	Pallid Sturgeon	MTM102757GL or GK (?) Upon examination of the remaining parcel numbers, it is unclear to us whether parcel MTM102757GL or MTM102757GK have Blacktail Coulee running through it. Whichever parcel it is, we recommend it be removed from the sale in order to protect the Pallid sturgeon's viability.
<p><b>Response:</b> Please see response to Fisheries/Glasgow #1.</p>			

## Water Resources

Comment No.	Commenter	Subject	Comment
1	USEPA	Floodplains	There are parcels that may be located entirely within the floodplain of the stream or river they abut, which could prevent the BLM from applying protective stipulations such as no surface occupancy in these sensitive areas. These are: a. Discrete sections of MTM105431GJ (Rattlesnake Creek)

			<p>b. MTM1054314U, WR, a discrete section of WU, and 3M (Powder River)</p> <p>c. Discrete portions of MTM108952KX (Yellowstone River)</p>
<p><b>Response:</b> Additional text was added to the Affected Environment section to clarify how the relevant stipulations and associated waivers and modification provisions may be applied to such situations.</p> <p>In accordance with NSO 11-70, surface occupancy and use would be prohibited within perennial or intermittent streams, lakes, ponds, reservoirs, 100-year floodplains, wetlands, and riparian areas, including the floodplains that abut surface water features within the aforementioned parcels (see Appendix A &amp; B). Furthermore, prior to surface occupancy and use within 300 feet of riparian and/or wetland areas, a plan must be approved by the Authorized Officer with design features that demonstrate how all actions would maintain and/or improve the functionality of riparian/wetland areas (CSU 12-25). However, exceptions may be granted by the Authorized Officer for riparian areas, floodplains, and artificial ponds or reservoirs if the operator can demonstrate that: (1) there is no practicable alternatives to locating facilities in these areas, (2) the proposed actions would be designed to maintain or enhance resource functions, and (3) all reclamation goals and objectives would be met. Such information must be detailed in a Surface Use Plan of Operations, approved by the authorized officer, and analyzed in a subsequent environmental analysis.</p> <p>While it's true that some of the proposed parcels may contain continuous floodplains for which surface occupancy would typically be prohibited, techniques such as directional drilling from outside of the protected areas may provide alternative access to subsurface mineral resources, while still protecting the environmental resources of concern.</p>			
2	USEPA	Steep slopes erosion	Parcels MTM 105431 GM and GR appear to be mainly composed of steep slopes, which could have implications for erosion and water quality, especially if BLM is unable to apply stipulations commonly used to minimize soil erosion on steep slope areas.
<p><b>Response:</b> The aforementioned parcels were identified in the analysis as containing steep slopes (slopes exceeding 30%) and were assigned the appropriate stipulations (see Appendix A). Specifically, CSU 12-1 was applied to the parcel and surface occupancy or use within the associated area is subject to the following special operating constraint:</p> <p>Prior to surface disturbance on slopes over 30 percent, an engineering/reclamation plan must be approved by the authorized officer. If future surface occupancy or use is proposed for the areas containing steep slopes and surface disturbance is unavoidable, site specific mitigation will be designed to minimize soil erosion and the potential for adverse impacts to water quality. This would include a plan for reclaiming disturbed areas and is expected to minimize or avoid hillslope erosion and the potentially associated impacts to water quality.</p> <p>Both of these parcels are located in Dillon and would be deferred under Alternative C.</p>			
3	USEPA	Wetlands	MTM108952LN and discrete portions of MTM108952K7 are located almost entirely within wetlands identifiable through the National Wetland Inventory, which could prevent the BLM from applying protective stipulations such as no surface occupancy on these parcels.
<p><b>Response:</b> Additional text was added to the Affected Environment Section to clarify how the relevant stipulations and associated waivers and modification provisions may be applied to such situations.</p>			

In accordance with NSO 11-70, surface occupancy and use would be prohibited within perennial or intermittent streams, lakes, ponds, reservoirs, 100-year floodplains, wetlands, and riparian areas, including the wetlands associated with the aforementioned parcels (see Appendix A & B). Furthermore, prior to surface occupancy and use within 300 feet of riparian and/or wetland areas, a plan must be approved by the Authorized Officer with design features that demonstrate how all actions would maintain and/or improve the functionality of riparian/wetland areas (CSU 12-25).

No exceptions would be allowed in streams, natural lakes, or wetlands, irrespective of parcel access constraints. However, exceptions may be granted by the Authorized Officer for riparian areas, floodplains, and artificial ponds or reservoirs if the operator can demonstrate that: (1) there are no practicable alternatives to locating facilities in these areas, (2) the proposed actions would be designed to maintain or enhance resource functions, and (3) all reclamation goals and objectives would be met. Such information must be detailed in a Surface Use Plan of Operations, approved by the authorized officer, and analyzed in a subsequent environmental analysis.

While it's true that some of the proposed parcels may contain continuous wetland segments for which surface occupancy would be prohibited, techniques such as directional drilling from outside of the protected areas may provide alternative access to subsurface mineral resources, while still protecting the environmental resources of concern. Potential bidders on the lease parcels would have to consider such constraints.

4	USEPA	Streams	For parcels located near streams or rivers that have been impaired due to alterations in streamside vegetative cover or streambank destabilization, an evaluation of whether well pad development could contribute to the impairment may be warranted.
---	-------	---------	--

**Response:** Additional discussion was added to the Water Resources Affected Environment to further highlight the BLM's requirement to adhere to the antidegradation policy within the CWA.

As stated in the water resources analysis, offering the parcels for lease would have no direct impact to surface waters, including those previously impaired by alterations in streamside vegetative cover or channel morphology. Any potential effects on water from the sale of the subject parcels would occur at the time the leases are developed and would be further evaluated on a site specific basis at the APD stage. This would include site specific analysis of the potential for the project to increase nonpoint source pollution in both impaired and non-impaired waterbodies.

As detailed in the water resources analysis, environmental protection measures associated with the relevant lease stipulations and future conditions of approval are expected to minimize or avoid potential adverse impacts to surface water bodies, and activities that would degrade surface or groundwater quality would not be authorized.

Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, any additional mitigation and conditions of approval would be identified to address potential future impacts that arise in the site specific analysis (such as potential impacts to waterbodies already impaired due to alterations in streamside vegetation cover or channel instability).

The Gold Book, Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (BLM and USFS 2007), would be followed, and site-specific mitigation measures, BMPs, and reclamation standards would be implemented and monitored in order to minimize effects to water resources.

5	Environment Montana	Fracking	<p>Toxic substances in fracking chemicals and wastewater are associated with a variety of negative health and habitat impacts. A 2014 study by scientists at Lawrence Berkeley national Laboratory reported that around 10 percent of chemicals used in fracking fluid are known to be toxic to humans or aquatic life (Numbers, pg. 10).</p> <p>Water contamination related to fracking can cause fish to die. For example, after fracking equipment failed at an Ohio site in 2014, a fire broke out, causing trucks to explode and thousands of gallons of toxic chemicals to leak into an Ohio River tributary. More than 70,000 fish died as a result (Numbers, pg. 17). If a similar spill were to occur at the parcels along Willow Creek (MTM 105431-GU, MTM 105431-GV, and MTM 105431-GW), or anywhere else in the watershed, the resulting impact could be devastating to the Big Hole River's trout habitat, as well as the guides, outfitters, other local businesses and residents that rely on the region's clean, cold rivers for their livelihoods and their way of life</p>
<p><b>Response:</b> This comment is in reference to parcels located within the Dillon Field Office. Additional analysis is required to determine the appropriate level of protection for this area. However, the potential for water resource contamination from hydraulic fracturing is summarized in the water resources analysis.</p> <p>Specifically, in both the surface and groundwater sections, the rules and regulations that mandate environmental protections are discussed and related to both regional water resources and the potential impacts to those resources from potential future development. However, as stated throughout the document, offering the parcels for lease would have no direct impact to surface or groundwater resources. Any potential effects on water resources from the sale of lease parcels would occur at the time the leases are developed (at the APD stage) and are analyzed in this document at a level of detail that is commensurate with the scope and magnitude of potential impacts associated with potential future development (i.e. the Reasonably Foreseeable Development Scenario). Site specific analysis would be completed at the APD stage and would include further consideration of the potential for water contamination.</p>			
6	WELC	Fracking	<p>BLM assumes, without evidence, that federal and state regulations will prevent aquifer contamination. BLM also ignores the large and growing body of evidence highlighting the full range of risks of hydraulic fracturing. There is a wealth of information and reports stressing the dangers of fracking that must be considered in the agency's subject NEPA analysis...</p> <p>Historically, BLM has been dismissive of possible impacts to water quality from hydraulic fracturing. However, given the weight of both new and old evidence documenting the risk of water contamination from gas drilling, BLM's approach is becoming increasingly untenable. The simple fact of the matter is that natural gas development has the potential for poisoning our water with toxic, hazardous, and carcinogenic chemicals as well as naturally occurring radioactive radium, and BLM must provide a thorough hard look analysis of these potentially significant impacts.</p>
<p><b>Response:</b> This comment is in reference to parcels located within the Dillon Field Office. Additional analysis is required to determine the appropriate level</p>			

<p>of protection for this area. However, the potential for water resource contamination from hydraulic fracturing is summarized in the water resources analysis.</p> <p>Specifically, in both the surface and groundwater sections, the rules and regulations that mandate environmental protections are discussed and related to both regional water resources and the potential impacts to those resources from potential future development. However, as stated throughout the document, offering the parcels for lease would have no direct impact to surface or groundwater resources. Any potential effects on water resources from the sale of lease parcels would occur at the time the leases are developed (at the APD stage) and are analyzed in this document at a level of detail that is commensurate with the scope and magnitude of potential impacts associated with potential future development (i.e. the Reasonably Foreseeable Development Scenario). Site specific analysis would be completed at the APD stage and would include further consideration of the potential for water contamination.</p>			
7	WELC	Disclosure rules	Currently, there are significant uncertainties about the different chemicals that are being used in hydraulic fracking, though, as mentioned above, it is clear that toxic, hazardous, and carcinogenic chemicals are used throughout the fracking process. Current disclosure of fracking chemicals, via FracFocus, is insufficient to protect the public adequately from potentially toxic, hazardous, and/or carcinogenic chemicals. In preparing its NEPA analysis here, the BLM must catalog the substances that will be used or are reasonably likely to be used in fracking on the lease parcels.
<p><b>Response:</b> BLM does not regulate the composition of fracking fluids. The EA describes the fracking process and notes that all wells must comply with applicable federal and state regulations to reduce the potential for water quality contamination. BLM completes inspections of wells drilled on federal mineral estate. For example, during FY's 2017 and 2018 19 wells were drilled on lands under the Miles City Field Office jurisdiction. The BLM completed drilling inspections on 15 of those wells, and noted compliance with existing federal laws. Those inspection records have been included in the project record. Common fracturing fluid chemical additives are listed in Table 4.93 in the HiLine ARMP FEIS.</p>			
8	WELC	Wastewater disposal	The BLM must take a hard look at wastewater disposal, including a comparative analysis of the different alternatives for disposal. The BLM should analyze fully the wastewater disposal methods, without assuming that treatment can and will be adequate and take care of the problem.
<p><b>Response:</b> Wastewater disposal and the potential for such activities to adversely impact water resources are discussed in the water resources analysis, as well as the various field offices' RMPs (incorporated by reference). Comprehensive analysis of the various wastewater disposal methods that could be utilized during potential future development of the parcels is beyond the scope of this EA &amp; would be completed at the APD stage. Instead, this analysis includes the assumption that any waste water associated with potential future development will be disposed in accordance with relevant state, local, and federal regulations (which mandate the protection of water resources) and approved by the appropriate surface management.</p> <p>Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, any additional mitigation and conditions of approval would be identified to address potential future impacts that arise in the site specific analysis. This would include analysis of waste water disposal methods, a thorough inventory of any water resources that may be impacted and a more in depth, site specific analysis of potential impacts to those resources.</p>			
9	WELC	Fracking	BLM must also consider the potential fracking impacts to groundwater from existing models. For example,

		Use of models	<p>see T. Myers, Potential Contaminant Pathways from Hydraulically Fractured Shale to Aquifers, GROUNDWATER (April 17, 2012) (attached as Exhibit 153):</p> <p>And see, N.R. Warner, Geochemical evidence for possible natural migration of Marcellus Formation brine to shallow aquifers in Pennsylvania, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, vol. 109, iss. 30. (July 9, 2012) (attached as Exhibit 154).</p> <p>BLM has consistently asserted that there are no documented linkages between hydraulic fracturing and water wells. This overlooks the studies that link the two, and BLM must recognize these and analyze these risks and impacts. In addition to the studies cited in Citizen Groups' comments, see, e.g., S.G. Osborn, et al., Methane contamination of drinking water accompanying gas-well drilling and hydraulic fracturing, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, vol. 108, iss. 20. (May 17, 2011) (attached as Exhibit 155).</p> <p>And, see also, U.S. EPA, Report to Congress, Management of wastes from the exploration, development, and production of crude oil, natural gas and geothermal energy. Vol. 1. (December 1987) (attached as Exhibit 156).</p>
<p><b>Response:</b> Analysis of the potential impacts to water resources from hydraulic fracturing are discussed in the water resources analysis, and includes potential contaminant pathways from hydraulic fracturing. This analysis is partly derived from conceptual models of potential contaminant pathways, as well as comprehensive studies based on empirical observations and comprehensive, peer reviewed scientific analysis. In this analysis, the BLM does not assert that there are no linkages between hydraulic fracturing and water wells.</p> <p>Groundwater flow models that estimate potential future contaminant transport from hydraulically fractured wells via pathways like advective transport (i.e. the Meyers et. al reference, Exhibit 153) would require site specific information, related to a site specific plan of development and are far beyond the scope of this EA.</p> <p>As stated in the EA, offering the parcels for lease would have no direct impact to water resources. Any potential effects on water from the sale of subject parcels would occur at the time the leases are developed and would be further evaluated on a site specific basis at the APD stage.</p> <p>Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, any additional mitigation and conditions of approval would be identified to address potential future impacts that arise in the site specific analysis. This would include analysis of waste water disposal methods, a thorough inventory of any water resources that may be impacted and a more in depth, site specific analysis of potential impacts to those resources.</p>			
10	WELC	Groundwater contamination from pit	Moreover, one of the most significant risks of water resources contamination results from pit impoundments. At a minimum, the BLM should include alternatives that contain stipulations and COAs to protect the environment from pit impoundments. These protections include adequate livestock fencing

		impoundments	around the pit, wildlife netting above the pit, increased requirements for liner integrity, requirements for leak detection systems, and a prohibition of siting pits within 50 feet of groundwater, among others.
<p><b>Response:</b> Wastewater disposal (including impoundments) and the potential for such activities to adversely impact water resources are discussed in the water resources analysis, as well as the various field offices' RMPs (incorporated by reference). Comprehensive analysis of the various wastewater disposal methods that could be utilized during potential future development of the parcels is beyond the scope of this EA &amp; would be completed at the APD stage. Instead, this analysis includes the assumption that any waste water associated with potential future development will be disposed in accordance with relevant state, local, and federal regulations (which mandate the protection of water resources) and are approved by the appropriate surface management agency. At this time, variables such as waste water chemistry, potential contaminant pathways to existing water resources, and the requisite BMPs/COAs to minimize, avoid, or mitigate adverse impacts to the aforementioned resources would be considered.</p> <p>Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, any additional mitigation and conditions of approval would be identified to address potential future impacts that arise in the site specific analysis. This would include analysis of waste water disposal methods, a thorough inventory of any water resources that may be impacted and a more in depth, site specific analysis of potential impacts to those resources.</p>			
11	WELC	Surface water	the BLM must quantify and address the risk of potentially catastrophic spills and blowouts at well sites, which could impact and degrade surface waters. Notably, the upper Missouri River basin population of Arctic grayling has lost nearly all its historic habitat and its population numbers have plummeted. The fact that natural resource reserves now offered for sale in the Dillon FO jurisdiction are admitted by BLM to be "low" or "very low" in development potential means that there is an increased potential for new advances in hydraulic fracturing to be used because of these technologies' capabilities in making otherwise unprofitable resource plays technically and economically profitable, as opposed to traditional resource extraction techniques. It follows that BLM must assess the known and reasonably foreseeable impacts of horizontal directional drilling and fracturing techniques on particular landscapes offered for sale, including headwaters of the Big Hole.
<p><b>Response:</b> All parcels in the Dillon field office have been deferred because additional analysis is required to determine the appropriate level of protection for this area.</p>			
12	WELC	anti degradation and water quality standards	<p>A 1987 amendment to the CWA makes clear that section 303 also contains an "antidegradation policy"—that is, a policy requiring that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation.</p> <p>In its NEPA analysis, the BLM must address whether the development of oil and gas resources will affect any high-quality waters or whether it will degrade any existing uses. The BLM may not evade their NEPA duty to consider these impacts by asserting that other agencies may issue discharge permits. 40 C.F.R. §§ 1502.14(f), 1502.16(h).</p>

			Not only is the BLM mandated to follow antidegradation and water quality standards under the CWA and state law, but they must also take a NEPA “hard look” at any impacts that may be related to these water quality standards as well.
<p><b>Response:</b> Additional discussion was added to the Water Resources Affected Environment in the EA to clarify the BLM’s requirement to adhere to the antidegradation policy within the CWA. The water resources analysis discusses the rules and regulations that mandate environmental protections (including those based on the antidegradation policy) and related to both the existing water resources in the region and the potential impacts associated with the proposed action. Nonetheless, as stated in the water resources analysis, offering the parcels for lease would have no direct impact to surface or groundwater resources and such site specific analysis is beyond the scope of this EA.</p> <p>Any potential effects on water resources from the sale of lease parcels would occur at the time the leases are developed (at the APD stage) and are analyzed in this document at a level of detail that is commensurate with the scope and magnitude of potential future impacts, such as those associated with the Reasonably Foreseeable Development Scenario. Site specific analysis would be completed at the APD stage and would include further consideration of the potential for water contamination.</p> <p>As detailed in the Environmental Consequences Section, environmental protection measures associated with the relevant lease stipulations, rules/regulations, and future conditions of approval are expected to minimize or avoid potential adverse impacts to water resources. Activities that would violate such regulations/policies (i.e. by degrading surface or groundwater quality) would not be authorized.</p> <p>Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, any additional mitigation and conditions of approval would be identified to address potential future impacts that arise in the site specific analysis. This would include analysis of waste water disposal methods, a thorough inventory of any water resources that may be impacted and a more in depth, site specific analysis of potential impacts to those resources.</p>			
13	WELC	Naturally occurring radioactive material	BLM’s analysis should include adequate consideration of naturally occurring radioactive material (NORM) and technologically enhanced radioactive material (TENORM). NORM is naturally occurring radioactive material present in the environment, including uranium, thorium, radium, Potassium-40, and Lead-210/Polonium-210. TENORM is the same group of NORM radionuclides that have been modified or technologically enhanced. Shale, petroleum, and gas deposits often include NORM. Oil and gas extraction processes concentrate the naturally occurring radionuclides, which can be carried to the surface in mineral scales inside pipes, sludges/sediments, contaminated equipment or components, and produced waters. Thus concentrated, these wastes are classified as TENORM. TENORM, although it may be produced at a small scale, can have cumulatively significant impacts on the environment and public health.
<p><b>Response:</b> The levels of NORM contamination at oil and gas well locations are relatively minute compared to the solid waste landfill sites regulated by the Nuclear Regulatory Commission and the States. The <i>DEVELOPMENT OF TENORM RULES FOR THE STATE OF MONTANA December, 2016. FINAL REPORT (REPORT)</i> identifies a threshold of 270 picocuries for transport, labeling, placarding, and spills.</p> <p>The <i>REPORT</i> makes the following statement about TENORM regulatory jurisdiction.</p>			

“Currently, 37 states, including North Dakota, are Agreement States and have promulgated regulations that are at least as restrictive as the NRC Regulations in Chapter 10 of the CFR. Montana, South Dakota, and Idaho are not Agreement States, so use and possession of applicable radioactive materials are under the jurisdiction of the NRC.”

The *REPORT* further states:

The Montana DEQ revised its Solid Waste Program Requirements in 2015 to address oil and gas resource development. Exempted and nonhazardous E&P wastes are regulated as Special Wastes, solid wastes that have unique handling, transportation, or disposal requirements, to ensure protection of the public health, safety, and welfare, and the environment. All oil and gas operators in Montana must comply with these regulations.

According to the Montana Department of Environmental Quality (MT DEQ) Waste Management and Remediation Division, Waste and Underground Tank Management Bureau, Solid Waste Section, “There are no federal regulations or guidance for managing TENORM WASTE. A number of states have or are developing specific rules for managing TENORM waste.” Based on this information, oil and gas operations must be in compliance with State law.

The proposed action of the leasing EA is to analyze and disclose potential impacts from offering lease parcels for sale. Any analysis of TENORM is outside the scope of the EA. At this time, it is unknown where development activities will occur and what specific development would be proposed. The management and disposal of solid waste, (including drill cuttings) and produced water is proposed as part of the Application for Permit to Drill and is reviewed by the BLM Field Office and only approved with conditions of approval, best management practices, and required design features. For example, any pits must be lined with an impermeable synthetic or clay liner. Liners and soil surrounding TENORM act as protective barriers between waste and the environment. An important condition of approval for an APD is that the operator must comply with all federal, state, and local laws.

14	Environment Montana	Aquatic habitat degradation	The clearing of land for well pads, roads and pipelines may also threaten aquatic ecosystems by increasing sedimentation of nearby waterways and decreasing shade. A study by the Academy of Natural Sciences at Drexel University found an association between increased density of gas drilling activity and degradation of ecologically important headwater streams (Numbers, pg. 17).
----	------------------------	--------------------------------	---

**Response:** Additional discussion was added to the Affected Environment for Water Resources in the EA to clarify the BLM’s requirement to adhere to the antidegradation policy within the CWA. This includes obligations associated with Section 319 of the Clean Water Act and associated state water quality standards, which address the types of nonpoint source pollution identified in the comment. Furthermore, potential impacts associated with nonpoint source pollution are discussed in the water resources analysis.

Any potential effects on water resources from the sale of lease parcels would occur at the time the leases are developed (at the APD stage) and are analyzed in this document at a level of detail that is commensurate with the scope and magnitude of potential future impacts, such as those associated with the Reasonably Foreseeable Development Scenario. Site specific analysis would be completed at the APD stage and would include further consideration of the potential for water contamination.

As detailed in the water resources analysis, environmental protection measures associated with the relevant lease stipulations, rules/regulations, and future conditions of approval are expected to minimize or avoid potential adverse impacts to water resources. Activities that would violate such

<p>regulations/policies (i.e. by degrading surface or groundwater quality) would not be authorized.</p> <p>Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, any additional mitigation and conditions of approval would be identified to address potential future impacts that arise in the site specific analysis. This would include analysis of nonpoint source pollution, a thorough inventory of any water resources that may be impacted and a more in depth, site specific analysis of potential impacts to those resources.</p>			
15	WELC, WEG	Water quantity	<p>Fossil fuel extraction poses serious threats to water quantity. New reports conclude that unconventional extraction methods, such as hydraulic fracturing and horizontal drilling, can use almost twice as much fresh water per well as previously understood, including in the Bakken region of the Dakotas and Northern Montana. BLM must analyze and disclose the types and nature of the water resources present and near each parcel, and provide assessment on what the likely impacts to these water resources could be with oil and gas activities. These impacts must include analysis on contamination, water withdrawals, dependent species and habitats, and similar concerns.</p> <p>Here, in its NEPA analysis the BLM must closely assess the direct, indirect, and cumulative impacts of oil and gas development on water supplies.</p>
<p><b>Response:</b> Additional discussion of consumptive water use was added to the water resources analysis, including information on Baseline Water Stress throughout the lease area. Estimates of potential water usage associated with the lease sale are analyzed in the water resources analysis and are based on the Reasonably Foreseeable Development Scenario. Potential impacts from water consumption associated with potential future development are discussed in the water resources analysis and include additional discussion on trends in water consumption associated with observed increases in lateral well lengths and hydrocarbon extraction intensity.</p> <p>The use of any specific water source on a federally administered well requires review and analysis of the proposal through the NEPA process, which will be completed at the APD stage. However, stated in the EA, offering the parcels for lease would have no direct impacts on water resources. Any potential effects on water from the sale of lease parcels would occur at the time the leases are developed at the APD stage. Nonetheless, coarse estimates of water withdrawal associated with the Reasonably Foreseeable Development Scenario are provided.</p> <p>Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, alternatives would be considered and any additional conditions of approval/mitigation would be identified to address potential future impacts that arise in the site specific analysis. This would include a site specific assessment of the direct, indirect, and cumulative impacts of the specific plan of development/operations on water supplies.</p>			
16	WEG	Water sources	<p>BLM must analyze where water will be sourced, how much, and the effects on water sources under different alternatives. All of these effects must be analyzed in the context of increasing water scarcity in Montana due to climate change, drought, and increasing population growth.</p>
<p><b>Response:</b> Additional discussion of consumptive water use was added to the water resources analysis, including information on Baseline Water Stress</p>			

throughout the lease area. Estimates of potential water usage associated with the lease sale are analyzed in the EA and are based on the Reasonably Foreseeable Development Scenario. Potential impacts from water consumption associated with potential future development are discussed in the EA and include additional discussion on trends in water consumption associated with observed increases in lateral well lengths and hydrocarbon extraction intensity.

The use of any specific water source on a federally administered well requires review and analysis of the proposal through the NEPA process, which will be completed at the APD stage. However, stated in the EA, offering the parcels for lease would have no direct impacts on water resources. Any potential effects on water from the sale of lease parcels would occur at the time the leases are developed at the APD stage. Nonetheless, coarse estimates of water withdrawal associated with the Reasonably Foreseeable Development Scenario are provided.

Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, alternatives would be considered and any additional conditions of approval/mitigation would be identified to address potential future impacts that arise in the site specific analysis. This would include a site specific assessment of the direct, indirect, and cumulative impacts of the specific plan of development/operations on water resources.

17	Northern Plains	Water quality/ quantity	BLM inaccurately states that “Offering the parcels for lease would have no direct impact to surface or groundwater resources.” BLM goes on to list broad potential impacts to surface or groundwater resources that include but are not limited to: “surface disturbance,” “the removal of vegetation,” “soil compaction,” “accelerated erosion,” “increased overland flow,” “decreased filtration,” “spills,” “produced fluids,” contamination of aquifers with a long list of potential contaminants, depleted flows, and more. However, BLM fails to quantify potential impacts against the real and lived pre-existing uses for the land, water, and resources in question. The question is not simply will surface be disturbed or will aquifers be contaminated; BLM should consider how much surface will be disturbed and compare it to the amount of surface that’s needed or already in use for agriculture or other livelihoods. Similarly, the amount of water that faces potential contamination needs to be considered alongside how much of that water is spoken for and in use already. These are analyses that require specific, numeric quantifications; the BLM’s ultimate decision should be a calculation as to whether enough viable groundwater, surface water, surface land, or other resources exist that some portion of those resources can be exposed to contamination.
----	-----------------	-------------------------	---

**Response:** Additional discussion of consumptive water use was added to the water resources analysis including information on Baseline Water Stress throughout the lease area. Estimates of potential water usage associated with the lease sale are analyzed in Chapter 3 and are based on the Reasonably Foreseeable Development Scenario (see Section XXX). Potential impacts from water consumption associated with potential future development are discussed in the water resource analysis and include additional discussion on trends in water consumption associated with observed increases in lateral well lengths and hydrocarbon extraction intensity.

As stated in the EA, water consumption and surface disturbance associated with the Reasonably Foreseeable Development Scenario are expected to be small (see the water resources analysis for quantitative estimates), especially in comparison to existing uses and resources. Furthermore, water rights for uses such as oil and gas development are managed by the states (not the BLM) under the prior appropriation doctrine. Under these laws, junior water right

holders must not impair the availability of water for senior water right holders.

Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, alternatives would be considered and any additional conditions of approval/mitigation would be identified to address potential future impacts that arise in the site specific analysis. This would include a site specific assessment of the direct, indirect, and cumulative impacts of the specific plan of development/operations on water resources.

18	Northern Plains	Water quantity	<p>The BLM should fully analyze and quantify anticipated water usage for drilling operations in each location proposed, and compare that with projected water resources available for local agricultural, drinking, and recreational use in light of rising drought conditions. The current draft of BLM’s EA only analyzes impacts to water quantity in vague and general terms; such an analysis fails to explore whether the specific areas offered for lease have enough groundwater or surface water that other, pre-existing uses for it would not suffer. This lease sale merits a more substantive and specific analysis of water quantity and anticipated water usage, if hydraulic fracturing were to take place. Please reference and include an analysis of the National Oceanic and Atmospheric Administration’s 2018 study, “Influence of global warming on U.S. heat waves may be felt first in the West and Great Lakes regions,” Montana State University’s “Montana Climate Assessment,” Montana’s Drought Management Plan, and the South Dakota School of Mines’ “Potential water resource impacts of hydraulic fracturing from unconventional oil production in the Bakken shale.”</p> <p>More specifically, the BLM should expand their analysis to include site-specific quantifications of water usage for drilling operations in each location proposed to evaluate the impacts of withdrawal on shallow springs, spring recharge, creeks, and other shallow water resources of the sort. In particular, the parcels in Dawson County should be analyzed in this light.</p>
----	-----------------	----------------	---

**Response:** Additional discussion of consumptive water use was added to the water resource analysis including information on Baseline Water Stress throughout the lease area. Quantitative estimates of potential water usage associated with the lease sale are analyzed in the water resource analysis and are based on the Reasonably Foreseeable Development Scenario (see Section XXX). Potential impacts from water consumption associated with potential future development are discussed in the water resnd include additional discussion on trends in water consumption associated with observed increases in lateral well lengths and hydrocarbon extraction intensity

As stated in the EA, water consumption and surface disturbance associated with the RFD are expected to be small, especially in comparison to existing uses and resources. For example, while hydraulic fracturing uses billions of gallons of water every year at the national and state scales, when expressed relative to total water use or consumption, hydraulic fracturing generally accounts for only a small percentage, usually less than 1%. (USEPA, 2016, page 4-46). However, additional information on the potential for local significance and spatial variability of potential water stress was added to the water resources analysis. Furthermore, water rights for uses such as oil and gas development are managed by the states (not the BLM) under the prior appropriation doctrine. Under these laws, senior water rights associated with current/historic uses must not be impaired by new allocations.

Upon receipt of an APD, the BLM would coordinate with the appropriate Surface Management Agency (SMA) and initiate a site-specific NEPA analysis with

<p>public review opportunities to more fully analyze and disclose potential effects of specifically identified activities. At that time, alternatives would be considered and any additional conditions of approval/mitigation would be identified to address potential future impacts that arise in the site specific analysis. This would include a site specific assessment of the direct, indirect, and cumulative impacts of the specific plan of development/operations on water resources.</p>			
19	Northern Plains	Yellowstone River / Clarks Fork	<p>Please include a thorough analysis and consideration of the proximity of the proposed parcels and, ultimately, the wells that would be located on them, to the Yellowstone River and surrounding drainage. Please ensure analysis considers how and where water flows from surrounding areas into the Yellowstone, and articulate why oil and gas lease parcels in that drainage pose no threat to the health of the river and the livelihoods of those who depend on it. Additionally, several of the parcels in Carbon County may be located in a flood plain. The Clark Fork of the Yellowstone crests its banks on occasion; this would pose a major threat to any well pad located on the riverbank. The current draft of the BLM's EA does not mention the Yellowstone River a single time.</p>
<p><b>Response:</b>  The following stipulations provided in the lease sale indicate where there are water, riparian, and wetland issues and address them.</p> <p>CSU 12-25 ( Riparian, Wetland)  Surface occupancy and use is subject to the following operating constraints: prior to surface occupancy and use within 300 feet of riparian and/or wetlands area, a plan must be approved by the AO with design features that demonstrate how all actions would maintain and/or improve the functionality of riparian/wetland areas. The plan would address:</p> <ul style="list-style-type: none"> <li>• potential impacts to riparian and wetland resources,</li> <li>• mitigation to reduce impacts to acceptable levels (including timing restrictions),</li> <li>• post-project restoration and</li> <li>• monitoring (the operator must conduct monitoring capable of detecting early signs of changing riparian and/or wetland conditions).</li> </ul> <p>NSO 11-70 (Source Water Protection Areas)  Surface occupancy and use is prohibited within State-designated Source Water Protections Areas. (Which looks at public drinking water wells and such.)</p> <p>NSO 11-125 (Riparian, Water, Wetlands, and Floodplains)  Surface occupancy and use is prohibited for oil and gas exploration and development within perennial or intermittent streams (as indicated by obligate wetland species or hydric soils), lakes, ponds, and reservoirs, 100-year floodplains, wetlands, and riparian areas.</p> <p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM's conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.</p>			
20	Northern	Tongue River	The BLM also failed to consider how horizontal drilling beneath or adjacent to the Tongue River

	Plains		Reservoir could impact the land, water, wildlife, and people around it. Horizontal drilling beneath the reservoir could change the chemical quality of the water, and impact recreation and agriculture in the vicinity. Horizontal drilling in this location could also threaten the stability of the dam, and threaten the lives and livelihoods of those in the vicinity of the reservoir. The BLM should incorporate into its final environmental evaluation an analysis of how hydraulic fracturing and horizontal drilling will interact with the geology below and around the reservoir.
<b>Response:</b> Additional information on the BLM’s process for ensuring that drilling and completion operations are conducted in a safe and environmentally sound manner were added to the water resources analysis through this review process, the BLM would incorporate into its final environmental evaluation an analysis of how hydraulic fracturing and horizontal drilling could interact with the geology and hydrology below and around the reservoir.			
21		Water quantity Consideration of science	<p><b>BLM Must Consider Recent Science on Water Quantity Impacts from Fracking.</b> Some unconventional extraction techniques, most notably fracking and horizontal drilling, require the use of tremendous amounts of freshwater. Typically between 2 million to 5.6 million gallons of water are required to frack each well.<sup>36</sup> The December 2018 lease sale EA also reports the upper range of water usage between 2 to 3 million gallons/per well in the Dakotas and Montana. However, a more recent Duke University study concluded that the water footprint for fracked wells is almost twice as much as originally understood.<sup>38</sup> Indeed, the study found regional per-well water use in the Bakken region at 21,100 m<sup>3</sup>/well = 5.5M gallons and in the Permian region of up to 42,500 m<sup>3</sup>/well = 11.2M gallons.</p> <p>Withdrawal of large quantities of freshwater from streams and other surface waters will undoubtedly have an impact on the environment and deplete and harm aquifers. BLM must analyze where water will be sourced, how much, and the effects on water sources under different alternatives. All of these effects must be analyzed in the context of increasing water scarcity in Montana due to climate change, drought, and increasing population growth.</p> <p>Kondash, Lauer and Vengosh, The Intensification of the Water Footprint of Hydraulic Fracturing, Science Advances, DOI: 10.1126/sciadv.aar5982, 1-8 (Published August 15, 2018).</p>
<b>Response:</b> Additional discussion of consumptive water use was added to the water resources analysis including information on Baseline Water Stress throughout the lease area. Quantitative estimates of potential water usage associated with the lease sale are analyzed in the water resources analysis and are based on the Reasonably Foreseeable Development Scenario (see Section XXX). Potential impacts from water consumption associated with potential future development are discussed in the water resources analysis and include additional discussion on trends in water consumption associated with observed increases in lateral well lengths and hydrocarbon extraction intensity, such as those observed in the aforementioned study by Kondash et. al, 2018.			
22	Earthjustice	Groundwater overlooked	BLM Has Failed to Consider the Significant Impact of the Lease Sale on Groundwater. The Environmental Assessment wrongly determined that offering parcels for leasing would not

		evidence	<p>significantly impact water resources. There is evidence that current industry practices do not adequately protect usable groundwater from contamination, and that issuance of these leases will likely have a significant effect on usable groundwater, an environmental impact statement (EIS) should be prepared.</p> <p>The EA acknowledges that lease sales occur in areas overlying aquifers containing usable water, including water that is suitable for domestic use, wildlife use, and stock watering. EA at 41-42. Thus, it is of paramount importance that BLM adequately evaluate whether the proposed lease sales will impact usable groundwater in the leasing area. In the proposed lease sale, BLM has assumed without analysis that usable groundwater will be protected. The EA made no attempt to map the quality of groundwater underlying the proposed lease sale or determine which particular leases would overlie usable groundwater. Nor did it attempt to explain whether and how this research would be completed before lease development.</p> <p>Contrary to BLM’s unfounded assumption that groundwater will be protected, there is substantial evidence that usable groundwater will not be protected by the oil and gas drilling authorized by these lease sales. Montana and North Dakota regulations do not directly follow BLM’s usable water definition, or specifically require wells to be cased and cemented below usable water. See generally Administrative Rules of Montana Board of Oil and Gas Conservation, Chapter 22, Rules 36.22.101-36.22.1707; North Dakota Oil and Gas Division Rule 43-02-03-21. BLM’s Onshore Order No. 2’s requirement to “protect and/or isolate all usable water zones” is inconsistently applied and often disregarded in practice. A recent review of nine production wells in Carbon and Stillwater counties has confirmed that industry admissions that oil and gas well casing and cementing practices may not protect usable water. See Dr. Dominic Digiulio, Examination of Selected Production Files in Southcentral Montana to Support Assessment of the March 2018 BLM Lease Sale (Exhibit D).</p> <p>Ignoring evidence of widespread noncompliance with BLM’s standards for protecting underground sources of drinking water violates NEPA. To make an informed decision on whether to lease these lands BLM needs to know whether doing so will put underground sources of drinking water at risk, and what additional stipulations or other steps are needed to prevent such contamination.</p>
<p><b>Response:</b> Additional analysis was added to the water resources analysis this includes further discussion of the applicable environmental protection measures, inspection procedures, and a corresponding review of previous inspections. Furthermore, the BLM has reviewed Digiulio’s report and determined that the casing and cementing practices associated with the aforementioned wells were completed in compliance with Onshore Order No. 2’s requirement to “protect and/or isolate all usable water zones” and that the variability in methods utilized by the operators correctly accounted for site specific variability.</p> <p>Also see response to comment #7 above describing drilling inspections and compliance in the Miles City Field Office planning area.</p>			

23	Earthjustice	Groundwater Hydraulic Fracturing	<p>Contrary to BLM’s unfounded assumption that groundwater will be protected, there is substantial evidence that usable groundwater will not be protected by the oil and gas drilling authorized by these lease sales. Despite the assertion that federal and state regulations will prevent aquifer contamination, EA at 52-53, Montana, South Dakota, and North Dakota regulations do not specifically require wells to have surface casing extend below all sources usable water. See generally Administrative Rules of Montana Board of Oil and Gas Conservation, Chapter 22, Rules 36.22.101-36.22.1707; South Dakota Regulations 74:12:01-74:12:10; North Dakota Oil and Gas Division Rule 43-02-03-21. Moreover, BLM’s Onshore Order No. 2’s requirement to “protect and/or isolate all usable water zones” is inconsistently applied and often disregarded in practice. BLM itself has admitted that there is “continued confusion over which standard of water needs to be isolated and/or protected” under Onshore Order No. 2. BLM, Regulatory Impact Analysis for the Final Rule to Rescind the 2015 Hydraulic Fracturing Rule at p. 44-45 (Dec. 2017) (Exhibit B); see also Environmental Protection Agency comments on Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands; Rescission of a 2015 Rule at 4 (commenting that BLM has in practice interpreted “usable water” inconsistently with how it is defined under the Safe Drinking Water Act) (Exhibit C).</p>
<p><b>Response:</b> The 2015 Final Rule was rescinded in December 2017, and was never in effect due to pending litigation.</p>			
<p>The March 2019 leasing EA describes the hydraulic fracturing process and notes that all wells must comply with applicable federal and state regulations to reduce the potential for water quality contamination. BLM completes inspections of wells drilled on federal mineral estate. For example, during FY 2017 and 2018, 19 wells were drilled on lands under the Miles City Field Office jurisdiction. The BLM completed drilling, (including cementing and casing) inspections on 15 of those wells, and noted compliance with existing federal laws. Those inspection records have been included in the project record.</p>			
<p>Any claims of widespread non-compliance with Onshore Order No. 2 are unsupported &amp; analysis of such actions is outside of the scope of the EA. As stated in the water resources analysis, one of the key assumptions in the NEPA document is that all future actions will comply with state, local, and federal regulations. This includes adherence to water resource protection measures identified in Onshore Order 2.</p>			
<p>Even if further analysis were to be considered, Earth Justice’s claim of widespread non-compliance is unsupported. While Earth Justice uses a sample of wells in Exhibit E page 2 and state “<i>based on the shallow depth of surface casing and apparent lack of cement outside intermediate or production casing at depths in contact with usable water, it does not appear that usable water was protected during the production at these wells, as required by Onshore Rule #2</i>”. This argument is without merit, as it incorrectly interprets Onshore Order 2 as requiring that all zones with “usable water” be sealed with cement, along their entire length. In fact, the regulation states, “<i>Determination of casing setting depth shall be based on all relevant factors, including: presence/absence of hydrocarbons; fracture gradients; usable water zones; formation pressures; lost circulation zones; other minerals; or other unusual characteristics</i>”. This flexibility is vital to the protection of groundwater resources because numerous factors must be evaluated to determine the optimal strategy for protecting and/or isolating all usable water zones. Consequently, by accounting for these factors and adjusting the water resource protection measures accordingly, the potential for groundwater contamination is significantly reduced. In fact, Earth Justice’s assertion that the annulus should always be sealed for the entire length of “usable water” not only relies on a misinterpretation of the corresponding regulations in Onshore Order 2, but it also incorrectly assumes that doing so would “always” be the most protective mitigation for groundwater resources.</p>			

## Wildlife

Comment No.	Commenter	Subject	Comment
1	CBD	General wildlife, consideration of science	Impacts to Wildlife and Habitat. The expansion of oil and gas development activities will harm wildlife through habitat destruction and fragmentation, stress and displacement caused by development-related activities (e.g., construction and operation activities, truck traffic, noise and light pollution), surface water depletion leading to low stream flows, water and air contamination, introduction of invasive species, and climate change. These harms can result in negative health effects and population declines. Studies and reports of observed impacts to wildlife from unconventional oil and gas extraction activities are summarized in the Center’s “Review of Impacts of Oil and Gas Exploration and Development on Wildlife,” submitted herewith. Center for Biological Diversity, Review of Impacts of Fracking and Other Oil and Gas Exploration and Development on Activity on Wildlife, June 20, 2015.
<p><b>Response:</b> The BLM have stipulations in place such as Controlled Surface Use, No Surface Occupancy, and Timing Limitations that are applied to parcels to protect nesting areas, functional habitats, and wildlife species populations from the effects of oil and gas exploration and development.</p>			
2	CBD WEG	Threatened/Endangered Sensitive	Endangered, Threatened, and Sensitive Species. BLM must use the existing readily available data to identify which sensitive species that are of critical concern with regards to the lands included in, or in immediate proximity to, the proposed sale parcels. BLM must discuss any impacts to such species, including but not limited to the Fluvial Arctic Grayling and the Greater Sage-Grouse (or “GRSG”).
<p><b>Response:</b> MT FWP reviewed all of the parcels in the March 2019 sale and provided extensive comments to the BLM. Refer to the Wildlife Section. They did not identify arctic grayling as an issue of concern, nor did they suggest that the BLM apply any grayling stipulations. None of the parcels are adjacent to the Big Hole River. Regardless, the BLM deferred all parcels in Beaverhead and Madison County pending additional analysis to determine the appropriate level of protection for the area.</p> <p>Nine-five percent of the parcels in the March sale are located in designated sage-grouse habitat. The EA acknowledges numerous studies, which indicate that oil and gas development can negatively affect sage grouse. The BLM applied no surface occupancy and controlled surface use stipulations consistent with requirement of the applicable RMP.</p> <p>In Montana, all compensatory mitigation would be coordinated with the Montana Sage-Grouse Conservation Program to ensure consistency with Montana 12-2015, 21-2015, and the Montana Mitigation System Policy Guidance Document for Greater Sage-Grouse and the Habitat Quantification Tool Technical Manual (HQT), which were adopted January 12, 2019 (refer to Chapter 3). By incorporating required State of Montana required design features and mitigation, the BLM would be consistent with new policy direction, IM 2019-018, which states: <i>The BLM may consider voluntary compensatory mitigation proffered by a project proponent, or compensatory mitigation requested by a State or required as part of a state plan, program or authorization for the proposed project or a connected action associated with the proposed project, including as a means to reach a Finding of No Significant Impact (FONSI) or as part of a proposed design feature of a project..... Where compensatory mitigation is required as part of a state plan, program or authorization, or required by Federal laws other than</i></p>			

<p>FLPMA, the BLM will include the required mitigation in all of its action alternatives in a NEPA analysis. The Bowman County, ND and Harding County SD parcels were removed from Alternative C.</p>			
3	TRCP	Mule deer habitat fragmentation	Mule deer: Parcels to be offered in this lease proposal include summer and crucial winter range for mule deer which would be adversely impacted by oil and gas exploration. Additionally, parcels in these areas occupy important seasonal transition and migration movement corridors. To remain healthy, mule deer populations require unfragmented, functional habitats and unfettered migration corridors and stopover habitat (per Secretarial Order 3362).
<p><b>Response:</b> BLM Wildlife Biologists reviewed the lease parcels and have identified any parcels where leasing and subsequent development could potentially impact Mule Deer and Mule Deer habitat. Where applicable, BLM applied stipulations such as NSO 11-136, TL 13-7, and TL 13-8 to protect habitat and facilitate long-term maintenance of wildlife populations.</p>			
4	TRCP	Bighorn sheep	Bighorn Sheep: Several of the parcels being offered in the Miles City Field Office overlap with Bighorn sheep habitat in Custer County. Given the limited amount of public land Bighorn sheep habitat, and their status as a species of concern in Montana, we ask that all public land parcels be leased as NSO, using a stipulation similar to NSO-136 regarding big game, including bighorn sheep, crucial winter range.
<p><b>Response:</b> BLM Wildlife Biologists reviewed the lease parcels and identified any parcels where leasing and subsequent development could potentially impact Bighorn Sheep and Bighorn Sheep habitat. As NSO 11-136 is written from analysis in the Billings RMP, it is only applicable to parcels within the Billings Field office area and cannot be applied to parcels within the Miles City Field office area. The BLM has instead applied CSU 12-26 (big game crucial winter range) and CSU 12-28 (big horn sheep habitat) to protect bighorn sheep, big game species, and their habitats.</p>			
5	Environment Montana	Habitat fragmentation	As noted in our 2016 report, well pads, new access roads, pipelines and other infrastructure built for fracking turn rural landscapes into industrial zones (pg. 25-26). As well pads, roads, pipelines and other gas infrastructure replace wildlands and farmland, the nation loses wildlife habitat and the remaining areas are increasingly fragmented and inhospitable to wildlife. For example, the mule deer population in Wyoming Pinedale Mesa decline 40% from 2001 to 2015, a period of extensive oil and gas development (Numbers, pg. 16).
<p><b>Response:</b> Surface disturbance is not part of the proposed action. At the time of this review it is unknown whether or not a particular parcel will be sold and a lease issued and, what potential impacts to those resources may occur. At the leasing stage, site-specific drill locations are unknown. The BLM reviews proposed parcels and identifies stipulations based on what is known about the parcels such as presence of streams, wetlands, steep slopes, known nest sites, or designated habitat. These stipulations are essentially incorporated as design criteria in any future proposal. These stipulations were developed during the last RMP revision. Many of the stipulations that are applied are intended to avoid or minimize impacts to wildlife. For example, Timing Limitation 13-48 prohibits surface occupancy and use in big game and sage-grouse winter range from December 1 through May 15 (HiLine). NSO 11-136 prohibits surface occupancy and used in crucial winter range for antelope, elk, moose, bighorn sheep, mule deer, shite-tailed deer and sage-grouse (Billings Field Office). In addition, the EA notes that both the BLM and the State of Montana limit density / detrimental disturbance of suitable sage-grouse habitat within the area affected by a project to five percent disturbance. Well pad densities may not exceed an average of one per square mile. All of these measures reduce the impacts of habitat fragmentation.</p> <p>In addition, the BLM received public comment regarding a specific migration corridor used by sage-grouse in Valley County, Montana. The BLM added</p>			

discussion to the EA in the sage-grouse analysis that discusses the relevant science that established the importance of this corridor for migrating sage-grouse between Saskatchewan Canada and Valley County Montana. The corridor is also used by migrating antelope. Based upon this research, the State of Montana designated the area as a Connectivity Area in Executive Order 12-2015 and 21-2015. The BLM removed parcels from this State designated migration area under Alternative C.			
6	ND Game and Fish Dept	Sage-grouse	Parcel NDM 102757 –FB likes within important sage-grouse range. Request no surface occupancy.
<b>Response:</b> The BLM completed additional analysis of the North and South Dakota parcels in PHMA habitat. As noted in the EA, while the parcel is no surface occupancy, any drill site located within one mile from the parcel would still be located in PHMA and within the buffer zone of an active lek. Under Alternative C, the BLM would defer this parcel because off-site drilling would negatively affect sage-grouse.			
7	MT FWP	MTM 108952HC Billings	Active golden eagle nest within 1/2 mile
<b>Response:</b> The BLM applied stipulation LN 14-39 to this parcel, which may require an operator to have an active nest inventory of the project area conducted when surface disturbing activities are proposed.			
8	MT FWP	MTM 108952HW Billings	Active sage grouse lek within 3 miles
<b>Response:</b> BLM applied both LN 14-11 and NSO 11-127 to this parcel, as it is in designated PHMA. The stipulations will prohibit oil and gas exploration and development within the parcel. The BLM also applied other NSO stipulations for badlands/rock outcrop and crucial winter range. According to BLM data there are no active leks within three miles of this parcel in the state of MT, however, there is one in Wyoming that is within the lek buffer distance. Any project proponent would need a permit from the State of Montana to develop oil/gas. The State would run the Habitat Quantification Tool (HQT) to determine the mitigation obligation, and the data would be clipped to the Montana border. However, Montana would consult their Wyoming colleagues to identify concerns and see input on mitigation. Any mitigation that addresses cross boundary impacts would be a 3-way conversation between Montana, Wyoming, and the project proponent (refer to 1.17.2019 email from Carolyn Sime in project record).			
9	MT FWP	MTM 108952KB Billings	Active golden eagle nest within 1/2 mile. Active sage grouse lek within 3 miles
<b>Response:</b> NSO stipulations were applied to the entire parcel for sage grouse priority habitat (NSO 11-127), badlands and rock outcrops (11-69), crucial winter range (11-127). Refer to Wildlife response #8 regarding leks that could be affected across state lines. The stipulations will prohibit oil and gas exploration and development on the parcel. BLM added stipulation NSO 11-73 to this parcel to protect nest sites of raptors identified as BLM priority species for management (burrowing owl, golden eagle, ferruginous hawk, Swainson’s hawk, prairie falcon, and northern goshawk).			
10	MT FWP	MTM 108952KG Billings	Active golden eagle nest within 1 mile
<b>Response:</b> BLM Wildlife Biologists added stipulation NSO 11-73 to this parcel to protect nest sites of raptors identified as BLM priority species for management (burrowing owl, golden eagle, ferruginous hawk, Swainson’s hawk, prairie falcon, and northern goshawk).			

11	MT FWP	MTM 108952KG Billings	One parcel borders the Clarks Fork of the Yellowstone River. Yellowstone cutthroat trout are sporadically sampled near this area in low abundance. Game fish such as rainbow and brown trout are more common in this location and subsequent surface occupancy and set backs should be in place to preserve riparian habitat and water quality and quantity.
<p>Response: MTM108952KG – NSO stipulations NSO 11-125, CSU12-25 have been applied to portions of this parcel. NSO 11-125 states: Surface occupancy and use is prohibited for oil and gas exploration and development within perennial or intermittent streams (as indicated by obligate wetland species or hydric soils), lakes, ponds, and reservoirs, 100-year floodplains, wetlands, and riparian areas.</p> <p>CSU 12-25 states: Surface occupancy and use is subject to the following operating constraints: prior to surface occupancy and use within 300 feet of riparian and/or wetlands area, a plan must be approved by the AO with design features that demonstrate how all actions would maintain and/or improve the functionality of riparian/wetland areas. The plan would address:</p> <ul style="list-style-type: none"> <li>• potential impacts to riparian and wetland resources,</li> <li>• mitigation to reduce impacts to acceptable levels (including timing restrictions),</li> <li>• post-project restoration and</li> <li>• monitoring (the operator must conduct monitoring capable of detecting early signs of changing riparian and/or wetland conditions).</li> </ul> <p>Lease Notice (LN 14-16) applied to all parcels offers protection for any special status species (e.g. Yellowstone Cutthroat Trout) and their habitat that exist in this area now or in the future. If this parcel were to go to the development stage, LN 14-16 permits the BLM to recommend modifications (e.g. mitigations measures to control erosion, heavy equipment operations, etc.) to exploration and development proposals to further the BLM’s conservation and management objective to avoid BLM-approved activity that will contribute to a need to list a species or their habitat.</p>			
12	MT FWP	MTM 105431GF Dillon	The parcels are important winter range for elk and mule deer. Antelope are also present in high numbers in the late spring and early summer.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
13	MT FWP	MTM 105431GF Dillon	Within a Sage-grouse Core Area and subject to the Governor’s Executive Order 12-2015 (EO) - Contact FWP for identified locations of active leks and conduct pre-development surveys for additional active leks not already identified by FWP. The EO stipulates no surface occupancy within 0.6 miles (1 kilometer) of an active lek, limits surface disturbance to 5% of suitable sage- grouse habitat within the project area, and prohibits disturbance activities during the spring lekking, nesting, and early brood-rearing seasons (March 15 - July 15). A sage grouse lek is within the lease. Great care to avoid disturbance is required.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
14	MT FWP	MTM 105431GF Dillon	The lease area is very arid and susceptible to cheatgrass and Japanese Brome invasion. A mitigation plan for disturbed areas is very important.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
15	MT FWP	MTM 105431GU	These parcels are important winter range for elk, mule deer and moose. They see a great

		Dillon	deal of fall hunting recreation.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
16	MT FWP	MTM 105431GU Dillon	The area is very arid and disturbed areas are susceptible to cheatgrass or Japanese brome invasion. A mitigation plan for invasive annuals is warranted.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
17	MT FWP	MTM 105431GV Dillon	These parcels are important winter range for elk, mule deer and moose. They see a great deal of fall hunting recreation.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
18	MT FWP	MTM 105431GV Dillon	The area is very arid and disturbed areas are susceptible to cheatgrass or Japanese brome invasion. A mitigation plan for invasive annuals is warranted.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
19	MT FWP	MTM 105431GW Dillon	These parcels are important winter range for elk, mule deer and moose. They see a great deal of fall hunting recreation.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
20	MT FWP	MTM 105431GW Dillon	The area is very arid and disturbed areas are susceptible to cheatgrass or Japanese brome invasion. A mitigation plan for invasive annuals is warranted
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
21	MT FWP	MTM 105431GF Dillon	The parcels are important winter range for elk and mule deer. Antelope are also present in high numbers in the late spring and early summer.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
22	MT FWP	MTM 105431GF Dillon	A sage grouse lek is within the lease. Great care to avoid disturbance is required.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
23	MT FWP	MTM 105431GF Dillon	The lease area is very arid and susceptible to cheatgrass and Japanese Brome invasion. A mitigation plan for disturbed areas is very important.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
24	MT FWP	MTM 105431GU Dillon	These parcels are important winter range for elk, mule deer and moose. They see a great deal of fall hunting recreation.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
25	MT FWP	MTM 105431GU Dillon	The area is very arid and disturbed areas are susceptible to cheatgrass or Japanese brome invasion. A mitigation plan for invasive annuals is warranted.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
26	MT FWP	MTM 105431GV	These parcels are important winter range for elk, mule deer and moose. They see a great

		Dillon	deal of fall hunting recreation.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
27	MT FWP	MTM 105431GV Dillon	The area is very arid and disturbed areas are susceptible to cheatgrass or Japanese brome invasion. A mitigation plan for invasive annuals is warranted.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
28	MT FWP	MTM 105431GW Dillon	These parcels are important winter range for elk, mule deer and moose. They see a great deal of fall hunting recreation.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
29	MT FWP	MTM 105431GW Dillon	The area is very arid and disturbed areas are susceptible to cheatgrass or Japanese brome invasion. A mitigation plan for invasive annuals is warranted.
<b>Response:</b> All parcels nominated for lease in the Dillon Field Office area have been deferred.			
30	MT FWP	MTM 102757GC Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 1348)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
31	MT FWP	MTM 102757GC Glasgow	Includes riparian area along creeks and/or wetlands. Should include stipulation as such (NSO 11- 70 or CSU 12-25)
<b>Response:</b> BLM surface specialists have applied stipulations CSU 12-25 and NSO 11-70 to portions of the parcel to protect the unique biological and hydrological features and functions associated with perennial and intermittent streams, lakes, ponds, reservoirs, floodplains, wetlands, and riparian areas.			
32	MT FWP	MTM 102757GD Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 1348)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
33	MT FWP	MTM 102757GD Glasgow	Includes riparian area along creeks and/or wetlands. Should include stipulation as such (NSO 11- 70 or CSU 12-25)
<b>Response:</b> BLM surface specialists have applied stipulations CSU 12-25 and NSO 11-70 to portions of the parcel To protect the unique biological and hydrological features and functions associated with perennial and intermittent streams, lakes, ponds, reservoirs, floodplains, wetlands, and riparian areas.			
34	MT FWP	MTM 102757GE Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
35	MT FWP	MTM 102757GF	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from

		Glasgow	Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
36	MT FWP	MTM 102757GG Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
37	MT FWP	MTM 102757GG Glasgow	Includes riparian area along creeks and/or wetlands. Should include stipulation as such (NSO 11- 70 or CSU 12-25)
<b>Response:</b> BLM surface specialists have applied stipulations CSU 12-25 and NSO 11-70 to portions of the parcel To protect the unique biological and hydrological features and functions associated with perennial and intermittent streams, lakes, ponds, reservoirs, floodplains, wetlands, and riparian areas.			
38	MT FWP	MTM 102757GH Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
39	MT FWP	MTM 102757GJ Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
40	MT FWP	MTM 102757GJ Glasgow	Includes riparian area along creeks and/or wetlands. Should include stipulation as such (NSO 11- 70 or CSU 12-25)
<b>Response:</b> BLM surface specialists have applied stipulations CSU 12-25 and NSO 11-70 to portions of the parcel To protect the unique biological and hydrological features and functions associated with perennial and intermittent streams, lakes, ponds, reservoirs, floodplains, wetlands, and riparian areas.			
41	MT FWP	MTM 102757GK Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
42	MT FWP	MTM 102757GL Glasgow	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
43	MT FWP	MTM 105431HQ	Big game winter range for mule deer and antelope. Surface disturbance should be NSO from

		Glasgow	Dec. 1 -May 1 or should have a disturbance plan. (CSU 12-66 or TL 13-48)
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
44	MT FWP	MTM 105431HQ Glasgow	Includes riparian area along Willow Creek. Should include stipulation as such (NSO 11-70)
<b>Response:</b> BLM Surface specialists have applied stipulation NSO 11-70 to portions of the parcel along Willow Creek to protect the unique biological and hydrological features and functions associated with perennial and intermittent streams, lakes, ponds, reservoirs, floodplains, wetlands, and riparian areas.			
45	MT FWP	MTM 108952K7 Havre	Raptor nests: parcel is within 0.5 mi of one or more raptor nest locations, which are buffered by 0.5 mi. Parcel is within 5 mi of the Kevin Rim, which has very high raptor use and nest density.
<b>Response:</b> BLM Wildlife Biologists have applied stipulations NSO 11-157 and TL 13-45 to this parcel to maintain the reproductive potential of raptor nest sites.			
46	MT FWP	MTM 108952K7 Havre	Western most parcels fall within National Audubon Society's designated Kevin Rim Important Bird Area
<b>Response:</b> The Audubon Society has designated the Kevin Rim an IBA of Global Significance based on the number of nesting Ferruginous Hawks. BLM Wildlife Biologists have applied stipulations NSO 11-157 and TL 13-45 to All Lands within this parcel to maintain the reproductive potential of raptor nest sites.			
47	MT FWP	MTM 108952K7 Havre	Most raptor nest records are > 7 years old, however MFWP has not conducted recent raptor nest surveys in the area.
<b>Response:</b> BLM Wildlife Biologists have applied stipulations LN 14-39, NSO 11-157 and TL 13-45 to this parcel to identify and maintain the reproductive potential of raptor nest sites.			
48	MT FWP	MTM 108952KV Havre	Recommend applying Big Game Winter Range TL 13-48. Parcel is also adjacent to an FWP conservation easement.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
49	MT FWP	MTM 108952LC Havre	Parcels fall within National Audubon Society's designated Kevin Rim Important Bird Area.
<b>Response:</b> The Audubon Society has designated the Kevin Rim an IBA of Global Significance based on the number of nesting Ferruginous Hawks. BLM Wildlife Biologists have applied stipulations NSO 11-157 and TL 13-45 to All Lands within this parcel to maintain the reproductive potential of raptor nest sites.			
50	MT FWP	MTM 108952LC Havre	Parcels fall on or within 3 mi of the Kevin Rim, which has very high raptor use and nest density.
<b>Response:</b> BLM Wildlife Biologists have applied stipulations LN 14-39, NSO 11-157 and TL 13-45 to this parcel to identify and maintain the			

reproductive potential of raptor nest sites.			
51	MT FWP	MTM 108952LC Havre	Most raptor nest records are > 7 years old, however MFWP has not conducted recent raptor nest surveys in the area.
<b>Response:</b> BLM Wildlife Biologists have applied stipulations LN 14-39, NSO 11-157 and TL 13-45 to this parcel to identify and maintain the reproductive potential of raptor nest sites.			
52	MT FWP	MTM 108952LC Havre	Sprague's Pipit: predicted habitat suitability for Sprague's Pipit is moderate within the parcel. Observations documented within 5 mi (Source: Montana Natural Heritage Program).
<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-27 to this parcel. The operator may be required to implement specific measures to reduce impacts of oil and gas operations on Sprague's pipits, their habitat and overall population. Such measures would be developed during the APD and environmental review processes, consistent with lease rights.			
53	MT FWP	MTM 108952LD Havre	Parcels fall within National Audubon Society's designated Kevin Rim Important Bird Area.
<b>Response:</b> The Audubon Society has designated the Kevin Rim an IBA of Global Significance based on the number of nesting Ferruginous Hawks. BLM Wildlife Biologists have applied stipulations NSO 11-157 and TL 13-45 to All Lands within this parcel to maintain the reproductive potential of raptor nest sites.			
54	MT FWP	MTM 108952LD Havre	Parcels fall on or within 3 mi of the Kevin Rim, which has very high raptor use and nest density.
<b>Response:</b> BLM Wildlife Biologists have applied stipulations NSO 11-157 and TL 13-45 to this parcel to maintain the reproductive potential of raptor nest sites.			
55	MT FWP	MTM 108952LD Havre	Most raptor nest records are > 7 years old, however MFWP has not conducted recent raptor nest surveys in the area.
<b>Response:</b> BLM Wildlife Biologists have applied stipulations LN 14-39, NSO 11-157 and TL 13-45 to this parcel to identify and maintain the reproductive potential of raptor nest sites.			
56	MT FWP	MTM 108952LD Havre	Predicted habitat suitability for Sprague's Pipit is moderate within the parcel. Observations documented within 5 mi (Source: Montana Natural Heritage Program).
<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-27 to this parcel. The operator may be required to implement specific measures to reduce impacts of oil and gas operations on Sprague's pipits, their habitat and overall population. Such measures would be developed during the APD and environmental review processes, consistent with lease rights.			
57	MT FWP	MTM 108952LN Havre	Parcel falls on ephemeral wetlands, recommend adding CSU 12-25 for Riparian, Wetlands
<b>Response:</b> BLM Surface Specialists have applied CSU 12-25 to the parcel to protect the unique biological and hydrological features associated with riparian and wetland areas.			
58	MT FWP	MTM 108952H4 Havre	Black Tern's have been observed within 0.5 miles. They are semi-colonial nesters and a species of concern. Please add NSO 11-150 and TL 13-42.

<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-42 to this parcel to protect colonial waterbirds and to maintain colonial waterbird populations.			
59	MT FWP	MTM 108952H4 Havre	Big Game Winter Range-recommend no surface occupancy or use from Dec 1-May 15 This property is also adjacent to an FWP conservation easement and would recommend a lease notice notifying lease holder of the potential restrictions associated with this easement. This property is in a large tract of native habitat. Recommend no surface use from April 15 through July 15 for Sprague's Pipit and other grassland songbirds. Wetlands and Riparian are present on this parcel would recommend no surface occupancy within 300 feet of wetlands or riparian areas. Recommend NSO in riparian areas or associated floodplains.
<b>Response:</b> BLM Wildlife Biologists have applied TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations. TL 13-47 has been applied to the parcel to protect Sprague's pipit habitat necessary for long-term maintenance of Sprague's pipit populations. CSU 12-25 and NSO 11-70 applied to protect riparian areas.			
60	MT FWP	MTM 108952HE Havre	Big Game Winter Range-recommend no surface occupancy or use from Dec 1-May 15 (TL 13-48) Parcel is located in larger tract of native habitat. Recommend no surface use from April 15
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
61	MT FWP	MTM 108952KD Havre	Big Game Winter Range-recommend no surface occupancy or use from Dec 1-May 15 (TL 13-48) This property is also adjacent to an FWP conservation easement and would recommend a lease
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-48 to this parcel to protect big game and Greater Sage-Grouse winter range from disturbance during the winter season and to facilitate long-term maintenance of wildlife populations.			
62	MT FWP	MTM 10543138 Miles City	Recommend applying CSU12-29 for active prairie dog colonies.
<b>Response:</b> BLM wildlife biologists have applied stipulation CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
63	MT FWP	MTM 1054317E Miles City	Recommend applying the BLM stipulation for Pallid Sturgeon. Recent radio telemetry work has documented that this BLM parcel intercepts a reach of the Powder River where wild adult Pallid Sturgeon have been observed moving through during the spawning migration en route to a reach of river approximately 40 river miles further upstream of this location.
<b>Response:</b> BLM Fisheries biologists have applied stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
64	MT FWP	MTM 105431JK	Recommend applying CSU 12-29 for active prairie dog colonies.

		Miles City	
<b>Response:</b> BLM Wildlife Biologists have applied stipulation CSU 12-29 to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
65	MT FWP	MTM 105431MX Miles City	This parcel lies directly adjacent to the Tongue River Reservoir and associated state park. This poses a potential risk to the water resource and fishery. Tongue River State Park is a destination
<b>Response:</b> The BLM has applied the stipulations NSO 11-70 and NSO 11-71 to aliquot portion of this parcel to protect the unique biological and hydrological features and functions associated with perennial and intermittent streams, lakes, ponds, reservoirs, floodplains, wetlands, and riparian areas and to protect human health by minimizing the potential contamination of public water systems.			
66	MT FWP	MTM 105431MX Miles City	The BLM Stipulation for Sport Fish Reservoirs should apply to this parcel. Tongue River Reservoir has a popular fishery including Black and White Crappie, Walleye, Smallmouth and Largemouth Bass, Northern Pike, Yellow Perch, and Sauger a Montana Species of Special Concern.
<b>Response:</b> Stipulation CSU 12-32 has been applied to this parcel to protect fisheries habitat and recreational values of sport-fish reservoirs.			
67	MT FWP	MTM 108952K6 Miles City	This lease area contains sharptail grouse habitat but has not been extensively surveyed for leks. Recommend pre-development surveys to identify leks and, if found, recommend CSU 12-27.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-27 to a portion of the parcel with known sharp-tail grouse lek sites. Additionally, the BLM has applied the Standard 16-3 stipulation to this parcel that states “The lessee/operator is given notice that the lands within this lease may include special areas and that such areas may contain special values, may be needed for special purposes, or may require special attention to prevent damage to surface and/or other resources.”			
68	MT FWP	MTM 108952KX Miles City	Recommend applying NSO11-74. Bald eagle nest was active in 2018 at 46.9854, -104.7696.
<b>Response:</b> Wildlife Biologists have applied stipulation NSO 11-74 to the parcel to protect nest sites and nesting activities of bald eagles, BLM priority species for management.			
69	MT FWP	MTM 108952HK Miles City	May not require stipulation - golden eagle breeding activity observed in 2013 within 0.25 miles of parcel at 45.15772 and -106.73258. Likely a nest in the area, but no specific location has been identified. Nesting habitat for golden eagles includes cliffs and trees (have been observed nesting in ponderosa pine in the same area).
<b>Response:</b> Wildlife Biologists have applied stipulation LN 14-39 to this parcel to this parcel to identify and maintain the reproductive potential of raptor nest sites.			
70	MT FWP	MTM 108952JJ Miles City	Prairie dog colony overlaps one of the parcels in the group of parcels (parcel furthest north and west). The location is 46.74295, -107.75107
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for			

management, as well as obligate species.			
71	MT FWP	MTM 108952KN Miles City	Prairie dog colony overlaps one parcel within the group of parcels (furthest east). Location is 46.725, -107.256.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
72	MT FWP	MTM108952KN Miles City	Active golden eagle nest observed nearby at 46.73880, -107.25017. Another adult eagle observed in the area at 46.71447, -107.25519. Likely another nest in the area, but was not
<b>Response:</b> BLM Wildlife Biologists have applied stipulations LN 14-39 and NSO 11-73 to the parcel to identify and protect nest sites of raptors identified as BLM priority species for management (burrowing owl, golden eagle, ferruginous hawk, Swainson's hawk, prairie falcon, and northern goshawk).			
73	MT FWP	MTM 10543137 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
74	MT FWP	MTM 10543139 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
75	MT FWP	MTM 1054313H Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
76	MT FWP	MTM 1054313K Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
77	MT FWP	MTM 1054313N Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for			

management, as well as obligate species.			
78	MT FWP	MTM 1054313P Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
79	MT FWP	MTM 1054314D Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
80	MT FWP	MTM 1054314U Miles City	Bald eagle nest discovered in 2014 and revisited in 2017 - confirmed still active (Source: MTNHP/FWP). Recommend NSO 11-74
<b>Response:</b> BLM Wildlife Biologists have applied NSO 11-74 to this parcel to protect nest sites and nesting activities of bald eagles, BLM priority species for management.			
81	MT FWP	MTM 1054314U Miles City	Recommend stipulation NSO- 11-78 (Pallid Sturgeon Habitat); pallid sturgeon documented using the Powder River during the month of June in 2014, 2017 & 2018.
<b>Response:</b> BLM Fisheries Biologists have applied the stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
82	MT FWP	MTM 1054317E Miles City	Recommend stipulation NSO- 11-78 (Pallid Sturgeon Habitat); pallid sturgeon documented using the Powder River during the month of June in 2014, 2017 & 2018.
<b>Response:</b> BLM Fisheries Biologists have applied the stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
83	MT FWP	MTM 1054317P Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
84	MT FWP	MTM 1054317U Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
85	MT FWP	MTM 1054317U	Recommend stipulation NSO- 11-78 (Pallid Sturgeon Habitat); pallid sturgeon documented

		Miles City	using the Powder River during the month of June in 2014, 2017 & 2018.
<b>Response:</b> BLM Fisheries Biologists have applied the stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
86	MT FWP	MTM 105431NJ Miles City	Active swift fox dens in the area
<b>Response:</b> TES 16-2 is applied to the parcel, which states: The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat.			
87	MT FWP	MTM 105431NK Miles City	Active swift fox dens in the area
<b>Response:</b> TES 16-2 is applied to the parcel, which states: The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat.			
88	MT FWP	MTM 105431PA Miles City	Golden eagle nesting territory nearby 45.05744, -106.80617. Activity documented last in 2006 by Decker Coal Company, but likely still exists.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-39 to the parcel to identify and maintain the reproductive potential of raptor nest sites.			
89	MT FWP	MTM 105431PQ Miles City	Burrowing Owls nesting nearby. Seen at 45.04610, -106.57019 and 45.04995, -106.56307. Nesting burrows not identified, but birds seen throughout breeding season and likely nesting in one of the prairie dog burrows nearby
<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-39 to the parcel to identify and maintain the reproductive potential of raptor nest sites.			
90	MT FWP	MTM 105431PR Miles City	Burrowing Owls nesting nearby. Seen at 45.04610, -106.57019 and 45.04995, -106.56307. Nesting burrows not identified, but birds seen throughout breeding season and likely nesting in one of the prairie dog burrows nearby
<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-39 to the parcel to identify and maintain the reproductive potential of raptor nest sites.			
91	MT FWP	MTM 105431PW Miles City	Burrowing Owls nesting nearby. Seen at 45.04610, -106.57019. Nesting burrows not identified, but birds seen throughout breeding season and likely nesting in one of the prairie dog burrows nearby
<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-39 to the parcel to identify and maintain the reproductive potential of raptor			

nest sites.			
92	MT FWP	MTM 105431R3 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
93	MT FWP	MTM 105431R6 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
94	MT FWP	MTM 105431R9 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
95	MT FWP	MTM 105431RE Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
96	MT FWP	MTM 105431RW Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
97	MT FWP	MTM 105431RX Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
98	MT FWP	MTM 105431TA Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.

<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
99	MT FWP	MTM 105431TM Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
100	MT FWP	MTM 105431TU Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
101	MT FWP	MTM 105431VF Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
102	MT FWP	MTM 105431VM Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
103	MT FWP	MTM 105431WR Miles City	Recommend stipulation NSO- 11-78 (Pallid Sturgeon Habitat); pallid sturgeon documented using the Powder River during the month of June in 2014, 2017 & 2018.
<b>Response:</b> BLM Fisheries Biologists have applied the stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
104	MT FWP	MTM 108952AY Miles City	Great blue heron rookery nearby: 46.19689, -104.73240. Last surveyed and reported active in 2010. Possible the rookery is still active.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation TL 13-34 to this parcel to protect nesting activities associated with colonial-nesting birds identified as BLM priority species for management. Surface use is prohibited within 0.50 mile of waterbird nesting colonies from April 1 through July 15.			
105	MT FWP	MTM 108952BM Miles City	Ferruginous Hawk nest nearby reported in 1984: 46.25880, -104.71113. It is unknown if this nest structure still exists or whether it is still active.

<b>Response:</b> BLM Wildlife Biologists have applied stipulation LN 14-39 to the parcel to identify and maintain the reproductive potential of raptor nest sites.			
106	MT FWP	MTM 108952E3 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
107	MT FWP	MTM 108952E4 Miles City	Recommend reconsidering for black-tailed prairie dog stipulation (CSU 12-29). This lease is within or adjacent to colonies larger than a section in size, as mapped by the Montana Natural Heritage Program using 2015 National Agriculture Imagery Program Imagery.
<b>Response:</b> BLM Wildlife Biologists have applied CSU 12-29 to this parcel to protect black-tailed prairie dog habitat, a BLM priority species for management, as well as obligate species.			
108	MT FWP	MTM 108952EX Miles City	Recommend stipulation NSO- 11-78 (Pallid Sturgeon Habitat)
<b>Response:</b> BLM Fisheries Biologists have applied the stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
109	MT FWP	MTM 108952EX Miles City	Recommend NSO 11-76 (Least Tern Habitat) based on Species of Concern Occurences (Source: MTNHP), point observations (Source: MTNHP/FWP), and local biologist knowledge.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation NSO 11-76 to this parcel to protect the nesting habitat of the federally endangered interior least tern habitat.			
110	MT FWP	MTM 108952EX Miles City	Recommend stipulation CSU 12-26 (Big Game Crucial Winter Range) based on FWP mapped winter range and local biologist knowledge including radio-collared mule deer data.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation CSU 12-26 to the parcel to facilitate long-term maintenance of big game wildlife populations and protect white-tailed deer, mule deer, elk, and antelope crucial winter ranges from disturbance during winter use season.			
111	MT FWP	MTM 108952EY Miles City	Recommend stipulation NSO 11-78 (Pallid Sturgeon Habitat)
<b>Response:</b> BLM Fisheries Biologists have applied the stipulation NSO 11-78 to this parcel to protect the habitat of the federally endangered pallid sturgeon.			
112	MT FWP	MTM 108952EY Miles City	Recommend stipulation NSO-11-75 (Piping Plover Habitat) based on critical habitat (Source: U.S. Fish and Wildlfie Service), point observations (Source: MTNHP/FWP), and local biologist knowledge.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation NSO 11-75 to this parcel to protect the nesting habitat of the federally threatened piping plover.			
113	MT FWP	MTM 108952EY	Recommend NSO 11-76 (Least Tern Habitat) based on Species of Concern Occurences

		Miles City	(Source: MTNHP), point observations (Source: MTNHP/FWP), and local biologist knowledge.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation NSO 11-76 to this parcel to protect the nesting habitat of the federally endangered interior least tern habitat.			
114	MT FWP	MTM 108952EY Miles City	Recommend stipulation CSU 12-26 (Big Game Crucial Winter Range) based on FWP mapped winter range and local biologist knowledge including radio-collared mule deer data.
<b>Response:</b> BLM Wildlife Biologists have applied stipulation CSU 12-26 to the parcel to facilitate long-term maintenance of big game wildlife populations and protect white-tailed deer, mule deer, elk, and antelope crucial winter ranges from disturbance during winter use season.			
115	WEG, CBD	Threatened/ Endangered Species	Finally, BLM must consult with the Fish and Wildlife Service on any possible Endangered Species Act issues before offering parcels for lease. Because oil and gas activities cause habitat destruction and fragmentation, BLM must use the best available data to analyze risks to wildlife and ecosystems that could foreseeably result from leasing the December 2018 parcels.
<b>Response:</b> Surface disturbance is not part of the proposed action. At the time of this review it is unknown whether or not a particular parcel will be sold and a lease issued and, what potential impacts to those resources may occur. At the leasing stage, site-specific drill locations are unknown.			
The lease parcels have been reviewed by BLM Wildlife Biologists to determine if any potential adverse impacts to wildlife resources. In addition, State (MT, SD) FWP reviewed the lease parcels and recommended stipulations based on their surveys and database. After review, the BLM identifies stipulations based on what is known about the parcels and incorporated State FWP recommendations for stipulations.			
These stipulations are essentially incorporated as design criteria in any future proposal and were developed during the last RMP revision. Site-specific NEPA analysis cannot occur until there is an APD; however, the Lease EA does disclose potential “indirect” impacts of leasing to the issues identified from internal and external scoping (in this EA, those resources are water, air, socio-econ, and greater sage-grouse).			
Additionally, stipulation TES 16-2 is applied to all lands for every parcel.			
The lease parcels have been reviewed by BLM Wildlife Biologists to determine if any potential adverse impacts to wildlife resources. In addition, MT FWP reviewed the lease parcels and recommended stipulations based on their surveys and database. No ground disturbance would occur if the leases are offered for sale.			
116	WELC	Threatened/ Endangered Species	Because the Northern Long-Eared Bat and Pallid Sturgeon (described in more detail below) are listed as threatened pursuant to the Endangered Species Act, the BLM must adequately consider effects of the project on these species using the best available science. Compliance with the ESA may require consultation under Section 7 of the Act with the U.S. Fish and Wildlife Service about the impacts of this proposal on these species. The BLM should affirmatively post all consultation documents on the Internet so that the public is fully informed as to what determinations are being made and the analysis behind them. Alternatively, we respectfully request that BLM provide those documents to us when they are completed.

			<p>Parcel Numbers MTM108952EX, MTM108952EY, and MTM108952EW are in the area identified by the Northern Myotis Montana Field Guide as year-round habitat of the Northern long-eared bat. Moreover, given that the bat’s distribution has not yet been mapped, and given the identification of bats in the Bull Mountains and in northern Wyoming, it is very possible that the Northern long-eared bat is present in other areas affected by this Lease Sale, particularly in the Eastern part of the State.</p> <p>Parcel Numbers MTM108952EX, MTM108952EY, and MTM108952EW are adjacent to the Missouri River, and others are immediately adjacent to the pallid sturgeon-occupied Milk River.</p>
<p><b>Response:</b> Parcels MTM108952EX (Richland Co), MTM108952EY (Roosevelt Co), and MTM108952EW (Roosevelt) are in the Miles City Field Office. Miles City prepared a Biological Assessment for their RMP revision in 2015, and the USFWS concurred with the BLM’s determinations of may affect, not likely to adversely affect the northern long-eared bat (also referred to as northern myotis) and pallid sturgeon. Refer to Appendix Q of the Miles City RMP, available on ePlanning. The BLM placed stipulation TES 16-2 on all parcels which provides that the BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.</p> <p>In addition, the BLM placed NSO 11-78 on eight parcels including 108952 EX and EY, which stipulates: Surface occupancy and use is prohibited within 0.25 mile of the water’s edge of the Missouri and Yellowstone Rivers. Parcel 108952 EW is not adjacent to the Missouri River.</p> <p>BLM’s leasing decisions does not authorize ground disturbance. Any project-level Section 7 consultation would be fulfilled at the APD stage and prior to any ground disturbance.</p>			

### Sage-grouse

Comment No.	Commenter	Subject	Comment												
1	TRCP	Sage-grouse stipulations	<p>Based on GIS mapping and Montana Fish, Wildlife, and Parks species data, we suggest making the following changes or additions to lease stipulations:</p> <table border="1"> <thead> <tr> <th>Field Office/ Parcel ID</th> <th>Impacted Acres</th> <th>Habitat Value</th> <th>Recommendation</th> </tr> </thead> <tbody> <tr> <td>MCFO 431ME</td> <td>320.0</td> <td>Greater sage grouse habitat</td> <td>Apply NSO stipulation for Greater sage grouse PHMA habitat.</td> </tr> <tr> <td>MCFO 431MG</td> <td>614.9</td> <td>Greater sage grouse habitat</td> <td>Apply NSO stipulation for Greater sage grouse PHMA habitat.</td> </tr> </tbody> </table>	Field Office/ Parcel ID	Impacted Acres	Habitat Value	Recommendation	MCFO 431ME	320.0	Greater sage grouse habitat	Apply NSO stipulation for Greater sage grouse PHMA habitat.	MCFO 431MG	614.9	Greater sage grouse habitat	Apply NSO stipulation for Greater sage grouse PHMA habitat.
Field Office/ Parcel ID	Impacted Acres	Habitat Value	Recommendation												
MCFO 431ME	320.0	Greater sage grouse habitat	Apply NSO stipulation for Greater sage grouse PHMA habitat.												
MCFO 431MG	614.9	Greater sage grouse habitat	Apply NSO stipulation for Greater sage grouse PHMA habitat.												

			<p>MCFO 431MH 616.9 Greater sage grouse habitat Apply NSO stipulation for Greater sage grouse PHMA habitat.</p> <p>MCFO 431PL 640.0 Greater sage grouse habitat Apply NSO stipulation for Greater sage grouse PHMA habitat.</p>
<p><b>Response:</b> Thank you for your review. The BLM reviewed the parcels in question, and added NSO 11-79 to aliquot portions with PHMA and NSO 11-80 to aliquot portions with GHMA as follows:</p> <p>Aliquot parts in PHMA:</p> <ul style="list-style-type: none"> <li>Parcel MTM105431ME Sec. 24 S1/2NW1/4</li> <li>Parcel MTM105431MG Sec. 34 N1/2NE1/4, SE1/4NE1/4, NE1/4NW1/4</li> <li>Parcel MTM105431MH Sec. 35 N1/2, northern portion of the NE1/4SW1/4, northern portion of N1/2SE1/4</li> <li>Parcel MTM105431PL Sec. 12 (ALL LANDS)</li> </ul> <p>Aliquot parts in GHMA:</p> <ul style="list-style-type: none"> <li>Parcel MTM105431ME Sec. 24 NE1/4, N1/2NW1/4</li> <li>Parcel MTM105431MG Sec. 34 SW1/4NE1/4, NW1/4NW1/4, S1/2NW1/4, N1/2SW1/4, N1/2SE1/4</li> <li>Parcel MTM105431MH Sec. 35 northern portion of the NW1/4SW1/4</li> </ul> <p>Aliquot parts in the mapping error area along the MT/WY border (Not PHMA or GHMA):</p> <ul style="list-style-type: none"> <li>Parcel MTM105431MG Sec. 34 LOTS 5-8, southern portion of the N1/2SW1/4, southern portion of the N1/2SE1/4</li> <li>Parcel MTM105431MH Sec. 35 LOTS 5-8, southern portion of the N1/2SW1/4, southern portion of the N1/2SE1/4</li> </ul>			
2	TRCP	Stipulations and mitigation	<p>Greater sage grouse: Some parcels being considered overlap with Greater sage grouse Priority Habitat Management Areas (PHMA) and General Habitat Management Areas. A healthy, vibrant, sagebrush ecosystem is critical for the survival and long-term viability of sage grouse populations. Lek disturbance, winter and summer habitat fragmentation and lowered water quality could all jeopardize sage grouse populations. All leasing and development action in PHMA and GHMA must comport to the current land-use plans and stipulations, including NSO buffers and other restrictions set forth in the current amended RMP, for all such parcels in grouse habitat. Mitigation should be required by the proponent and in coordination with Montana Fish, Wildlife, and Parks.</p>
<p><b>Response:</b> Nine-five percent of the parcels in the March sale are located in designated sage-grouse habitat. The EA acknowledges numerous studies, which indicate that oil and gas development can negatively affect sage grouse. The BLM applied no surface occupancy and controlled surface use stipulations consistent with requirement of the applicable RMP.</p> <p>In Montana, all compensatory mitigation would be coordinated with the Montana Sage-Grouse Conservation Program to ensure consistency with Montana 12-2015, 21-2015, and the Montana Mitigation System Policy Guidance Document for Greater Sage-Grouse and the Habitat Quantification Tool Technical Manual (HQT), which were adopted January 12, 2019 (refer to Chapter 3). By incorporating required State of Montana required design features and mitigation, the BLM would be consistent with new policy direction, IM 2019-018, which states: <i>The BLM may consider voluntary compensatory mitigation proffered by a</i></p>			

<p><i>project proponent, or compensatory mitigation requested by a State or required as part of a state plan, program or authorization for the proposed project or a connected action associated with the proposed project, including as a means to reach a Finding of No Significant Impact (FONSI) or as part of a proposed design feature of a project..... Where compensatory mitigation is required as part of a state plan, program or authorization, or required by Federal laws other than FLPMA, the BLM will include the required mitigation in all of its action alternatives in a NEPA analysis. The Bowman County, ND and Harding County SD parcels were removed from Alternative C.</i></p>			
3	WEG	Effects analysis	The EA does not provide a list of which parcels contain sage-grouse habitat, which makes it difficult to understand the potential impacts of this sale on sage-grouse and which should be revised in the EA before the parcels are put up for auctions. In order for the public to be able to fairly assess BLM's environmental analysis for this lease sale, the EA needs to be revised to clearly state which of the proposed parcels contain sage-grouse habitat and which types of habitat they contain, as well as totals for each habitat type.
<p><b>Response:</b> Ninety-five percent of the parcels in the March sale are in designated sage-grouse habitat. If the parcel contains designated habitat, applicable lease notices and sage-grouse stipulations are identified for the parcel in Appendix A, including:</p> <ul style="list-style-type: none"> <li>• Lease Notice 14-11 and 14-37 (all parcels with sage-grouse habitat)</li> <li>• Miles City: CSU 12-30 (GHMA), NSO 11-79 (PHMA), NSO 11-80 (GHMA)</li> <li>• HiLine: CSU 12-67 (GHMA), NSO 11-151 (GHMA), NSO 11-152 (PHMA)</li> <li>• Billings: NSO 11-127 (PHMA), 11-128 (GHMA), TL 13-40 (nest areas)</li> </ul>			
4	WEG	Population data and trends	The EA does not name the Montana sage-grouse populations that would be affected by this sale; their current population status; their short-term and long-term population trends, whether leks on or near the lease parcels are decreasing, increasing or stable; whether any RMP amendment soft or hard triggers for adaptive management related to those populations have occurred since the 2015 publication of the RMP amendments; or how lek seasonable habitat on the lease parcels. BLM needs to revise the EA to provide this information and then consider it carefully in its leasing decision.
<p><b>Response:</b> The Affected Environment section of Chapter 3 summarizes sage-grouse population trends and data for Montana, North and South Dakota, and lek data is available in the project record. Under Alternative C, the BLM would defer the Bowman County, ND and Harding County, SD parcels in sage-grouse habitat due to concerns that off-site impacts would negatively impact sage-grouse. Additional information was added to the EA to support that conclusion. In Montana, lek counts reached new lows in 2013 and 2014 but have rebounded and are now above the long-term average in the state as a whole. There are about 1000 confirmed active sage-grouse leks across Montana.</p> <p>BLM Montana/Dakotas reported no habitat or population triggers (soft or hard) were tripped in 2016 or 2017. No triggers were tripped near the Montana border in other adjacent states (Idaho and Wyoming). The 2018 report was delayed due to the government shutdown.</p>			
5	WEG	Buffers	BLM must analyze the effects to sage-grouse of offering only 3.1 mile buffers for this lease sale when science shows four mile buffers are needed.
<p><b>Response:</b> This EA acknowledges that oil and gas development can negatively affect sage-grouse. It also tiers to the analysis in the applicable RMPs, which provide management direction for oil and gas development in sage-grouse habitat. As noted in the EA, the 2015 RMPs direct the BLM to evaluate impacts to leks from actions requiring NEPA analysis using lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239), which is 3.1 miles for infrastructure related to energy development (Miles City RMP,</p>			

<p>Appendix B, page BUF-1). As noted in the Rocky Mountain ROD, the selected alternative provided the most balanced approach to multiple-use and sustainability of BLM-administered lands while offering a high degree of resource protection in sensitive areas (In the Rocky Mountain ROD for Miles City, p. 3-19, pdf p. 99).</p> <p>As also noted in the Affected Environment, for projects under review by the State of Montana, the state may assign stipulations within two and four miles of active leks to avoid and minimize project related disturbances (EO 12-2015 and <a href="https://sagegrouse.mt.gov/FAQ">https://sagegrouse.mt.gov/FAQ</a>), and the EA summarizes requirements under Executive Order 12-2015 and 21-2015.</p>			
6	WEG	migration	<p>Furthermore, the EA does not discuss new research about greater sage-grouse migration between Montana and Saskatchewan, which proposed lease sale parcels are in the area of that migration, and the potential impacts of this lease sale on that migration.</p>
<p><b>Response:</b> Thank you for your comment. The BLM added information to the EA regarding this well-documented migratory corridor and reviewed how potential leasing could impact resource values at risk. Because the science clearly demonstrates the conservation importance of the Connectivity Area, the BLM does not have a stipulation to protect the migratory resource values at risk, and the MT EO stipulations are primarily aimed at leks and nesting habitat, the BLM is deferring parcels that are located within the boundary of the Connectivity Area under Alternative C. Refer to the EA for additional information.</p>			
7	WEG	migration	<p>Valley County, Montana is part of this network of migration routes, and BLM’s maps for this lease sale show that BLM plans to offer 10 lease parcels in Valley County (MTM102757GC, MTM 102757-GD, MTM 102757-GE, MTM 102757-GF, MTM 102757-GG, MTM 102757-GH, MTM 102757-GJ, MTM 102757-GK, MTM 102757-GL, MTM 105431-HQ). There may also be additional parcels offered in this lease sale that are potentially within the migration corridor. This study was published after the earlier NEPA analysis that the lease sale EA tiers to, including the designation of areas open and closed to fluid mineral leasing, and thus is new information that needs to be included in BLM’s analysis of this sale.</p> <p>In addition, it appears from the EA that some or all of these 10 parcels may have been previously deferred by BLM. See EA at 58. Were these Valley County (Glasgow Field Office) parcels previously deferred from leasing and if so, why were they previously deferred? What resource values do they contain? What are the potential impacts on sage-grouse migration if these parcels were leased and oil and/or gas was developed on them?</p>
<p><b>Response:</b> Parcels MTM102757GC through 102757-GL were deferred from the October 23, 2012 Competitive Oil and Gas Lease Sale. The rationale noted was that lands containing important wildlife habitat are being deferred from leasing pending further review and analysis. The 2015 RMP amendments designed sage-grouse habitat in Valley County, and the BLM assigned applicable PHMA or GHMA stipulations to these parcels in the December 2018 sale. These parcels were subsequently moved from the December 2018 sale to the March 2019 sale due to litigation that addressed public comment periods.</p> <p>Under Alternative C, Parcel GG and aliquot portions of Parcels GF, GH, GJ, and GK that fall within the boundaries of the State of Montana’s mapped connectivity area are being deferred to maintain migratory pathways (totaling 2067 acres). Refer to Sage-Grouse Comment Response #6 above and the EA for additional information.</p>			

Parcel HQ was in Lease MTM 92206 and a well was drilled on the lands but did not produce before the lease expired on October 31, 2012. The lessee appealed a BLM decision to expire the lease. After the BLM's decision was affirmed by the IBLA, the BLM self-nominated the lease.			
8	Western Energy Alliance	Sage-grouse prioritization objective	The Alliance appreciates BLM's discussion of the Prioritization Objective on page 55 and subsequent in the EA. The resource management plans (RMP) for the GrSG designate areas as open or closed to oil and natural gas leasing, and Instruction Memoranda 2016-143 and 2018-026 "clarified that the objective does not preclude leasing in designated habitat, but allows leasing with appropriate stipulations on all BLM mineral estate designated" as open for leasing. EA at 55. Nevertheless, interest groups who are opposed to all oil and natural gas development continue to argue against any leasing in sage grouse habitat, despite the clear intent of BLM's RMPs.
<b>Response:</b> Thank you for your comment.			
9	WELC, TWS, MWA, CBD and others	Sage-grouse prioritization objective	<p>While BLM claims it considered the prioritization objective, there is no indication that the agency has actually applied that requirement. BLM cannot rely on IM 2018-026 to justify its failure to prioritize leasing outside of sage-grouse habitat. IM 2018-026 cannot amend or change sage-grouse plans to remove or alter the prioritization requirement. The EA fails to evaluate a middle-ground alternative that would defer leasing of at least some important sage-grouse habitat.</p> <p>BLM plans require deferring the sale of many parcels that are proposed in PHMA or GHMA. BLM is to give "priority" to leasing "outside" of sage-grouse habitats; non-habitat areas are to be leased first. BLM must encourage development in areas that will not conflict with sage-grouse.</p> <p>Even if the BLM is applying the applicable no surface occupancy (NSO), controlled surface use (CSU) and timing limitation stipulations (TLS), that does not meet the prioritization requirement, which is in addition to any other requirements of the plans. BLM has not explained or demonstrated compliance with the prioritization requirement.</p>
<b>Response:</b> The BLM added discussion to Chapter 1 that considers deferring Bin 7 and 8 sage-grouse habitat as an alternative considered but dismissed. In addition, the BLM added Alternative C to the March 2019 lease sale EA, which defers 16 parcels in sage-grouse habitat in Beaverhead and Madison County, Montana, Harding County, South Dakota, and Bowman County North Dakota. Additionally, under Alternative C, the BLM would defer 2067 acres encompassing all of one parcel, and parts of four others to avoid impacting a documented sage-grouse migratory corridor in Valley County, Montana.			
10	CBD	Sage-grouse analysis	The EA Fails to Adequately Analyze Impacts to Greater Sage-Grouse. The EA does not provide a list of which parcels contain sage-grouse habitat, which makes it difficult to understand the potential impacts of this sale on sage-grouse and which should be revised in the EA before the parcels are put up for auctions. In order for the public to be able to fairly assess BLM's environmental analysis for this lease sale, the EA needs to be revised to clearly state which of the proposed parcels contain sage-grouse habitat and which types of habitat they contain, as well as totals for each habitat type.

			<p>The EA does not state how many active leks are inside of the parcels, nor which parcels they are found in, nor has it provided maps with this information. Withholding this information from the public greatly reduces the public's ability to understand the potential impacts of this lease sale, such as which proposed lease parcels are the most important to sage-grouse. The EA should be revised to include this information and made available for public review by the start of the protest period. This will not be a burden for BLM since the EA states that the BLM has maps showing this information in the lease sale's project file. EA at 59.</p>
<p><b>Response:</b> Refer to Sage-Grouse Response #4. The BLM completed additional analysis and added several maps to the EA for Bowman County, North Dakota, Harding County, South Dakota, and Valley County, Montana. Under Alternative C, the BLM would defer parcels in these areas to address potential impacts to sage-grouse. The BLM also added Appendix E, which depict Montana lease parcels dating back to 2015 when the sage-grouse plans were approved overlaid with lek buffers. Any future oil and gas development in Montana would be required to submit their project to the Montana Sage-Grouse Conservation Program, and the specific project would be run through the Habitat Quantification Tool (HQT) and any state-required compensatory mitigation needs would be assessed at that time.</p>			
11	CBD	Sage-grouse analysis	<p>BLM Has Not Adequately Analyzed Direct, Indirect, and Cumulative Impacts to Sage-Grouse. The EA omits crucial information that BLM needs to consider before making this lease sale decision. For example, the EA does not name the Montana sage-grouse populations that would be affected by this sale; their current population status; their short-term and long-term population trends, whether leks on or near the lease parcels are decreasing, increasing or stable; whether any RMP amendment soft or hard triggers for adaptive management related to those populations have occurred since the 2015 publication of the RMP amendments; or how lek seasonable habitat on the lease parcels. BLM needs to revise the EA to provide this information and then consider it carefully in its leasing decision.</p>
<p><b>Response:</b> For an EA, the BLM is required to disclose sufficient evidence and rationale to support a Finding of No Significant Impact, and the EA included a summary of statewide population trends, with references to the Montana Sage-grouse Habitat Conservation Program 2016 Annual Report, population status on the South Dakota Game, Fish and Parks website, and North Dakota Game and Fish Department web site.</p> <p>In Montana, the <i>all lands, all hands</i> approach, collaborative relationships between state and federal partners and statewide regulatory assurances that are described in the EA provide a level of assurance that habitat will be conserved on all lands in the state. In addition, Montana has the ability to require compensatory mitigation. From this information, it was reasonable to conclude that there are adequate regulatory mechanisms in place to conserve sage-grouse habitat across Montana. It was unnecessary to review each and every lek in the vicinity of a lease parcel to reach a FONSI.</p> <p>In limited instances, it was necessary and appropriate to take a closer look at specific resource concerns. The EA includes detailed information and conclusions for specific areas of concern in North and South Dakota and Valley County Montana. The level of detail provided was necessary to determine that the BLM could not reach a FONSI due to particular resource concerns, and that information is described in Chapter 3. In each case, the BLM provided sufficient rationale between the facts found and the conclusion that was made.</p> <p>See response to Sage Grouse Comment #4.</p>			

12	CBD	Sage-grouse analysis Consideration of science	BLM Has Failed to Acknowledge New and Relevant Scientific Information. Comment cites numerous studies important to sage-grouse biology, and allege the EA fails to consider research that discusses impacts of oil and gas development on leks in Wyoming, sage-grouse migration between Montana and Saskatchewan, and genetic connectivity between southwestern Montana and Eastern Montana.
<p><b>Response:</b> Thank for you your comment. BLM added additional information to the EA that discusses the migratory pathway between Saskatchewan and Valley County, MT. After careful consideration of the information, BLM realized it does not have a stipulation that fully protects those resource values at risk during critical time periods, and has deferred all of one parcel and portions of four others that are located in the State of Montana designated Connectivity Area. Refer to Chapter 3 sage-grouse analysis for additional information.</p> <p>BLM also reviewed the Cross et al 2016 research that genotyped 1499 greater sage-grouse from 297 leks across Montana, North Dakota and South Dakota. The results of this research show that at distances of up to 240 km individuals exhibit greater genetic similarity than expected by chance, suggesting that the cumulative effect of short-range dispersal translates to long-range connectivity. Cross et al found two levels of hierarchical genetic subpopulation structure., and proposed five management groups reflective of genetic subpopulation structure. These genetic groups are largely synonymous with existing priority areas for conservation.</p> <p>BLM participated in the collaborative working group with our state and federal partners, non-governmental organizations, and industry, and this research was heavily considered in the designation of service areas in the State of Montana policy guidance document. Service Areas define the area within which an impact at a given location must be mitigated to ensure species-specific habitat needs are met at ecologically relevant scales. The geographic scale at which impacts are offset by mitigation has ecological relevance to sage grouse conservation at the landscape scale within Montana and regionally. Concurrent consideration should also be given to local scales to ensure that mitigation is spatially relevant and effective for locally-impacted leks and sub-populations (MT Policy Guidance Document, p. 65).</p> <p>At the landscape scale, there are four Service Areas in the Montana Mitigation System: North Central, Central, Southeastern, and Southwestern. Service Area delineations are based on a combination of geographic boundaries, physiographic barriers, and studies of genetic connectivity and relatedness. Any subsequent oil and gas development proposal would be subject to applicable stipulations from Executive Order 12-2015, including mitigation, because state permits are also required. Proposed developments would also be run through Montana’s Habitat Quantification Tool (HQT) and compensatory mitigation needs would be identified, including for any project proposed in surrounding state designated core, general, or connectivity habitat.</p>			
13	WELC	New science	BLM must also take into account the fact that significant new information regarding oil and gas impacts on greater sage-grouse has become available since the 2015 ARMPA FEIS. Recent scientific study confirms the established finding that sage-grouse lek attendance is negatively related to oil and gas density, regardless of sagebrush cover and participation.
<p><b>Response:</b> The BLM is aware of the large body of literature that correlates oil and gas density with sage-grouse lek attendance, and cited several studies in the EA. BLM participated in the collaborative effort with other state and federal agencies, non-governmental organizations, and industry to develop the Habitat Quantification Tool (HST) and Policy Guidance Document that was adopted by the State of Montana on January 12, 2019. The HQT reviews both credit and debit projects and calculates functional acres lost or gained by a development project or conservation project. The HQT assesses numerous parameters, including those cited in the comment. Montana’s Policy Guidance is based upon Executive Orders 12-2015 and 21-2015 and the Greater Sage-grouse Stewardship Act. Montana’s Mitigation System is not only informed by the best available science, it is required to incorporate new science as it</p>			

<p>becomes available (Policy Guidance Document, p. 4). Montana’s program will form the basis for any compensatory mitigation that would be required to develop BLM lease parcels.</p>			
14	CBD	Sage-grouse Compensatory mitigation	<p>The EA Relies on Invalid Assumptions Regarding Compensatory Mitigation. Although BLM has failed to map or analyze cumulative effects of its sage-grouse habitat leasing in other areas of Montana, Figure 4 in the EA shows an overwhelming pattern of habitat loss to new oil and gas leases in the southwest portion of the Billings Field Office. EA at 65 &amp; Figure 4. BLM acknowledges generally that “[a]s the map shows, there is potential for sage-grouse habitat to be impacted from multiple years of oil/gas leasing.” It then goes on to offer the unsubstantiated conclusion that “mitigation options” that are “available” might avoid those impacts.</p> <p><i>However, both the BLM RMPs and the State of Montana stipulations for developing in sage-grouse habitat apply, and a full suite of mitigation options are available to avoid/mitigate impacts, including compensatory mitigation. The regulations, as currently in effect, should be sufficient to conserve habitat and mitigate threats. EA at 65.</i></p> <p>This conclusion is not only contradicted by the best available science, but it relies on a provably incorrect assumption regarding the availability of compensatory mitigation. On July 24, 2018, the Bureau of Land Management’s Deputy Director for Policy and Programs issued Instruction Memorandum 2018-09363, which eliminates the possibility of BLM required compensatory mitigation. The memorandum purports to reverse BLM’s prior interpretation of the Federal Land Policy and Management Act that allowed for compensatory mitigation and the “net conservation gain” standard of the BLM’s sage-grouse RMP amendments.</p> <p>Although the memorandum appears to mark an indefensible policy position inconsistent with years of agency interpretation of FLPMA, it is, until withdrawn or reversed, the position of the agency. Therefore, the BLM cannot both refuse to even consider mandatory compensatory mitigation, while at the same time asserting, in this EA, that the availability of compensatory mitigation will “should be sufficient to conserve habitat and mitigate threats.”</p>
<p><b>Response:</b> Montana/Dakotas RMPs have not been amended to change mitigation requirements. However, as alluded to in this comment, there have been recent policy changes to BLM’s mitigation policy. IM 2019-018 (12/6/2018) states: <i>Except where the law specifically requires or as described in this IM, the BLM must not require compensatory mitigation from public land users. While the BLM will consider voluntary proposals for compensatory mitigation, and state-mandated compensatory mitigation, the BLM will not accept any monetary payment to mitigate the impacts of a proposed action. In all instances, the BLM must refrain from authorizing any activity that causes unnecessary or undue degradation (UUD), pursuant to FLPMA Section 302(b)...</i></p> <p><i>... The BLM may consider voluntary compensatory mitigation proffered by a project proponent, or compensatory mitigation requested by a State or required as part of a state plan, program or authorization for the proposed project or a connected action associated with the proposed project, including as a means to reach a Finding of No Significant Impact (FONSI) or as part of a proposed design feature of a project...</i></p>			

<p>In Montana, any development project that requires a state would be required to demonstrate consistency with Montana sage-grouse program requirements, including Montana Executive Order 12-2015, 21-2016, as well as utilize the Habitat Quantification Tool (HQT) and conform to requirements in the Montana Policy Guidance, which were adopted through formal rule making on January 12, 2019. Montana requires compensatory mitigation for residual effects to sage-grouse habitat across all lands. Any oil and gas development on a BLM lease would have to conform with these requirements. The new mitigation policy acknowledges state program requirements. In North and South Dakota, there is no all lands program to conserve sage-grouse habitat, and the BLM is deferring parcels in Bowman County, ND and Harding County, SD due to negative off-site impacts. Refer to Chapter 3 sage-grouse analysis for additional information.</p>			
15	Mariah Energy	Lack of sage-grouse habitat/impacts	<p>Mariah Energy nominated a parcel for lease sale – MTM 108952-HE. A 40-acre tract in Blaine County, MT. The parcel was moved from the December 2018 sale to the March 2019 sale because of sage-grouse concerns. We would like to see the parcel offered in the March 2019 sale. We consulted on a well development project with the Montana Sage-grouse Conservation program, and were informed: Based on the information provided, all or a portion of this project is located within General Habitat for sage grouse as designated by Executive Order 12-2015. The project is outside of habitat classified by the Bureau of Land Management as a General Habitat Management Area (GHMA)... Based on the information you provided, your project is not within two miles of an active sage grouse lek.</p>
<p><b>Response:</b> Parcel MTM 108952-HE is 555 non-contiguous acres. BLM reviewed sage-grouse protections on this parcel and added PHMA stipulations to a portion of this parcel. The entire parcel was moved from the December 2018 sale to the March 2019 sale due to ongoing litigation that affects public comment periods. Parcel HE will be included on the March 2019 lease sale.</p>			
16	WELC	Cumulative effects analysis	<p>BLM Must Analyze the Cumulative Range-Wide Effects of Leasing In Greater Sage-Grouse Habitat. Review of BLM lease sale and sage-grouse habitat data reveals that, in Wyoming alone, between January 2017 and December 2018 alone, BLM has leased or offered for lease the over 2,604,000 acres of priority and general habitat management areas for greater sage-grouse. All of these sales suffer from the same flaw as this proposed action: they violate the prioritization requirements of the 2015 RMPs, fail to consider the cumulative effects of these leasing actions across sage-grouse range and fail to consider reasonable alternatives that do not lease PHMAs and GHMAs.</p> <p>Widely accepted conservation biology methodologies exist that can provide BLM with means of conducting such a cumulative effects analysis. One such method is the Representation, Resilience, and Recovery method utilized by the U.S. Fish and Wildlife Service in developing recovery plans for threatened and endangered species. This method, utilized by the Fish and Wildlife Service’s greater sage-grouse Conservation Objectives Team in developing the objectives incorporated in the 2015 ARMPAs relies on three elements in its conservation framework: representation, resilience and redundancy.</p> <p>Citation: Haak, Amy, Analysis of Impacts to The Range-Wide Conservation Portfolio of Greater Sage-</p>

**Response:** Comment alleges BLM's March 2018 Montana Lease Sale EAs fail to consider the cumulative effects of current leasing and existing leases on the conservation biology factors that influence greater sage-grouse persistence and recovery. In support of their argument, they cite an unpublished paper from Amy Haak, PhD dated December 4, 2017. Dr. Haak notes that she prepared the cumulative effects analysis for the proposed March 2018 Montana lease sales upon request from the Center for Biological Diversity. BLM reviewed the Dr. Haak's analysis, and provides the following response:

The March 2019 lease sale EA incorporates by reference and tiers to the cumulative effects analysis that was prepared for each applicable RMP. The EA also includes additional cumulative effects analysis in Chapter 3. As requested by members of the public, the BLM added Appendix E, which depicts parcels proposed in the March 2019 lease sale, parcels dating back to when the RMPs were approved in 2015, and lek buffers.

Dr. Haak's provided a range-wide context for assessing the importance of the populations affected by the March lease sale and then evaluated the cumulative effects of oil and gas on these populations. Dr. Haak's methods outline a portfolio theory and a 3-R framework of representation, resiliency, and redundancy. Her analysis outlines current distribution of GRSG compared to historic, talks about the importance of patch size and linked populations and non-fragmented habitat, and then evaluated the change in suitable habitat patches within the current range, pre-and post development of leases. She notes (p. 11-12 of her paper):

*much of the habitat within the PACs consists of desirable plant communities for sage-grouse within a minimal amount of fragmentation. However, when I consider development of the leased parcels the situation changes drastically....I removed the leased parcels from the suitable habitat data layer (including the March 2018 parcels)...and recalculated percent of suitable habitat...Suitable habitat within the Northern Montana PACs is significant reduced and almost non-existent in the northern most PAC.*

The BLM discussed the current and historic range of GRSG in each applicable RMP FEIS. Dr. Haak is not presenting anything drastically new there. However, her method in comparing patch size pre and post March leases is flawed because she removes the lease parcels from the suitable habitat data layer. In other words, the lease parcels go from habitat to non-habitat just because they are leased. Dr. Haak does not acknowledge that all parcels in PHMA are no surface occupancy, and there are timing limitations and controlled surface use limitations in GHMA. Thus, while the habitat may still be impacted by oil and gas development, it would not go from 100 percent to zero just from leasing. Nor does Dr. Haak consider the development potential of the leases, and BLM's assessment of a reasonable foreseeable development scenario. It is highly unlikely that every parcel in the sale will end up with a well pad on it. Finally, any proposed development of a lease sale in Montana would require a permit from the state and would need to demonstrate consistency with all of the state's sage-grouse program requirements. The State of Montana can require compensatory mitigation for residual effects. All of these factors were considered in the BLM's effects analysis.

Further, the BLM acknowledges that fragmentation of GRSG habitat will continue to occur in each of the RMPs. For example,

Impacts from surface-disturbing activities, disruptive activities, and management actions are anticipated for Greater Sage-Grouse across all alternatives. Estimated short-term and long-term surface disturbance from BLM actions in the planning area are anticipated to result in loss, degradation, and fragmentation of sagebrush habitat. Oil and gas development is the major source of surface disturbance identified in the planning area under all alternatives, and oil and gas development has been identified as a cause of declining Greater Sage-Grouse populations (Doherty, et al. 2006, Walker, et al. 2007, Naugle, et al. 2011b, Harju, et al. 2009). Surface disturbance is anticipated to have adverse impacts to sagebrush habitats including temporary and permanent loss of habitats across all alternatives. Fragmentation and degradation of habitat for Greater Sage-Grouse also is anticipated from surface-disturbing activities and

associated development. (HiLine FEIS, Volume II, pdf page 292).

The HiLine FEIS effects analysis notes approximately 152,702 acres of BLM minerals would be closed to oil and gas leasing under Alternative E (the selected alternative) to protect a variety of resource values. An additional 1,711,378 acres would be available for leasing with an NSO stipulation. Of this acreage, the FEIS notes that 75% is located in the very low oil and gas development potential area. These protections would benefit all wildlife species located in these areas by minimizing surface-disturbing activities and associated avoidance (Vol II pdf page 329); and stipulations limit surface-disturbing and disruptive activities, thereby reducing the impacts from habitat loss and fragmentation (Vol II, pdf page 331).

The Billings analysis contains a similar analysis that discusses how protective measures in the RMP help avoid and minimize impacts to GRSG and reduce impacts of fragmentation (see Section 4.6.7.1). For example, the Billings analysis notes:

All Proposed LUPs within MZ I include BMPs and required design features to minimize impacts on GRSG from oil and gas development on BLM-administered lands and National Forest System lands. Examples include: locating new compressor stations outside of PHMA to reduce noise disturbance; clustering operations and facilities as closely as possible; placing infrastructure in already disturbed locations where the habitat has not been fully restored; and restoring disturbed areas at final reclamation to the pre-disturbance landforms and desired plant communities. State plans contain similar measures to reduce impacts. Together, these measures would help protect unfragmented habitats, minimize habitat loss and fragmentation, and maintain conditions that meet GRSG life history needs. The effect of the alternatives and other conservation actions in the MZ (most notably the Montana and Wyoming executive orders) could be synergistic. For example, applying buffers in PHMA and on state and private land would effectively conserve larger blocks of land than if these actions occurred individually. (Billings RMP FEIS, Volume 2, pdf page 646.)

Lastly, Dr. Haak's paper does not acknowledge that any subsequent oil and gas development proposal would be subject to applicable stipulations from Executive Order 12-2015, including mitigation, because state permits are also required. Proposed developments would also be run through Montana's Habitat Quantification Tool (HQT) and compensatory mitigation needs would be identified, including for any project proposed in surrounding state designated core, general, or connectivity habitat.