

**Public Comments and Responses
August 2015 EA Comment Letter**

#	Commentor	Comment	Response
1	Northern Arapaho Tribe	Upon receipt of the letter for 199,730 federal mineral acres, that are with in Buffalo, Casper and Newcastle Field Office as you may know are migratory ancestral lands of the Northern Arapaho. Our office does understand that with the land transition for the sale or lease of the land no cultural inventories are required by BLM however our office works closely with the WYShpo and our office does ask that our office (NATHPO) and WyShpo are both included so that we can all work together in making sure the land transition for lease or sale can be properly inventoried when a company is granted a permit. We thank you for the letter and look forward to communicating in the future on projects.	Cultural resource inventory and Native American consultation, along with SHPO consultation, are standard requirements associated with processing an Application for Permit to Drill (APD).
2	Wyoming Game and Fish Department	The staff of the Wyoming Game and Fish Department has reviewed the Environmental Assessment for the High Plains Portion of the August 2015 Oil and Gas Lease Parcels. We support Alternative B, the proposed action, of the Environmental Assessment. Thank you for the opportunity to comment.	No response needed.
3	WildEarth Guardians (WG) & Rocky Mountain Wild (RMW)	<p>The following are the comments of WildEarth Guardians and Rocky Mountain Wild on the Wyoming BLM's August 2015 Lease Sale EA for the Wind River/Bighorn Basin and High Plains Districts. For many years, the BLM has prioritized oil and gas leasing and development over other multiple uses such as wildlife, watersheds, and public recreation. It is time for the BLM to restore some balance among resource uses in Wyoming, and render extractive industries more compatible with maintaining healthy ecosystems and public enjoyment of the land. Generally speaking, we would support a modified version of the BLM Preferred Alternative adjusted to address our concerns, but in this case the problems with this proposed lease sale and its NEPA analysis are so pervasive that we recommend scrapping the entire effort and adopting Alternative A, the No Action alternative.</p> <p>BLM attaches a number of stipulations, most notably timing stipulations, and relies upon them to reduce impacts to sensitive wildlife resources without ever analyzing the effectiveness of these stipulations. Many of these stipulations are known to be ineffective as outlined below.</p>	<p>Note: <i>Comments from WildEarth Guardians and Rocky Mountain Wild (WG/RMW) were submitted as a combined document for both the Wind River/Bighorn Basin District portion and the High Plains District portion of the August 2015 Oil and Gas Lease Sale EAs. As these are two distinct EA's, the responses herein apply only to the High Plains District portion of the August 2015 Oil and Gas Lease Sale EA.</i></p> <p>No response needed.</p>
4	WG/RMW	<p>We concur with the intention to defer parcels entirely or in part based on the sage grouse Priority Habitat screen and, at the discretion of the State Director, to defer parcels within core areas that contain less than 640 acres as well.</p> <p>Parcels WY-1508-13, 14, 21, 25-49, 56, 57, 58, 59, 61, 67, 69, 70, 71, 87-126, 128, 131-136, 141, 142, 144, 145, 150, 151, 155, 156, 158, 160-164, 179-181, and 214-241 are completely or partially within sage grouse Core Areas. Under Instruction Memorandum No. WY-2012-19, lands falling within sage grouse Core Areas that are primarily under BLM ownership and are not extensively leased are recommended for deferral from oil and gas leasing. Given the pendency of the Sage Grouse Plan Amendment EIS, and the</p>	The Sage-grouse leasing screen in Instructions Memorandum No. WY-2012-019 was followed. The listed parcels in the High Plains District were deferred, deferred in part, or recommended for lease sale. Please see EA pages 3-5.

		<p>perilous status of the sage grouse with regard to Endangered Species listing, these lands should all be deferred from leasing pending an outcome of the RMP amendments. ‘No leasing in Core Areas’ is one reasonable alternative which BLM has been asked to consider in its Sage Grouse Plan Amendments process, and also in its RMP revisions by BLM Instruction Memorandum requiring that National Technical Team recommendations be analyzed in detail, and leasing Core Area lands regardless of what screening mechanisms they have been subjected to will violate CEQ guidance. Please note that the National Technical Team did not recommend screening parcels inside Core Areas for at least 11 square miles of unleased federal mineral estate before closing federal lands to future leasing.</p> <p>We agree with BLM’s recommendations to defer in whole or in part the offering of Parcels WY-1508-13, 14, 21, 25-43, 47, 48, 49, 57, 58, 59, 61, 67, 69, 70, 71, 87-126, 128, 131-136, 141, 142, 144, 145, 150, 151, 155, 156, 158, 160-164, 216, 217, 220, 223-235, and 241, which fall entirely or partially within Core Areas (see High Plains Appendix A and Wind River-Bighorn Basin Appendix C). It is a wise decision to defer the long-term commitment of mineral leases at least until the sage grouse RMP amendment process is completed, in order to avoid foreclosing conservation options that may be selected for implementation under the RMP amendments.</p>	
5	WG/RMW	<p>Parcels 44, 45, 46, 56, 179, 180, 181, 185, 186, 214, 215, 218, 219, 221, 222, 236, 237, 238, 239, and 240 fall entirely or partially within a Core Area (see High Plains Appendix A and Wind River-Bighorn Basin Appendix C), yet are not earmarked for even partial deferral. Regardless of whether these parcels are within 11 square miles of contiguous unleased federal estate or not, BLM must retain the option to preclude future leasing in these areas under the RMP revisions/amendments currently underway. For this reason, these parcels should be deferred as well.</p>	<p>The Sage-grouse leasing screen in Instructions Memorandum No. WY-2012-019 was followed. The listed parcels in the High Plains District were deferred, deferred in part, or recommended for lease sale. Please see EA pages 3-5.</p>
6	WG/RMW	<p>BLM chose not to consider deferring all parcels that fall within sage grouse Core Areas:</p> <p>An alternative was considered that would defer all remaining parcels that are located within sage-grouse core areas. This alternative was not carried forward into detailed analysis because it is not supported by IM WY-2012-019, Greater Sage-Grouse Habitat Management Policy on Wyoming Bureau of Land Management (BLM) Administered Public Lands Including the Federal Mineral Estate and IM WO-2012-043, Greater Sage-Grouse Interim Management Policies and Procedures, and the impacts are embedded within the No Action.</p> <p>EA at 7. This alternative is a fully reasonable and well-reasoned option, and BLM’s explanation for why it was not considered in detail is inconsistent with the precepts of NEPA. Neither IM referenced precludes BLM from adopting stronger protection measures for sage grouse than are explicitly prescribed under the guidance they contain. Under NEPA, BLM must consider a range of reasonable alternatives, including those that are outside the agency’s authority to implement. In this case, such an alternative would be fully within BLM’s authority to implement; state office or national Instruction Memoranda are readily replaced without NEPA process.</p> <p>A decision not to defer parcels which are part of an area less than 11 square miles of</p>	<p>The Sage-grouse leasing screen in Instructions Memorandum No. WY-2012-019 was followed. The listed parcels in the High Plains District were deferred, deferred in part, or recommended for lease sale. Please see EA pages 3-5.</p>

		<p>BLM-controlled, unleased land would be derived from a Wyoming State Instruction Memorandum which was not part of any RMP, was not subject to NEPA review, and possibly as a result yields outcomes that will likely be deleterious to sage grouse. One such outcome is that BLM adopts recommendations in the National Technical Team Report through the Sage Grouse RMP Amendments or through RMP amendments, yet the existence of the leases in question create valid existing rights that cannot be undone. Once BLM leases such lands, they are very difficult to “unlease.” The result could be development in accordance with lease terms that harms the welfare of sage grouse and/or degrades their habitats, undermining population recovery or maintenance, while eliminating the option to keep these lands free of lease encumbrances under the Sage Grouse Plan Amendments and/or pending RMP revisions. These parcels should be deferred from sale even if they are not part of 11 square miles of unleased mineral estate held by BLM.</p> <p>We request that all parcels listed above be deferred from the lease sale pending analysis of whether large-block unleased parcels inside Core Areas are being leased, pursuant to the 2012 Wyoming leasing IM. BLM should do its best to keep largely unleased areas of public land in Core Areas unleased, regardless of mineral ownership patterns. Wyoming sage grouse populations are some of the largest left in the nation and were relatively stable until the last decade, when sage grouse populations experienced major declines range-wide. The Wyoming Game and Fish Department reported that since 1952, there has been a 20% decline in the overall Wyoming sage grouse population, with some fragmented populations declining more than 80%; one of WGFD’s biologists reported a 40% statewide decline over the last 20 years. As of 2014, WGFD data reports a 60% population decline statewide since 2007. Since these figures were published, grouse populations have continued to decline. These declines are attributable at least in part to habitat loss due to mining and energy development and associated roads, and to habitat fragmentation due to roads and well fields. Oil and gas development poses perhaps the greatest threat to sage grouse viability in the region. The area within 2 to 3 miles of a sage grouse lek is crucial to both the breeding activities and nesting success of local sage grouse populations. In a study near Pinedale, sage grouse from disturbed leks where gas development occurred within 3 km of the lek site showed lower nesting rates (and hence lower reproduction), traveled farther to nest, and selected greater shrub cover than grouse from undisturbed leks. According to this study, impacts of oil and gas development to sage grouse include (1) direct habitat loss from new construction, (2) increased human activity and pumping noise causing displacement, (3) increased legal and illegal harvest, (4) direct mortality associated with reserve pits, and (5) lowered water tables resulting in herbaceous vegetation loss. These impacts have not been thoroughly evaluated with full NEPA analysis.</p>	
7	WG/RMW	<p>Lease parcels should also be screened against Sage Grouse ACECs or Strongholds proposed in the context of the statewide Sage Grouse Plan Amendments EIS process. Many of the proposed ACECs have for proposed management withdrawal from future oil and gas leasing and Strongholds may likewise be proposed for closure. Parcels in each of these areas should be deferred pending the outcome of the Sage Grouse Plan Amendments process, so that a proper decision can be made regarding whether or not to lease them and/or appropriate stipulations can be attached, per IM 2004-110 Change 1.</p>	<p>The Sage-grouse leasing screen in Instructions Memorandum No. WY-2012-019 was followed. The listed parcels in the High Plains District were deferred, deferred in part, or recommended for lease sale. Please see EA pages 3-5.</p>

		BLM should also consider whether any parcels fall within proposed Sage Grouse ACECs. In the forthcoming RMP revisions, it is our expectation that the BLM will be considering the designation of several Core Areas as Sage Grouse ACECs, to be managed for no future leasing for oil and gas development.	
8	WG/RMW	In addition, many parcels contain designated Preliminary General Habitat (PGH) under the Wyoming Sage-grouse RMP Amendment DEIS preferred alternative including Parcels 1-10, 12-24, 28, 42, 50-56, 61-68, 71-89, 124, 127-131, 134, 137-141, 143, 146-157, 159, 165-167, 169-172, 177-181, 185, 186, 200, 201, 202, 214, 215, 217-231, 233, 234, 236-240, and 242 according to our lease screens. BLM's failure to note parcels that overlap with sage grouse General Habitats is a failure of NEPA's baseline information and hard look requirements. All portions of these parcels falling within PGH should be deferred as well, in order to retain the decision space for "no leasing" or No Surface Occupancy for Preliminary General Habitats under the sage grouse-related RMP revisions and amendments currently underway, which provide the only legally sufficient EIS underpinning to allow leasing in the habitat of a Candidate Species. The significant new information outlined elsewhere in these comments applies equally to PGH, and the potential for significant impacts top sage grouse lek populations from oil and gas development springing from this lease sale is just as legally required in PGH as in Core Areas.	The Sage-grouse leasing screen in Instructions Memorandum No. WY-2012-019 was followed. The listed parcels in the High Plains District were deferred, deferred in part, or recommended for lease sale. Please see EA pages 3-5.
9	WG/RMW	<p>Many parcels are located within 4 miles of one or more active sage grouse leks. The lands within 4 miles of active leks are typically used for nesting, a sensitive life history period when sage grouse are sensitive to disturbance from oil and gas drilling and production activities. The current standard sage grouse stipulations that apply outside Core Areas are biologically inadequate, and their effectiveness has not been established by BLM. Indeed, scientific studies demonstrate that these mitigation measures fail to maintain sage grouse populations in the face of full-field development, and significant impacts in terms of displacement of sage grouse from otherwise suitable habitat as well as significant population declines have been documented. BLM should not issue these sage grouse parcels unless a rigorous set of stipulations, far stronger than those provided in the EA (such as NSO stipulations), are applied to the parcels. This should include 4-mile No Surface Occupancy stipulations around active leks. If these stipulations are implemented together with even stronger measures for Core and Connectivity Areas, the BLM could make a credible case that impacts from leasing would not result in significant impacts.</p> <p>Outside Core Areas, current sage grouse lease stipulations provide an NSO stipulation of ¼ mile around active sage grouse leks. This is a ridiculously inadequate amount of protection for the lekking grouse during the breeding period, nevermind for hens nesting on lands surrounding the lek. Studies have shown that the majority of hens nest within 3 miles of a lek, and that a 5.3-mile buffer would encompass almost all nesting birds in some cases. For Core Areas, the most scientifically supportable metric for NSO buffers would be 2 miles from the lek to protect breeding birds (after Holloran 2005, finding impacts from post-drilling production extend 1.9 miles from the wellsite) and 5.3 miles to protect nesting birds, with the understanding that the impacts of drilling and production activity would extend into the NSO buffer area from wells arrayed along its edge.</p>	Beyond the scope of this document. Oil and gas stipulations are developed at the RMP. They cannot be changed unless done at that level.

Because leks sites are used traditionally year after year and represent selection for optimal breeding and nesting habitat, it is crucially important to protect the area surrounding lek sites from impacts. In his University of Wyoming dissertation on the impacts of oil and gas development on sage grouse, Matthew Holloran stated, “current development stipulations are inadequate to maintain greater sage grouse breeding populations in natural gas fields.” (Notably, these exact stipulations are being applied by BLM in this lease sale for non-Core Area sage grouse habitat parcels). The area within 2 or 3 miles of a sage grouse lek is crucial to both the breeding activities and nesting success of local sage grouse populations. Dr. Clait Braun, the world’s most eminent expert on sage grouse, has recommended NSO buffers of 3 miles from lek sites, based on the uncertainty of protecting sage grouse nesting habitat with smaller buffers. Thus, the prohibition of surface disturbance within 3 miles of a sage grouse lek is the absolute minimum starting point for sage grouse conservation.

Other important findings on the negative impacts of oil and gas operations on sage grouse and their implications for the species are contained in three studies recently accepted for publication. Sage grouse mitigation measures have been demonstrated to be ineffective at maintaining this species at pre-development levels in the face of oil and gas development by Holloran (2005) and Naugle et al. (2006). This study found an 85% decline of sage grouse populations in the Powder River Basin of northeastern Wyoming since the onset of coalbed methane development there. BLM has repeatedly failed to provide any analysis, through field experiments or literature reviews, examining the effectiveness of the standard quarter-mile buffers where disturbance would be “avoided.” There is substantial new information in recent studies to warrant supplemental NEPA analysis of the impacts of oil and gas development to sage grouse. It is incumbent upon BLM to consider the most recent scientific evidence regarding the status of this species and to develop mitigation measures which will ensure the species is not moved toward listing under the Endangered Species Act. It is clear from the scientific evidence that the current protections are inadequate and are contributing to the further decline of the bird’s populations. This information constitutes significant new information that requires amendment of the Resource Management Plans before additional oil and gas leasing can move forward.

Wyoming Game and Fish Department biologists have reached a consensus that the Timing Limitation Stipulations proposed for sage grouse in this lease sale are ineffective in the face of standard oil and gas development practices. These stipulations have likewise been condemned as inadequate by the U.S. Fish and Wildlife Service and renowned sage grouse expert Dr. Clait Braun. The BLM itself has been forced to admit that “New information from monitoring and studies indicate that current RMP decisions/actions may move the species toward listing...conflicts with current BLM decision to implement BLM’s sensitive species policy” and “New information and science indicate 1985 RMP Decisions, as amended, may not be adequate for sage grouse.” Continued application of stipulations known to be ineffective in the face of strong evidence that they do not work, and continuing to drive the sage grouse toward ESA listing in violation of BLM Sensitive Species policy, is arbitrary and capricious and an abuse of discretion under the Administrative Procedures Act.

		<p>The restrictions contained in IM No. WY-2012-019 come nowhere close to offering sufficient on-the-ground protection to sage grouse leks. Within Core Areas, the IM allows surface disturbing activity and surface occupancy just six tenths (0.6) of a mile from “the radius of the perimeter of occupied sage-grouse leks,” a far cry from the science-based 4-mile buffer recommended by the BLM’s own National Technical Team, and inconsistent with the findings of Manier et al. (2014), who described the range of appropriate lek buffers as 3.1 to 5 miles. By acreage, a 0.6-mile buffer encompasses less than 4% of the nesting habitat contained within the 4-mile buffer recommended by agency experts, and therefore does essentially nothing to protect sensitive nesting habitats. Even less protective, restrictions outside Core or Connectivity Areas allow surface disturbing activities and surface occupancy as close as one quarter (0.25) of a mile from leks. BLM has too great an abundance of data to the contrary to continue with scientifically unsound stipulations as used in IM WY-2012-019 and the current Notice of Competitive Oil and Gas Lease Sale. This is especially clear in light of the U.S. Fish and Wildlife Service’s recent finding that listing the greater sage grouse as endangered or threatened under the Endangered Species Act is warranted, but precluded by other priorities. BLM should apply the recommendations of the National Technical Team instead, and in the meantime defer leasing until these recommendations can be formally adopted through the plan amendment/revision process. If the BLM and other federal agencies intend to keep the sage grouse from accelerating beyond other listing priorities, more protective measures, in adherence with the scientific recommendations of Holloran, Braun, and others, must be undertaken now.</p>	
10	WG/RMW	<p>The vague stipulations included in BLM’s Notice of Competitive Oil and Gas Lease Sale for particular parcels do little to clarify to the interested public or potential lessees what restrictions might actually apply to protect sage grouse populations. For example, for some parcels, BLM imposes a Timing Limitation Stipulation and a Controlled Surface Use Stipulation. Such acceptable plans for mitigation of anticipated impacts must be prepared prior to issuing the lease in order to give the public full opportunity to comment, and to abide by the Department of Interior’s stated new policy to complete site-specific environmental review at the leasing stage, not the APD stage. Without site-specific review and opportunity for comment, neither the public nor potential lessees can clearly gauge how restrictive or lax “acceptable plans for mitigation” might be, and whether they comply with federal laws, regulations, and agency guidelines and policies. Thus, absent such review, the leases should not issue at all.</p>	<p>Resource management plans (RMP) make resource allocation decisions concerning the availability of lands for oil and gas leasing. This EA addresses whether nominated parcels are available for leasing in conformance with the RMP, and applies appropriate RMP stipulations to the lease sale parcels.</p> <p>If an Application for Permit to Drill is received proposing to develop a lease parcel, site specific analysis of the impacts is conducted and impacts will be mitigated as determined necessary.</p>
11	WG/RMW	<p>BLM has the scientific information needed to recognize that any use of these parcels will result in further population declines, propelling the sage grouse ahead of other “priorities” on the ESA “candidate list.” Again, it is in all interested parties favor (conservation groups, potential lessees, BLM and other federal agencies) for BLM to determine specific “modifications” prior to issuing leases, such as NSO restrictions. If the BLM fails to do so through site-specific environmental review before the APD stage, the agency will violate the “jeopardy” prohibition in the Endangered Species Act and will not adhere to the directive of Secretary Salazar and the Department of Interior’s announced leasing reforms.</p>	<p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>
12	WG/RMW	<p>We recommend against the sale of any lease parcels which contain sage grouse leks, nesting habitat, breeding habitat, wintering habitat and brood-rearing habitat. We request</p>	<p>Beyond the scope of this document. Oil and gas stipulations are developed at the RMP. They cannot be changed unless done at</p>

		<p>that these parcels be withdrawn from the lease sale. Failing withdrawal of the parcels, parcel-by-parcel NEPA analysis should occur (we have seen no evidence of this in the August 2015 Leasing EAs), and 4-mile NSO buffer stipulations must be placed on all lease parcels with sage grouse leks. In addition, three-mile buffers must be placed around all leks. It is critical that these stipulations be attached at the leasing stage, when BLM has the maximum authority to restrict activities on these crucial habitats for the protection of the species, and that no exceptions to the stipulations be granted. BLM's failure to do so will permit oil and gas development activities which will contribute to declining sage grouse populations and ultimately listing by the U.S. Fish and Wildlife Service as a threatened or endangered species, in violation of BLM's duty to take all actions necessary to prevent listing under its Sensitive Species Manual.</p>	<p>that level.</p> <p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>
13	WG/RMW	<p>In 2010, the greater sage grouse became a Candidate Species under the Endangered Species Act, and a final listing determination is due by court order in September of 2016. These facts constitute significant new information that has not been addressed in programmatic NEPA analysis for any of the Resource Management Plans that support the Wyoming August 2015 oil and gas lease sale. In addition, numerous scientific studies have been published indicating that BLM mitigation measures in these plans are insufficient and will not prevent significant impacts to sage grouse, and these studies also constitute significant new information not addressed in RMP decisionmaking. Finally, in 2013 the U.S. Fish and Wildlife Service identified Priority Areas for Conservation, and BLM subsequently identified Preliminary Priority Habitats and Preliminary General Habitats in its RMP Amendment Draft EIS, which also constitute significant new information, potentially significant impacts to which have yet to be addressed through an EIS.</p> <p>We remain concerned that development activities on the sage grouse parcels noted above will result in significant impacts to sage grouse occupying these parcels and/or the habitats nearby, and the BLM's programmatic NEPA underlying this lease sale does not adequately address these significant impacts in light of new information. Therefore, the requisite NEPA analysis to support the leasing of the sage grouse parcels listed above in the absence of an Environmental Impact Statement does not exist.</p>	<p>The Sage-grouse leasing screen in Instructions Memorandum No. WY-2012-019 was followed. The listed parcels in the High Plains District were deferred, deferred in part, or recommended for lease sale. Please see EA pages 3-5.</p> <p>Pursuant to 40 CFR 1508.28 and 1502.21, this EA tiers to and incorporates by reference the information and analysis contained in the Buffalo, Casper and Newcastle resource management plans and associated EISs (see EA pages 8-9).</p>
14	WG/RMW	<p>Ungulate Crucial Habitats Parcels WY-1508-69 - 71, 114, 115, 116, 117, 118, 120, 121, 126, 128, 132, 133, 145, 146, 147, 148, 159, 169, 170-173, 198, 199, 205, 210, 211, 212, 213, 216-219, 238, 239, and 240 fall within mule deer crucial winter ranges and/or migration corridors. Parcels 84, 85, 114, 115, 116, 117, 118, 120, 121, 126, 128, 132, 133, 137, 139, 146, 153, 154, 157, 165, 166, 167, 169, 170-173, 175, 176, 179, 180, 181, 183, 184, 190, 191, 193, 194, 196, 197, 200, 201, 202, 211, 212, and 242 fall partially or entirely within antelope crucial winter ranges, migration corridors, and/or parturition areas. Parcels 193 and 194 fall entirely or partially within moose crucial winter ranges. Parcels 222, 232, 238, 239, and 240 fall within elk crucial winter ranges, migration corridors, and/or parturition areas. All portions of these parcels falling within big game crucial ranges should be deferred or at least placed under No Surface Occupancy stipulations to protect these sensitive lands and prevent impacts to these species. BLM has authority to apply a greater level of protection than is called for under the RMP to subsequent oil and gas development decisions, and we call upon the agency to employ this authority to protect</p>	<p>Beyond the scope of this document. Oil and gas stipulations are developed at the RMP. They cannot be changed unless done at that level.</p>

		these sensitive wildlife habitats.	
15	WG/RMW	<p>In its April 2008 Decision on a challenge of the June 6, 2006 lease sale, the Interior Board of Land Appeals inquired into whether BLM had complied with the Memorandum of Understanding between BLM and the Wyoming Game and Fish Department in regarding lease parcels in big game crucial winter range and parturition areas. The BLM is required to have a rational basis for its decision to issue leases in crucial wildlife habitat, and that basis must be supported by the agency's compliance with applicable laws. While the Board held that failure of BLM to follow the directives contained in Instruction Memorandum No 2004-110 Change 1 was not, standing alone, proof of the violation of law or discretionary policy, it was probative of whether BLM had a rational basis for its decision. The Board found that the appeal record presented no evidence of compliance with the Memorandum of Understanding.</p> <p>We recommend against selling the lease parcels listed above because BLM has in cases where parcels are not deferred again failed to comply with the Memorandum of Understanding and therefore has not provided a rational basis for its decision to offer lease parcels in areas with big game crucial winter range and parturition areas. Until such time as BLM complies with the Memorandum of Understanding it has no rational basis for its decision and the decision is arbitrary and capricious. We request that the parcels be withdrawn from the upcoming lease sale.</p>	The Wyoming Game and Fish as part of the State of Wyoming is a cooperating agency in all planning processes. They continue to be involved in these leasing processes as well.
16	WG/RMW	<p>While WildEarth Guardians strongly recommends against the offering of any of these big game lease parcels for sale, at the minimum, all such parcels in big game crucial winter range and parturition areas should have No Surface Occupancy (NSO) stipulations applied to them. NSOs provide the only real protection for big game. Recent studies on the impacts of oil and gas development and production on big game in Wyoming show that the impacts have been huge. Not only have impacts to big game been significant, but they have occurred in spite of the application of winter timing limitations, demonstrating that these stipulations alone do not provide adequate protections for big game. The effectiveness of Timing Limitation Stipulations has been neither tested nor established by any other method by BLM, and the overall 30% decline of the Pinedale Mesa mule deer population while TLS stipulations were applied demonstrates their ineffectiveness.</p> <p>A further noteworthy factor is that timing limitations apply only during oil and gas development, not during the production phase. Once production begins, there are no stipulations in place for the protection of big game. It is therefore imperative that stipulations adequate to protect big game be applied at the leasing stage, not the APD stage. See Center for Native Ecosystems, IBLA 2003-352, November 22, 2006.</p> <p>Timing stipulations are not total prohibitions on drilling during the stressful winter period. Exceptions to the stipulations are regularly—almost automatically—granted anytime a lessee requests it. See, for example, http://www.wy.blm.gov/pfo/wildlife/exceptions.php (Pinedale Field Office winter range stipulation exceptions) which shows that 123 exceptions were granted for the winter of 2006-2007. Similar statistics are available for other Wyoming Field Offices. The enthusiasm with which the BLM has granted winter-long exceptions to the stipulation for</p>	Beyond the scope of this document. Oil and gas stipulations are developed at the RMP. They cannot be changed unless done at that level.

		<p>drilling on crucial winter range further illustrates the totally discretionary nature and consequent ineffectiveness of this stipulation. Under the Lander RMP EIS, BLM proposes a Timing Limitation on surface disturbing and disruptive activities during the winter season of use in the agency’s Preferred Alternative. Disruptive activities would include vehicle traffic and human presence at the wellpad, which disturb wintering big game. These are the type of TLS stipulations that need to be applied to winter range, parturition areas, and migration corridors for the upcoming lease sale.</p> <p>Just as important, traditional stipulations do not limit operational and production aspects of oil and gas development. See, for example, Jack Morrow Hills CAP EIS at A5-3. Obviously, if the stipulation does not reserve authority to BLM at the leasing stage, BLM must allow development despite severe impacts to winter ranges and big game, except for being able to require very limited “reasonable measures.” These reasonable measures cannot be nearly broad enough to ensure crucial winter ranges and parturition areas are protected at the operation and production stage. See 43 CFR 3101.1-2.</p>	
17	WG/RMW	<p>The Wyoming Game and Fish Commission (WG&F) has a formal policy relative to disturbance of crucial habitats, including crucial winter ranges. Crucial habitat is habitat “which is the determining factor in a population’s ability to maintain and reproduce itself . . . over the long term.” Id. at 7. WG&F further describes big game crucial winter ranges as vital habitats. Vital habitats are those which directly limit a community, population, or subpopulation (of species), and restoration or replacement of these habitats may not be possible. The WG&F has stated that there should be “no loss of habitat function” in these vital/crucial habitats, and although some modification may be allowed, habitat function, such as the location, essential features, and species supported must remain unchanged. Mitigation Policy at 5.</p> <p>Furthermore, Wyoming Game and Fish released the recommended minimum standards to sustain wildlife in areas affected by oil and gas development. Their policy recognized the ineffectiveness of winter range stipulations standing alone as currently applied. Mitigation Policy at 6. In all cases, Wyoming’s new mitigation policy recommends going beyond just the winter drilling timing limitations, which BLM currently applies to lease parcels on crucial winter range. In addition to the winter timing limitations, the Mitigation Policy includes a suite of additional standard management practices. Mitigation Policy at 9-11, 52-58. These additional management practices include planning to regulate the pattern and rate of development, phased development, and cluster development, among many other provisions. Mitigation Policy at 52.</p> <p>Clearly, the timing limitation stipulation applicable to the Crucial Winter Range Parcels is not in compliance with the State of Wyoming’s policies and plans regarding the protection of wildlife. The timing stipulation, standing alone, does not ensure protection of habitat function. There is absolutely no guarantee, or even the remote likelihood that the location, essential features, and species supported on the crucial winter range will remain “unchanged.”</p> <p>Scientific literature makes it clear that there will be loss of function if significant exploration and development occurs on the leaseholds. In prior Protests the parties have</p>	<p>The Wyoming Game and Fish as part of the State of Wyoming is a cooperating agency in all planning processes. They continue to be involved in these leasing processes as well.</p> <p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>

		submitted substantial evidence showing that big game species are negatively affected by oil and gas drilling on winter ranges. See the studies referenced above. These studies document the negative effects of oil and gas drilling on big game winter ranges and winter range use, as well as on big game migration routes, even when winter timing stipulations are in effect. For parcels intersecting migration corridors to be offered at auction, special timing limitation stipulations should be attached that prevent construction, drilling, or production-related activity and vehicle traffic on the lease during the migration periods. To these parcels, BLM should attach stipulations that prohibit not just construction activity but also project-related vehicle traffic and human presence at the wellsite within 0.5 mile of the migration corridor during its season(s) of use.	
18	WG/RMW	The findings in the scientific and popular literature have been confirmed in recent BLM NEPA documents. The Green River EIS/RMP/ROD is replete with documentation of the importance of crucial winter ranges, and their ongoing loss, despite the stipulation required by BLM. Green River EIS/RMP at 347-349. (“Probably the single most important factor affecting antelope populations are weather,” at 438-441.) (“ . . . oil and gas development in Nitchie Draw causing forage loss and habitat displacement;” “Displaced wildlife move to less desirable habitat where animals may be more adversely stressed . . .;” “Long-term maintenance and operations activities in crucial wildlife habitats would continue to cause displacement of wildlife from crucial habitats, including . . . crucial big game winter habitats;” “Surface disturbing activities would continue to cause long-term loss of wildlife habitat,” etc.) The Jack Morrow Hills EIS also documents the importance of crucial winter ranges, particularly to elk, and the sensitivity of wildlife on winter ranges not only to drilling during the winter period, but also due to ongoing displacement and disturbance of wildlife from oil and gas development. Jack Morrow Hills EIS at 4-61 to 4-64, 4-80 to 4-88. The Rawlins RMP Draft EIS further documents the negative effects of oil and gas drilling on big game when on winter ranges. Rawlins RMP Draft EIS at 3-131 to 3-136.	No response needed.
19	WG/RMW	Given this evidence and the simple fact that each well pad converts 3-5 acres of crucial winter range to bare ground for extended periods of time, there is no rational basis for BLM to claim that it meets Wyoming’s mitigation policy. It is impossible for crucial winter ranges to remain “unchanged” in terms of the location, essential features, and species supported, even if drilling does not take place during the timing stipulations. What is worse, however, is the fact that drilling does take place during the timing stipulations when they are waived, as they frequently are. Crucial winter ranges will clearly not remain “unchanged” because BLM has not retained the authority to condition well operations (lasting for decades) at the leasing stage.	Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.
20	WG/RMW	The Federal Land Policy and Management Act (FLPMA) requires BLM to “coordinate the land use inventory, planning, and management activities of [public lands] with the land use planning and management programs of . . . the States and local governments . . . by, among other things, considering the policies of approved State and tribal resource management programs.” 43 USC 1712I(9) (emphasis added). BLM must give special attention to “officially approved and adopted resource related plans.” 43 CFR 1601.0-5(g). BLM must remain apprised of State land use plans, assure they are considered, and resolve to the extent practical, inconsistencies between state and federal plans. 43 USC 1712I(9).	No response needed.
21	WG/RMW	There is no indication that BLM’s winter timing stipulation is based on consideration of	Beyond the scope of this document. Oil and gas stipulations are

		<p>Wyoming’s 1998 Mitigation Policy, or its new programmatic standards policy. It is apparent there has been no attempt to resolve inconsistencies between what BLM’s stipulation provides and what Wyoming’s mitigation policy requires. There are certainly inconsistencies. BLM’s timing stipulation attempts to prohibit drilling during limited periods, yet this prohibition is frequently waived. Indeed, quite recently the WG&F asked BLM in Wyoming not to grant any waivers of stipulations last winter due to the lack of quality forage for big game in their winter range and the anticipated impacts that year-round drilling will have on big game under those conditions. BLM has refused to accede to this request and has proceeded to grant waivers and exceptions. Wyoming’s mitigation policy specifically seeks to fill gaps left by the timing stipulation, by requiring a number of standard management practices on crucial winter ranges in all cases. These recommendations are standing policy which WG&F expects to be applied in every instance of leasing in crucial winter range.</p>	<p>developed at the RMP. They cannot be changed unless done at that level.</p> <p>The Wyoming Game and Fish as part of the State of Wyoming is a cooperating agency in all planning processes. They continue to be involved in these leasing processes as well.</p>
22	WG/RMW	<p>These inconsistencies are even more glaring when one considers the fact that BLM’s timing stipulation does not regulate the production phase. Until BLM considers and attempts to resolve these inconsistencies, it cannot allow the sale of the Crucial Winter Range Parcels to go forward. To do so would be a violation of NEPA.</p> <p>Furthermore, timing stipulations attached to the Crucial Winter Range Parcels are inconsistent with the policy of the BLM Wyoming State Office, as enunciated in the Revised Umbrella Memorandum of Understanding (MOU) between BLM and Wyoming Game and Fish Department.</p> <p>The various requirements in the WG&F minimum programmatic standards for oil and gas development establish “sideboards” as to what actions need to be taken to prevent unnecessary or undue degradation. BLM has not considered these standards from the perspective of its FLPMA-imposed requirement to prevent unnecessary or undue degradation. BLM is not meeting its duty to take “any” action that is necessary to prevent unnecessary or undue degradation. 43 USC 1732(b). Once again, this failure is most apparent where application of the winter timing stipulation does not even regulate ongoing operations such as production. BLM has an independent duty under FLPMA to take any action necessary to prevent unnecessary or undue degradation, in addition to its NEPA duty to coordinate its activities with the State of Wyoming and comply with the MOU. Since BLM has given up its ability to require restrictions in the future by not imposing sufficient stipulations at the leasing stage, the effect of this failure to require adequate restrictions at the leasing stage violates FLPMA by permitting unnecessary or undue degradation when oil and gas development commences.</p> <p>The parties also recommend against the sale of the Crucial Winter Range Parcels on the basis that their sale would cause unnecessary or undue degradation of public lands. “In managing the public lands the [Secretary of Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.” 43 U.S.C. § 1732(b) (emphasis added). BLM’s obligation to prevent unnecessary or undue degradation is not discretionary; it is mandatory. “The court finds that in enacting FLPMA, Congress’s intent was clear: Interior is to prevent, not only unnecessary degradation, but also degradation that, while necessary . . . is undue or excessive.”</p>	<p>Beyond the scope of this document. Oil and gas stipulations are developed at the RMP. They cannot be changed unless done at that level.</p>

		<p>Mineral Policy Center v. Norton, 292 F.Supp.2d 30, 43 (D.D.C. 2003) (emphasis added). The BLM has a statutory obligation to demonstrate that leasing will not result in unnecessary or undue degradation.</p>	
23	WG/RMW	<p>The Social Cost of Carbon</p> <p>The high costs to society from the leasing and possible subsequent burning of public lands fossil fuels must be properly analyzed and presented to the public and agency decision makers. When BLM proposes the mining of coal or the drilling for oil and gas on public lands, it generally touts the proposed project’s economic benefits. Historically, however, BLM has ignored the costs of fossil fuel leasing on public lands, especially the costs to society that result from global warming. Proper consideration of these social costs of carbon is simply good governance and good stewardship of public resources, and such consideration is legally required.</p> <p>Global warming is responsible for extreme costs to society already, and it will only get worse in the future.</p> <p>A recent consensus report, joined by more 190 countries, makes the basic science on global warming crystal clear. Global warming is unequivocal: since the 1950s the atmosphere and oceans have warmed, snow and ice have diminished, and seas have risen. Climate Change 2013 – The Physical Science Basis - Summary for Policymakers, United Nation Intergovernmental Panel on Climate change (2013) (“AR5 summary”) at 4. There is little doubt that pollution from human activities is the cause of this warming. Id. at 17. The U.S. government’s own more recent report concludes that global warming is now affecting our country in far-reaching ways. National Climate Assessment 2014 – Overview, at http://nca2014.globalchange.gov/highlights/overview/overview (last checked September 17, 2014) (“National Climate Assessment”). Climate pollution has warmed the U.S. almost 2°F, mostly since 1970, with another 2°F to 4°F expected in the next few decades. Id. Much greater warming in future decades is also possible, possibly up to an increase of 10°F above current temperatures by the end of the century. Id.</p> <p>These are not the estimates of “environmentalists.” This is the scientific consensus accepted both in the U.S. and around the world.</p> <p>The burning of coal, oil, and gas are the principle sources of the largest contributor to global warming, carbon dioxide. Id.; see also AR5 summary at 13. At this time, approximately 25% of the carbon dioxide from fossil fuels produced in the U.S. comes from public lands leases. Greenhouse Gas Emissions from Fossil Energy Extracted from Federal Lands and Waters, Stratus Consulting (February 1, 2012) at 15; see also, Sales of Fossil Fuels Produced from Federal and Indian Lands – FY 2003 through FY 2013, U.S. Energy Information Administration (June 2014) at 2. Fossil fuels extracted from public lands release more than one and one-half billion metric tons of carbon dioxide equivalent per year. Id. at 12. That is the equivalent of more than 31 million passenger cars’ annual climate pollution, just from producing and burning fossil fuels from our public lands alone. Greenhouse Gas Equivalencies Calculator, U.S. Environmental Protection Agency at http://www.epa.gov/cleanenergy/energy-resources/calculator.html - results (last</p>	<p>Beyond the scope of this document. The August 2015 Oil and Gas Lease Sale is not a regulatory action, but rather a leasing action. The act of leasing land for oil and gas development in itself does not emit any carbon or greenhouse gasses.</p> <p>A discussion of Air Quality and Climate Change is included on pages 20-27 (Section 3.3.1) of the EA.</p> <p>Resource management plans (RMP) make resource allocation decisions concerning the availability of lands for oil and gas leasing. This EA addresses whether nominated parcels are available for leasing in conformance with the RMP, and applies appropriate RMP stipulations to the lease sale parcels.</p> <p>If an Application for Permit to Drill is received proposing to develop a lease parcel, site specific analysis of the impacts is conducted and impacts will be mitigated as determined necessary.</p> <p>Absent a definitive development proposal it is not possible to conduct a more specific impact and/or cumulative effects analysis. BLM cannot determine at the leasing stage whether or not a nominated parcel will actually be leased, or if leased, whether or not the lease would be explored or developed or at what intensity development may occur. Additional NEPA documentation would be prepared at the time an APD(s) or field development proposal is submitted.</p>

checked September 17, 2014).

BLM manages federal mineral rights, including the leasing and approval of extraction of public lands fossil fuels, on all federal lands. Therefore, BLM decision makers play a critical role in determining how much more climate pollution the U.S. will emit to the atmosphere, the extent that that pollution will exacerbate global warming, and the extent that society will have to bear the myriad related social costs of those decisions.

Global warming is exacting costs on society in numerous ways. Agricultural productivity, including crops, livestock, and fisheries have been negatively impacted by global warming. National Climate Assessment – Overview. This has resulted from extreme weather events, changes in temperature and precipitation, and increasing pressure from pests and pathogens. Id. Both water quality and water quantity are being affected by global warming. Id. The degradation has resulted from changes in snowpack, extreme weather events, coastal flooding affecting aquifers, and from changes in temperature and precipitation. Id. Heat-related deaths and illnesses have grown and are growing. Id. Impacts to forest resources from increased forest fires and the resulting impacts to air quality put additional costs on society. Id. A wide variety of ecosystem services are degraded by global warming, including habitat for fish and wildlife, drinking water storage, soils, and coastal barriers. Id. Carbon dioxide pollution is also responsible for increasing ocean acidification. This list represents only a subset of the social costs of carbon pollution from burning fossil fuels extracted from our public lands. Nonetheless, “[l]ower emissions of heat-trapping gases and particles mean less future warming and less-severe impacts; higher emissions mean more warming and more severe impacts.” Id.

BLM decision makers must consider the social cost of carbon from all proposed land management projects.

The requirement to analyze the social cost of carbon is supported by the general requirements of the National Environmental Policy Act (“NEPA”), specifically supported in federal case law, and by a 2009 Executive Order.

NEPA requires agencies to take a “hard look” at the consequences of proposed agency actions. 42 U.S.C. § 4321 et seq.; *Morris v. U.S. Nuclear Regulatory Commission*, 598 F.3d 677, 681 (10th Cir. 2010). Consequences that must be considered include direct, indirect, and cumulative consequences. 40 C.F.R. §§ 1502.16, 1508.7, 1508.8. A cumulative impact is the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7. Analysis of site-specific impacts must take place at the lease stage and cannot merely be deferred until after receiving applications to drill. See *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 717-18 (10th Cir. 2009); *Conner v. Burford*, 848 F.2d 1441 (9th Cir.1988); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1227 (9th Cir.1988). Any NEPA analysis of a fossil fuel development project that fails to use the

government-wide protocol for assessing the costs to society of carbon emissions from the proposed action has failed to take the legally required “hard look.”

Courts have ordered agencies to assess the social cost of carbon pollution, even before a federal protocol for such analysis was adopted. In 2008, the Ninth Circuit Court of Appeals ordered the National Highway Traffic Safety Administration (“NHTSA”) to include a monetized benefit for carbon emissions reductions in an EA prepared under NEPA. *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1203 (9th Cir. 2008). NHTSA had proposed a rule setting corporate average fuel economy standards for light trucks. A number of states and public interest groups challenged the rule for, among other things, failing to monetize the benefits that would accrue from a decision that led to lower carbon dioxide emissions. NHTSA’s EA had monetized the employment and sales impacts of the proposed action. *Id.* at 1199. The agency argued, however, that valuing the costs of carbon emissions was too uncertain. *Id.* at 1200. The court found this argument to be arbitrary and capricious. *Id.* The court noted that while estimates of the value of carbon emissions reductions occupied a wide range of values, the correct value was certainly not zero. *Id.* It further noted that other benefits were monetized by the agency although also uncertain. *Id.* at 1202.

More recently, a federal court has done likewise for a proposed coal lease modification. That court began its analysis by recognizing that a monetary cost-benefit analysis is not universally required by NEPA. *High Country Conservation Advocates v. U.S. Forest Service*, 2014 WL 2922751 (D. Colo 2014), Slip Op. at 3, citing 40 C.F.R. § 1502.23. However, when an agency prepares a cost-benefit analysis, “it cannot be misleading.” *Id.* at 3 (citations omitted). In this case, the NEPA analysis prepared by federal agencies, like the case above, included a quantification of benefits of the project. The quantification of the social cost of carbon, although included in earlier analyses, was omitted in the final NEPA analysis. *Id.* at 19. Those federal agencies then relied on the stated benefits of the project to justify project approval. This, the court explained, was arbitrary and capricious. *Id.* Such approval was based on a NEPA analysis with misleading economic assumptions, an approach long disallowed by courts throughout the country. *Id.* at 19-20. It should be noted that a general acknowledgement in the EA that the proposed action would release carbon pollution, which adds to the impacts of global warming was not enough; nor did an accurate accounting of the likely emission of those greenhouse gases suffice. The social cost of carbon had to be included.

In addition to case law, Executive Order 13514 makes the “reduction of greenhouse gas emissions a priority for federal agencies.” E.O. 13514, Preamble. The reduction of emissions includes emissions from both direct and indirect activities. Section 1. This Executive Order requires that, “[i]n order to create a clean energy economy that will increase our Nation’s prosperity, promote energy security, protect the interests of taxpayers, and safeguard the health of our environment,” it is the “policy of the United States” that agencies “shall prioritize actions based on a full accounting of both economic and social benefits and costs.” Section 1. When quantifying greenhouse gas emissions, the Department of the Interior is specifically instructed to “accurately and consistently

quantify and account for greenhouse gas emissions” from sources controlled by the Department, including “emissions of greenhouse gases resulting from Federal land management practices.” Section 9(a). The results of quantifying emissions from proposed federal land management actions, of fully accounting for all economic and social costs and benefits of those proposed actions, and the resulting prioritization of actions based on this quantification and accounting must be fully disclosed on publically available websites. Section 1.

NEPA’s hard-look doctrine and related court cases make clear that the social cost of carbon must be analyzed whenever an agency is analyzing other economic costs and benefits of a proposed public lands fossil fuel project. E.O. 13514 goes further however and requires the Department of the Interior to analyze the social cost of carbon for all federal land management decisions.

The social cost of carbon will be significant whenever fossil fuel leasing, or mining, or drilling is proposed.

According to the U.S. Environmental Protection Agency (“EPA”), the social cost of carbon is “an estimate of the economic damages associated with a small increase” in emissions. The Social Cost of Carbon, U.S. Environmental Protection Agency at <http://www.epa.gov/climatechange/EPAactivities/economics/scc.html>, last checked 9/12/2014. “This dollar figure also represents the value of damages avoided for a small emission reduction.” Id. Thus, it would be incorrect to assert that the social cost of carbon cannot be calculated for a project that represents a tiny fraction of global or even a tiny fraction of U.S. emissions. Estimates of the social cost of carbon are designed to do exactly that. In fact, the social cost of carbon is generally expressed in terms of the costs tolled by emitting or the benefits realized by avoiding a single ton of carbon dioxide emissions.

However, it is very likely that the social cost of carbon protocol underestimates the true damages exacted on society by carbon pollution. Id. citing the IPCC Fourth Assessment Report. In particular, damages related to social and political conflicts, weather variability, extreme weather, and declining growth rates are either ignored or underestimated. Omitted Damages: What’s Missing from the Social Cost of Carbon, Peter Howard, the cost of Carbon Project (March 13, 2014). Thus, any application of the current social cost of carbon protocol is very likely a significant underestimate of the true cost of carbon pollution.

Acknowledging the known tendency to underestimate costs, the federal government has been using this cost-benefit assessment tool since February 2010. See Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866, Interagency Working Group on Social Cost of Carbon, United States Government (February 2010). In the last year alone, the Departments of Agriculture, Energy, Transportation, and Housing and urban Development and the Environmental Protection Agency and National Highway Traffic Safety Administration have all utilized the Social Cost of Carbon Protocol in public decision making documents. There is

nothing special about the Department of the Interior or the Bureau of Land Management that makes this tool less useful, or exempts the Department or its agencies from requirements to utilize it where applicable.

In fact, the U.S. Government Accountability Office recently reviewed the process employed to develop the federal government’s assessment of the social cost of carbon. The GAO found that the process employed to develop the 2013 social cost of carbon estimates “used consensus-based decision making,” “relied on existing academic literature and models,” and “took steps to disclose limitations and incorporate new information.” Id. In short, while the social cost of carbon protocol, like other economic models, provides only estimates and is subject to further updates as new information becomes available, the federal government’s social cost of carbon protocol is a legitimate tool for performing a thorough and honest assessment of both costs and benefits of proposed actions as required under NEPA and E.O. 13514.

EPA lists the current social costs of carbon in the following format.

Social Cost of CO₂, 2015-2050 a (in 2011 Dollars)

Year	Discount Rate and Statistic			
	5% Average	3% Average	2.5% Average	3% 95th percentile
2015	\$12	\$39	\$61	\$116
2020	\$13	\$46	\$68	\$137
2025	\$15	\$50	\$74	\$153
2030	\$17	\$55	\$80	\$170
2035	\$20	\$60	\$85	\$187
2040	\$22	\$65	\$92	\$204
2045	\$26	\$70	\$98	\$220
2050	\$28	\$76	\$104	\$235

a The SCC values are dollar-year and emissions-year specific.

The Social Cost of Carbon, U.S. environmental Protection Agency at <http://www.epa.gov/climatechange/EPAactivities/economics/scc.html>, last checked 9/12/2014.

As the table above makes clear, the social costs of carbon pollution are anything but trivial. For example, a project that released a mere 10,000 tons of carbon dioxide in 2025 would be responsible for costs to society, through global warming, of \$150,000 to more than \$1.5 million for that year’s emission alone. And again, this is very likely an underestimate of true costs.

If the economy returns to fast paced growth and global warming impacts are currently foreseen and properly estimated, the higher discount rates, 5%, and the lower social cost of carbon estimates will be most appropriate. If the economy grows long-term at slower rates and global warming impacts are currently foreseen and properly estimated, the higher social cost of carbon figures, the 2.5 % column, will be better estimates. A middle discount rate value, 3%, for mid-range growth estimates is also available. If, on the other

		<p>hand, global warming impacts are greater or more costly than current mid-range estimates, the social cost of carbon would be better estimated by the 95th percentile figures. That means that the lowest social cost of carbon numbers are best-case scenarios for both the economy and global warming impacts. The highest numbers are for mid-range economic projections and close to worst-case estimates for global warming impacts.</p> <p>BLM’s proposed EA for the August 2015 Oil and Gas Lease Parcel Sale violates NEPA and E.O. 13514</p> <p>While BLM acknowledges some impacts of climate change, it fails to draw the necessary connection between this project and increased climate impacts and costs. BLM improperly declines to assess the impacts of climate change, promising to assess them at some unknown time in the future. This violates NEPA’s hard look doctrine. Court’s have made clear that the leasing stage is an appropriate time to assess impacts that will not be mitigated by lease stipulations, as carbon emissions surely will not.</p> <p>In addition, the project fails to take a hard look through a misleading economic analysis. On the one hand, BLM claims that the project will lead to economic benefits. But the costs to society of releasing hundreds of thousands of metric tons of carbon-dioxide equivalent is completely ignored or presumed to be zero. In fact, application of the Social Cost of Carbon Protocol could arrive at project costs to society of tens of millions of dollars. The economic benefits of this project may well pale in comparison to its costs. This is exactly the type of misleading NEPA economic analysis that courts have rejected previously and recently. The EA must be modified to analyze the social cost of carbon.</p> <p>As discussed above, fossil fuels development on public lands results in more than one and on-half billion tons of carbon dioxide emissions per year. Using 2015 social cost of carbon values, the costs to society of the federal fossil fuel leasing program is between \$18 and \$177 billion per year. This same level of emissions in 20 years would incur costs from \$20 to more than a quarter of a trillion dollars per year, depending on the growth of the economy and the intensity of global warming impacts at that time. These costs, of course, do not include costs from air quality issues like smog and mercury emissions, do not include lost opportunity costs from recreation, or costs from direct degradation of ecosystem services. Recall also, that it is very likely that these numbers even represent an underestimate of the true costs to society from global warming.</p> <p>Of course numbers of such an alarming magnitude do not result from the approval of any single project. Instead, they represent the incessant accumulation of costs that result from BLM approving project after project while refusing to acknowledge that those projects have unspoken costs to society, both individually and in the aggregate, that will continue to plague our country for generations. BLM must address the social costs of carbon that are likely to result from this project.</p>	
24	WG/RMW	<p>Hydraulic Fracturing</p> <p>The EA fails to consider the impacts of hydraulically fracturing these oil and gas wells.</p>	<p>Hydraulic Fracturing is a development action that does not necessarily impact surface resources. It may impact water resources, but that is under the purview of the State of Wyoming</p>

		<p>There is no discussion of water usage, wildlife impacts, seismic activity, health impacts, or any of the other known impacts of hydraulic fracturing. Around 90 percent have used hydraulic fracking to get more gas flowing, according to the drilling industry. It is arbitrary and capricious of BLM to neglect this highly controversial and impactful practice in its environmental analysis.</p> <p>At a minimum, “the agency’s [Environmental Assessment] must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum.” Grand Canyon Trust v. F.A.A., 290 F.3d 339, 342 (D.C. Cir. 2002). More specifically, “an environmental impact statement must analyze not only the direct impacts of a proposed action, but also the indirect and cumulative impacts.” Utahns for Better Transp. v. U.S. Dep’t of Transp., 305 F.3d 1152, 1172 (10th Cir. 2002) (citing Custer County Action Assoc. v. Garvey, 256 F.3d 1024, 1035 (10th Cir. 2001)) (internal quotation omitted); see also 40 C.F.R. § 1509.25(a)(2) (2009) (scope of EIS is influenced by cumulative actions and impact); Greenpeace v. Nat’l Marine Fisheries Serv., 80 F. Supp. 2d 1137, 1149 (W.D. Wash. 2000) (management plans were unlawful for failing to consider cumulative impacts on species). Conner v. Burford holds that the inability at the lease sale stage to fully ascertain effects of development “is not a justification for failing to estimate what those effects might be.” Conner v. Burford, 848 F.2d 1441 (9th Cir. 1988); see also Methow Valley Citizens Council, 490 U.S. 332 (1989).</p> <p>Cumulative impact is defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7 (2009). The Tenth Circuit recently noted that the BLM’s own Handbook for Fluid Mineral Resources recognizes that “BLM has a statutory responsibility under NEPA to analyze and document the direct, indirect and cumulative impacts of past, present and reasonably foreseeable future actions resulting from Federally authorized fluid minerals activities.” Pennaco Energy Inc., v. U.S. Dep’t of Interior, 377 F.3d 1147, 1160 (10th Cir. 2004).</p> <p>BLM must conduct a thorough analysis of hydraulic fracturing to comply with its NEPA responsibilities. The reference to this practice does not fulfill the agency’s duties to take a hard look at the impacts of its action. The analysis of hydraulic fracturing should require an Environmental Impact Statement due to its significant environmental impacts that have heretofore never been analyzed in the programmatic EISs underlying oil and gas leasing in these Field Offices.</p>	<p>and therefore would be under their permitting authority. Hydraulic fracturing is not "new". Fracturing dates from its first use in 1947. Since 1949 about 2.5 million wells received hydraulic fracturing, permitting the economic recovery of 9 billion barrels of oil and 700 Trillion Standard Cubic Feet (Tscf) of gas in the U.S. alone.</p> <p>Hydraulic Fracturing is a specific development scenario that will be analyzed at the appropriate APD or project stage with the necessary NEPA document. The impacts to resources affected will also be analyzed under that site specific NEPA document. See pages 11-14 (Section 1.6) of the EA for a discussion of development in relation to leasing. Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>
25	WG/RMW	<p>Conclusion</p> <p>Thank you for considering our comments on the August 2015 Leasing EAs. Currently, the action alternatives are not implementable absent full-scale EISs, as they will result in significant impacts to sage grouse, big game crucial ranges, and other sensitive resources. Even more work remains to be done on big game crucial ranges, and other sensitive wildlife habitats. We believe that the BLM should also go farther, deferring additional parcels on sensitive lands as outlined above and also applying more protective</p>	<p>No response needed.</p>

		stipulations to the parcels that are approved for sale.	
26	National Park Service, Devils Tower National Monument (NPS)	The National Park Service (NPS) has reviewed the subject Environmental Assessment (EA). We appreciate receiving a notification by mail that this EA is open for public review and comment, and, as follow up to our recent calls with BLM staff, the inclusion of the reasonably foreseeable development scenario (RFD) appendix from the 2000 Newcastle Field Office Resource Management Plan (RMP).	No response needed.
27	NPS	As described in Section 3.3.1.3, Visibility, six units of the National Park System are located within and surrounding the High Plains District, with Devils Tower National Monument (Devils Tower NM) being the only unit located within the District. Two NPS areas, Badlands and Wind Cave National Parks, located to the east of the Newcastle Field Office (NFO) are designated Class I areas under the Clean Air Act. The majority of the 57 parcels evaluated under Alternative B, Proposed Action, or the 64 parcels evaluated under Alternative C, Offer All Parcels for Sale, are located within 10-47 miles of Devils Tower NM. The NPS is concerned with potential impacts from the implementation of operations subsequent to leasing these parcels on the air quality and air quality related values (AQRVs), visual resources, and night skies at Devils Tower NM and other nearby units of the National Park System.	<p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development, should a lease be issued (e.g., 30% of the NPS-recommended deferrals in the Feb 2015 sale were not bid upon or sold at auction) and should eventual operations be proposed, an analysis of these resources will be completed.</p> <p>Detailed, quantitative air quality analysis is beyond the scope of this document and will be addressed at the time a site-specific project is proposed. Attempting to quantify and analyze impacts from exploration and development operations at this point would be highly speculative and likely inaccurate.</p>
28	NPS	We believe that this situation may meet the criteria for completion of a Master Leasing Plan under Instruction Memorandum No. 2010-117. If development should occur as a result of leasing these parcels, there may be impacts to the resources and values of National Park System units. Further, previous assumptions regarding the RFD may be outdated given the new level of fluid mineral interest in this region and significant changes in drilling technology that have occurred since the 2000 RMP was developed.	<p>Master Leasing Plans (MLP) were examined by the BLM in 2010 and none of the HPD was found to meet all of the applicable criteria. In addition, each field office completes a MLP screen of each lease sale parcel and none were found to meet the criteria.</p> <p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development, should a lease be issued (e.g., 30% of the NPS-recommended deferrals in the Feb 2015 sale were not bid upon or sold at auction) and should eventual operations be proposed, an analysis of these resources will be completed.</p>
29	NPS	The NPS recommends that the BLM defer leasing of the 51 parcels that are nearest to Devils Tower NM, to allow time for additional environmental analysis (see attached list). Additional environmental review may require revisions to the EA, or it may require a revised or amended RMP, as described below.	No response needed.
30	NPS	<p>The RFD estimate for oil and gas development in the existing RMP and associated environmental analysis is outdated, and may not adequately address cumulative effects in light of changing resource circumstances and development potential. We believe the BLM should ensure that park resource protection measures requisite with the estimated type of development and associated impacts are in place prior to leasing these areas.</p> <p>This recommendation is consistent with BLM Leasing Reform Policy outlined in</p>	<p>The Newcastle Resource Management Plan (RMP) was approved on March 25, 2000, with issuance of the Record of Decision (ROD). The RMP includes a Reasonably Foreseeable Development Scenario for Oil and Gas (RFD) as Appendix I.</p> <p>The RFD presents a development scenario for oil and gas, and estimates future activity. The primary areas of consideration,</p>

	<p>Instruction Memorandum No. 2010-117 (IM 2010-117). Specifically, we believe the requirements in section I.A of IM 117 are applicable to High Plains District leasing decision:</p> <p>“ . . . state and field offices will examine resource management decisions to determine whether the RMPs adequately protect important resource values in light of changing circumstances, updated policies, and new information (H-1601-1, section V, A, B).” (IM 2010-117, I.A)</p> <p>Section 1.A further recommends:</p> <p>“In some cases state and field office staff may determine that the public interest would be better served by further analysis and planning prior to making any decision whether or not to lease.” (IM 2010-117, I.A)</p> <p>Section II.C.2 further clarifies that field offices will:</p> <p>“evaluate whether oil and gas management decisions identified in the RMP (including lease stipulations) are still appropriate and provide adequate protection of resource values.”</p> <p>New and enhanced drilling technologies such as horizontal drilling and hydraulic fracturing have emerged since the NFO RMP was completed, as generally described in Appendix G to the EA, White Paper on Hydraulic Fracturing. However, neither the EA nor Appendix G specifically address how these new technologies may (or may not) affect previous environmental analysis assumptions in the 2000 Newcastle RMP – they only describe the technology and potential issues. Further, significant air, visual and night sky resource impacts are occurring in many regions of the country as a result of these new drilling techniques and the industry growth that is associated with them.</p> <p>These represent notable changing circumstances that are driven partly by advances in technology, particularly for air quality. Preventing air resource degradation due to increased oil and gas development is one reason that the federal air quality oil and gas Memorandum of Understanding was developed and implemented. This agreement is applicable to all phases of oil and gas decision making, including planning, leasing and development proposals.</p> <p>For these reasons, the EA should explicitly articulate how the oil and gas management decisions considered in the 2000 RMP are still appropriate and adequate to protect park resources and values in light of changing circumstances. We recommend that BLM revise the EA to describe in sufficient detail how the existing RMP RFD appropriately identified the scope and intensity of oil and gas development and the environmental impacts that could occur in and near NPS units should these areas be leased and developed.</p> <p>If there is insufficient information to determine whether and how new drilling techniques</p>	<p>leasing, seismic activity, oil and gas drilling operations and oil and gas production, are in line with recent and current activity levels. Approximately 854,297 acres of the 2,119,099 acres of Federal mineral estate in the Newcastle Field Office, about 40%, are currently leased. This is below the RFD which estimated an average of 1.0 to 1.5 million acres under lease (Appendix I at page 244). Between 2009 and 2014, the Newcastle Field Office processed 6 seismic Notice of Intent (NOI) and 225 Applications for Permit to Drill (APD), averaging 1 NOI and 38 APDs per year, also well within the estimates and assumptions in the RFD.</p> <p>The Newcastle RMP provides for oil and gas leasing while maintaining other resource values. The RMP objectives and management actions recognize surface disturbing activities and disruptive activities are associated with all types of mineral exploration and development, but condition those activities by applying appropriate lease stipulations to protect other resource values. The Newcastle RMP provides for oil and gas leasing as appropriately mitigated and as anticipated in the RFD.</p> <p>A resource management plan may be changed through amendment (or revision) if there is a need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan (43 CFR 1610.5-5). The Field Manager, in consultation with the State Director, is responsible for monitoring and evaluation of the RMP to determine the effectiveness of management actions and decisions, and to determine if the objectives of the RMP are being met. Other than the potential ESA listing of the Greater Sage-grouse, the Newcastle Field Manager has not identified any conditions that warrant an amendment (or revision) of the RMP as it pertains to oil and gas leasing within the Newcastle Field Office.</p> <p>Most of the concerns expressed are related to development that might occur subsequent to lease issuance. Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development, should a lease be issued (e.g., 30% of the NPS-recommended deferrals in the Feb 2015 sale were not bid upon or sold at auction) and should eventual operations be proposed, an analysis of these resources will be completed.</p>
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		affect analysis assumptions included in the 2000 RMP, we recommend that the EA describe in detail why this is the case (i.e., no existing successful demonstration of the practices in the area, etc.). This recommendation is consistent with provisions in both the NEPA regulations at 40 CFR §1502.22 and section V.D.2 of the air quality Oil and Gas MOU. If a more substantial analysis regarding the severity of resource impacts, including air quality, visual resources, and night skies is necessary, then the BLM may need to consider completing an MLP, and/or revising or amending the 2000 RMP.	
31	NPS	Finally, IM 2010-117 recognizes in the policy/Action summary “that, in some cases, leasing of oil and gas resources may not be consistent with protection of other important resources and values, including units of the National Park System.” There are several NPS units that could be impacted by this leasing decision, including Devils Tower NM, which is located within the NFO, and Badlands and Wind Cave National Parks, located to the east of the NFO. Badlands and Wind Cave National Parks are designated Class I areas under the Clean Air Act. It should be first be determined whether leasing these parcels is consistent with the management and protection of these NPS units, and under what constraints (e.g. stipulations).	Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development, should a lease be issued (e.g., 30% of the NPS-recommended deferrals in the Feb 2015 sale were not bid upon or sold at auction) and should eventual operations be proposed, an analysis of these resources will be completed.
32	NPS	We are concerned that once a parcel is leased, BLM’s ability to implement stringent mitigations (defined in BLM planning policy as “major or moderate constraints”) potentially necessary to protect parks may be hindered if the planning record did not adequately support the need for such measures through appropriate stipulations, including modification, waiver and exemption criteria. This is because “major constraints” may be deemed inconsistent with the lease rights granted as defined in 43 C.F.R. § 3101.1–2 Surface use rights. Pivotal to this discussion, particularly with regard to air resource mitigation, is what constitutes “reasonable” and under what circumstances would measures be deemed inconsistent with lease rights. For instance, would the proposed operations need to meet the “adverse impact” threshold independently on a project-by-project basis, or could measures be applied based on cumulative concerns? Air resource issues associated with oil and gas are generally cumulative in nature; many projects may not be deemed adverse when evaluated on a proposal-by-proposal or individual APD basis, but in the aggregate, may cause significant cumulative air quality impacts.	Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development, should a lease be issued (e.g., 30% of the NPS-recommended deferrals in the Feb 2015 sale were not bid upon or sold at auction) and should eventual operations be proposed, an analysis of these resources will be completed. Offering these lands for oil and gas leasing is in conformance with the approved RMP for the Newcastle Field Office. Offering these parcels for lease at the August 2015 Sale does not limit the BLM’s ability to ensure that the necessary environmental protection measures are considered if they are successfully bid upon, the leases issued, and should development eventually be permitted on these parcels. The BLM can rely upon the State of Wyoming, which is subject to oversight by the Environmental Protection Agency (EPA), to ensure permitted activities do not exceed or violate any State or Federal air quality standard under the Clean Air Act (CAA).
33	NPS	We recommend that the RMP or MLP is the most appropriate planning process with which to address resources that have primarily cumulative impacts, and would be happy to discuss this concern in greater detail with the BLM HPD. In light of the uncertainty regarding levels of development, and the air quality issues outlined below, we would suggest that BLM first identify whether the potential for unconventional oil and gas development and recovery exists within the field office. BLM would then determine whether it is still appropriate to continue leasing under the existing RMP and associated resource protection measures, or whether new measures are necessary. NPS would commensurately request that leasing nearest our parks be delayed until this work is completed.	The Newcastle Resource Management Plan (RMP) was approved on March 25, 2000, with issuance of the Record of Decision (ROD). It continues as a valid and viable land use plan, allocating resources and land uses on the public lands, including Federal mineral resources, within the management area. According to the Newcastle RMP/ROD, page 12, “Management Actions: Federal oil and gas leases will be issued with appropriate stipulations for protection of other resource values.” The RFD presents a development scenario for oil and gas, and estimates future activity. The primary areas of consideration,

			<p>leasing, seismic activity, oil and gas drilling operations and oil and gas production, are in line with recent and current activity levels. Approximately 854,297 acres of the 2,119,099 acres of Federal mineral estate in the Newcastle Field Office, about 40%, are currently leased. This is below the RFD which estimated an average of 1.0 to 1.5 million acres under lease (Appendix I at page 244). Between 2009 and 2014, the Newcastle Field Office processed 6 seismic Notice of Intent (NOI) and 225 Applications for Permit to Drill (APD), averaging 1 NOI and 38 APDs per year, also well within the estimates and assumptions in the RFD.</p> <p>The Newcastle RMP provides for oil and gas leasing while maintaining other resource values. The RMP objectives and management actions recognize surface disturbing activities and disruptive activities are associated with all types of mineral exploration and development, but condition those activities by applying appropriate lease stipulations to protect other resource values. The Newcastle RMP provides for oil and gas leasing as appropriately mitigated and as anticipated in the RFD.</p> <p>A resource management plan may be changed through amendment (or revision) if there is a need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan (43 CFR 1610.5-5). The Field Manager, in consultation with the State Director, is responsible for monitoring and evaluation of the RMP to determine the effectiveness of management actions and decisions, and to determine if the objectives of the RMP are being met. Other than the potential ESA listing of the Greater Sage-grouse, the Newcastle Field Manager has not identified any conditions that warrant an amendment (or revision) of the RMP as it pertains to oil and gas leasing within the Newcastle Field Office.</p> <p>Most of the concerns expressed are related to development that might occur subsequent to lease issuance. Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>
34	NPS	<p>Air Resources</p> <p>As noted in the EA, counties located within the High Plains District are generally in attainment or unclassifiable status (with the exception of the City of Sheridan) for all state and national ambient air quality standards (NAAQS). However, in the five parks most likely to be impacted by pollutant emissions from oil and gas development within the Newcastle FO, the NPS considers current air quality conditions to be of moderate to</p>	<p>Detailed, quantitative air quality analysis is beyond the scope of this document and will be addressed at the time a site-specific project is proposed. Attempting to quantify and analyze impacts from exploration and development operations at this point would be highly speculative and likely inaccurate.</p>

		<p>significant concern for three air resource indicators rated by the NPS: ozone, deposition and visibility (see attached NPS Air Resources Conditions and Trends). The NPS sets benchmark conditions for these areas consistent with statutory mandates, including Clean Air Act goals to “protect and enhance” air quality and AQRVs in units of the National Park System, as well as NPS Organic Act mandates to preserve these areas “unimpaired for the enjoyment of future generations.” The NAAQS are health-based standards and are not designed to be protective of air pollution sensitive resources. The status of resource conditions for these parks is based on current estimated air quality conditions in conjunction with the sensitivity of resources in each park to air pollution effects (e.g., the presence of pollution sensitive vegetation). Air pollutant emissions that could result from oil and gas development in this region are a concern to the NPS.</p>	<p>Offering these lands for oil and gas leasing is in conformance with the approved RMP for the Newcastle Field Office. Offering these parcels for lease at the August 2015 Sale does not limit the BLM’s ability to ensure that the necessary environmental protection measures are considered if they are successfully bid upon, the leases issued, and should development eventually be permitted on these parcels. The BLM can rely upon the State of Wyoming, which is subject to oversight by the Environmental Protection Agency (EPA), to ensure permitted activities do not exceed or violate any State or Federal air quality standard under the Clean Air Act (CAA).</p>
35	NPS	<p>Visual Resources</p> <p>The potential visual impacts to the landscape setting of Devils Tower NM are not identified. The Affected Environment section does not adequately describe the existing landscape including views from Devils Tower NM and an Environmental Consequences section is completely absent. Several parcels are within the background distance zone as defined in the Visual Resource Management (VRM) System and, though somewhat distant, extensive development in those areas could affect the scenic views of currently undisturbed landscape from Devils Tower NM.</p>	<p>Visual resource management (VRM) impacts are not anticipated at the leasing stage, given application of appropriate mitigation (see page 40, Section 4.2 of the EA). Note that visual impacts on historic trails are mitigated under Heritage Resources (see pages 40-41, Section 4.21 of the EA) with application of appropriate RMP stipulations to parcels WY-1508-015, WY-1508-028, WY-1508-071, WY-1508-137, WY-1508-138, WY-1508-139, and WY-1508-153.</p> <p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>
36	NPS	<p>Night Skies</p> <p>The lighting and air pollution associated with implementing oil and gas operations subsequent to leasing these parcels has the potential to adversely impact the naturally dark skies of Devils Tower NM. Sky glow, also known as artificial sky glow, light domes, or fugitive light, is the brightening of the night sky from human-caused light scattered in the atmosphere. This glow can greatly detract from the overall darkness of the night sky and can inhibit people’s ability to view celestial objects in the night sky. This sort of degradation can also impact wildlife habitat, wildlife behavior, scientific discovery, and cultural resources that relate to celestial objects. Air pollution also diminishes the brilliance of the night sky. In a remote and dark environment, impacts can be detected at distances over 100 miles. Oil and gas development activities can have a significant effect on night skies. For example, development activities in the Bakken and Eagle Ford Shales are clearly visible from space, as seen in the attached image from NASA.</p> <p>The NPS Night Skies Program collected baseline data at Devils Tower NM in 2006. This data showed an anthropogenic light ratio (ALR) of 0.13, which translates to a night sky that is only 13% brighter than a natural sky (free of artificial light). With a sky this dark, any additional artificial light added to the environment has the potential to adversely affect the cultural and biological resources of the park, as well as the visitor experience. Twenty-six (26) American Indian tribes hold ethnographic affiliation with Devils Tower NM and consider Devils Tower to be a Traditional Cultural Property (TCP). In the</p>	<p>Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p>

		American Indian community, sky gods or spirits serve an important role. The protection of dark night skies is integral to the preservation of natural resources and cultural values at Devils Tower NM.	
37	NPS	<p>Stipulations and Best Management Practices</p> <p>In the event that the bureau proceeds with this lease sale, the NPS requests that the BLM include the following stipulation to protect air, visual, and night sky resources:</p> <p>Projects and permitted uses implemented under this lease will comply with all applicable National Ambient Air Quality Standards and ensure Air Quality Related Values and scenic views are protected in nearby National Park Service areas. The best air quality control technology and mitigations necessary to achieve air quality objectives and management actions in the RMP will be applied, as identified through air quality modeling analyses in subsequent planning documents, and in consultation with affected agencies, including the NPS and the WY DAQ. The NPS also requests that measures be required to mitigate impacts to scenic views.</p> <p>Mitigations may include, but are not limited to the Best Management Practices (BMPs) described in Section 4.3.1.4, Mitigation Measures for Air Resources. Further, the NPS recommends the incorporation of the following general lighting principles as BMPs at the APD approval stage:</p> <ul style="list-style-type: none"> • Light only where needed • Light only when it is needed • Shield lights and direct them downward • Select lamps with warmer colors (less blue light) • Use the minimum amount of light necessary • Select the most energy efficient lamps and fixtures <p>The application of these stipulations and BMPs will help to minimize impacting air quality, scenic views, and night skies at Devils Tower NM and other nearby units of the National Park System.</p>	Beyond the scope of this document. Oil and gas stipulations are developed at the RMP. They cannot be changed unless done at that level.
38	NPS	As described in Section 1.6 of the EA, Identification of Issues, it is understood that the BLM cannot determine at this stage in the process whether or not nominated parcels will be leased, and what exploration or development activities might take place on any leased parcels. Due to the lack of concrete proposals at the lease nomination stage, “separate NEPA analysis will be required at the development stage to analyze project-specific impacts associated with exploration and development of the lease.” Once parcels are leased, however, the BLM may have difficulty imposing restrictions or mitigations on the lessor during the APD stage since these restrictions were not disclosed at the time of sale. The NPS therefore recommends that adequate NEPA analysis be completed for oil and gas development before the parcels are leased.	No response needed.
39	NPS	Thank you for the opportunity to review this EA and to make recommendations regarding the proposed lease sale.	No response needed.
40	National Parks Conservation	Thank you for the opportunity to review Environmental Assessment WY-070-EA15-30, prepared in advance of oil and gas lease sale in the High Plains District in August 2015. The following comments are submitted on behalf of the more than 800,000 members and	No response needed.

	Association (NPCA)	supporters of the National Parks Conservation Association (NPCA) across the country, more than 1,560 of whom reside in Wyoming. The nonpartisan NPCA is the only nonprofit advocacy organization dedicated to protecting and enhancing America's national parks for our children and grandchildren.	
41	NPCA	NPCA is concerned about the impacts of oil and gas development in western Wyoming on national park units in and near the High Plains District Office, including Devils Tower National Monument (in the Newcastle Field Office), and Mount Rushmore National Memorial, Jewell Cave National Monument, Badlands National Park, Minuteman Missile National Historic Site, and Wind Cave National Park in western South Dakota. Technological innovations in oil and gas drilling have spurred a tremendous increase in domestic production and, by extension, the desire for federal leases. Attendant to this increase in production is a concern for its impacts on natural resources, including air and water quality, and the park visitation experience, including night skies and visual resources.	No response needed.
42	NPCA	<p>Due to the changing landscape of oil and gas development in Wyoming, and the concern over the impacts of development on nearby national park units, NPCA makes the following requests regarding planning for oil and gas development:</p> <ol style="list-style-type: none"> 1. Leasing within the Newcastle Field Office is deferred until an update of the FO's Resource Management Plan (RMP), or an RMP Amendment addressing oil and gas leasing, is completed and an updated Reasonably Foreseeable Development (RFD) scenario is prepared, or; 2. Leasing within the Newcastle Field Office is deferred until a Master Leasing Plan (MLP) for an area adequate to address impacts to Devils Tower NM, and an updated RFD, is completed. 	<p>The Newcastle Resource Management Plan (RMP) was approved on March 25, 2000, with issuance of the Record of Decision (ROD). The RMP includes a Reasonably Foreseeable Development Scenario for Oil and Gas (RFD) as Appendix I.</p> <p>The RFD presents a development scenario for oil and gas, and estimates future activity. The primary areas of consideration, leasing, seismic activity, oil and gas drilling operations and oil and gas production, are in line with recent and current activity levels. Approximately 854,297 acres of the 2,119,099 acres of Federal mineral estate in the Newcastle Field Office, about 40%, are currently leased. This is below the RFD which estimated an average of 1.0 to 1.5 million acres under lease (Appendix I at page 244). Between 2009 and 2014, the Newcastle Field Office processed 6 seismic Notice of Intent (NOI) and 225 Applications for Permit to Drill (APD), averaging 1 NOI and 38 APDs per year, also well within the estimates and assumptions in the RFD.</p> <p>The Newcastle RMP provides for oil and gas leasing while maintaining other resource values. The RMP objectives and management actions recognize surface disturbing activities and disruptive activities are associated with all types of mineral exploration and development, but condition those activities by applying appropriate lease stipulations to protect other resource values. The Newcastle RMP provides for oil and gas leasing as appropriately mitigated and as anticipated in the RFD.</p> <p>A resource management plan may be changed through amendment (or revision) if there is a need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in the terms,</p>

			<p>conditions and decisions of the approved plan (43 CFR 1610.5-5). The Field Manager, in consultation with the State Director, is responsible for monitoring and evaluation of the RMP to determine the effectiveness of management actions and decisions, and to determine if the objectives of the RMP are being met. Other than the potential ESA listing of the Greater Sage Grouse, the Newcastle Field Manager has not identified any conditions that warrant an amendment (or revision) of the RMP as it pertains to oil and gas leasing within the Newcastle Field Office.</p> <p>Most of the concerns expressed are related to development that might occur subsequent to lease issuance. Since development cannot be reasonably determined at the leasing stage, the impacts cannot realistically be analyzed at this time. At the time of APD development an analysis of these resources will be completed.</p> <p>Master Leasing Plans (MLP) were examined by the BLM in 2010 and none of the MLP was found to meet all of the applicable criteria. In addition, each field office completes a MLP screen of each lease sale parcel and none were found to meet the criteria.</p>
43	NPCA	Regarding the lease sale taking place in August 2015, NPCA request that appropriate stipulations are placed on the sold leases so that they provide protections for park resources.	Appropriate stipulations derived from the Newcastle RMP are applied to each lease sale parcel.
44	NPCA	<p>Newcastle Field Office Planning Documents</p> <p>The documents the Newcastle Field Office is using to plan for oil and gas leasing are far out of date, and inadequate to provide proper guidance for leasing. The Newcastle Field Office Resource Management Plan (RMP) was completed in 2000, and relied on a Reasonably Foreseeable Development (RFD) scenario that relied on data from 1991.</p> <p>The RFD is simply not reflective of the current state of oil and gas leasing in Wyoming. The RFD does not discuss the use of unconventional natural gas production. It dismisses the use of horizontal drilling and does not anticipate hydraulic fracturing (or its associated disposal wells, which are now prevalent in Weston and Crook Counties), now the two technologies driving oil and gas production in Wyoming. It dismisses the production of non-associated gas production, despite Wyoming natural gas production growing from 735 mcf to 2.022 mcf in the period between 1990 and 2012. Compared to the more than 150-page RFD completed in 2005 by the Casper Field Office – itself not anticipating the challenges of horizontal drilling and hydraulic fracturing - the nine-page RFD for the Newcastle Resource Management Area lacks in analysis and comprehensiveness.</p> <p>The inadequacy of the RFD and RMP in regards to oil and gas leasing within the planning area make forecasting potential impacts to Devils Tower NM difficult. NPCA recommends deferring leasing within the Newcastle FO and the High Plains District while a new RFD and RMP (or RMP Amendment addressing oil and gas leasing) is completed.</p>	<p>The Newcastle Resource Management Plan (RMP) was approved on March 25, 2000, with issuance of the Record of Decision (ROD). The RMP includes a Reasonably Foreseeable Development Scenario for Oil and Gas (RFD) as Appendix I.</p> <p>The RFD presents a development scenario for oil and gas, and estimates future activity. The primary areas of consideration, leasing, seismic activity, oil and gas drilling operations and oil and gas production, are in line with recent and current activity levels. Approximately 854,297 acres of the 2,119,099 acres of Federal mineral estate in the Newcastle Field Office, about 40%, are currently leased. This is below the RFD which estimated an average of 1.0 to 1.5 million acres under lease (Appendix I at page 244). Between 2009 and 2014, the Newcastle Field Office processed 6 seismic Notice of Intent (NOI) and 225 Applications for Permit to Drill (APD), averaging 1 NOI and 38 APDs per year, also well within the estimates and assumptions in the RFD.</p> <p>The Newcastle RMP provides for oil and gas leasing while maintaining other resource values. The RMP objectives and management actions recognize surface disturbing activities and disruptive activities are associated with all types of mineral exploration and development, but condition those activities by</p>

			<p>applying appropriate lease stipulations to protect other resource values. The Newcastle RMP provides for oil and gas leasing as appropriately mitigated and as anticipated in the RFD.</p> <p>A resource management plan may be changed through amendment (or revision) if there is a need to consider monitoring and evaluation findings, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan (43 CFR 1610.5-5). The Field Manager, in consultation with the State Director, is responsible for monitoring and evaluation of the RMP to determine the effectiveness of management actions and decisions, and to determine if the objectives of the RMP are being met. Other than the potential ESA listing of the Greater Sage Grouse, the Newcastle Field Manager has not identified any conditions that warrant an amendment (or revision) of the RMP as it pertains to oil and gas leasing within the Newcastle Field Office.</p>
45	NPCA	<p>Likewise, the Newcastle RMP is insufficient to provide protection to Devils Tower NM and other nearby NPS lands. In fact, Devils Tower NM is mentioned only once in the RMP, in a section on the Belle Fourche River. Unlike the RMP completed for the adjacent Casper FO, which includes discussion of specific withdrawals for other management areas or agency lands including Fort Laramie National Historic Site, the Newcastle RMP includes no discussion of withdrawals or consideration for Devils Tower NM.</p>	<p>Among other actions, withdrawals can be used to transfer jurisdiction of lands between Federal agencies, and may segregate (close) those lands, often closing them to operation of the mining laws. Segregation from operation of the mineral leasing laws is less common. The Fort Laramie National Historic Site was withdrawn by Presidential proclamation dated July 16, 1938. The Devils Tower National Monument was withdrawn by Presidential Proclamation dated September 24, 1906. Lands within Units of the National Park System are closed to oil and gas leasing under 43 CFR 3100.0-3.</p> <p>The Fort Laramie area withdrawals proposed in the Casper RMP are intended to segregate lands along national historic trails in that area from operation of the mining laws, but not the mineral leasing laws.</p>
46	NPCA	<p>Master Leasing Plan</p> <p>Alternatively, NPCA feels that the area around Devils Tower NM meets the criteria for a Master Leasing Plan established under Instructional Memorandum No. 2010-117. In that document, the BLM recognizes that “in some cases, leasing of oil and gas resources may not be consistent with protection of other important resources and values, including units of the National Park Service.” Elsewhere, the policy document states that Master Leasing Plans might be appropriate in areas where current planning documents, such as RMPs or RFDs, are lacking, and in these places “additional planning and analysis may be necessary prior to new oil and gas leasing because of changing circumstances, updated policies, and new information.”</p> <p>NPCA recommends an MLP for a to-be-determined portion of the High Plains District, which considers the potential impacts of leasing on the air quality, visual resources and</p>	<p>Master Leasing Plans (MLP) were examined by the BLM in 2010 and none of the HPD was found to meet all of the applicable criteria. In addition, each field office completes a MLP screen of each lease sale parcel and none were found to meet the criteria.</p>

	<p>other resources of Devils Tower National Monument. Such a plan would permit NPS staff at Devils Tower NM, recreational users including the climbing community, local towns that rely on tourism to Devils Tower NM, industry, and other stakeholders to come together in advance of leasing to ensure that their respective interests and economies are considered.</p> <p>In its responses to comments in favor of a Master Leasing Plan submitted on a February 2015 oil and gas lease sale, the Newcastle Field Office claimed that Wyoming had considered possible MLPs in 2010 and had not identified any plans in the Newcastle FO. However, a map of externally-proposed MLPs included in the Wyoming Statewide MLP Evaluation does not include any MLPs centered on Devils Tower National Monument. There is no information about potential MLPs that the BLM considered internally as part of that document. Further, there is no indication from IM 2010-117 nor subsequent guidance from the DOI that MLP considerations end with state evaluations. On the contrary, MLPs can be conducted wherever the criteria are met or at any time “at the discretion of the Field Manager, District Manager, or State Director.”</p> <p>NPCA is in agreement with the National Park Service in its comments to the Newcastle FO Feb. 2015 oil and gas lease sale that an MLP should be conducted to protect the resources of Devils Tower NM. NPCA will be happy to assist or facilitate in any part of the process. Through these steps we can fulfil the goal of balancing energy development with the protection of valuable natural and cultural resources. Please contact me at 202.454.3319 or nlund@npca.org if you have questions.</p>	
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