Biodiversity Conservation Alliance

Working to Protect Native Species and Their Habitats

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VIA EMAIL: WYMail_PAPA_YRA@blm.gov

Re: Comments to the Draft SEIS for the Pinedale Anticline Oil and Gas Exploration and Development Project

Dear Mr. Anderson:

The following are the comments of Biodiversity Conservation Alliance and Center for Native Ecosystems on the Draft Supplemental Environmental Impact Statement for the Pinedale Anticline Oil and Gas Exploration and Development Project (DSEIS). Thank you for the opportunity to offer public comments to this document.

Industry has taken significant steps in the right direction in their proposed action, such as partial liquids gathering systems, remote monitoring, and directional drilling and clustered wellpads. We commend them for this forward thinking.

We will not beat around the bush: the massive scale of drilling that would be permitted, under the proposed action and the BLM preferred alternative, is unprecedented and unacceptable. The environmental analysis under NEPA does not support this intensive scale and pace of drilling. Oil and gas drilling under the current Pinedale Anticline Project Area ROD (PAPA ROD) has already significantly impacted wildlife and wildlife habitat on the Pinedale Anticline. It is clear that the intent of industry, with the full concurrence of BLM, is to leave this incredibly diverse landscape an industrial wasteland. It seems not to matter to the stewards of our public lands that world-class herds of wildlife, from the smallest toad to the mule deer, probably will be extirpated. One need only read the Executive Summary of the DSEIS to realize that every component of the environment on the Pinedale Anticline that was analyzed by BLM will be significantly and negatively impacted. We reiterate, this is unacceptable. Federal statutes call for multiple uses on public lands. This project will exclude all uses except industrialization by a single industry.

BOARD OF DIRECTORS: Perry Wechsler, Laramie, WY; Mark Jenkins, Laramie, WY; Jeff Kessler, Salt Lake City, UT; Chip Rawlins, Laramie, WY

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AL-1 G-1 EG-19-1

BLM must go back to the drawing board and prepare a new draft SEIS which provides for multiple use of the land and protects the precious resources of these lands, including wildlife, air, water, cultural and historic resources. A reasonable range of alternatives must be developed and carried forward for consideration through the final SEIS.

In the PAPA ROD there were restrictions on the extent of exploration and development on the Pinedale Anticline, specifically limiting the number of producing wellpads to 700. BLM foresaw that the mineral resources could prove to be greater than anticipated and that in order to keep development to a level where impacts could be controlled, there needed to be an upper limit on the number of authorized producing wellpads. Restrictions were also placed on the amount of pollution dumped into the air. When NO_x emissions reached 693.5 tons per year, additional cumulative air quality analysis was to be triggered. Although NO_x emissions now are approximately four times the target amount and it is clear BLM grossly underestimated air quality impacts, it is still noteworthy that BLM had the foresight in 2000 to recognize that there would be significant impacts to air quality and that limits needed to be placed on emissions. Similarly, BLM recognized that significant impacts to wildlife were likely and the PAPA ROD took a proactive stance in attempting to protect wildlife habitat and wildlife.

As BLM concedes in the DSEIS, "natural gas development within the PAPA has occurred at a pace greater than was analyzed in the PAPA EIS. Assumptions of drill rig emissions and NO_x emissions from the combination of construction/drilling, well production, and compression have been exceeded." DSEIS at 2-20. While the PAPA ROD attempted to grasp the realities of what was to come and to place caps on development and impacts, it grossly underestimated future activity levels and impacts, and failed in both regards. The safeguards put in place for wildlife protection, for example, have been inadequate and have resulted in a 46% reduction of the mule deer herd and an approximately 50% reduction in the sage grouse population in the area. It is clear from the scientific studies commissioned by BLM and industry that even the current protections, such as seasonal stipulations, are not working to protect valuable wildlife resources.

Sadly, Alternatives B and C in the DSEIS take an opposite direction from the PAPA ROD. Rather than recognizing the horrific impacts that will occur from the greatly ramped-up drilling pace and taking measured steps to minimize impacts, BLM has continued its current frenzy for drilling at a record pace and intensity with little protection for wildlife and wildlife habitat, cultural and historic resources, and air quality. There is no provision whatsoever for multiple use of these public lands. What may be authorized, if any of the Alternatives is carried forward, is a devastating scenario with a nine-fold increase in intensity.

The current administration in Washington has recently proposed appropriation of $22 million to restore and protect wildlife habitat in Western states from oil and gas drilling. Half of this amount is targeted for Wyoming where intense oil and gas drilling is affecting wildlife habitat. One has to ask: Why is this needed if BLM is doing its legally mandated job of protecting the human environment on public lands? We also ask why public tax dollars are needed to clean up the mess left by industry, when industry is reaping record profits from drilling on public lands.

It is not too late for BLM to start the process over, take another genuine hard look at the impacts to the environment, and develop alternatives which are responsive to the impacts and which comport with BLM's statutory duties under NEPA and FLPMA. This document is only a draft SEIS; BLM has a duty under NEPA to look at public response to the draft SEIS and to make changes as needed, either in a new draft SEIS or in the final SEIS. The current PAPA ROD has been analyzed through 2011, leaving ample time for BLM to make needed adjustments to current activities, while continuing to develop a new draft SEIS. We implore BLM to do so. Failure to drastically change the course of this drilling project will likely drive several native species to listing under the Endangered Species Act, a reality **no one** wants to see occur.

A. NO REASONABLE RANGE OF ALTERNATIVES

The National Environmental Policy Act ("NEPA") requires that agencies consider, evaluate and disclose to the public "alternatives" to the proposed action and "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of resources". See, 42 U.S.C. §§ 4332(2)(C)(iii) & (E). Council on Environmental Quality ("CEQ") regulations implementing NEPA require, among other things, the BLM to "rigorously explore and objectively evaluate **all** reasonable alternatives" to the proposed action. See, 40 C.F.R. §1502.14 (emphasis supplied). Additionally, the evaluation of alternatives must constitute a "**substantial treatment**," presenting the impacts of the alternatives in comparative form, "sharply defining the issues and providing a clear basis for choice among options by **the decisionmaker and public**." *Id.* (emphasis supplied).

BLM Handbook § 1790-1, Chapter V(e)(2) states as follows:

> Each alternative, except for the no-action alternative, should represent an alternative means of satisfying the identified purpose and need and of resolving issues. The rationale for considering but not selecting for further analysis certain suggested alternatives must be documented, especially those suggested by the public or other agencies (40 *CFR* 1502.14 (a)).

The BLM has a duty to ensure that the range of alternatives does not foreclose prematurely any option that might protect, restore, and enhance the environment and/or define the purpose and need for a project so narrowly that it forecloses a reasonable consideration of alternatives.

In the DSEIS the BLM failed to consider a range of reasonable alternatives. In so doing, the BLM rejected alternatives that were reasonable, practical, effective and consistent with the stated Purpose and Need. *See* DSEIS at 1-9. There is nothing in the stated Purpose and Need which requires that industry be authorized to drill at the fastest pace possible. We know of nothing which mandates this, other than industry's insatiable greed. BLM, on the other hand, has no such mandate; rather, BLM is constrained to ensure multiple use of the resources; to ensure minimal impacts to the human environment; and to prevent unnecessary or undue degradation to the environment.

On its face, the DSEIS is inadequate. The most obvious indication that BLM failed to consider a range of reasonable alternatives is that, except for the No Action Alternative, only one other alternative is really offered. Although BLM offers Alternatives B and C, these alternatives are so similar they can be considered a single alternative. Both these alternatives will ramp up the intensity of development nine-fold with a frenetic pace of drilling.

There is no alternative for conservation. This alternative was not analyzed in detail and has been eliminated from consideration. It would have offered, among other things, 160-acre well spacing, liquid gathering systems, Tier 2 emission controls on all rigs, and no flarings. The reasons given for eliminating this alternative from consideration are absurd. BLM has certainly learned over the years is that if a particular action is required, it will be complied with by industry. What industry is seeking is certainty. Once industry knows what the ground rules are, it will find the proper way to play by those rules.

G-2 EG-19-2 We note that in this discarded alternative BLM recognizes its full authority to **require** industry to use, for example, liquid gathering systems and Tier 2 emissions controls. Why, then, doesn't BLM **require** use of this technology for the entire project area, in Alternative C? These technologies are not new, nor are they infeasible for this project. BLM must **require** this level of accountability, at a minimum.

G-3 EG-19-3 Additionally, BLM must **require** remote monitoring of well sites, which will drastically reduce vehicle traffic in the area. The DSEIS Table 2.4-1 reveals that under Alternatives B and C, even with remote monitoring, the number of vehicles per day is estimated to be between 964 and 1,217. Under the current PAPA ROD, that number is even greater: 2,254 to 2,993 per day. This extraordinary level of traffic is unacceptable. Not only are there direct impacts from vehicle collisions with wildlife, but this number of trips each day creates unacceptable levels of dust and noise, allows unacceptable opportunities for poaching and harassment of wildlife, and unnecessarily contributes to human disturbance of wildlife. Some of this can be avoided with remote monitoring.

There is no alternative for a slower pace of drilling; instead, this alternative was also eliminated from consideration. Again, the justification for elimination of this alternative is absurd. BLM has no basis for its conclusion that both the Conservation Alternative and the Reduced Pace of Development Alternative are too similar to the No Action Alternative to be carried forward. Both alternatives eliminated because so similar to No Action! Unclear the basis for this; no justification at all. This increased intensity is proposed even in the face of predicted extirpation of wildlife populations in the area. Stipulations will be permanently waived, effectively signing a death warrant for many species of wildlife on the Anticline. The Energy Policy Act does not require drilling at the maximum level possible. Compliance with the statute will still be achieved with a slowed pace of drilling.

AL-2 EG-19-4 These two alternatives which were dropped from further analysis must be reconsidered and a conservation alternative and phased drilling alternative, at a minimum, must be included in a new draft SEIS or final SEIS, in order to comply with the requirement for a reasonable range of alternatives. The current range of alternatives is not reasonable.

Although NEPA states clearly that BLM must consider "**alternatives to the proposed action**" (emphasis added), the DSEIS fails to consider any reasonable alternative to the proposed action, except an alternative which is so similar it offers no real alternative to the proposed action. While the CEQ NEPA regulations require the consideration of a range of reasonable alternatives to "provide a clear basis of choice among options," the DSEIS obviously presents no options and thus no opportunity for any choice whatsoever. The DSEIS thus fails to meet NEPA's basic mandate that federal decisions affecting the human environment be well-informed and protect, restore, and enhance the environment.

B. WILDLIFE ISSUES

The scoping process identified a number of concerns about the project expressed by the public. These concerns were summarized on Page 2-2 of the DSEIS. Many of the issues raised address wildlife. The same concerns have been expressed repeatedly by scientists who have studied the wildlife resources, as well as by conservation groups and other members of the public. BLM's own preliminary NEPA analysis discloses significant impacts to wildlife. Yet the BLM continues to ignore the grave predictions for wildlife on the Pinedale Anticline which scientists have made. Ironically, these scientific studies were commissioned by BLM itself, and still BLM has ignored them. We can understand why BLM would want to shun the findings of these studies: they condemn BLM for failing to ensure the viability of species where drilling occurs on public lands. Studies have shown a 46% decline in mule deer populations in the area since 2000, and a 50% decline in sage grouse numbers in the same period. These declines coincide with oil and gas drilling in the area.

1. Removal of Seasonal Stipulations

Among the many grave concerns we have is the permanent exception to all wildlife seasonal stipulations. Of course, considering how routinely BLM has granted requests to industry for waivers in the past several years (595 since late 2001), the move to permanently waive all stipulations isn't as big a step as might seem at first blush. Since the winter of 2001-2002, BLM has granted 89% of all industry requests for wildlife stipulation waivers.

Industry and BLM would have us believe that if seasonal wildlife stipulations are permanently removed, drillers can get in and get out much faster, thus reducing the duration of impacts to wildlife. There is not one shred of scientific documentation to support this. Unless BLM can provide substantial evidence that seasonal stipulations are no longer necessary for the survival of wildlife species or that project activities will not cause unacceptable impacts to wildlife, it cannot legally remove them. (*See* 43 C.F.R. § 3101.1-4, BLM regulations dealing with waiver, exception, and modification of lease stipulations.) Thus, BLM can only waive seasonal stipulations if it has substantial evidence to justify waiver.

Not only is there no evidence justifying waiver of seasonal stipulations, but waiver of seasonal stipulations flies in the face of the BLM's own studies conducted by Hall Sawyer et al.

for mule deer, and Joel Berger et al. for pronghorn.[1] Although pronghorn studies lag behind mule deer scientific data, impacts to pronghorn are as great as, or greater than, those to mule deer. It also flies in the face of scientific studies by Clait Braun, David Naugle and Matthew Holloran (a BLM study) on impacts of oil and gas drilling on sage grouse.[2] We note that all but one of these studies are duly noted in the "References" section of the DSEIS; BLM continues to ignore its own scientific research. Waiver of seasonal stipulations further would be in contradiction to the numerous disclosures in the DSEIS that there will be significant negative impacts to wildlife.

W-1 EG-19-5 Whether or not BLM wants to face the facts, it is clear that the current seasonal stipulations ARE NOT working. The precipitous decline of wildlife populations is mute testimony to this. Sage grouse no longer occupy the adjacent Jonah Field. More, not fewer, measures must be taken by BLM and industry to provide protections for wildlife. Removal of seasonal stipulations, even "temporary relaxation" as proposed by BLM, is exactly the opposite of what is needed. This is crucial winter range for big game and important habitat for the remainder of the year. It also stretches credibility for BLM to believe that sage grouse can exist on the project area without seasonal stipulations. BLM has grossly underestimated impacts to wildlife and the SEIS must be re-drawn with stringent protections for wildlife.

W-2 EG-19-6 The intent of federal fish and wildlife policy is "to strengthen and support, to the maximum legal extent possible, the missions of the States . . . to conserve and manage effectively the nation's fish and wildlife." 43 CFR § 41.1(c). "This policy is intended to reaffirm the basic role of the States in fish and resident wildlife management, especially where States have primary authority and responsibility, and to foster improved conservation of fish and wildlife. *Id.* § 24.2(a). The need for cooperative management is not only a matter of Department of Interior policy, but also directed by Congress. *Id.* §§ 24.3(b), 24.3(d). With these and other regulatory requirements in mind, BLM must fully abide by the Wyoming Game and Fish report "Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats" to the maximum extent possible.

W-5 W-4 W-3 EG-19-7 First, seasonal wildlife stipulations **MUST** be retained permanently and without exception (as provided in the Conservation Alternative which was eliminated). Second, the protections called for in the Wyoming Game and Fish "Recommendations" report must be adhered to and incorporated in a new draft SEIS or final EIS. Third, Dr. Clait Braun's "Blueprint for Sage Grouse Conservation and Recovery" must also be incorporated and followed in a new draft SEIS

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[1] Sawyer, H., R.M. Neilson, F. Lindzey and L.L. McDonald. 2006. Winter Habitat Selection of Mule Deer Before and During Development of a Natural Gas Field. Journal of wildlife Management 70:396-403. Berger, J., K. Berger and J. Beckman. 2006. Wildlife and Energy Development: Pronghorn of the Upper Green River Basin – Year 1 Summary. The Wildlife Conservation Society. Jackson, Wyoming.

[2] Braun, C. 2006. A Blueprint for Sage-grouse Conservation and Recovery. Grouse, Inc.. Tucson, Arizona. Naugle, D.E., B.L. Walker, and K.E. Doherty. 2006. Sage Grouse Population Response to Coal-bed Natural Gas Development in the Powder River Basin: Interim Progress Report of Region-Wide Lek-Count Analyses. College of Forestry and Conservation, University of Montana. Missoula, Montana. Holloran, M.J. 2005. Greater Sage Grouse Population Response to Natural Gas Field Development in Western Wyoming. Ph.D. Dissertation. University of Wyoming. Laramie, Wyoming. Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin 28:967-985.

W-5 EG-19-7 or final EIS. Dr. Braun has recommended setting aside a minimum 36 contiguous square miles of quality sagebrush habitat for sage grouse, with corridors linking it to other sage grouse habitat. Fourth, a conservation alternative must be included in the range of alternatives which ensures protection of wildlife populations and continued viability.

2. Mitigation Measures Inadequate

G-4 EG-19-8 Mitigation measures across the board are inadequate for every resource analyzed. BLM has a duty under NEPA to ensure that significant impacts disclosed by NEPA analysis will be mitigated so that they are no longer cross the significant impact threshold. This must be done **before** offsite (or compensatory) mitigation is considered. BLM has ignored this duty in the DSEIS and has skipped directly to offsite mitigation. Additionally, its adaptive management approach for controlling impacts is inadequate.

G-8 G-7 G-6 G-5 EG-19-9 G-9 The response of BLM to wildlife impacts in this DSEIS is completely wrong. Instead of authorizing a nine-fold increase in the level of drilling, BLM must significantly slow the pace of drilling and, in addition to the measures recommended in sub-paragraph 1 above, require industry practices which will decrease the footprint of drilling. First, directional drilling must be required wherever feasible, without regard to increased cost to industry. Second, multiple wells must be clustered on single wellpads wherever possible. Industry has proposed to implement the project using fewer wellpads than are currently authorized by the PAPA ROD. We applaud this and request that BLM mandate it. Third, remote monitoring must be implemented throughout the project area. There is simply no justification for not requiring remote monitoring. Wildlife is significantly impacted by human presence and the reduction of human presence through remote monitoring would be great. Remote monitoring would also reduce noise, dust, and poaching. Fourth, a liquids gathering system is called for throughout the project area. Alternatives B and C provide for a liquids gathering system in part of the Core Area, but it is insufficient. The whole project must be served by a liquids gathering system to further lessen the footprint of drilling.

3. Crucial and Important Winter Range

Almost every acre of the Core Area is crucial winter range for big game or is utilized by sage grouse for breeding, nesting and brood rearing, or both. Most of this will be sacrificed for many years--probably 100 years or more. BLM has grossly underestimated the impacts to wildlife and has not analyzed the site-specific impacts. Industry claims only 22% of the total project area will be impacted by drilling. This is inaccurate. The Core Area may represent 22% of the project area, but this is not the only area that will be drilled, nor the only area impacted by drilling activities. Alternative B would allow drilling outside the Core Area during the first five years to assess production capabilities. We believe is likely that industry will come back to BLM after resources in the Core Area are fully extorted, and request authorization to intensely drill the outlying areas. Alternative C allows drilling in all Development Areas **and outside** DAs under the restriction of seasonal stipulations. Thus, a much larger area than 22% will be drilled.

The impacts will be incurred well beyond the surface disturbing activities and direct loss of crucial and important wildlife habitat. These impacts have been ignored by BLM. It has been

demonstrated through scientific studies that mule deer avoid drilling activities by up to three miles. Sage grouse leks, which have been used for centuries, have been abandoned. Over-winter survival rates have been noticeably impacted. Mule deer fawn production has declined annually. Whether this is due to drought or drilling is immaterial. If the cause is drought related, then it is all the more important that crucial and important range for wildlife be protected to ensure adequate quality winter forage during drought years. If the cause is tied to oil and gas drilling, then it is just as imperative that adequate and quality winter forage be available for wildlife.

G-10 EG-19-10 The fact remains, wildlife has been and will be displaced. BLM must permanently set aside large contiguous tracts of wildlife habitat for big game and sage grouse which supply at least equal forage to that being lost in the entire project area. Industry has proposed providing three acres for every acre lost to wildlife. This would be an acceptable ratio if it includes all acres which are indirectly impacted, as well as those directly impacted.

4. Sagebrush Habitat Will Not Be Reclaimed

Sagebrush dependent species such as mule deer, pronghorn, sage grouse, sagebrush obligate passerines, pygmy rabbits, etc., must have sagebrush habitat. It is inconceivable that areas disturbed by drilling will be reclaimed with grasses and forbs, as proposed by BLM. It is for this reason alone that BLM and industry can tout that reclamation will commence and succeed quickly. This is merely short-term reclamation. BLM ignores its own scientific studies that state sagebrush takes from 50 to 100 years to reach its pre-drilling status.[3] Reclamation with forbs and grasses alone is unacceptable. These will not replace the crucial food sources and living habitat for wildlife.

RC-1 RC-2 EG-19-11 First, BLM must require that reclamation be achieved with a mix of shrubs, sagebrush, forbs and grasses, that as nearly as possible replicates the plant community that is present today. Second, while sagebrush and other shrubs are taking hold and achieving maturity, adequate tracts of contiguous habitat, such as sagebrush habitat, to support wildlife must be permanently designated. These tracts must be kept intact and as free from human disturbance as possible. They must be able to sustain all the displaced wildlife resulting from drilling activities on the Pinedale Anticline.

5. Wildlife Migration Routes Will Be Further Disrupted

The PAPA contains historic big game annual migration corridors which in recent years have been heavily impacted by human intrusions of many types. The Pinedale Anticline infill project will greatly ramp up the pressure on big game which migrate through the area. Vehicle volume near the constricted Trappers Point Bottleneck has increased to 5,300 vehicles per day. Impediments to migration have cumulative impacts, as well as direct impacts. Cumulative habitat loss for pronghorn under Alternatives B and C will be more than 25,000 acres. Cumulative habitat loss for mule deer will be 16,000 acres with Alternatives B and C.

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[3] *See for example* Bureau of Land Management. 2003. Environmental Assessment for the Atlantic Rim Interim Drilling Project. Rawlins Field Office. Rawlins, Wyoming.

W-6 EG-19-12

There is no articulated plan to protect migration corridors from drilling impacts and to assure that big game will have free access to the habitat it needs for survival. This is a gap in the DSEIS which must be analyzed and filled in the new DSEIS. There can be no drilling allowed where there are known migration routes.

6. Habitat Fragmentation

Habitat fragmentation is one of the most troubling issues facing BLM with this project. It is also one of the issues which is not dealt with in the DSEIS. BLM has duly analyzed the impacts which will flow from drilling and greatly increased habitat fragmentation, and the conclusions to be drawn from the analysis are stark. Yet there is no proposed plan to ameliorate these impacts. The study of Inglefinger, for instance, shows that habitat fragmentation is particularly harsh on passerines such as the Brewer's sparrow, sage sparrow and sage thrasher, all BLM sensitive species.[4] Does BLM intend to sit by and allow these species to be extirpated?

W-7 EG-19-13

There is no articulated plan to replace lost habitat. There are stated commitments to replace wildlife habitat, but these are not discussed in detail because neither BLM nor industry have designed the means to achieve this. For instance, where will replacement acres be found? How will wildlife know where these new areas are? Are there other factors associated with such lands which could render them less suitable and therefore they are avoided? Wildlife over many centuries has adapted to the southwest Wyoming region, locating and claiming the prime habitat for survival, which happens to coincide with the PAPA. How will BLM ensure viability of wildlife species on the Anticline? What are threshold numbers of each species needed for viability? What will happen when population numbers drop below the threshold? None of these issues is discussed in the DSEIS. They must be. The DSEIS must be re-drafted to incorporate plans to meet these exigencies.

7. Other Species Impacted

While most of the wildlife focus has been on big game and sage grouse, there are other sagebrush species which are dependent on the sagebrush habitat and which will be significantly impacted by the drilling. Sagebrush obligates such as the Brewer's sparrow, sage thrasher and sage sparrow, as well as the pygmy rabbit, ferruginous hawk, burrowing owl, mountain plover, and white-tailed prairie dogs, have already been significantly impacted.[5] The fragmentation of habitat with its concomitant impacts is of grave concern to us.

BLM must implement the recommendations and requests made above in this section for the protection of all species.

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[4] Ingelfinger, F. 2001. The Effects of Natural Gas Development on Sagebrush Steppe Passerines in Sublette County, Wyoming. Laramie, WY. *See also* Knick, S.T., et al. 2003. Teetering On The Edge Or Too Late? Conservation and Research Issues for Avifuana of Sagebrush Habitats. The Condor 105:611-634.

[5] Ingelfinger, *supra*. Baroch, J.A., D.A. Plume. 2004. Pinedale – White-Tailed Prairie Dog Survey, Final Report. Genesis Laboratories, Inc. Wellington, Colorado. Although this study does not specifically address impacts of drilling, it documents other impacts which are affecting prairie dogs in the region.

8. Threatened, Endangered and Sensitive Species

BLM Handbook § 6840.11 states that, " BLM shall seek to conserve listed species and shall utilize its authorities in furtherance of the purposes of the ESA." BLM Handbook § 6840.22 states:

> It is in the interest of the public and the affected special status species for BLM to undertake conservation actions for such species before listing is warranted or the designation of critical habitat becomes necessary. It is also in the interest of the public and the affected special status species for BLM to undertake conservation actions that improve the status of such species to the point where their special status recognition is no longer warranted. . . . Implementation-level planning should consider all site-specific methods and procedures which are needed to bring the species and their habitats to the condition under which the provisions of the ESA are not necessary, current listings under special status species BLM categories are no longer necessary, and future listings under special status species categories would not be necessary.

The U.S. Fish and Wildlife Service (FWS) has identified one listed species which is documented in the project area, and several wildlife species which are listed, or candidates for listing, under the Endangered Species Act (ESA), or are identified as sensitive species which may occur on the project area: black-footed ferret, Kendall Warm Springs dace, Colorado River fish, bald eagle, grizzly bear, Canada lynx, gray wolf, whooping cranes, yellow-billed cuckoos, sage grouse, and pygmy rabbit. The BLM has established its own listing of sensitive species which is more extensive than FWS's.

It is noteworthy that at the time the PAPA DEIS was prepared in 1999, the swift fox was a candidate species for listing under the ESA and inhabited the Pinedale Anticline. Today the species has been extirpated from the region. The whooping crane, an endangered species which was present on the Anticline in 1999, has also been extirpated. With this kind of track record, should the public again place its trust in BLM's expertise for management of wildlife on the Anticline? The Pinedale Anticline has world-class populations for diverse wildlife species, yet in less than eight years two species were allowed to be extirpated on the BLM's watch. The ESA requires that BLM ensure that actions it authorizes will not jeopardize the continued existence of any listed species or destruction of its critical habitat.

TE-1 EG-19-14

The demise of these species underscores the critical importance of focusing mitigation and monitoring efforts on other listed, candidate and sensitive species. The bald eagle is known to be present within the project area during winter months. The DSEIS states that direct fatal impacts to bald eagles may occur during winter drilling which would otherwise not be present. Authorizing winter drilling which could result in killing of bald eagles violates the ESA. Winter drilling should not be allowed. Furthermore, regular (at least annual) monitoring of wintering bald eagles must be implemented and/or continued.

TE-2 EG-19-15 A large segment of the Big Piney Prairie Dog Complex (white-tailed prairie dogs) is located within the project area. The Moxa Prairie Dog Complex would also be impacted by the project. Prairie dogs are the primary food source for black-footed ferrets. Incredibly, this area has not been surveyed for the presence of black-footed ferrets, although surveys have been recommended. Like bald eagles, ferrets would be at risk of direct vehicle impact morality from increased vehicle traffic due to drilling activity. Any killing of ferrets as a result of authorizing additional drilling would violate the ESA. Until ferret surveys have been conducted and ferrets determined not to be present within the project area, BLM should not authorize any drilling activity in the Big Piney Prairie Dog Complex area.

SW-1 EG-19-16 Colorado River fish species downstream from the project area are also potentially threatened by the proposed project. The DSEIS discloses that vast quantities of surface and ground water will be withdrawn for the project. The DSEIS also reveals that 630,000 gallons of surface discharge will occur daily. This raises questions which are not addressed in the DSEIS: Where is surface discharge going? Is any being discharged onto surface, or will it be collected at a central facility? We are cognizant that none of the alternatives proposes liquids gathering systems for the entire project area; where will liquids be discharged that are not centrally collected? What mitigation plans are in place for this discharge? What monitoring plans have been designed for water collection and discharge? Why is there more contribution than depletion of water resources? What is the source of this additional water? These questions must all be answered in the new draft SEIS before the project can be authorized.

TE-3 EG-19-17 Section 6840.11 of the BLM Handbook provides that "BLM shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species." The endangered Colorado River fish species must be protected and adequate instream flow must be maintained. Sediment loads will be greatly increased under all alternatives and there will be significant impacts to fish species. These have not been addressed in the DSEIS.

Instruction Memorandum (IM) 97-118 governs BLM Special Status Species management and requires that actions authorized, funded, or carried out by the BLM not contribute to the need for any species to become listed as a candidate, or for any candidate species to become listed as threatened or endangered. All three action alternatives clearly will violate this IM. The FWS identified the pygmy rabbit and sage grouse as sensitive species. The sage grouse has previously been petitioned for listing as threatened or endangered. As noted above, the BLM's list of sensitive species is more extensive. Sensitive species known to inhabit, or possible on, the Anticline include: pygmy rabbit, sage grouse, ferruginous hawks, merlins, mountain plover, long-billed curlew, Brewer's sparrow, sage sparrow, sage thrasher, burrowing owl, loggerhead shrike, grasshopper sparrow, white-tailed prairie dog, spotted bats, fringed myotis, and long-eared myotis.

TE-4 EG-19-18 BLM regulations provide that "the protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species." BLM Handbook § 6840.06(E). Therefore, all BLM sensitive species in the PAPA must receive increased levels of protection comparable to candidate species under the ESA. This has not been provided in the DSEIS. BLM must rectify this failure in the new DSEIS.

C. MITIGATION AND MONITORING

The BLM NEPA Handbook §1790-1, Chapter V(B)(1)(d)(3) provides as follows:

> To the extent known, measures which could reduce adverse impacts or enhance beneficial impacts should be incorporated into the proposed action. In the case of externally initiated proposals, this would involve working with the applicant to change the project design in order to reduce or eliminate impacts.

BLM has again taken an adaptive management approach for mitigation of impacts. As we have stated before, adaptive management can be an excellent tool when used appropriately. But adaptive management is not a ticket for deferring all decisions about mitigation and monitoring to a later point in time. Adaptive management requires that criteria and thresholds be established **at the outset** which will trigger pre-determined responses to impacts identified at a later time.

G-11 EG-19-19

BLM is relying on adaptive management because the agency hasn't done adequate analysis and it therefore doesn't have the data it needs ***now*** to develop mitigation plans. This is not the proper role of adaptive management. Adaptive management can be an effective management tool. It can never be a substitute, however, for an agency's failure to fulfill its NEPA and FLPMA duties. Adaptive management can assist an agency to "fine tune" its plans after implementation. It cannot be a substitute for those plans. BLM cannot refuse to define mitigation plans upfront and assess their efficacy, and then rely on adaptive management to fill in all the blanks after project implementation. It must do the analysis before the project commences, utilizing a verified and supported methodology by which it assesses the efficacy and probable success of the plan. Thresholds of impact which would constitute unnecessary or undue degradation must be established up front, not down the road under the rubric of adaptive management. BLM nowhere discusses what actions will be taken when thresholds are triggered.

G-12 EG-19-20

FLPMA states that, "In managing the public lands the secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 USC § 1732(b). BLM must do the analysis required by NEPA with a mind to measuring the degree of impacts and then developing alternatives to the proposed action which will reduce impacts to the level of insignificance to prevent unnecessary or undue degradation. "Unnecessary or undue" are notably used in the disjunctive, meaning that both prongs of this standard must be analyzed and met. Nowhere in the DSEIS does BLM address the analysis and evaluation it has conducted regarding unnecessary or undue degradation, even though it was discussed in detail in scoping comments. This must be discussed in the new DSEIS.

AL-3 EG-19-21

As additional mitigation for lessening the footprint of drilling, BLM must slow the pace of drilling. Fewer wells and wellpads should be authorized annually. Displacement and/or mortality of wildlife on the Pinedale Anticline is a serious concern that has not been addressed in the DSEIS. The document discloses a high incidence of mortality of mule deer in response to current drilling pressures. It also discloses that use of the Anticline by wintering mule deer has

decreased year by year in response to drilling, causing the animals to utilize less suitable habitat. This was not the case on crucial winter range without drilling present. Similar responses to drilling by pronghorn and moose have also been observed. Harvest rates for big game in the area have al-so declined significantly since 2000.

W-8 EG-19-22 We reiterate that BLM must re-draw the DSEIS to incorporate more stringent protections for wildlife. Those measures must be clearly defined and thresholds established which will trigger specific responses when impacts reach those thresholds. Monitoring, coupled with scientific studies, on a continual basis, is absolutely critical to the success of efforts to protect and preserve wildlife.

D. AIR QUALITY ISSUES

Air quality issues have been thoroughly discussed in comments submitted by the Wyoming Outdoor Council (and also on behalf of Biodiversity Conservation Alliance) on April 5, 2007. We incorporate those comments into these comments in their entirety by reference.

E. IMPACTS TO WETLANDS AND RIPARIAN RESOURCES

WT-1 EG-19-23 Impacts to wetlands and riparian areas in the PAPA are expected to be significant and, potentially, will be unmitigated. We recognize that the bulk of these areas is state and private land. Nevertheless, as lead agency, BLM has the duty to work with state and private representatives to see that these resources are afforded adequate protections and that impacts are mitigated to a level of insignificance. BLM is also the agency which issues permits to drill; as such it can regulate many aspects of the project activities even through they will occur on non-federal lands. At a minimum, BLM must: (1) see that an inventory of existing impacts is conducted; (2) determine if appropriate permits are issued; (3) work with other landowners to develop adequate and appropriate mitigation and monitoring plans; (4) implement a slower pace and intensity of drilling; (5) reduce surface disturbance to wetlands and riparian zones by no surface occupancy restrictions; (6) reduce surface disturbance by requiring directional drilling and clustered wellpads; and (7) require BMPs and Performance-Based Objectives.

F. IMPACTS TO CULTURAL AND HISTORIC RESOURCES

To say that the Pinedale Anticline contains a rich diversity of cultural and historic resources would be an understatement. Sites range from prehistoric to modern day, with diverse types of artifacts having been found and identified. The intensity of drilling on the anticline will have devastating impacts to cultural and historic resources, with many being destroyed. The DSEIS reveals that the Anticline likely "contains many more cultural resources than those inventoried to date." A major new find along the bluffs of the New Fork River is the equivalent of the Trappers Point site to the north in terms of the richness of materials at the site. The new site suggests that prehistoric Native Americans may have taken advantage of big game migrations through the area, much like the Trappers Point site.

C-1 EG-19-24 Mitigation and monitoring for these priceless sites is woefully inadequate or lacking. The new DSEIS must deal effectively with the consequences of drilling to these resources.

G. CUMULATIVE IMPACTS

CU-2 EG-19-25 While BLM has assessed cumulative impacts resource by resource, it has not put all this information together to determine how all the impacts combined will affect the human environment on the Pinedale Anticline. If all the impacts are taken as a whole, what will the environment be like once the project is implemented? This is a critical issue which must be addressed in the new DSEIS.

BLM also persists in assessing cumulative impacts only in the project area. Cumulative impacts are defined in the CEQ regulations as:

> the impact on the environment which results from the incremental impact of the action **when added to other past, present, and reasonable 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.

CU-3 EG-19-26 40 CFR 1508.7; and BLM NEPA Handbook. (Emphasis added.) BLM fails to take into account other impacts from drilling projects outside the project area, as well as other sources of impact outside the project area. Thus, the DSEIS does not accurately depict the cumulative impacts of the proposed project.

H. IMPACTS ON CLIMATE

CL-1 EG-19-27 NEPA specifically requires agencies to ". . . recognize the worldwide and long-range character of environmental problems." 42 U.S.C. § 4332. Natural gas exploration, development and production all disgorge vast quantities of pollutants into the air and water. It seems particularly obvious that the effects of the proposed action on climate are critical and warrant a hard look by BLM. For BLM to simply climate impacts is a violation of its mandate under NEPA. Biodiversity Conservation Alliance insists that BLM conduct the appropriate inquiry, "which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking" on the proposed action. 42 U.S.C. § 4332. For a discussion of the impact of climate impacts on alpine areas of the Wind River Range, near the PAPA, see the article in the *Journal of Geophysical Research* footnoted below[6]

In closing, we urge BLM to go back to the drawing board and develop a draft SEIS which allows for multiple use of public lands, provides meaningful protections for wildlife and other resources, and includes stringent mitigation and monitoring with adequate resources for enforcement.

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[6] David L. Naftz et al., *Ice Core Evidence of Rapid Air Temperature Increases Since 1960 in Alpine Areas of the Wind River Range, Wyoming, United States,* Journal of Geophysical Research, July 9, 2002. (Attached hereto as Exhibit A and incorporated herein by reference.)

Sincerely,

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