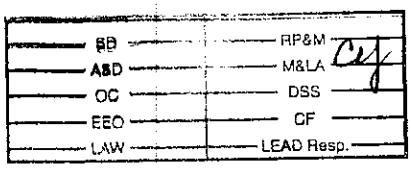
BIODIVERSITY CONSERVATION ALLIANCE



July 15, 2010

VIA FIRST-CLASS MAIL

Don Simpson, State Director
Bureau of Land Management
5353 Yellowstone Road
Cheyenne, WY 82003

RE: PROTEST OF CERTAIN PARCELS TO BE OFFERED AT BLM'S AUGUST 2010 COMPETITIVE OIL & GAS LEASE SALE

Dear Mr. Simpson:

In accordance with 43 C.F.R. §§ 4.450-2 and 3120.1-3, Biodiversity Conservation Alliance protests certain parcels being offered at the Bureau of Land Management's (BLM) August 2010 competitive oil and gas lease sale.

This protest is based on five areas of concern: (A) protections for greater sage-grouse and the species' habitat, (B) protections for Wyoming pocket gopher and the species' habitat, (C) protections for big game crucial ranges, (D) protections for migration corridors, amnd (E) protection of Class I waters.

This Protest incorporates by reference all Exhibits provided to BLM with the protest of the October 2008 lease sale by Biodiversity Conservation Alliance, et al. As BLM is already in possession of these documents, we have not attached them hereto.

I. THE PARTY

Biodiversity Conservation Alliance (BCA) is a non-profit conservation group with hundreds of members in Wyoming and other states. BCA is dedicated to protecting Wyoming's wildlife and wild places, particularly on public lands. BCA's members live in all of the Field Office areas where lease parcels would be offered in the May 2010 lease sale. Members of BCA utilize land and water resources within and near these areas for hiking, fishing, camping, recreational, scientific study, photography, and aesthetic uses. BCA and its members are actively involved in BLM oil and gas activities in this region and participate in all National Environmental Policy Act (NEPA) stages of BLM oil and gas projects by submitting comments and attending public meetings. BCA has a long record of advocating for environmentally sound

oil and gas development in Wyoming and throughout the West. As a consequence, BCA and its members would be adversely affected by the sale of the lease parcels being protested here and they have an interest in this matter.

II. THE ISSUES

AT RISK: WILDLIFE, OPEN SPACES, AND CLEAN AIR AND WATER

Oil and gas activities on the public lands at issue herein are quickly escalating. BLM is approving record numbers of large oil and gas development projects in Wyoming. The lands at issue here are mostly federal lands managed by BLM. Many of these lands provide critical habitat for a number of species, ranging from sage grouse, to mule deer, to severely imperiled species, such as fish species in the Green/Colorado River Basin and Platte River Basin, and sage grouse on the sagebrush country. Many of the BLM lands at issue serve as quiet, serene places of natural beauty and solitude, and as such, they provide excellent recreational opportunities for hiking, birding, wildlife viewing, hunting, fishing, backpacking, and enjoyment of open spaces.

Explosive oil and gas development on these lands threatens all of the above resources, for which BLM has a mandatory duty to protect for "multiple use." Oil and gas development has and will lead to fragmented habitat and surface disturbances through well pad construction, oil and gas well rigs, increased vehicular traffic, miles of roads, pipelines and power lines, and noise from generators and compressor stations. All of these associated activities serve to disrupt habitat, destroy nesting and brooding grounds, and disturb wildlife. These activities can significantly impact elk, mule deer, pronghorn antelope, and sage grouse, as well as many other species that live there. Many of these lands serve as crucial winter range and parturition areas for elk, pronghorn antelope and mule deer, as well as critical breeding and nesting habitat near sage grouse leks. Many rare species find some of their last secure refuges on these lands.

In addition, many of these lands have been used by ranchers and farmers for generations, yet BLM would allow mineral development without having taken steps to fully protect the rights and interests of surface owners. While policies such as BLM IM 2003-131 provides instruction on how protections for surface owners are to be afforded ***after*** a lease is granted, there is nothing which would prevent BLM from ensuring even greater protection of surface owner interests ***before*** leasing. That has not even been considered here. Consequently, Wyoming's rural heritage and lifestyle are threatened by the sale of the lease parcels protested here.

BCA realizes, of course, that a lease itself does not necessarily create immediate disturbances, but as BLM well knows, if a lease is not subject to a "No Surface Occupancy" (NSO) stipulation, the lessee receives contractually-enforceable surface use rights. 43 C.F.R. § 3101.1-2. In other words, once a lease is sold, the cat is out of the bag, putting sensitive resources which have yet to be properly considered through site-specific NEPA analysis at risk of significant and potentially unacceptable harm. Because it represents an irretrievable and irreversible commitment of resources, the leasing stage is extremely critical. We are deeply concerned that the BLM has exploited the leasing stage by disparaging it as little more than a paper transaction when, in reality, it is an important, legally consequential event that commits lands to a particular use.

In January of 2010, Secretary of the Interior Ken Salazar announced that the Department would reform its oil and gas leasing policy. In a chart comparing process changes resulting from the leasing reforms, the Department of the Interior said at the competitive oil and gas sale stage that "Field offices will prepare an environmental review document to evaluate existing, revised, and/or new stipulations."[1] Such site-specific environmental review should be undertaken prior to the Application for Permit to Drill stage, as indicated by this chart, to give the BLM the most information before it issues a lease and has less opportunity to require modifications or mitigation measures to prevent further adverse impacts to sage-grouse. The Department of Interior and BLM have not adhered to this promised leasing reform. Deferring site-specific analysis to the drilling stage presents only the illusion of proper process because, unless a lease is subject to an NSO stipulation, BLM has already surrendered surface use rights and thus BLM's ability to protect lands and resources is hamstrung. Given this level of importance, and particularly due to the many legal violations that will occur on the date of the sale of the parcels protested here, BCA is filing this Protest.

A. LEASE PARCELS WITH SAGE-GROUSE CORE AND OTHER SAGE-GROUSE HABITAT

BCA protests lease parcels WY-1008-002, 005, 007, 022, 023, 025, 026, 029, 030, 031, 032, 033, 034, 036, 037, 038, 039, 040, 041, 042, 043, 045, 046, 047, 048, 049, 050, 051, 056, 058, 060, 065, 067, 069, 070, 073, 076, 077, 078, 079, 080, 081, 082, and 083. These parcels contain important sage-grouse or sharp-tailed grouse nesting habitats and/or wintering habitats. Furthermore, parcels WY-1008-25, 26, 29, 31, 32, 33, 34, 36, 37, 41, 42, 43, 45, 47, 48, 49, 54, 67, 68, and 70 lie within designated Core Population Areas which Governor Dave Freudenthal of Wyoming has declared priority protection areas for greater sage-grouse.[2] BCA protests these parcels as well. The discrepancy between the parcels BLM itself identified as containing sage-grouse habitat and those found within Governor Core Areas indicates the flawed Core Area strategy the State of Wyoming employs to theoretically prevent sage-grouse population declines while catering to the oil and gas industry. Regardless, BLM Instruction Memorandum No. WY-2010-012, dated January 4, 2010, says that "Wyoming BLM sage-grouse Key Habitat Areas correspond to the State of Wyoming's Core Population Areas (Core Areas),"[3] yet the BLM is still issuing leases for sale in these parcels.

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, and pending pre-leasing NEPA pursuant to the new Interior department leasing IM. It appears that parcels 29, 31, 32, 33, 34, 36, and 37 are part of a large block of unleased BLM lands in a checkerboard ownership pattern, so BLM should do its best to keep this unleased area of public land unleased. 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%

[1] http://www.doi.gov/documents/Leasing_Reform_Side-by-Side_Comparison.pdf
[2] Executive Order 2008-2, Greater Sage-Grouse Core Area Protection, August 1, 2008, available at http://gf.state.wy.us/wildlife/wildlife_management/sagegrouse/sagegrouseExecOrder2008-2%5B1%5D.pdf.
[3] Instruction Memorandum No. WY-2010-012, available at http://www.blm.gov/pgdata/etc/medialib/blm/wy/resources/efoia/IMs/2010.Par.61358.File.dat/wy2010-012.pdf.

decline in the overall Wyoming sage-grouse population, with some fragmented populations declining more than 80%;[4] one of WGFD's biologists reported a 40% statewide decline over the last 20 years.[5] 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.[6] 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.

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."[7] 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.[8] 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.[9] Sage-grouse mitigation measures have been demonstrated to be ineffective at

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[4] WGFD. 2000. Minutes of the Sage-Grouse Conservation Plan meeting, June 21, 2000, Casper, WY. Cheyenne: Wyoming Game and Fish Department. A copy is attached to the BCA June 2008 Lease Protest as Exhibit 32.

[5] Christiansen, T. 2000. Sage-grouse in Wyoming: What happened to all the sage-grouse? Wyoming Wildlife News 9(5), Cheyenne: Wyoming Game and Fish Department. A copy is attached to the BCA June 2008 Lease Protest as Exhibit 33.

[6] Lyon, A.G. 2000. The potential effects of natural gas development on sage-grouse (*Centrocercus urophasianus*) near Pinedale, Wyoming. M.S. Thesis, Univ. of Wyoming, 121 pp. A copy is attached to the BCA June 2008 Lease Protest as Exhibit 34.

[7] M. Holloran. Dec. 2005. Greater Sage-Grouse Population Response to Natural Gas Field Development in Western Wyoming, at 57. This study is attached to the BCA June 2008 Lease Protest as Exhibit 35.

[8] C. Braun. May 2006. A Blueprint for Sage-grouse Conservation and Recovery. Grouse, Inc. This study is attached to the BCA June 2008 Lease Protest as Exhibit 36.

[9] Doherty, K.E., D.E. Naugle, B.L. Walker, and J.M. Graham. Greater sage-grouse winter habitat selection and energy development. Journal of Wildlife Management: In Press. Attached to the BCA June 2008 Lease Protest as Exhibit 37.

Walker, B.L., D.E. Naugle, and K.E. Doherty. Greater sage-grouse population response to energy development and habitat loss. Journal of Wildlife Management: In Press. Attached to the BCA June 2008 Lease Protest as Exhibit 38.

maintaining this species at pre-development levels in the face of oil and gas development by Holloran (2005) and Naugle et al. (2006). Naugle 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."[10] 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.

The restrictions contained in IM No. WY-2010-012 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 "occupied or undetermined" leks,[11] a far cry from the science-based 3-mile buffer recommended by field biologists. Even less protective, restrictions outside Core Areas allow surface disturbing activities and surface occupancy as close as one quarter (0.25) of a mile from leks.[12] BLM has too great an abundance of data to the contrary to continue with scientifically unsound stipulations as used in IM WY-2010-012 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

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Walker, B.L., D.E. Naugle, K.E. Doherty, and T.E. Cornish. 2007. West Nile virus and greater sage-grouse: estimating infection rate in a wild bird population. Avian Diseases 51:In Press. Attached to the BCA June 2008 Lease Protest as Exhibit 39.

[10] Sage-grouse plan amendment land user information meeting PowerPoint, available online at http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/bfodocs/sagegrouse.Par.94571.File.dat/May28_InfoMtg.pdf. Site last visited 7/16/2008.

[11] Instruction Memorandum No. WY-2010-012, available at http://www.blm.gov/pgdata/etc/medialib/blm/wy/resources/efoia/IMs/2010.Par.61358.File.dat/wy2010-012.pdf.

[12] *Id.*

the greater sage-grouse as endangered or threatened under the Endangered Species Act is warranted, but precluded by other priorities. 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 Hollaran, Braun, and others, must be undertaken now.

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, in describing parcel WY-1005-070, BLM imposes a Timing Limitation Stipulation and a Controlled Surface Use Stipulation within ¼ mile of a Greater sage-grouse strutting/dancing ground "*unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts*" to protect breeding habitat.[13] 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.

The Notice also states that for parcel WY-1005-070 and others, BLM imposes a Controlled Surface Use Stipulation stating that

> [t]he lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act.[14]

Here, the BLM already knows that the greater sage-grouse, with its "warranted but precluded" status under the Endangered Species Act, inhabits the parcels at issue. No amount of stipulations or mitigation measures can eliminate all disturbances to sage-grouse within their habitat if any surface occupancy is allowed. 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

[13] Notice of Competitive Oil and Gas Lease Sale, May 11, 2010, available at http://www.blm.gov/pgdata/etc/medialib/blm/wy/programs/energy/og/leasing/2010.Par.23383.File.dat/05list.pdf.
[14] *Id.*

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.

BCA protests the sale of all lease parcels which contain sage-grouse leks, nesting habitat, breeding habitat, wintering habitat and brood-rearing habitat. We request that these parcels be withdrawn from the lease sale. Failing withdrawal of the parcels, parcel-by-parcel NEPA analysis should occur, and NSO 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.

B. LEASE PARCELS WITH WYOMING POCKET GOPHER AND WYOMING POCKET GOPHER HABITAT

The Notice for the May 2010 lease sale lists the following parcels as potentially conflicting with Wyoming pocket gopher habitat: WY-1005-041, 042, 043, 044, 045, 046, 047, 048, 049, and 052. As BLM is no doubt aware, BCA authored a petition to list the Wyoming pocket gopher as Threatened or Endangered under the Endangered Species Act.[15] The U.S. Fish and Wildlife Service's recently released finding that the Wyoming pocket gopher is not warranted for Endangered Species Act protections[16] only heightens the fact that this incredibly rare species faces a grim long-term prognosis due to direct conflicts in its limited range with oil and gas development. As a BLM Sensitive Species, the BLM should refrain from approving or conducting any activity that could harm Wyoming pocket gophers or their habitat. Stipulations and mitigation measures cannot guarantee adequate protection for the species, as so little data has been collected to establish its breeding patterns and habitat continuity, among other variables.

We protest these parcels and request that these leases not issue pending site-specific NEPA analysis; no analysis has been done at the RMP level. Wyoming pocket gophers are one of the rarest mammals in North America, if not the rarest. This naturally uncommon species is extremely vulnerable 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 Wyoming pocket gopher viability. Both breeding and foraging activities of Wyoming pocket gopher populations are impacted by above and below ground disturbances associated with oil and gas exploration, drilling and associated activities. Impacts of oil and gas development to Wyoming pocket gopher include (1) direct habitat loss from new construction, (2) increased human activity and pumping noise causing generally known and unknown behavioral changes, (3) direct mortality associated with reserve pits, crushing due to

[15] *See* http://www.voiceforthewild.org/petitions/Final%20WPG%20Listng%20Petition.pdf.
[16] *See* http://edocket.access.gpo.gov/2010/pdf/2010-8578.pdf.

vehicular movements and construction activities, and (4) lowered water tables resulting in herbaceous vegetation loss. These impacts have not been thoroughly evaluated with full NEPA analysis.

More information is needed about Wyoming pocket gophers to confidently assess the spatial dynamics of populations. Factors such as low dispersal ability, high inbreeding, and high variation over small geographic areas suggest that Wyoming pocket gopher meta-population structures could easily be disrupted when local populations are isolated over relatively short distances.[17] The continuity of suitable habitat thus becomes an important component in the conservation of Wyoming pocket gopher populations. Very little is known regarding survivorship and mortality in Wyoming pocket gophers.[18] Most do not live more than two breeding season, but they are capable of living longer under favorable circumstances.[19] Climate may be a factor in *T. clusius* survival and recruitment.[20] Researchers also stated that sub-adult pocket gophers appeared to experience unusually heavy mortality when forced to live in marginal habitats.[21]

Mammologists and other wildlife and soil scientists recognize pocket gophers for their positive impacts on the ecosystems they inhabit. These effects primarily result from extensive tunneling activity, which can affect soil formation, hydrology, and nutrient flows. In addition, pocket gophers' consumption of below-ground plant biomass can alter the competitive interactions of plants and thereby influence above-ground vegetation.[22] Like other "ecosystem engineers" (e.g., ants, beavers, prairie dogs), pocket gopher activities can drive ecosystem function, making them important to native ecosystems. The extensive burrow systems provide habitat for numerous other burrowing and opportunistic species. Abandoned pocket gophers provide habitat for salamanders, snakes, insects, and other rodents.[23]

In addition, pocket gophers serve as prey for a number of birds and mammals, but it is suspected that natural predation is not a factor limiting pocket gopher distribution and

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[17] Patton, J.L. and R.E. Dingman. 1968. Chromosome studies of pocket gophers, genus *Thomomys*. I. The specific status of *Thomomys umbrinus* (Richardson) in Arizona. Journal of Mammalogy 49:1-13.

[18] Keinath, D.A. and G.P. Beauvais. 2006. Wyoming pocket gopher (*Thomomys clusius*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region, available online at http://www.fs.fed.us/r2/projects/scp/assessments/wyomingpocketgopher.pdf.

[19] Reid 1973. "Population biology of the northern pocket gopher." In Pocket Gophers and Colorado Mountain Rangeland. Experiment Station Bulletin. Fort Collins, CO:Colorado State University. Pp. 21-41.

Clark, T.W. and M.R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas, Lawrence, KS.

[20] Vaughan, T.A. 1967. Food habits of the northern pocket gopher on shortgrass prairie. The American Midland Naturalist 77:176-189.

[21] Howard, W.E. and H.E. Childs. 1959. Ecology of pocket gophers with emphasis on *Thomomys bottae mewa*. Hilgardia 29:277-358.

[22] Keinath, D.A. and G.P. Beauvais. 2006. Wyoming pocket gopher (*Thomomys clusius*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region, available online at http://www.fs.fed.us/r2/projects/scp/assessments/wyomingpocketgopher.pdf.

[23] Center for Native Ecosystems, Forest Guardians, Michael C. McGowan, and Jacob Smith. 2003. Petition for a Rule to List *Thomomys talpoides macrotis* (Northern Pocket Gopher, subspecies macrotis) as Threatened or Endangered under the Endangered Species Act, 16 U.S.C. § 1531 et seq. (1973 as amended) and for the Designation of Critical Habitat. March 20, 2003; Armstrong, D.M. 1987. Rocky Mountain Mammals. Colorado Associated University Press.

abundance.[24] Since gophers evolved with natural predators, it is unlikely such predation would play a role in population declines unless accompanied by other extenuating circumstances.[25] Such extenuating circumstances might include increased predation from generalist predators whose distributional expansion has been facilitated by human alteration of the landscape (e.g., feral cats, coyotes, raccoons).[26] Three-dimensional structures associated with oil and gas development, like power lines and buildings, create raptor perches.[27] Such development has transformed pocket gopher habitat from a largely flat plane to a world with increased opportunities for raptor predation. In the event that Wyoming pocket gopher populations become small and/or isolated, even natural predation events could cause a marked population decline.[28]

Pocket gophers are strongly fossorial, living most of their lives in burrow systems and underground tunnels.[29] Based on the very limited information base, the Wyoming pocket gopher appears to segregate from northern pocket gophers by preferentially occupying dry, gravelly, shallow-soil ridge tops rather than deeper soiled swales and valley bottoms,[30] but this information is tenuous and useful mainly to inform further investigation. The long distance movement and dispersal capabilities of Wyoming pocket gophers are limited since they stay underground most of the time, foraging above-ground only at night or on overcast days.[31] Plus, the energetic costs of burrowing are high enough to be a physiological limitation to movement.[32]

Other species of pocket gophers may have longer-distance dispersals beneath snow, but this is unlikely for Wyoming pocket gophers because the species' preferred habitat is presumed to be dry ridges with low snow accumulation and wind scouring that tends to deposit existing snow in depressions.

A suitable landscape for Wyoming pocket gophers may be loosely defined as a dry upland with gravelly, yet still tractable, soils and relatively high productivity of grasses and forbs (high food availability). Given the species' small home ranges, the continuous area of such habitat capable of supporting a local population of Wyoming pocket gophers may be relatively small. However, long-term persistence of the gophers would likely depend on larger areas of such habitat arranged in patches of sufficient proximity to allow dispersal between patches.

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[24] Chase, J.D., W.E. Howard, and J.T. Roseberry. 1982. Pocket Gophers. *In*: Wild Mammals of North America. Johns Hopkins University Press, Baltimore, MD.

[25] Keinath, D.A. and G.P. Beauvais. 2006. Wyoming pocket gopher (*Thomomys clusius*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region, available online at http://www.fs.fed.us/r2/projects/scp/assessments/wyomingpocketgopher.pdf.

[26] *Id.*

[27] Bureau of Land Management. 2006. Scoping Notice, Continental Divide - Creston, Carbon County, Wyoming..

[28] Wilcove, D.S. 1985. Nest predation in forest tracts and the decline of migratory songbirds. Ecology 66:1211-1214; Sinclair, A.R.E., R.P. Pech, C.R. Dickman, D. Hik, P. Mahon, and A.E. Newsome. 1998. Predicting Effects of Predation on Conservation of Endangered Prey. Conservation Biology 12:564.

[29] Keinath, D.A. and G.P. Beauvais. 2006. Wyoming pocket gopher (*Thomomys clusius*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region, available online at http://www.fs.fed.us/r2/projects/scp/assessments/wyomingpocketgopher.pdf.

[30] Clark, T.W. and M.R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas, Lawrence, KS.

[31] Verts, B.J. and L.N. Carraway. 1999. *Thomomys talpoides*. Mammalian Species 618:1-11.

[32] Vleck, D. 1979. The energy cost of burrowing by the pocket gopher *Thomomys bottae*. Physiological Zoology 52:122-136.

Other than coarse scale habitat availability, it is unclear what limits the structure and growth of populations. The extremely varied diets of various pocket gopher species have led to the conclusion that food is seldom a limiting factor in pocket gopher distribution, but the nature and amount of vegetation may affect local population densities.[33]

The Wyoming pocket gopher is known to occur only in Sweetwater and Carbon Counties in Wyoming. As its range is currently defined, the Wyoming pocket gopher appears to occur primarily on multiple-use lands managed by the BLM. These lands are extensively intermixed with parcels of private land. A variety of biological factors can make animals intrinsically susceptible to disturbance, including narrow distribution, habitat specificity, restrictive territoriality and area requirements, susceptibility to disease, low dispersal capability, high site fidelity, and low reproductive capability. After reviewing available information, researchers considered the intrinsic vulnerability of Wyoming pocket gophers to be moderate due to highly limited distribution, limited dispersal ability, and the uncertainty surrounding many aspects of their biology.[34]

Small mammals with restricted distributions and/or narrow habitat requirements are more vulnerable than others to habitat loss.[35] The paucity of information regarding Wyoming pocket gophers requires extreme caution when proposing to disturb potential habitat. Habitat destruction is the primary threat to *T. clusius*. Habitat fragmentation and isolation also threaten *T. clusius*. Continued oil and gas development creates increasingly dense road networks, diminishes corridors for dispersal, and further separates populations. Roads act as barriers to finding mates, leading to inbreeding and loss of gene flow within individual populations. Habitat fragmentation results in shrinking islands of intact habitat with increased exposure to edge effects. The impacts of disturbances associated with oil and gas development will only increase under the February sale of parcels containing Wyoming pocket gophers and habitat.

Development is not just destroying and fragmenting habitat, it is also degrading it. Soil disturbances typical of oil and gas development projects, motorized vehicle impacts, and other activities are known to exacerbate the introduction and subsequent spread of noxious weeds.

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[33] Miller, R.S. and R.A. Ward. 1964. Ectoparasites of pocket gophers from Colorado. The American Midland Naturalist 64:382-391.

[34] Keinath, D.A. and G.P. Beauvais. 2006. Wyoming pocket gopher (*Thomomys clusius*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region.
Available online: http://www.fs.fed.us/r2/projects/scp/assessments/wyomingpocketgopher.pdf

[35] Hafner, D.J. 1998. Rodents of Southwestern North America. *In*: D.J. Hafner, E. Yensen, and G.L. Kirkland, Jr., editors. North American rodents: status survey and conservation action plan. IUCN/SSC Rodent Specialist Group, IUCN, Gland, Switzerland and Cambridge, U.K.

Hafner, David J., Eric Yensen, Gordon L. Kirkland, Jr., Joseph G. Hall, Joseph A. Cook, and David W. Nagorsen. 1998. "Executive Summary." In North American rodents: status survey and conservation action plan. D. J. Hafner, E. Yensen, and G. L. Kirkland, Jr., eds. IUCN/SSC Rodent Specialist Group, IUCN, Gland, Switzerland and Cambridge, U.K., x + 171 pp. Pp. 66-67. Pp.vii.

Hafner, David J. 1998. "Rodents of Southwestern North America." Ch. 3. In North American rodents: status survey and conservation action plan. D. J. Hafner, E. Yensen, and G. L. Kirkland, Jr., eds. IUCN/SSC Rodent Specialist Group, IUCN, Gland, Switzerland and Cambridge, U.K., x + 171 pp. Pp. 66-67. Pp. 10-17.

Hafner, David J. 2001. New Mexico Natural Heritage Program, pers. comm., 5 December 2001.

Noxious weeds limit population density in fossorial mammals.[36] In addition, herbicide use that invariably precedes and follows most forms of development also degrades pocket gopher habitat.[37] Finally, individual pocket gophers are killed in the pursuit of commercial and industrial development.

The Wyoming BLM assigned the Wyoming pocket gopher to its sensitive species list. The BLM developed the list to "ensure that any actions on public lands consider the overall welfare of these sensitive species and do not contribute to their decline". In addition, the Wyoming Game and Fish Department includes the Wyoming pocket gopher on a long list of species of concern under Wyoming's Comprehensive Wildlife Conservation Strategy.[38] The BLM's sensitive species management includes "developing conservation strategies" and "prioritizing what conservation work is needed." BLM's inclusion of parcels with Wyoming pocket gophers and habitat in the February 2010 lease sale does not indicate the agency is adhering to its own management standards.

The Wyoming Natural Diversity Database has assigned the Wyoming pocket gopher a rank of G2/S2.[39] The G2 refers to a relatively high probability of global extinction, based primarily on the species' extremely small global range. The S2 refers to a relatively high probability of extinction from Wyoming, based largely on range restriction, but also considering apparently low range occupation, uncertain abundance trends, and moderate biological vulnerability. Further, the Database assigned a Wyoming Significance Rank of Very High to the Wyoming pocket gopher, which reflects the extremely high contribution of Wyoming population segments to continental persistence of the species.[40]

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[36] Slobodchikoff, C.N., A. Robinson, and C. Schaack. 1988. Habitat use by Gunnison's prairie dogs. Pp. 403-408 in R.C. Szaro, K.E. Severson, and D.R. Patton, technical coordinators. Management of amphibians, reptiles, and small mammals in North America. Proceedings of the symposium. 19-21 July 1988, Flagstaff, Arizona. USDA Forest Service General Technical Report RM-166. November 1988. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins. 458.

[37] Reid 1973. "Population biology of the northern pocket gopher." In Pocket Gophers and Colorado Mountain Rangeland. Experiment Station Bulletin. Fort Collins, CO:Colorado State University. Pp. 21-41; Hansen, R.M. and A.L. Ward. 1966. Some relations of pocket gophers to rangelands on Grand Mesa, Colorado. Colorado Agricultural Experiment Station Technical Bulletin 88:1-22; Tietjen, H.P. 1973 Control of pocket gophers. Pp. 73-81 in Pocket Gophers and Colorado Mountain Rangeland; Chase, J.D., W.E. Howard, and J.T. Roseberry. 1982. Pocket Gophers. *In*: Wild Mammals of North America. Johns Hopkins University Press, Baltimore, MD; Miller, R.S. 1964. Ecology and distribution of pocket gophers (Geomyidae) in Colorado. Ecology 45:256-272; Tietjen, H.P., C.H. Halvoran, P.L. Hegdal, and A.M. Johnson. 1967. 2,4-D herbicide, vegetation, and pocket gopher relationships: Black Mesa, Colorado. Ecology 48(4):634-643.

[38] Wyoming Game and Fish Department. 2005. A Comprehensive Wildlife Conservation Strategy for Wyoming. Wyoming Game and Fish Department, Cheyenne, WY. Approved July 12, 2005.32
S.P. 1958. The bobcat of North America: its history, life habitats, economic status and control, with lists of currently recognized subspecies. The Stackpole Company Harrisburg, Pennsylvania and The Wildlife Management Institute, Washington, D.C., 193 pp.

[39] http://uwadmnweb.uwyo.edu/wyndd/; Keinath et al. 2003.

[40] Keinath, D.A. and G.P. Beauvais. 2003[a]. Wyoming Animal Element Ranking Guidelines. The Wyoming Natural Diversity Database, University of Wyoming, Laramie, WY.
Keinath, D.A., B.H. Heidel, and G.P. Beauvais. 2003[b]. Wyoming Plant and Animal Species of Concern: November 2003. The Wyoming Natural Diversity Database, University of Wyoming, Laramie, WY.

To date, there are no management plans or conservation strategies pertaining explicitly to the Wyoming pocket gopher, although one status assessment has been drafted with support of the Wyoming BLM State Office and the Wyoming Natural Diversity Database.[41] There appear to be insufficiently described mechanisms by which conservation of Wyoming pocket gophers could be achieved should oil and gas development occur within their known and potential range. However, the primary concern stated by most studies of the species is the lack of information on its biology and ecology. Without gathering the needed information, conservation mechanisms' efficacy cannot be determined. Biodiversity Conservation Alliance asks the Wyoming BLM State Office to withdraw parcels containing known and potential Wyoming pocket gophers and habitat while adequate information is gathered and evaluated and the USFWS completes its review of our petition for listing under the ESA.

Negative impacts of oil and gas operations on Wyoming pocket gopher and their implications for the species are named in virtually every scientific Wyoming pocket gopher (*Thomomys clusius*) conservation assessment and survey. Wyoming pocket gopher mitigation measures are essentially non-existent due to their extremely limited range and a paucity of scientific knowledge concerning its ability or inability to adapt to changing habitat conditions. BLM has failed to provide any analysis, whether field experiments or literature reviews, that describes if and how disturbance to *T. clusius* habitat 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 Wyoming pocket gopher. It is incumbent upon BLM to consider the most recent scientific evidence regarding the status of this species and to develop mitigation measures, if possible, which will ensure the species is not moved toward listing under the Endangered Species Act. It is clear from the scientific evidence and a total absence of meaningful BLM (state and federal levels), Wyoming Game and Fish, and U.S. Fish and Wildlife Service conservation measures for the Wyoming pocket gopher that current protections are non-existent, thereby allowing if not encouraging habitat degradation and destruction. New and continuing Wyoming pocket gopher survey information constitutes significant new information that requires amendment of the Resource Management Plans before additional oil and gas leasing can move forward.[42]

For example, 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 [greater sage grouse] 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 greater sage grouse." Continued application of stipulations

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[41] Beauvais, G.P. and D. Dark-Smiley. 2005. Species assessment for Wyoming Pocket Gopher (*Thomomys clusius*) in Wyoming. Report prepared for the Wyoming State Bureau of Land Management, Cheyenne, Wyoming by the Wyoming Natural Diversity Database, Laramie, WY.

[42] Keinath, D.A. and G.P. Beauvais. 2006. Wyoming pocket gopher (*Thomomys clusius*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region, available online at http://www.fs.fed.us/r2/projects/scp/assessments/wyomingpocketgopher.pdf.

Keinath, D.A., H. Griscom, and A. Redder. 2008. Survey for Wyoming pocket gopher (*Thomomys clusius*) in central Wyoming. Report prepared for The Nature Conservancy - Wyoming Field Office by the Wyoming Natural Diversity Database - University of Wyoming, Laramie, Wyoming, available online at ftp://ftp.wygisc.uwyo.edu/pub/gis/wyndd/THCLReport07_15Feb07.pdf.

known to be ineffective in the face of strong evidence that they do not work, and continuing to drive the greater 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. We hold that, in the case of the Wyoming pocket gopher, relevant stipulations do not exist. Further, we hold that a total absence of stipulations serves to drive the Wyoming pocket gopher toward ESA listing in violation of BLM Sensitive Species policy, is arbitrary and capricious, and is an abuse of discretion under the Administrative Procedure Act.

We protest the sale of all lease parcels which contain known and potential Wyoming pocket gopher habitat. We request that these parcels be withdrawn from the lease sale. Failing withdrawal of the parcels, it is critical that NEPA analysis occur on each parcel before leasing, and NSO stipulations be placed on all lease parcels containing known and potential Wyoming pocket gopher habitat. These stipulations should 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 directly and indirectly negatively impact Wyoming pocket gopher populations and habitat and increase the potential for listing by USFWS as a Threatened or Endangered species, in violation of BLM's duty to take all actions necessary to prevent listing.

The following information represents Wyoming pocket gopher survey data collected in 2008 by consulting firm, Hayden-Wing Associates, LLC.[43]

The Wyoming pocket gopher (*Thomomys clusius*) is the only known vertebrate species endemic to Wyoming—apparently only in south-central Wyoming and in specifically Sweetwater and Carbon counties.[44] One of our petitions primary rationales for the species' listing under the Endnagered Species Act is the potential negative effects of energy development taking place within their known range.[45] Energy development is also named as a "more likely" threat than even agriculture to the Wyoming pocket gopher in the Wyoming Natural Diversity Database Wyoming pocket gopher Conservation Assessments.[46]

Anthropogenic impacts, in addition to oil and gas development and related activities

Livestock over-grazing also reduces the abundance of pocket gophers while some studies suggested increased gopher abundance with grazing until grazing became heavy, whereupon

[43] Wyoming (Thomomys clusius) Surveys in South-Central Wyoming Prepared for Petroleum Association of Wyoming 951 Werner Court Suite 100 Casper, Wyoming 82601 Prepared by Hayden-Wing Associates, LLCP.O. Box 1689 Laramie, Wyoming 82073 November 2008.

[44] Clark, T.W. and M.R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas, Lawrence, Kansas.

[45] Biodiversity Conservation Alliance. Petition to List Wyoming Pocket Gopher as Threatened or Endangered under the Endangered Species Act. Submitted to U.S. Fish & Wildlife Service: August 7, 2007.

[46] Wyoming Pocket Gopher (Thomomys clusius): *A Technical Conservation Assessment. Prepared for the USDA Forest Service, Rocky Mountain Region, Species Conservation Project August 31, 2006 Douglas A. Keinath and Gary P. Beauvais, Ph.D. Wyoming Natural Diversity Database, University of Wyoming, 1000 E. University Ave. — Dept. 3381, Laramie, Wyoming 82071. *Peer Review Administered by Society for Conservation Biology

gophers virtually disappeared (Phillips 1936).[47,48,49,50,51,52,53] The weight of evidence suggests that heavy grazing pressure is likely to reduce the prevalence of pocket gophers.

Other agricultural practices that adversely impact pocket gophers, generally, are "pest" control measures including poisoning and trapping of gophers and other wildlife.[54] Herbicides used to control weeds have also been shown to negatively impact populations of northern pocket gophers through their effect on the species' natural food sources.[55,56,57]

> "A more likely threat is soil disturbance and compaction due to increased petroleum exploration and extraction. In this context, increased road density that accompanies petroleum development may be more of a threat than the construction of well pads and pipelines, since it would fragment habitat, which could impede population persistence. Fragmentation due to road construction has been cited as a factor in a petition to list a subspecies of northern pocket gopher (*Thomomys talpoides macrotis*), as threatened under the Endangered Species Act (CNE et al. 2003). Authors of the (*Thomomys talpoides macrotis*) petition claim road construction from municipal development reduces dispersal corridors, creates barriers to finding mates, and increases exposure to edge effects, thereby separating populations and leading to inbreeding and loss of gene flow within individual populations. Given the already noted propensity of pocket gopher populations to become isolated and inbred, this is not an unreasonable scenario and could become a concern if road construction increases within populations of Wyoming pocket gophers."[58]

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[47] Hansen, R.M. 1965. Pocket gopher density in an enclosure of native habitat. Journal of Mammalogy 46:508-509.
[48] Hansen, R.M. and A.L. Ward. 1966. Some relations of pocket gophers to rangelands on Grand Mesa, Colorado. Colorado Agricultural Experiment Station Technical Bulletin 88:1-22.
[49] Hansen, Richard M. and Vincent H. Reid 1973. "Distribution and adaptations of pocket gophers." In Pocket Gophers and Colorado Mountain Rangeland. Experiment Station Bulletin. Fort Collins, CO: Colorado State University.
[50] Turner, G.T., R.M. Hansen, V.H. Reid, H.D. Tietjen, and A.L. Ward. 1973. Pocket gophers and Colorado mountain rangeland. Colorado State University Experiment Station Bulletin 544S:1-90.31
[51] Stromberg, M.R. and J.R. Griffin. 1996. Long term patterns in coastal California grasslands in relation to cultivation, gophers and grazing. Ecological Applications 6:1189-1211.
[52] Richens, V.B. 1965b. An evaluation of control of the Wasatch pocket gopher. Journal of Wildlife Management 29:413-425.
[53] Phillips, P. 1936. The distribution of rodents in overgrazed and normal grasslands of central Oklahoma. Ecology 17:673-679.
[54] Tietjen, H.P. 1973 Control of pocket gophers. Pp. 73-81 in Pocket Gophers and Colorado Mountain Rangeland.
[55] Miller, R.S. 1964. Ecology and distribution of pocket gophers (Geomyidae) in Colorado. Ecology 45:256-272.
[56] Tietjen, H.P., C.H. Halvoran, P.L. Hegdal, and A.M. Johnson. 1967. 2,4-D herbicide, vegetation, and pocket gopher relationships: Black Mesa, Colorado. Ecology 48(4):634-643.
[57] Reid 1973. "Population biology of the northern pocket gopher." In Pocket Gophers and Colorado Mountain Rangeland. Experiment Station Bulletin. Fort Collins, CO: Colorado State University. Pp. 21-41.
[58] Wyoming Pocket Gopher (Thomomys clusius): *A Technical Conservation Assessment. Prepared for the USDA Forest Service, Rocky Mountain Region, Species Conservation Project August 31, 2006 Douglas A. Keinath and Gary P. Beauvais, Ph.D. Wyoming Natural Diversity Database, University of Wyoming, 1000 E. University Ave. — Dept. 3381, Laramie, Wyoming 82071. *Peer Review Administered by Society for Conservation Biology

Invasion of noxious weeds is generally enhanced by human disturbance of native landscapes such as overgrazing, road construction, recreation, land development. Introduction of non-native plants and even disturbances to native vegetation has been shown to limit populations of other burrowing herbivores such as prairie dogs.[59] According to Hayden-Wing Associates, LLCP.O., "studies have not explicitly investigated effects on pocket gophers, but it is likely that non-native vegetation could alter or restrict their populations, particularly if the invasive species are not palatable to gophers. The authors do not see this situation as likely to be a current threat to Wyoming pocket gophers, but there is no information to support this hypothesis and it is therefore something to keep in mind as the status and ecological relationships of this species are clarified."

We protest this lease sale because BLM has failed to consider "cumulative effects" of oil and gas development in a context that includes livestock grazing and other agricultural activities on the very land included in this proposed lease sale.

Hayden-Wing Associates reported in 2008 that "trapping success was similar to previous recent effort within the WPGSA but was well below reported values from other pocket gopher studies. Lower capture rates in the WPGSA may be caused by low *Thomomys* densities brought about by reduced resource availability or interspecific competition among species. Species of pocket gopher are thought to exclude one another from particular environments, but sympatry could occur between northern and Wyoming pocket gophers. For example, northern pocket gophers capture sites were located 114, 262 and 269 m from three of the 10 Wyoming pocket gopher capture sites, and with all capture sites exhibiting little difference in environmental conditions. The potential interaction, if any, between these two species is an area that deserves further attention."[60]

Genetics

According to Hayden-Wing Associates and Wyoming Natural Diversity Database, the genetic results from the University of Wyoming suggested that the field assessment of phenotype is a reliable indicator of genotype. According to Dr. Dave McDonald (personal communication), specimens identified as *T. clusius* had distinctive chromosome counts (2N = 46) and represented a monophyletic clade based on genetic analysis (i.e., Amplified Fragment Polymorphism, or AFLP analysis).[61] Questions regarding the taxonomy of (*T. clusius*) have been answered conclusively. The Wyoming pocket gopher has been assigned taxonomic identifiers as follows:

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[59] Slobodchikoff. C.N., A. Robinson, and C. Schaack. 1988. Habitat use by Gunnison's prairie dogs. Pp. 403-408 in R.C. Szaro, K.E. Severson, and D.R. Patton, technical coordinators. Management of amphibians, reptiles, and small mammals in North America. Proceedings of the symposium. 19-21 July 1988, Flagstaff, Arizona. USDA Forest Service General Technical Report RM-166. November 1988. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins. 458 pp.

[60] Wyoming (Thomomys clusius) Surveys in South-Central Wyoming Prepared for Petroleum Association of Wyoming 951 Werner Court Suite 100 Casper, Wyoming 82601 Prepared by Hayden-Wing Associates, LLCP.O. Box 1689 Laramie, Wyoming 82073 November 2008

[61] Pocket Gopher Surveys in Southwestern Wyoming. 2008 Progress Report December 15, 2008. Prepared By Doug Keinath and Hannah Griscom, Wyoming Natural Diversity Database, University of Wyoming, 1000 E. University Ave., Dept. 3381 Laramie, Wyoming 82071. Prepared For Wyoming Game and Fish Department, 5400 Bishop Boulevard Cheyenne, WY 82006, Agreement 000605 PPCAS: CWC - Orgn: 601A.

Thomomys clusius - Coues, 1875
Wyoming Pocket Gopher
Related ITIS Name(s): *Thomomys clusius* Coues, 1875 (TSN 180224)
Unique Identifier: ELEMENT_GLOBAL.2.103243
Element Code: AMAFC01050

According to the Wyoming Natural Diversity Database model, all Wyoming pocket gopher captures were located within the predicted distribution of the species. The objective of the survey was not to test the model. The WYNDD survey concluded, "the capture locations from the present and future studies may be beneficial for refining and validating its predictive capacity." Currently no reliable predictive model exists that could be applied to proposed mitigation measures.

The lack of knowledge regarding Wyoming pocket gopher abundance, morphology, habitat use, distribution, and potential threats demands additional field studies that encompass larger spatial and temporal scales. We ask the Wyoming BLM State Office to withdraw parcels containing known and potential Wyoming pocket gopher habitat from the lease sale while adequate information is gathered and evaluated and the U.S. Fish and Wildlife Service listing concerns reach a final legal resolution.

B. CRUCIAL WINTER RANGE and PARTURITION AREA PARCELS

The parties protest the sale of parcels located in big game crucial winter range and parturition areas and ask that they be deferred pending pre-leasing site-specific NEPA analysis. Parcels WY- 0904-066, 067, 068, 069, 071, 075, 077, 079, and 080 are located in big game crucial winter ranges and/or big game parturition areas. We protest the sale of these lease parcels for these reasons. These parcels are critical for the survival of these species in this area, and recent scientific studies show that populations of big game are declining sharply and the current lease stipulations are not adequate to protect big game species. These parcels should be withdrawn from the lease sale and deferred pending pre-leasing NEPA analysis.

BCA was a party to an appeal filed with the Interior Board of Land Appeals of the BLM's denial of their Protest filed against the June 6, 2006 lease sale. In its April 2008 Decision,[62] the Board 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.

[62] IBLA 2007-136 (174 IBLA 174), decided April 4, 2008.

The Parties protest the lease parcels listed above because BLM has 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 April 2009 lease sale.

While the Parties strongly protest the offering of any of these 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.[63] 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.

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.

Attached to some of the parcels listed above is a timing limitation stipulation prohibiting drilling between November 15 and April 30 for "protecting big game crucial winter ranges." Also attached to some of the parcels is a timing limitation stipulation prohibiting drilling between May 1 and August 5 for "protecting big game during parturition." These are, however, not total prohibitions on drilling during the stressful winter period and birthing time. 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 Pinedale FO has granted ***winter-long*** exceptions to the stipulation for drilling on

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[2] Berger, J., K. Murray Berger and J. Beckmann. 2006. Wildlife and Energy Development: Pronghorn of the Upper Green River Basin – Year 1 Summary. Wildlife Conservation Society, Bronx, NY. Berger, K., J. Beckmann, J. Berger. 2006. Wildlife and Energy Development: Pronghorn of the Upper Green River Basin – Year 2 Summary. Wildlife Conservation Society, Bronx, NY. These reports are attached to the BCA June 2008 Lease Protest as Exhibits 17 and 18.

Sawyer, H., R. Neilson, D. Strickland and L. McDonald. Oct. 2005. Sublette Mule Deer Study (Phase II): 2005 Annual Report. Sawyer, H., R. Neilson, D. Strickland and L. McDonald. 2006. Sublette Mule Deer Study (Phase II): 2006 Annual Report. Sawyer, H., R. Neilson, F. Lindzey and L. McDonald. Winter Habitat Selection of Mule Deer Before and During Development of a Natural Gas Field. Copies of these reports are attached to the BCA June 2008 Lease Protest as Exhibits 19, 20 and 21.

Powell, J.H. 2003. Distribution, habitat use patterns, and elk response to human disturbance in the Jack Morrow Hills, Wyoming. MS Thesis, Univ. of Wyoming, 52 pp. A copy of this study is attached to the BCA June 2008 Lease Protest as Exhibit 22.

Sawyer, H., and R. Nielson. 2005. Seasonal distribution and habitat use patterns of elk in the Jack Morrow Hills Planning Area, Wyoming. Cheyenne: WEST, Inc., 28 pp. A copy of this report is attached to the BCA June 2008 Lease Protest as Exhibit 23.

crucial winter range further illustrates the totally discretionary nature and consequent ineffectiveness of this stipulation.

Just as important, these 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.

The Wyoming Game and Fish Commission (WG&F) has a formal policy relative to disturbance of crucial habitats, including crucial winter ranges.[64] 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.[65] 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.

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.

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."

Popular and 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 submitted substantial evidence showing that big game species are negatively affected by oil

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[64] Wyoming Game and Fish Department. April 1998. Policy No. VII H, Mitigation, attached to the BCA June 2008 Lease Protest as Exhibit 24.

[65] Wyoming Game and Fish Department. Dec. 2004. Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats, at 3. This document is attached to the BCA June 2008 Lease Protest as Exhibit 25.

and gas drilling on winter ranges. *See* the studies referenced in Footnote 2 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.

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 Draft RMP 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.

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.

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).

There is no indication that BLM's winter timing stipulation is based on consideration of Wyoming's 1998 Mitigation Policy, or its new programmatic standards policy. *See* Footnote 3. 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.[66] 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. 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.

The 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.

Furthermore, the timing stipulation attached to the Crucial Winter Range Parcels is 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.

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.

The parties also protest 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**." *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.

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[66] Rocky Mountain News, Nov. 13, 2006, *BLM grants drilling rights: 13 permits for gas run counter to will of Wyoming officials.* Copy attached to the BCA June 2008 Lease Protest as Exhibit 26.

attached to parcels—such as those at issue here—so as to protect the equally crucial migration routes that allow big game species to reach crucial winter range refuges in the first place. The protested parcels contain no stipulation that would allow for protection of migration routes, if such were found to be necessary. These failings violate NEPA, and the prohibition on causing unnecessary or undue degradation of the public lands established by FLPMA. 43 U.S.C. § 1732(b).

The Wyoming Outdoor Council line of IBLA cases dealing with the need for pre-leasing NEPA analysis relative to coalbed methane development firmly establish that full compliance with NEPA is required prior to offering a lease parcel for sale where potentially significant environmental impacts have not been considered in a prior pre-leasing NEPA document. See Wyoming Outdoor Council et al., 156 IBLA 347 (2002); Wyoming Outdoor Council et al, (On Reconsideration), 157 IBLA 259 (2002); both affirmed by Pennaco Energy, Inc. v. U.S. Dep't of the Interior, 377 F.3d 1147 (10th Cir. 2004). See also Wyoming Outdoor Council et al., 158 IBLA 384 (2003). As noted above, the IBLA has strongly reaffirmed this view relative to parcels being offered in the Pinedale Field Office relative to air quality issues.

The situation here is exactly analogous to that present in the Wyoming Outdoor Council line of cases. A potentially very significant environmental impact—negative and potentially severe impacts to big game migration routes resulting from the right to develop oil and gas conveyed in a lease—simply has not been considered in pre-leasing NEPA documents. The EA for this lease sale is also silent regarding migration routes or corridors. Moreover, BLM has attached no stipulations to the protested parcels that would allow it to protect this ecological feature and the species using the migration routes if such proved to be necessary.

NEPA requires agencies to take a hard look at new information or circumstances concerning the environmental effects of a federal action even after an EIS has been prepared, and to supplement the existing environmental analyses if the new circumstances "raise significant new information relevant to environmental concerns." Portland Audubon Soc'y v. Babbitt, 998 F.2d 705, 708-09 (9th Cir. 1993). Specifically, an "agency must be alert to new information that may alter the results of its original environmental analysis, and continue to take a 'hard look' at the environmental effects of [its] planned actions." Friends of the Clearwater v. Dombeck, 222 F.3d 552, 557 (9th Cir. 2000). See Marsh v. Oregon Natural Resource Council, 490 U.S. 360, 371 (1989) ("It would be incongruous . . . with [NEPA's] manifest concern with preventing uninformed action, for the blinders to adverse environmental effects, once unequivocally removed, to be restored prior to the completion of agency action simply because the relevant proposal has received initial approval."); BLM Instruction Memorandum (IM) 2001-062 ("If you determine you can properly rely on existing NEPA documents, you must establish an administrative record that documents clearly that you took a 'hard look' at whether new circumstances, new information, or environmental impacts not previously anticipated or analyzed warrant new analysis or supplementation of existing NEPA documents and whether the impact analysis supports the proposed action."). The migration routes certainly constitute important new environmental information that BLM has not considered previously in a NEPA analysis, and therefore it must do so now, before the protested parcels are offered for sale.

It bears emphasizing that none of the protested parcels have No Surface Occupancy stipulations, and none contain other stipulations that would allow BLM to protect the vitally important migration routes identified above if such were necessary. Consequently, BLM has an obligation to consider impacts to migration routes at the pre-leasing stage before allowing these parcels to be sold.

E. TRIBUTARY TO CLASS I WATER PARCELS

The Miracle Mile blue-ribbon trout fishery has been designated as a Class I water under the Clean Water Act by the State of Wyoming. DEQ regulations for tributaries to Class I Waters state that discharges into tributaries of Class I waters may not cause degradation of these waters. Parcels WY-1008-029, 030, 031, 032, 033, 034, and 035 fall into this category, occupying lands that drain into Seminoe Reservoir immediately upstream of the Miracle Mile. BLM should attach a stipulation to these leases requiring that any surface discharge of effluent must meet or exceed the background water quality of Seminoe Reservoir at the point that it enters the reservoir. Failing this, the BLM should defer these parcels from the lease sale pending site-specific analysis to deal with impacts to water quality in bodies tributary to the Class I Miracle Mile.

III. CONCLUSION AND REQUEST FOR RELIEF

For the foregoing reasons, BCA requests that the protested parcels not be offered for sale at the August 2010 competitive oil and gas lease sale. If BLM declines to withdraw the protested parcels, then we request that at the minimum, full NEPA analysis be conducted parcel-by-parcel on the impacts of oil and gas development on greater sage-grouse, Wyoming pocket gophers, big game crucial habitats, and impacts to Class I waters, ***before*** the leasing stage, and that ***adequate*** protective stipulations be placed on the leases before the lease sale in order to provide protection for wildlife, air quality, water quality, and other special resources.

Respectfully submitted,

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