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**Comments on the Chokecherry-Sierra Madre Wind Project and  
VRM Plan Amendment EIS**

Dear Ms. Murdock:

The following are the comments of Biodiversity Conservation Alliance, Rocky Mountain Wild, and Western Watersheds Project on the proposed Chokecherry-Sierra Madre Wind Project and accompanying Visual Resource Management plan amendment. We provided a thorough literature review of potential impacts of wind farms on wildlife in our scoping comments, and we will not repeat our scoping comments here. Please respond to the issues and queries raised during the scoping comments as part of your response-to-comments process.

We are supportive of wind energy development as a clean, renewable alternative to fossil fuels, as long as development proceeds responsibly. The precepts of our responsible wind energy development are laid out in our report *Wind Power in Wyoming: Doing it Smart from the Start*. Siting is of paramount importance: For a badly sited wind farm, no amount of mitigation can reduce the level of impact to acceptable levels. In the case of this project, the wind farm is proposed to be sited in the midst of highly productive sage grouse habitat, and will result in heavy impacts to these sage grouse populations. Thus, this project is the antithesis of *Doing it Smart from the Start*. In addition, we are concerned that this massive, poorly sited project is likely to trigger a public backlash against future wind development that will give wind power a bad name and make it difficult to pursue responsible, thoughtfully-sited projects well into the future. The Teton Wind LLC White Mountain project is already having this effect in southwest Wyoming.

The proposed project occurs largely within what was originally designated as sage grouse Core Area habitat by the State of Wyoming. In response to pressure from the project proponents, the Core Area boundaries were gerrymandered to largely exclude the location of the proposed turbines. We urge BLM to reject the State's alteration of the Core Areas, and recognize that the lands originally designated as Core are as important to sage grouse now as they were before the decision of the Sage Grouse Implementation Team to carve them out to appease an industrial interest. As such, these lands should be subjected to the same protective BLM stipulations as

would Core Area habitats, recognizing that BLM (being a federal agency) has an independent authority to set its own standards (and set them higher than State standards) in the interest of preventing further declines of sage grouse populations and protect the interests of the rest of the stakeholders within the range of the sage grouse.

Also notable is the fact that the sage grouse is a BLM Sensitive Species, and BLM must apply the best available science to its conservation in the interest of preventing a trend toward listing under the Endangered Species Act. BLM should incorporate the findings of the WAFWA Conservation Assessment, the Studies in Avian Biology sage grouse monograph, USFWS Warranted but Precluded Rule, and other available science into their analysis of impacts, and follow the recommendations of leading sage grouse experts in siting wind turbines at least 5 miles away from active sage grouse leks.

We have heard that Power Company of Wyoming is also pursuing the construction of a gas-fired power plant to accompany this project and provide baseload generation capacity when the wind is not blowing at levels that generate the full nameplate capacity of the wind turbines. BLM should investigate this report, as any gas-fired turbine system is a connected action that will have cumulative impacts with the rest of the project, and needs to be analyzed in terms of its impacts in the EIS.

### **Purpose and Need**

We are concerned that BLM is not properly applying agency policy direction in justifying the Purpose and Need for this project. In the Purpose and Need statement, BLM correctly cites Secretarial Order 3285 as promoting the “environmentally responsible production of renewable energy” as a national priority. DEIS v. 1 and v.2 at 1-5. However, given this project’s heavy impact on sage grouse, it represents environmentally irresponsible renewable energy production, in contravention of the Secretarial Order. Environmentally responsible wind energy production would entail the siting of wind turbines at least 5 miles from active sage grouse leks, which does not appear to be the case for any alternative considered in detail in this EIS. BLM should therefore amend its Purpose and Need statement to reflect this inconsistency. Similarly, BLM cited the National Energy Policy of 2001, which calls for, in BLM’s description, “environmentally sound production and distribution of energy for the future.” *Id.* For the reasons outlined above, this project would not qualify as “environmentally sound production.”

The DEIS also identifies a goal of producing 10,000 megawatts of renewable power, a goal that the Secretary of Interior should reach by 2015 under the Energy Policy Act of 2005. *Id.* How far along is the Secretary in reaching this goal? Has 10,000 MW already been constructed? What other projects are contributing to the effort to reach this goal?

Additionally, BLM cites IM 2009-043, put in place “to further support wind energy on public lands and also to minimize potential environmental and sociocultural impacts.” *Id.*, emphasis added. This project clearly does not minimize environmental impacts, particularly with regard to sage grouse. It needs to be scaled back and relocated to achieve this goal. It does not minimize impacts to the Overland Historic Trail or the Continental Divide National Scenic Trail, which

have sociocultural values. We urge BLM to reform this project in scope and location so that it can conform to these policy directives.

### **VRM Plan Amendment**

The VRM Amendment Preferred Alternative includes a massive and sweeping downgrade of BLM lands down to Class IV (the industrial wasteland category), which extends far beyond the bounds of the Chokecherry and Sierra Madre project areas to encompass most of the checkerboard lands along Interstate 80 and extending southward along Highway 789 to Baggs. This is outrageous, and raises the question of whether anyone in the Rawlins Field Office was paying any attention to the implications of the proposed maps. The proposed outcome is environmentally unacceptable and would allow many scenic areas to be managed for annihilation of their visual resources. We would urge BLM to implement a version of Alternative 3 for this Plan Amendment that accounts for the fact that some coalbed methane fields along Cow Creek no longer qualify for VRM Class II designation, and which provides VRM Class II for lands within 5 miles of the Overland and Cherokee Trails as well as the Continental Divide National Scenic Trail. The planning area for the VRM Amendment is massively huge in comparison to the wind power project to which it is attached; we are paying careful attention not just to how visual issues are being managed in the Project Area, but also for other lands in the proposed Plan Amendment, and re deeply concerned at the major reduction in management for visual resources proposed in this EIS.

BLM argues for Class IV in the checkerboard in part due to a lack of visitor access to some parts of it. However, all lands in the proposed RMP amendment were found to be in the foreground-middleground zone (DEIS v.1 at 3-13), meaning that they are quite visible from travel routes, presumably travel routes with legal public access. Thus, the visual resources throughout the checkerboard are being enjoyed by the public today from legal public access routes, and the visual resources need to be managed accordingly.

This area proposed for VRM Class IV includes a number of features valued by the public for their scenic value. Included are the foreground lands around Elk Mountain (and Elk Mountain itself!); according to local oral tradition, Interstate 80 was relocated from Rock River to its current alignment specifically at the behest of First Lady Mamie Eisenhower because she wanted everyone traveling along the Interstate to enjoy the scenic beauty of Elk Mountain. This is an area rated as having the highest level of scenic quality and the highest level of sensitivity in the plan amendment area. see DEIS v.1 at 3-14 and 3-15. Are motorist along this route to enjoy a viewshed of industrial devastation if BLM's preferred VRM classification gets implemented as written? Elk Mountain and its scenic foreground should be managed as VRM Class II.

In addition, much of the routing of the Continental Divide National Scenic Trail (and SRMA) runs through the area to be converted from VRM Class III to IV; it is clear that VRM Class II, not IV, is the appropriate level of protection for visual resources for a National Scenic trail. The Cherokee and Overland historic trails run through lands proposed for VRM Class IV, which is unacceptable. The Atlantic Rim is a scenic feature itself, and this feature and its foreground as seen from the Interstate deserve at least VRM Class III. The North Platte River SRMA also runs through the VRM Class IV area and is popular with boaters and anglers. VRM Class II is not

consistent with RMP direction regarding maintaining scenery for the SRMA. The entire Atlantic Rim area and the foothills of the Sierra Madre are important areas for recreational hunting, and should not be allowed to have a VRM designation any less restrictive than VRM Class III.

### ***Scenic Byways***

State Highway 71 is a scenic drive connecting to Aspen Alley, with scenic features along the way like Chokecherry Knob, Miller Hill, and Sheep Mountain along the way, as well as reservoirs that offer important settings for local recreation; these areas cannot legitimately be designated as VRM Class IV. The Wild Horse Butte Road is also a popular scenic drive in the southwestern end of the planning area, but is slated for VRM Class IV under BLM's Preferred Alternative, a much too permissive designation. This scenic route should also be managed as VRM Class II.

### ***Historic Trails and Features***

The Overland and Cherokee Historic Trails run through lands proposed to be designated Class IV; these are National Register of Historic Places features, and as such the BLM has an affirmative duty to protect not just the Trails but their settings as well, which means that VRM Class II is the most permissive VRM class that should be allowed within the viewshed of these trails. The Lander RMP revision proposes a 3-mile NSO buffer around historic trails plus a CSU buffer going out to 5 miles from the trails, within which all facilities, access roads, and related intrusions must be sited so as to be invisible from the trail. BLM should apply a VRM class that reflects this for the buffer area within 5 miles of the Overland and Cherokee Trails.

It is broadly agreed that wind power facilities cannot be sited in VRM Class I or II lands, because wind turbines are 150 feet tall and always draw the attention of the casual observer. BLM itself notes, "The proposed CCSM Wind Energy Project does not conform to the existing VRM Class designations in the Rawlins RMP." DEIS v. 1 at 1-4. Instead of changing the plan to fit the project, BLM should change the project to fit the plan.

The Plan Amendment NEPA document references a Visual Resource Inventory document completed by Otak, Inc. in 2011. DEIS v.1 at 1-3. This Visual Resource Inventory contains critical baseline information on visual resources in the proposed plan amendment area, yet its findings are not presented in the DEIS for public review or agency consideration. Exclusion of this fundamentally basic baseline information on the very resource that the Plan Amendment is designed to manage is an egregious violation of NEPA's baseline information requirements.

BLM attempts to excuse its own failure to protect important visual resources in the checkerboard area by stating that it has no control over lands in state or private ownership. See, e.g., DEIS v.1 at 4-3, 4-5. BLM can only manage its own lands, and should not waste time on what happens on private sections. If BLM does its part to protect resources on BLM lands, and hopefully encourages neighboring landowners to do the same, then the agency will meet its legal mandates regardless of what happens on private lands. If BLM fails to provide for multiple uses and resource protections according to law and BLM policy, then it will be culpable regardless, once again, of what private landowners are doing. BLM's implicit assumption that private landowners will manage their lands for maximum destruction is not supported by historical fact in this

region. Management for the least possible protection in the checkerboard sets up the BLM to be the cause of destruction on checkerboard lands, opening the door to destruction of BLM parcels with sensitive resource values even as neighboring private landowners attempt to protect the same resources on their own lands.

***Wild Cow Creek proposed wilderness deserves stronger VRM protections***

The Wild Cow Creek citizens' proposed wilderness appears to be slated for VRM Class III under the Preferred Alternative. This area should, at the very least, be VRM Class II, and VRM Class I would be even more appropriate. Regardless, BLM needs to undergo a new wilderness inventory under current guidance prior to approving the Visual Resources amendment to the RMP. Impacts to the Wild Cow Creek citizens' proposed wilderness' wilderness qualities are not discussed in the EIS under the VRM plan amendment section, in violation of NEPA's 'hard look' requirements.

The 2002 BLM Inventory Response is out of conformance with current BLM policy on wilderness policy implementing Section 201 of FLPMA, under IM 2011-154 attachment 1.<sup>1</sup> Therefore, a new analysis of wilderness characteristics is necessary to determine if these lands qualify as possessing one or more wilderness characteristics under IM 2011-154. Specifically, "Undeveloped ROWs and similar undeveloped possessory interests (e.g., mineral leases) are not treated as impacts to wilderness characteristics because these rights may never be developed." IM 2011-154 attachment 1 at 8. The Public Water Reserve is exactly this type of undeveloped possessory interest which is not to be treated as an impact to wilderness characteristics, but that is exactly what was done in BLM's 2002 wilderness inventory.

In the BLM's response to this inventory of October 3, 2002, the entire Wild Cow Creek citizens' proposed wilderness was found to be devoid of roads; only "two-tracks" were documented in this inventory. Thus, the area qualified under the definition of "roadless" under official BLM policy, Handbook 8550-1. However, the portions of the citizens' proposed wilderness on which these wells are proposed to be located were excluded from detailed wilderness consideration due the presence of a "Withdrawal" (sic), corresponding to "Public Water Reserves" on the BLM's 1:100,000-scale map titled *Baggs, Wyoming-Colorado*. Public Water Reserves in and of themselves have no on-the-ground impacts; being simply an administrative designation on the map that may never translate to on-the-ground impacts. Thus, the area in question was not inventoried by BLM for wilderness qualities based on criteria directly contrary to current BLM wilderness policy and new fresh look is needed.

The Inventory Area Evaluation of 2002 was also contrary to current BLM wilderness inventory policy in several other important respects. The 2002 inventory did determine that the area was free of roads with the exception of two-tracks (see Attachment 1), which under BLM policy (then as now) are classified as 'ways' suitable for inclusion within wilderness. For the 12,060 acres out of over 33,000 acres that BLM did evaluate, two-tracks, plugged and abandoned

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<sup>1</sup> Available online at [http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information\\_Resources\\_Management/policy/im\\_attachments/2011.Par.27443.File.dat/IM2011-154\\_att1.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2011.Par.27443.File.dat/IM2011-154_att1.pdf); site last checked 9/29/11.

wellsites, fences, and livestock reservoirs were cited as detracting from the naturalness of the area; under current BLM inventory policy,

“Examples of human-made features that may be considered substantially unnoticeable in certain cases are: trails, trail signs, bridges, fire breaks, pit toilets, fisheries enhancement facilities, fire rings, historic properties, archaeological resources, hitching posts, snow gauges, water quantity and quality measuring devices, research monitoring markers and devices, minor radio repeater sites, air quality monitoring devices, fencing, spring developments, barely visible linear disturbances, and stock ponds.”

IM 2011-154 attachment 1 at 5. Notably, plugged and abandoned wellsites occur in most designated Wilderness Study Areas throughout Wyoming, and these areas have been found to possess naturalness and all other features of wilderness by the agency. Thus, for the lands in the Wild Cow Creek citizens’ proposed wilderness (to the south of the project area) for which BLM did attempt an Inventory Area Evaluation for wilderness, human intrusions that are present fall within the category of substantially unnoticeable under the new BLM policy.

We urge BLM to conduct a new inventory of the Wild Cow Creek citizens’ proposed wilderness under current BLM guidance. I was told by a Rawlins BLM official that the reason that the Wild Cow Creek unit was not found to possess wilderness qualities was that then-Field manager Kurt Kotter liked to hunt in that area and didn’t want any reductions in vehicle access. Field Manager Kotter has since departed from the Rawlins Field Office, and with him departed any reason not to manage the Wild Cow Creek unit for wilderness. We have attached a map of the area together with a number of photographs documenting wilderness character that post-date our original inventory. Attachments 2 and 3. The naturalness, scenic qualities, and outstanding opportunities for primitive and unconfined recreation (particularly hiking, backpacking, wildflower viewing, and wildlife viewing) are documented by these photographs. We petition the BLM pursuant to 5 U.S.C. § 555(e) to reinventory the Wild Cow Creek unit for wilderness qualities as part of the Visual Resource Management plan amendment NEPA process in order to gain sufficient baseline information to perform the required analyses of impacts. All lands found to possess wilderness character under this new inventory should be managed as VRM Class I under the Plan Amendment.

## **CHOKECHERRY – SIERRA MADRE WIND FARM ANALYSIS**

### **Range of Alternatives**

The range of alternatives is “the heart of the environmental impact statement.” 40 C.F.R. § 1502.14. NEPA requires BLM to “rigorously explore and objectively evaluate” a range of alternatives to proposed federal actions. *See* 40 C.F.R. §§ 1502.14(a) and 1508.25(c). Formulation of alternatives during the NEPA disclosure and study process is at the heart of Congress’ choice of NEPA as the procedural method that guides federal agencies’ management of the public lands. *See Natural Resources Defense Council v. Hodel*, 865 F.2d 288, 299 (D.C. Cir. 1988) (citing *Kleppe v. Sierra Club*, 427 U.S. 390, 410 (1976)). In fact, NEPA requirements state that “no action concerning the proposal should be taken which would: (1) Have an adverse

environmental impact; or (2) Limit the choice of reasonable alternatives.” 40 C.F.R. § 1506.1(a). *Catron County v. U.S Fish and Wildlife Service*, 75 F.2d 1429 (10th Cir. 1996)(partial NEPA compliance is not enough.) NEPA regulations also require agencies to address appropriate alternatives in Environmental Assessments. 40 C.F.R. § 1508.9, with specific reference to section 102(2)E of NEPA. In addition, the law requires consideration of a range of mitigation measures. *See Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1122-1123 (9<sup>th</sup> Cir. 2002) (and cases cited therein) (stating that agencies must develop and analyze environmentally protective alternatives in order to comply with NEPA).

Section 102(2)(C) of NEPA requires an agency to present alternatives to the proposed action, and Section 102(2)(E) requires the agency to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4332(2)(C) and (E) (1994); *see* 40 C.F.R. § 1501.2(c); *Biodiversity Associates*, IBLA 2001-166 at 6; *Wyoming Outdoor Council*, 151 IBLA 260, 272 (1999); *Howard B. Keck, Jr.*, 124 IBLA 44, 53 (1982); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228-29 (9<sup>th</sup> Cir. 1988), cert. Denied, 489 U.S. 1066 (1989).

The fact that this basic, fundamental requirement that is the touchstone of *every* NEPA document has not gone unnoticed on the federal judiciary in sending back environmental studies that fail to meet this requirement, is noteworthy. *See e.g., Calvert Cliffs Coordinating Comm., Inc. v. United States Atomic Energy Comm’n*, 449 F.2d 1109, 1114 (D.C. Cir. 1971) (detailed EIS required to ensure that each agency decision maker has before him and takes into account all possible approaches to a particular project . . . which would alter the environmental impact and the cost-benefit balance); *Natural Resource Defense Council v. Callaway*, 524 F.2d 79, 93 (2d Cir. 1975); (“The duty to consider reasonable alternatives is independent from and of wider scope than the duty to file an environmental statement.”); *Simmons v. United States Army Corps of Engineers*, 120 F.3d 664, 660 (7<sup>th</sup> Cir. 1997) (“The highly restricted range of alternatives evaluated and considered violates the very purpose of NEPA’s alternative analysis requirement: to foster informed decision making and full public involvement.”); *Alaska Wilderness Recreation & Tourism v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995) (“The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.”); *Dubois v. U.S. Dept. of Agric.*, 102 F.3d 1273, 1288 (1st Cir. 1996) (EIS invalid because agency did not consider alternative of using artificial water storage units instead of a natural pond as a source of snowmaking for a ski resort); *Libby Rod & Gun Club v. Poteat*, 457 F. Supp. 1177, 1187-88 (D. Mont. 1978), *rev’d in part on other grounds*, 594 F.2d 742 (9th Cir. 1979) (Army Corps of Engineers violated NEPA in an EIS for a hydroelectric dam by only cursorily addressing the alternatives of meeting the Northwest’s energy needs through other sources or conservation.); *Northwest Env’t Defense Center v. Bonneville Power Admin.*, 117 F.3d 1520, 1538 (9th Cir. 1997) (“An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action.”)

The failure to look at the full range of reasonable alternatives is related to BLM’s duty in any environmental analysis to develop, study, analyze and adopt mitigation measures to protect other resources. This is particularly true given that BLM, pursuant to FLPMA, must manage public lands in a manner that does not cause either “undue” or “unnecessary” degradation. 43 U.S.C. §

1732(b). Put simply, the failure of BLM to study and adopt these types of mitigation measures – especially when feasible and economic – means that the agency is proposing to allow this project to go forward with unnecessary impacts to public lands, in violation of FLPMA.

The Tenth Circuit examined NEPA’s alternatives requirement and agreed with other courts that “have interpreted NEPA to preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant’s proposed project).” *Colorado Environmental Coalition v. Dombek*, 185 F.3d 1162, 1165 (10<sup>th</sup> Cir. 1999), at 1174 (citing *Simmons v. United States Corps of Eng’rs*, 120 F.3d 664, 669 (7<sup>th</sup> Cir. 1997)). At the same time, an agency may not completely ignore an applicant’s objectives. *See id.* at 1174-75. Taken together, these directives “instruct agencies to take responsibility for defining the objectives of an action and then provide legitimate consideration to alternatives that fall between the obvious extremes.” *Id.* at 1175. *See All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444 (10<sup>th</sup> Cir. 1992) (a thorough discussion of alternatives is “imperative”). Accordingly:

Agency compliance *vel non* with the requirement to consider alternatives is evaluated under the “rule of reason,” meaning that “the concept of alternatives must be bounded by some notion of feasibility,” and that agencies are required to deal with circumstances “as they exist and are likely to exist,” but are not required to consider alternatives that are “remote and speculative.” *Natural Resources Defense Council, Inc. v. Hodel*, 865 F.2d 288, 294095 (D.C. Cir. 1988) (internal citations omitted). However, in examining alternatives to the proposed action, an agency’s consideration of environmental concerns must be more than a *pro forma* ritual. Considering environmental costs means seriously considering alternative actions to avoid them.

*Calvert Cliffs’ Coordinating Comm., Inc. v. U.S. Atomic Energy Comm.*, 449 F.2d 1109, 1128 (D.C. Cir. 1971); see also *Southern Utah Wilderness Alliance*, 237 F.Supp.2d 48, 51; see also *Mineral Policy Center v. Norton*, 292 F.Supp.2d 30, 51 (D. D.C. 2003) (agency “not entitled to deference” where agency operates under erroneous assumption).

The failure to look at the full range of reasonable alternatives is related to BLM’s duty in any environmental analysis to develop, study, analyze and adopt mitigation measures to protect other resources. The ability to adopt post-leasing mitigation measures – see 43 C.F.R. § 3101.1-2 – is quite broad, as all reasonable measures not inconsistent with a given lease may be imposed by BLM. This is particularly true given that BLM, pursuant to FLPMA, must manage public lands in a manner that does not cause either “undue” or “unnecessary” degradation. 43 U.S.C. § 1732(b). Put simply, the failure of BLM to study and adopt these types of mitigation measures – especially when feasible and economic – means that the agency is proposing to allow this project to go forward with unnecessary impacts to public lands, in violation of FLPMA.

Simply listing and not analyzing the effectiveness of these measures also results in violation of NEPA. *See Northwest Indian Cemetery Protective Association v. Peterson*, 764 F.2d 581, 588 (9<sup>th</sup> Cir. 1985), *rev’d on other grounds*. 485 U.S. 439 (1988) (where the court determined that

NEPA requires agencies to "analyze the mitigation measures in detail [and] explain how effective the measure would be. ... A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA."). In a case where the Corps of Engineers attempted to rely on untested mitigation measures, the Wyoming District Court ruled, "the Court holds that the Corps' reliance on mitigation measures that were unsupported by any evidence in the record cannot be given deference under NEPA. The Court remands to the Corps for further findings on cumulative impacts, impacts to ranchlands, and the efficacy of mitigation measures." *Wyoming Outdoor Council v. U.S. Army Corps of Engineers*, 351 F.Supp.2d 1232, 1238. (D. Wyoming 2005).

Second, the mitigation measures relied upon must "constitute an adequate buffer' ...so as to 'render such impacts so minor as to not warrant an EIS.'" *Greater Yellowstone Coalition*, 359 F.3d at 1276 (quoting *Wetlands Action Network*, 222 F.3d 1105, 1121 (9<sup>th</sup> Cir. 2000)). In other words, "When the adequacy of proposed mitigation measures is supported by substantial evidence, the agency may use those measures as a mechanism to reduce environmental impacts below the level of significance that would require an EIS." *National Audubon Soc. v. Hoffman*, 132 F.3d 7, 17 (2d Cir. 1997). "In practice, mitigation measures have been found to be sufficiently supported when based on studies conducted by the agency,...or when they are likely to be adequately policed." *Id.*

The courts have had little patience with agencies' failure to provide sound scientific evidence to support the efficacy of their mitigation measures. In *Wyoming Outdoor Council*, the Court ruled:

In short, the mitigation measures relied upon by the Corps, while mandatory, are not supported by a single scientific study, paper, or even a comment. This Court does not expect the Corps to conduct extensive research on the efficacy of wetland replacement. Neither can the Court defer to the Corps' bald assertions that mitigation will be successful. ... As such, the Corps was arbitrary and capricious in relying on mitigation to conclude that there would be no significant impact to wetlands. The Court remands to the Corps to support its reliance on mitigation.

351 F.Supp.2d 1232, 1252, footnote omitted. The court concluded, "This Court will not rubberstamp an agency determination that ... relies on unsupported, unmonitored mitigation measures. NEPA and the CWA require more." 351 F.Supp. 2d 1232, 1252. In particular, federal agencies must explore alternatives to proposed actions that will avoid or minimize adverse effects on the environment, 40 C.F.R. § 1500.2(3), alternative kinds of mitigation measures, 40 C.F.R. § 1508.25(c)(3), alternatives that would help address unresolved conflicts over the use of available resources (e.g. sage grouse habitat conservation, preservation of historic trail settings), 40 C.F.R. § 1501.2(c), and other reasonable courses of action, 40 C.F.R. § 1508.25(c)(2). The requirement to consider such less damaging alternatives helps agencies meet NEPA's primary purpose of promoting "efforts which will prevent or eliminate damage to the environment and biosphere..." 42 U.S.C. § 4321. These requirements are affirmed in BLM policy: "BLM officials may not so narrow the scope of a planning/NEPA document as to exclude a reasonable range of alternatives to the proposed action..." USDI Instruction Memorandum No. 2001-075. The IBLA has established that the elimination of reasonable alternatives without sufficient analysis does not

satisfy NEPA, and noted that “While we could speculate about the BLM’s rationale for dismissing...alternatives, we should not be required to fill in the blanks for BLM. The record should speak for itself.” *Biodiversity Associates*, IBLA 2001-166, at 7 (2001). Such objective evaluation is gravely compromised when agency officials bind themselves to a particular outcome or foreclose certain alternatives at the outset. Importantly, BLM’s decision to approve a high-impact project in sensitive and undeveloped lands when lower-impact alternatives and mitigation measures were readily available has resulted in a project that results in unnecessary impacts on the public lands.

The action alternatives for this project are virtually the same. Each alternative calls for 1,000 turbines. Each alternative places them in two groupings within the same, very tight spatial confines. One alternative excludes Miller Hill, but otherwise the alternatives cover virtually identical geography. The similarity of the three alternatives becomes obvious when examining the impacts analysis maps for visual resources; the maps for the four action alternatives are virtually indistinguishable. See Figures 4.12-1, 4.12-3, 4.12-5, and 4.12-7. In effect, the BLM has a No Action Alternative and three slight variations on the same Action Alternative. This violates NEPA’s range of alternatives requirements.

Interestingly, all action alternatives for the Wind Project are consistent with the Preferred Alternative for the Visual Resource Management plan amendment. DEIS v.2 at ES-2. None of the action alternatives are consistent with either the current VRM objectives in Alternative 1 or the resource protection Alternative 3 from the VRM plan amendment (even Alternative 1R involves BLM permitting an activity that allows cumulative and connected actions inconsistent with VRM objectives under the current plan). BLM openly admits that the CCSM project is inconsistent with the VRM requirements in the current Rawlins RMP (which is also Alternative 1). DEIS v.2 at ES-3. If these VRM amendment alternatives are reasonable and fully considered, then why isn’t there an action alternative in the Wind Project part of the EIS that is consistent with them? Are then Alternatives 1 and 3 from the VRM plan amendment merely ‘straw men’ with no prospect of implementation?

BLM discusses wind power potential in terms of being between Class 5 and Class 7 in the project area, and in terms of average wind velocity. DEIS v.2 at 1-8. However, the real measure of productivity is the proportion of time that the wind is blowing between 30 mph (the speed at which turbines reach nameplate power output) and 60 mph (the speed at which turbines have to be shut down to avoid burning up their components and “running away”). This is an oversimplification, of course, because there is a wind power-density component in which winds of the same velocity at higher altitudes produce less power than the same velocity at lower altitudes due to less-dense air. But the point is, it is possible that the higher wind power classifications may not be the most optimal for wind power production if the wind is blowing too hard with a great enough frequency, regardless of how laminar the flow. For these reasons, average wind speeds and wind power classifications may not be the best metrics to measure the potential of an area for wind power production. We recommend that BLM publish the proportion of the year which the turbines would be operating at maximum output and use this figure to compare the CCSM project to other projects in Wyoming and around the region in order to properly evaluate how good a prospect the project area really is for wind power development and

whether equally prospective areas are available in the general area but outside sensitive viewsheds and sage grouse habitats.

BLM declined to consider in detail an alternative that would constrain wind turbine placement to lands outside the original (Version 2) sage grouse Core Area boundaries. DEIS v.2 at 2-19, “Alternative 5.” This alternative would have resulted in 301 turbines as opposed to the applicant’s preference of 1,000. In the first place, why must BLM honor the applicant’s preference in terms of turbine number? Clearly, the agency has a multiple-use mandate in which compromises must be made in order to provide responsible management for all resources under BLM’s care. Secondly, why did BLM not expand the project area in other directions (away from sage grouse leks) to increase the number of turbines in this alternative toward the applicant’s preferred goal? BLM claims “this alternative is no longer necessary” because the current alternatives comply with the gerrymandered new sage grouse Core Area boundaries and therefore meet the letter of Wyoming IM 2010-4. But BLM also has an affirmative mandate to manage for sage grouse persistence as a BLM Sensitive Species regardless of the arbitrary boundaries placed on a map by the State. The project could have been relocated in part into other neighboring areas to expand the number of turbines beyond 301. (If it is impossible to relocate the turbines to environmentally acceptable sites nearby, then that is an indication that PCW is trying to shoehorn a large wind farm into an area that cannot handle it). Finally, there is no particular reason that BLM should approve more than 301 turbines. All wind farms built so far in Wyoming have been less than this number, and they appear to be profitable. BLM’s constraining of action alternatives analyzed in detail to 1,000 turbines is therefore arbitrary and capricious and an abuse of discretion.

BLM also declined to analyze in detail an alternative that would eliminate the Sierra Madre Unit and simply move forward with the Chokecherry part of the project. Again, this doesn’t get the applicant to 1,000 turbines, but it doesn’t need to; many wind projects (some as small as 25 turbines like the Shell WindEnergy Sand Hills Project in the Rawlins Field Office) are smaller still and remain sufficiently profitable for companies to pursue.

Because BLM is not explicit about why it believes that less than 1,000 turbines would render the project economically infeasible, it is left to the conjecture of the reader. Anschutz is also the proponent of the TransWest Express powerline, being built to service this project (and perhaps others). If, however, the TransWest Express is not built, it is likely that the transmission needs for this project, be they for 1,000 turbines or many fewer, could be serviced by the Gateway West, Overland Express, and/or Gateway South Projects, which are being planned to pass quite near the Chokecherry project area. Indeed, the Gateway West is being fast-tracked by the federal government, meaning that it may come online as soon as or sooner than TransWest Express. In any case, the BLM cannot presuppose that the Chokecherry/Sierra Madre project must be big enough to pay not only for itself but also for the TransWest Express line given the fact that a number of other lines have been proposed to pass by the project area.

BLM’s dismissal of alternate site locations for the project is vague and disappointing. See DEIS v.2 at 2-22 and 23. First, applicant’s preference to develop the entire project on the TOTCO Ranch properties is not a legitimate constraint; multiple other concepts (including leasing lands

from other private landowners) are commonly developed by other wind power producers. BLM's statement that alternate locations "may not possess" ideal characteristics is indicative that the agency failed to look into alternate locations in any detail (*id.*; otherwise the agency would have been able to conclude that alternate sites "did not possess" the desired attributes). BLM needs to go back and look at alternate sites, particularly those bordering the project area. Power Company of Wyoming should examine areas east of the Laramie Range that have high wind potential, no sage grouse, and low levels of other type of environmental conflict if they wish to pursue a project on this scale.

### **FLPMA Plan Conformity**

As noted elsewhere in these comments, none of the action alternatives for this project are consistent with the Visual Resource Management objectives in the Rawlins RMP. In addition, BLM has noted that "the proposed wind farm project is partially located within an avoidance area, as identified in the Rawlins RMP, based on the following criteria: the North Platte River, Historic Trails, Upper Muddy/Grizzly Wildlife Habitat Management Area (WHMA), and VRM Class II areas." DEIS v.2 1-11. The BLM's analysis goes on to note that authorizations can only be made in avoidance areas if they are compatible with the purpose for which the area was designated or would not otherwise be feasible on lands outside the avoidance area. *Id.* For several of these factors, this project does not qualify under these criteria, independent of VRM classification.

The Overland Historic Trail is designated for protection on the National Register of Historic Places, and the Historic Trail corridor was designated in part to "Maintain setting for those contributing portions of historic trails where setting is an important aspect of integrity by utilizing viewshed management tools." Rawlins RMP at 2-12. Regardless of whether a determination is made that this project can be modified to fit within the Management Actions prescribed by the plan, the fact that an avoidance area exists is the overriding factor and indicates that a stronger level of protection must apply. We would expect that the portion of the Overland trail which passed through Bridger Pass to be particularly important in terms of the scenic qualities of its setting, yet this is the very area where turbines would be built along the skyline atop Miller Hill as well of the ridges above the Trail extending eastward from Miller Hill for miles.

The North Platte River SRMA was established to "[m]aintain or enhance recreational opportunities..." and to "[m]aintain or improve the quality of river-related recreational experience...." Rawlins RMP at 2-27. Regardless of whether turbines are placed within ¼ mile of the river, where they would be "intensively managed to maintain the quality of the visual resource" (*id.*), this project is not consistent with maintaining or enhancing recreation opportunities, and given that visual resources are specified as an item of concern for this SRMA, the specific guidance in the RMP regarding wind power avoidance trumps the SRMA direction and calls for a stronger level of protection here.

In addition, the Continental Divide National Scenic Trail SRMA is an avoidance area in the RMP. See Rawlins RMP at Map 2-33a. This was established in part to

“Provide users with opportunities to view, experience, and appreciate examples of prehistoric and historic human use of the resources along the Continental Divide, and examples of ways these resources on public lands are being managed in harmony with the environment, as an asset to the existing character of the Continental Divide, and which will not detract from the overall experience of the trail.”

Rawlins RMP at 2-26. Please note that this paragraph does not mention “modern uses” as an asset to be appreciated. As noted by Molvar (2008), visitors have many opinions about the aesthetic qualities of wind farms ranging from appreciation to considering them an eyesore, but it is uniformly agreed that they are a very modern visual element that tends to conflict with historic landscape qualities.<sup>2</sup> Thus, the proposed project also conflicts with the purpose for which this SRMA was designated, and thus siting a wind farm would not be allowable here under the RMP.

### **Overhead Power Lines**

Under Alternative 1R, there would be 842 miles of buried 34.5 kV powerlines, but also 146 miles of overhead 34.5 kV lines and 193 miles of 230 kV lines. DEIS v.2 at Table 2-2. Other alternatives have similar build-outs for overhead power lines. Overhead power lines invite raptor perching (which could increase turbine-strike mortality) and represent an additional and unnecessary visual impact. No other wind farm in Wyoming of which we are aware uses overhead powerlines to a significant extent within the wind farm site itself. Why are all of these overhead powerlines necessary? The explanations at DEIS v.2 2-21 are uninformative on these points as a significant proportion on the 34.5 kV power lines are in fact slated for underground siting in the various action alternatives. We recommend that all powerlines within the wind farm units be buried.

### **HISTORICAL AND CULTURAL FEATURES**

Federal agencies have special stewardship responsibilities with respect to historic resources on land that is under the agency’s “jurisdiction or control.” Section 110(a) of the National Historic Preservation Act (“NHPA”) requires that federal agencies “shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency.” 16 U.S.C. § 470h-2(a)(1). All historic properties under federal jurisdiction or control must be “managed and maintained in a way that considers the preservation of their historic, archaeological, . . . and cultural values. . .” 16 U.S.C. § 470h-2(a)(2)(B), and those properties must be “identified, evaluated, and nominated to the National Register.” *Id.* § 470h-2(a)(2)(A); *see id.* §470h-2(a)(2)(E)(ii).

Failure to adequately protect identified cultural and historic properties, and traditional religious and cultural properties results in a violation of the NHPA. In 1992, Congress specifically amended Section 110 to increase Federal agencies’ proactive, ongoing responsibility to locate, inventory, and nominate properties to the National Register, as well as assume the

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<sup>2</sup> Molvar, E.M. 2008. Wind power in Wyoming: Doing it Smart from the Start. Laramie, WY: Biodiversity Conservation Alliance, 55 pp. Available online at [www.voiceforthewild.org/blm/pubs/WindPowerReport.pdf](http://www.voiceforthewild.org/blm/pubs/WindPowerReport.pdf).

responsibilities for preserving historic properties. See 16 U.S.C. § 470h-2(a) (as amended 1992). Section 110 requires Federal agencies to adopt and utilize cultural resource management programs. Id. BLM adopted an agency-wide Cultural Resource Management Program (CRMP), which includes four manuals. The CRMP has three main components – identification, protection, and utilization. See BLM Manuals 8100 – Cultural Resource Management Plan; 8110 – Identifying Cultural Resources; 8120 – Protecting Cultural Resources; and 8130 – Utilizing Cultural Resources for Public Benefit. These four manuals direct BLM field offices to carry out their responsibilities under Section 110 of the NHPA.

The National Historic Preservation Act requires consultation for all projects that would have an adverse effect on properties eligible for the National Register of Historic Places. Federal regulation provides that,

[a]n adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

36 CFR § 800.5(a)(1). The Section 106 regulations also confirm that the “[p]hysical destruction of or damage to all or part of the Property,” “[a]lteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines” or the “[c]hange of the character of the property's use or of physical features within the property's setting that contribute to its historic significance” results in an “adverse effect” on historic properties. 36 C.F.R. § 800.5(a)(2)(i-ii, iv). The regulations, with respect to timing of Section 106 consultation, state:

[Completion of a Section 106 review] does not prohibit agency officials from conducting or authorizing nondestructive project planning activities before completing compliance with section 106, provided that such actions do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking's adverse effects on historic properties.

36 C.F.R. §800.1(c) (emphasis added). These regulations clearly communicate that avoid, minimize, or mitigate impacts to eligible properties be considered. Furthermore, the regulations instruct Federal agencies to initiate Section 106 early in an undertaking's planning to ensure that “a broad range of alternatives may be considered during the planning process for the undertaking.” *Id.* (emphasis added). As noted above, a broad range of alternatives has not been considered for this project.

According to BLM's analysis, Alternatives 1R, 2, and 4 would result in “Visual effects to historic properties, specifically the Overland Trail, by introducing visual elements that diminish the integrity of the property's setting.” DEIS v.2 at ES-6. Under Alternative 3, visual impacts to the Overland Trail would be “slightly reduced” compared to the other three action alternatives.

DEIS v.2 at 4.2-6. Alternative 4 would have the heaviest impacts on the viewshed of the Overland trail. DEIS v.2 at 4.2-6. For Alternative 1R, impacts to the Overland Trail are as follows: “Introduction of structures such as the proposed WTGs and transmission line into an otherwise rural or natural setting could diminish the integrity of a property’s historic features that contribute to its significance. Significant impacts would occur if the effects of project construction and operation could not be mitigated to eliminate adverse effects to the setting of a historic property.” DEIS v.2 at 4.2-4. These outcomes violate the National Historic Preservation Act’s provisions requiring the protection of sites and their settings, and therefore render these three alternatives illegal to implement.

BLM notes that features eligible for NRHP listing are managed under Appendix 5 of the Rawlins RMP. DEIS v.2 at 4.2-2. This Appendix specifically lists the Overland and Cherokee Trails as eligible, but states that there may be contributing segments (where setting would be protected) and noncontributing segments (where presumably it would not). Rawlins RMP at A5-4. This sets up a FLPMA nonconformity issue. The Chokecherry DEIS does not clearly identify which segments of these two historic trails are contributing and noncontributing (a NEPA failure to supply baseline information). Also, it is unclear whether under the NHPA the BLM may elect not to protect the setting of a historic feature that is NRHP eligible by declaring it a “noncontributing segment.” We can find no such loophole in the law. Regardless, the ¼ mile limit on industrial activity around these historic trails in the DEIS is clearly insufficient to prevent major impacts to the settings of historic features in the context of wind farm development. Stronger measures are needed so that the project can be brought into compliance with the NHPA. We recommend the same stipulations proposed for implementation in the Rawlins RMP: a 3-mile No Surface Use limitation paired with an additional 2-mile Controlled Surface Use stipulation that prevents surface occupancy unless all visible features are screened from view from the historic trail. The fact that this is a reasonable alternative can be inferred from the fact that BLM is proposing this level of management for the Oregon, California, Mormon, and Pony Express trails network as it passed through the Lander Field Office; we expect this standard to be expanded throughout all Field Offices in Wyoming in the years to come.

According to the RMP Appendix 5,

“A setting assessment is used to determine what physical features of a proposed undertaking will be visible from a historic property for which setting is an important aspect of integrity. Visibility of undertakings will vary. In the majority of cases, undertakings will not be seen beyond 3 miles; pipelines, fiber-optic, and other ground-level disturbance will not likely be seen beyond a mile. In rare cases, undertakings may be seen beyond 5 miles if they are unusually large or are skylined on the horizon, such as wind turbines and communication towers.”

Rawlins RMP at A5-8. The Chokecherry/Sierra Madre project clearly appears to be one of these “rare cases.” However, we find no evidence that BLM has undertaken a setting assessment for any historic property within or near the project area. This failure appears to reveal a FLMPA nonconformity between the Chokecherry/Sierra Madre DEIS and the Rawlins RMP. Apparently, BLM is deferring the setting analysis is being deferred to a later date. DEIS v.2 at 4.2-4. This is

not only inconsistent with RMP requirements but also constitutes a failure to gather appropriate baseline information under NEPA.

To remedy potential impacts to historic properties, “Avoidance, through modification of the proposed undertaking, is the primary and preferred measure used to protect cultural resources. This can be accomplished at the project planning stage.” Rawlins RMP at A5-8. Well, here we are at the project planning stage, and BLM seems to have failed to implement the strategy of avoidance, the “primary and preferred measure” to protect historic properties, in any of the action alternatives for the Chokecherry/Sierra Madre project. Under Alternative 1R, the applicant has committed to a 1-mile buffer from the Overland Trail. DEIS v.2 at 4.2-5. This is only enough to meet legal standards for protection of NRHP-eligible properties in cases where it renders the turbines invisible from the trail.

Appendix 5 does apparently allow BLM the discretion to approve projects beyond ¼ mile from the historic trail of a contributing segment if BMPs are applied. Rawlins RMP at A5-4. However, the NHPA does not allow the agency to approve actions that would impair the historic setting, and federal law clearly trumps an RMP that proposes a lower level of protection.

The noise analysis (DEIS v.2 at 4.16-1) does not disclose whether noise from either transformer stations a mile or more away from the Overland Trail or wind turbines, which could be sited as close as ¼ mile for the Sierra Madre unit, would create enough noise to be audible from the Historic Trail. Given the level of analysis provided to date, it seems apparent that BLM is able to provide this information using the same formulae that it has used for the rest of the noise analysis. Failure to perform this necessary task erodes the underpinning of the NEPA hard look at impacts to the setting of the historic trail in question.

In the final analysis, “Since some of the cultural value associated with these [NRHP-eligible] sites cannot be fully mitigated, it is anticipated that residual impacts to these resources would occur.” DEIS at 4.2-7. BLM concludes in its Cumulative Impact Analysis:

Cumulative effects to the Overland Trail where the setting is an important aspect of integrity are expected to occur. Past, present, and reasonably foreseeable future actions have altered and most likely would continue to alter the landscape surrounding the Trail to the point that the integrity of the setting would no longer contribute to the eligibility of the site. The incremental damage and loss of integrity would result in the fragmentation of the Trail and would destroy the values that make this resource significant.

DEIS v.2 at 5-7. These are unacceptable outcomes.

## **PALEONTOLOGICAL VALUES**

According to BLM, the Niobrara and Cloverly formations (both PFYC V) crop out in the project area. DEIS v.2 at 3.5-4. Each action alternative would disturb upwards of 6,200 acres of land in Probable Fossil Yield Class IV or V, the lands with the greatest potential for scientifically

significant fossil finds. DEIS v.2 at ES-7. BLM notes direct impacts for Alternative 1R “include the destruction or loss of scientifically important fossil resources as a result of construction activities. DEIS v.2 at 4.5-2. This is a completely preventable outcome. Similar outcomes would be expected for the other action alternatives given their similar approaches to mitigation. For these lands, BLM should require a qualified paleontologist to survey the areas proposed for surface-disturbing activities and recover important finds prior to the onset of construction activities. BLM, by contrast, relies on construction personnel to notice, correctly identify, and report fossil finds as they are turned up by construction activities, with no oversight by trained paleontological professionals. See DEIS v.2 at 4.5-3. This is a recipe for unnecessary and completely preventable loss of important fossil resources; BLM admits that residual impacts are likely even with the implementation of their proposed mitigation measures. DEIS v.2 at 4.5-4. Even trained archaeologists cannot be expected to successfully identify important fossil finds, much less bulldozer operators and other construction workers being able to do so. In addition, there will be an incentive on the part of project workers to not report finds because they might cause delays in construction activities and interfere with end goals and timetables.

## **WILDLIFE**

The siting of the proposed project is likely to result in heavy and unnecessary impacts to a number of types of wildlife. The Rawlins RMP provides for surface disturbing and disruptive activities to be “intensively managed” when they would potentially affect habitat of BLM Sensitive Species and would be “intensively managed to minimize impacts on identified crucial habitat.” Rawlins RMP at 2-54 and 2-55. This requirement references further provisions, which state:

To protect important raptor and/or sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 to July 31 within certain areas encompassed by this authorization. The same criteria apply to defined raptor and game bird winter concentration areas from November 15 to April 30.

Rawlins RMP at A1-3. Because wind turbine construction and operation are surface disturbing and disruptive activities, respectively, each would be prohibited in important sage grouse and raptor nesting habitat under this project. Power Company of Wyoming should be made to understand that siting wind turbines in important raptor nesting habitat (*see* “Birds of Prey,” below) will require shut-down of turbines during the nesting season. Furthermore, for sage grouse the mere existence of tall structures is a disruptive activity, causing them to abandon otherwise important nesting and/or wintering habitats. For sage grouse, this includes at least the 2 miles surrounding the lek. Rawlins RMP at A15-2. Wind turbine siting in these habitats is therefore not allowable under the RMP.

NEPA’s purpose is to maintain a national “look before you leap” policy in regard to all major federal actions. Congress’ intent in establishing this objective was to avoid uninformed agency decisions that could have serious environmental consequences. Thus, NEPA’s mandate is that all federal agencies analyze the likely effects of their actions, as well as address the potential

alternatives. “Agencies are to perform this hard look *before* committing themselves irretrievably to a given course of action so that the action can be shaped to account for environmental values. NEPA § 102(2)(c) requires the agency to consider numerous factors [including] irreversible commitments of resources called for by the proposal.” *Sierra Club v. Hodel*, 848 F.2d 1068 (10<sup>th</sup> Cir. 1988) (rev’d on other grounds)(emphasis added). NEPA provides procedural protections for resources at risk by requiring analysis of impacts *before* substantial decisions are made that set development in motion. *See Conservation Law Foundation v. Watt*, 560 F. Supp. 561, 581 (D. Mass. 1983), *aff’d by Massachusetts v. Watt*, 716 F. 2d 946 (1<sup>st</sup> Cir. 1983).

Section 102(2)(C) of NEPA requires that the responsible federal agency prepare a detailed statement on the environmental impacts of the proposed action and any adverse environmental effects which cannot be avoided should the proposal be implemented. The regulations implementing NEPA provide that “[t]o determine the scope of environmental impact statements, agencies shall consider . . . (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. . . . (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement. . . . [and] (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.” 40 C.F.R. § 1508.25. A cumulative impact is defined as “the impact on the environment which results from the incremental impact of the actions when added to other past, present, and foreseeable future actions regardless of what agency ...or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7. Because of the importance of cumulative impacts, “the consistent position of the case law is that ... the agency’s EA must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum.” *Grand Canyon Trust*, 290 F.3d 339, 342 (citations omitted). To satisfy NEPA’s hard look requirement, the cumulative impacts assessment must do two things. First, BLM must catalogue the past, present and reasonably foreseeable projects in the area that might impact the environment. *Muckleshoot Indian Tribe v. USFS*, 177 F.3d 800, 809-810 (9<sup>th</sup> Cir. 1999). Second, BLM must analyze these impacts in light of the proposed action. *Id.* If BLM determines that certain actions are not relevant to the cumulative impacts analysis, it must “demonstrat[e] the scientific basis for this assertion.” *Sierra Club v. Bosworth*, 199 F.Supp.2d 971, 983 (N.D. Ca. 2002). In *Wyoming Outdoor Council v. U.S. Army Corps of Engineers*, the court ruled,

The Court cannot defer to an EA/FONSI which has neglected, by its own terms, to even attempt to assess the extent of cumulative impacts that might be attributed to the agency action....The Corps must assess cumulative impacts to such a degree as to assure this Court that its issuance of a FONSI was not arbitrary and capricious.

351 F.Supp.2d 1232, 1243 (D. Wyoming 2005). The standard for an Environmental Impact Statement is even higher.

Importantly, 40 C.F.R. §1502.15 requires agencies to “describe the environment of the areas to be affected or created by the alternatives under consideration.” Establishment of baseline conditions is a requirement of NEPA. In *Half Moon Bay Fisherman’s Marketing Ass’n v. Carlucci*, 857 F.2d 505, 510 (9<sup>th</sup> Cir. 1988), the Ninth Circuit states that “without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA.” The court further held that, “The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process.” We are concerned that the hard look and baseline information requirements have not been met for this EIS, particularly in regard to impacts to wildlife.

A Biological Opinion must be sought from the U.S. Fish and Wildlife Service (USFWS) regarding impacts to the greater sage grouse, a Candidate species, as well as impacts to eagles pursuant to the Bald and Golden Eagle Protection Act (BGEPA). It is unclear that the project proponent has received a take permit from the USFWS pursuant to BGEPA; take of eagles in the absence of a permit would constitute a violation of federal law. It is also unclear how PCW would qualify for a take permit given the massive level of golden eagle annual mortality that is projected for this project.

### **Bats**

BLM estimates the annual bat collision mortality for the action alternatives between 5,380 and 6,300 bats each year. DEIS v.2 at ES-10. This figure would roughly double should 4.3 bats/MW/yr be used as the figure of choice rather than 2.1, to reflect trends at other facilities and scaling to the bats to the high ratio of bats per detector-night recorded for the project for North American projects. See DEIS v.2 at 4.14-15. Either way, that’s a massive number of bats to be taken out of the populations of admittedly long-lived, slow-reproducing populations (DEIS v.2 at 4.14-14) every year, and is much higher gross number than other wind farms in the Rocky Mountain region. The BLM should further define the extent of the bat populations and perform a Population Viability Analysis on bat species to be affected by this project to determine whether the project will in fact extirpate local bat populations over time due to attrition from turbine-related mortality. Although we agree that the life history of hoary and silver-haired bats leads to difficulty in assessing population size and trend (DEIS v.2 at 4.14-14), much of this is potentially remedied through simple mark-recapture methods. Much of the lack of information on bat population size can be attributed to lack of effort in gathering the requisite data, rather than inherent difficulties in measuring bat populations. We urge the BLM to get busy with requiring population surveys in the project area and immediate surroundings so it will have the information it needs to make a reasoned choice among alternatives, and to develop new alternatives as necessary.

AnaBat sampling locations were limited to the uplands at the western ends of both the Chokecherry and Sierra Madre units, with no bat monitoring attempted farther east on the flats, where most of the turbine arrays are slated for siting. Figure 3.14-4. It is also troubling that only 2 AnaBat locations were surveyed in the Sierra Madre unit, given that this unit had the most woodland which would presumably provide roosting habitat for tree-roosting bats such as silver-haired and hoary bats, which are known to be the most susceptible bats to turbine-strike mortality

in Wyoming. It is notable that sampling station A3 had a frequency of use by bats approximately 6 times higher than average for the project as a whole; this indicates an area of concentrated bat use that should trigger avoidance of this area when turbine siting occurs. The absence of siting in the eastern part of the units leads to the troubling state that BLM is ‘flying blind’ on both potential impacts to bats in this area and turbine siting adjustments that may need to be made to minimize impacts to bat populations.

BLM posits that the bulk of the mortalities will occur from migrating bats moving through the project area rather than resident bats. DEIS v.2 at 4-14.15. How does the AnaBat sampling square with this assumption? Were AnaBat counts taken within or outside of the migration season, or both? If both, how did AnaBat counts differ between migration periods and other times of year? BLM should bolster its analysis to answer these questions and thereby gain evidence to support its contention that most bat mortality will be from migrating bats rather than residents. If not, the agency could be making major mistakes in assumptions if, for instance, resident bats roosting on heavily wooded Forest Service lands to the south of the project area are utilizing the project area as foraging (but not roosting) habitat. In addition, BLM’s analysis fails to deal with available bat roosting habitat on Miller Hill and in other locations neighboring the project area. The AnaBat analysis yielded data indicative that silver-haired are likely present and hoary bats are definitely present (DEIS v.2 at 3.14-7, 4.14-15); these bats have to be roosting somewhere. The DEIS does allude to roosting habitat located within the project area, including 121 acres of woodlands and steep, rocky slopes that would be subjected to direct disturbance under the project. DEIS v.2 at 4.14-16.

It is unclear that BLM has considered implementing BCA’s recommendation that turbines be sited at least 1 mile from woodland habitats (which we raised in our scoping comments), because they may be used for roosting for silver-haired and/or hoary bats, the species most susceptible to turbine-related mortality. Please compare all action alternatives to show how many turbines would be sited in the area within 1 mile of woodlands, and present this analysis as part of your analysis of impacts to bats.

If indeed most of the bat mortality will impact migrating bats, then there is an easy fix – the turbines can be shut down for the duration of the migration seasons except during mid-day periods when bats would not be expected to be airborne. BLM should require this measure to minimize bat mortality unless/until it can be shown that impacts are primarily to resident bats. Safer still would be to locate the project completely away from riparian foraging areas and woodland cover types that potentially serve as roosting habitat.

### **Birds of Prey**

BLM estimates the annual raptor collision mortality for the action alternatives between 102 and 120 birds each year. DEIS v.2 at ES-10. Those are very high numbers for species that are territorial and tend to occur at relatively low densities across the landscape. Notably, golden eagles appeared to represent a significant proportion of raptors (30.4% of all raptors) from the bird observation study. DEIS v.2 at 3.14-11. Nesting concentration areas for birds of prey occur along the ridgetop along the south and southwest boundary of the Chokecherry unit and along the edge of Miller Hill. Figure 3.14-8. In addition, there are two significant clusters of ferruginous

hawk nest sites in the center and northeast portions of the Chokecherry unit, along “The Hogback.” Turbines should be sited at least 2 miles from the ferruginous hawk clusters and one mile from the other nesting concentration areas to minimize the impacts from both turbine strikes and disturbance of birds on the nest from wind turbines themselves as well as human activity associated with the project. Eliminating these areas from turbine construction would also have the benefit of moving the project away from “potential areas of mass instability” from a soils perspective which “could be a siting hazard for towers.” DEIS v.2 at 4.9-4.

Under the General Wildlife provisions of the RMP,

“Surface disturbing and disruptive activities will be managed in all raptor concentration areas (RCA) to reduce physical disturbance of raptor habitat and disturbance to the birds. This will entail a case-by-case examination of proposals.”

Rawlins RMP at 2-52. Several raptor concentration areas are present in the project area, as outlined above. While BLM has one official designation Raptor Concentration Area (Shamrock Hills) under the RMP, it contains its own separate language on surface disturbing and disruptive activities (Rawlins RMP at 2-40), indicating that the General Wildlife provisions apply more broadly (otherwise, if they were meant to apply only to Shamrock Hills, it would have been redundant to place them under General Wildlife as well). We are concerned that under the current action alternatives, wind turbine construction and operation (being a surface disturbing and disruptive activity) is being permitted right on top of raptor nesting concentration areas, which presents a FLPMA RMP conformity problem. In addition, the RMP specifically prohibits “surface disturbing and disruptive activities potentially disruptive to nesting raptors” within 1 mile of golden eagle and ferruginous hawk nests and within a ¾-mile buffer of all other raptor nests. Rawlins RMP at 2-53. As death by turbine strike is “potentially disruptive to nesting raptors,” we expect that the BLM will apply this provision to the siting of all turbines in the project area.

Importantly, the golden eagle is the raptor that has the greatest risk of mortality from turbine strikes. DEIS v.2 at 4.14-18. Recalling again that golden eagles made up 30.4% of the raptors recorded in the project area, and a very large proportion of the 102-120 raptors projected to be killed annually by this project according to BLM will be golden eagles. Discounting the differential vulnerability of golden eagles to use the rotor-swept area in flight more than other raptors, BLM estimated that 36 golden eagles per year would be killed at this facility. DEIS v.2 at 4.14-19. This seems an unacceptably high figure to allow this project to comply with the Bald and Golden Eagle Protection Act; additional mitigation not applied at the DEIS phase, specifically the shifting of turbine strings to avoid known nests and areas of higher use, is needed.

We are not able to determine from the DEIS whether the BLM is considering setbacks preventing the siting of turbines within 50m of rim edges to protect kiting raptors, or whether ‘wind wall’ turbine configurations will be required, as BCA requested in our scoping comments for this project. Please respond to this request to apply mitigation measures.

## **Water and Fisheries**

There is a substantial amount of road construction involved in this project, which will likely contribute to siltation in streams draining watersheds where road networks are sited. BLM recognizes this potential, particularly for roads as conduits for sedimentation, in its impacts analysis. DEIS v.2 at 4.9-5. Under Alternative 1R, for example, there would be 382 stream crossings by new roads. DEIS v.2 at 4.14-28. We are particularly concerned about impacts to Muddy Creek, home to BLM Sensitive Fishes including the bluehead sucker, roundtail chub, and flannelmouth sucker, as well as streams harboring Colorado River cutthroat trout, including then uppermost reaches of Muddy Creek, Littlefield Creek McCarty Creek, Grove Creek, and Little Savery Creek. We are concerned that if turbines, roads, or other facilities are sited in these watersheds, unsustainable impact to BLM Sensitive fishes will occur.

BLM notes under Alternative 1R that water depletions from the project would significantly affect Muddy Creek and Savery Creek, and would “have a major impact to the local fishery and could potentially alter survival of fish in the system through changes such as water temperature, in-stream habitat, and sediment dynamics.” DEIS at 4.14-25. In addition, “This may also preclude the recovery of BLM Sensitive fish species.” *Id.* These are unacceptable outcomes given the presence of BLM Sensitive fishes in these streams, and also is non-compliant with RMP management objectives for the Upper Muddy Creek – Grizzly WHMA, as BLM itself admits. This leads to a FLPMA conformity problem; the final decision may not allow water depletions from streams that potentially could lead to loss of viability for BLM Sensitive fish populations, particularly in the WHMAs.

## **Big Game**

We concur with BLM’s assertion that effects of wind turbine operations on big game are poorly understood. Should this project move forward, we recommend the following measures. Since there are two WHMAs that overlap in small part with the project, and BLM is assuming indirect effects of displacement as a result of the project (DEIS v.2 at 4.14-9), turbines should not be sited within ½ mile of crucial winter range, parturition areas, or migration corridors in these WHMAs. BLM notes that it is possible that mule deer migrations on establish routes on the flanks of Miller Hill could be interrupted by the project. DEIS v.2 at 4.14-10. Given that impacts are poorly understood at this point, the safest course of action would be to exercise restraint in these specially designated areas. Mule deer crucial winter range occurs within the Chokecherry unit, and mule deer migration corridors occur in the western Sierra Madre unit, likely also within the Upper Muddy Creek/Grizzly WHMA, where mule deer are a priority for conservation. Figure 3.14-1. An identified elk migration route occurs within the Sierra Madre unit. Figure 3.14-2. Pronghorn crucial winter range and identified migration corridors occur in the Chokecherry Unit. Figure 3.14-3. For all big game crucial winter ranges, parturition areas, and/or migration corridors in the WHMAs, construction and roadbuilding should be prohibited within ½ mile during the season of use, and vehicle traffic should not be allowed on project roads during the season use post-construction. In addition, for all crucial ranges and migration corridors, the proponent should be required to perform a before-after-control investigation (BACI) study on the effects of wind farm construction and operation on big game as a condition of approval for the project. The results of this study should be peer-reviewed and published in a reputable scientific publication, with all results made available to both BLM and the public.

## **Passerine Birds**

As with AnaBat locations, Bird Observation Points are similarly distributed with a decided bias away from the eastern ends of both units where turbine construction will be most intensive. Figure 3.14-7. This raises similar doubts as for bats regarding the accuracy of BLM's impacts analysis regarding birds. We are particularly concerned about impacts to sagebrush obligate passerines, especially the sage sparrow, Brewer's sparrow, and sage thrasher, which are BLM Sensitive Species and among the most prevalent birds found in the project area. DEIS v.2 at 4.14-21. While turbine-strike mortalities are expected to be low, displacement can be an even larger problem than mortality. A new study<sup>3</sup> documented significant declines in sage sparrow and Brewer's sparrow populations as gas field densities reached 16 wells per square mile. How does the density of wind turbines per square mile relate to this figure?

We were unable to locate any applicant-committed measures regarding anemometer (met) towers in the DEIS. See DEIS v.2 at Appendix A. In our scoping comments, we asked BLM to require unguyed met towers as a means of decreasing collision mortality for passerine birds. This is a measure that is part of the agency's Preferred Alternative for the White Mountain wind project near Rock Springs, so obviously it is a reasonable alternative. BLM should require this in its package of mitigation measures. Why has this not been analyzed in detail?

## **BLM Sensitive Species**

According to the BLM Sensitive Species manual, "BLM special status species are: (1) species listed or proposed for listing under the Endangered Species Act (ESA), and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated as Bureau sensitive by the State Director(s)." BLM Manual 6840.01. In addition, for special status species, including sensitive species, BLM must:

Identify strategies and decisions to conserve and recover special status species. Given the legal mandate to conserve threatened or endangered species and BLM's policy to conserve all Special Status Species, land use planning strategies and decisions should result in a reasonable conservation strategy for these species. Land use plan decisions should be clear and sufficiently detailed to enhance habitat or prevent avoidable loss of habitat pending the development and implementation of implementation-level plans. This may include identifying stipulations or criteria that would be applied to implementation actions. Land use plan decisions should be consistent with BLM's mandate to recover listed species and should be consistent with objectives and recommended actions in approved recovery plans, conservation agreements and strategies, MOUs, and applicable biological opinions for threatened and endangered species.

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<sup>3</sup> Gilbert, M.M., and A.D. Chalfoun. 2011. Energy development affects populations of sagebrush songbirds in Wyoming. *J. Wildl. Manage.* 75:816-824.

BLM Land Use Planning Handbook H-1601-1, Appendix C at 5, emphasis added. The State Director’s responsibilities include the following: “Ensuring that when BLM engages in the planning process, land use plans and subsequent implementation-level plans identify appropriate outcomes, strategies, restoration opportunities, use restrictions, and management actions necessary to conserve and/or recover listed species, as well as provisions for the conservation of Bureau sensitive species.” BLM Manual 6840.04(D)(5), emphasis added. In addition to the responsibility to monitor population trends of Sensitive Species, the Field Manager is tasked with “Ensuring that land use and implementation plans fully address appropriate conservation of BLM special status species.” BLM manual 6840.04(E)(6). Finally, “Bureau sensitive species will be managed consistent with species and habitat management objectives in land use and implementation plans to promote their conservation and to minimize the likelihood and need for listing under the ESA.” BLM Manual 6840.06, emphasis added, *and see* BLM Manual 6840.2. Specifically, “On BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat, by:

1. Determining, to the extent practicable, the distribution, abundance, population condition, current threats, and habitat needs for sensitive species, and evaluating the significance of BLM-administered lands and actions undertaken by the BLM in conserving those species.
2. Ensuring that BLM activities affecting Bureau sensitive species are carried out in a way that is consistent with its objectives for managing those species and their habitats at the appropriate spatial scale.
3. Monitoring populations and habitats of Bureau sensitive species to determine whether species management objectives are being met.
4. Working with partners and stakeholders to develop species-specific or ecosystem-based conservation strategies (see .2D Agreements, Assessments and Cooperative Strategies for Conservation).
5. Prioritizing Bureau sensitive species and their habitats for conservation action based on considerations such as human and financial resource availability, immediacy of threats, and relationship to other BLM priority programs and activities.
6. Using Land and Water Conservation Funds, as well as other land tenure adjustment tools, to acquire habitats for Bureau sensitive species, as appropriate.
7. Considering ecosystem management and the conservation of native biodiversity to reduce the likelihood that any native species will require Bureau sensitive species status.
8. In the absence of conservation strategies, incorporate best management practices, standard operating procedures, conservation measures, and design criteria to mitigate specific threats to Bureau sensitive species during the planning of activities and projects.

Land Health Standards should be used for managing Bureau sensitive species habitats until range-wide or site-specific management plans or conservation strategies are developed. Off-site mitigation may be used to reduce potential effects on Bureau sensitive species.”

BLM Manual 6840.2(C). Clearly, the BLM must survey for special status species before allowing any ground disturbance for this project, must develop site-specific management plans for these species, and must monitor special status species populations within and near the proposed wind farm project area to ensure that the agency is promoting their recovery. The BLM must acquire baseline data and analyze the impacts of the alternatives on these species. In cases where special status species obligations are flouted, this safety net becomes less meaningful and increases the need for Endangered Species Act protection.

### *Sage Grouse*

We are concerned that this project does not comport with RMP direction to “[m]aintain, restore, or enhance designated BLM Sensitive Species habitat in order to prevent listing under the ESA” with regard to sage grouse. See DEIS v.2 at 4.14-2. Fully 923 of the 1,000 turbines in Alternative 1R would fall within sage grouse habitat. DEIS v.2 at 4.15-12. 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.” Clearly, this is a massive project likely to cause population declines (indeed, elimination of populations) inside and adjacent to the project area boundaries. BLM has been down this road before, when BCA cautioned BLM against approval of the Jonah Field lest it contribute to a trend toward ESA listing, and sure enough, the Jonah Field was explicitly listed among the justifications in the USFWS ‘Warranted, but Precluded’ finding that landed the grouse on the Candidate list. In 2015, when the USFWS makes a final ESA decision on the sage grouse, any major declines in the Chokecherry project area will be evidence that the population security of sage grouse has further deteriorated since the Warranted but Precluded finding was issued. BLM can (and should) prevent this by re-siting the project away from sage grouse breeding and nesting habitat. Furthermore, continued application of stipulations 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. Failure to maintain sage grouse habitat in order to prevent listing renders the action alternatives for this project illegal pursuant to FLPMA’s RMP conformity requirements.

BLM’s 4-mile buffer for leks as the area of influence for wind turbines is a conservative one. See DEIS v.2 at 4.15-12. While this may (or may not) be the appropriate distance for assessing impacts to lekking birds, the lek is also the hub for nesting, and sage grouse typically nest as much as 5.3 miles from the lek (and cases of nesting farther away have been documented). Thus, a bird nesting 4.5 miles from the lek would be heavily affected in its ability to successfully bring off a brood because it would find itself in the midst of a turbine farm. Because sage grouse hens have strong nest site fidelity, they will likely continue to use suitable habitat after it becomes

degraded regardless of the consequences for brood productivity and survivorship (*see* Holloran 2005); degraded habitats thus become population sinks for grouse.

BLM notes that a sage-grouse plan amendment is forthcoming, and that this could affect the project. DEIS v.2 at ES-3. One of the concepts that the BLM has already been asked to consider at the cooperators' meetings for this plan amendment process is for BLM to restore the original Core Area boundaries established under the State policy, an action which would place both the Chokecherry and Sierra Madre project units inside Core Area boundaries. BLM should craft an alternative that would be in compliance with Wyoming Instruction Memoranda 2012-012 and 2011-013 should this outcome come to pass. In the meantime, BLM should not approve this project, which would limit the range of options BLM could consider in its sage grouse plan amendment process.

BLM notes that PCW has committed to stay out of designated Core Areas under all action alternatives. DEIS v.2 at ES-4. This statement is disingenuous in the extreme. Under the original Core Area boundary designations, all action alternatives would have been inside designated Core Areas. PCW approached the Sage Grouse Implementation Team (SGIT) and sought boundary adjustments that would exclude the project units from Core Areas. The SGIT complied with this request, to the detriment of sage grouse conservation. If PCW was genuinely intending to stay out of designated Core Areas, it would never have sought the boundary adjustment. We view such gerrymandering of Core Area boundaries to allow projects clearly incompatible with sage grouse persistence as dirty pool, and to seek it is deeply dishonorable; we condemn PCW in the strongest possible terms for failing to respect the spirit of the sage grouse Core Area policy, which is designed to protect sage grouse.

BLM's analysis shows that between 97,149 acres and 135,432 acres of sage grouse core breeding habitat will be within 4 miles of project facilities. DEIS v.2 at ES-11. It is unclear what the agency means by "core breeding habitat," but it appears from the previous entry in the table (indicating that no turbines will be actually located in core breeding habitat) that BLM means state-designated sage grouse Core Areas. This appears to ignore the impact of the project on sage grouse breeding and nesting habitats that fall outside the designated Core Areas.

BLM's analysis of impacts for the project fails to make a quantitative estimate of impact to sage grouse population numbers. Some 36 active leks are listed to be within 4 miles of proposed turbines in Alternative 1R, and these are broken out by distance from the nearest lek. DEIS v.2 Table 4.15-6. The number of male sage grouse attending each lek should be readily available from WGF, as well as lek population trends over recent years. Incorporation of this information would allow BLM to more meaningfully assess the differences among alternatives; as it currently stands, population numbers are presented only for a subset. Based on the best available science, sage grouse avoid tall structures. In addition to impacts on the lek itself, sage grouse tend to nest in suitable habitat within 5.3 miles of a lek. Turbines should not be sited within 5 miles of active leks. BLM's 1-mile buffer for turbines from leks (DEIS v.2 at 2-8) is inadequate to prevent massive impacts on sage grouse populations in the area.

In Alternative 2, BLM references its standard ¼-mile NSU buffer for structures less than 20 feet tall. DEIS v.2 at 2-8. It is important to note that this ¼-mile buffer has been deemed inadequate by scientists and wildlife managers, and would place these structures not only too close to the lek itself but also within the heart of sage grouse nesting habitat, which surrounds the lek for a distance of up to 5.3 miles. Buffers should be applied under all alternatives, not just Alternative 2.

BLM lists the lek population numbers only for 2008 and 2009. This does not appear to be enough data to establish a trend, but it is striking that, comparing individual leks between years, the populations appear markedly lower in 2009 as compared to 2008. How does this precipitous decline compare with the construction and emplacement of met towers, and what is the distance to nearest met tower for each lek? It appears possible that met tower construction may already have had a significant negative impact on lek populations in the project area, as it did at Cotterel Mountain in Idaho (see Molvar 2008).<sup>4</sup> If so, this indicated that a significant environmental impact has occurred from the emplacement of met towers in the absence of an EIS; the met towers are very clearly a part of this project and have the potential for significant impacts; BCA specifically warned about such impacts in its scoping comments. In the future BLM should either publish a separate EIS for the met towers when constructing them in sage grouse habitat or else delay emplacement of met towers until after the project is approved under an EIS.

The EIS references two studies regarding brood rearing habitat, but while the superiority of Sierra Madre unit as brood-rearing habitat is noted (DEIS v.2 at 3.15-15), the EIS does not disclose the spatial distribution of brood-rearing habitat within each unit so that the turbine footprint can be compared spatially to this and the impact of the turbine construction and operation on brood-rearing habitat can be measured. This is an important failure to disclose baseline information in the EIS as required by NEPA. The verbal description of this habitat at page 3.15-16 is not sufficiently detailed to allow the reader to assess the magnitude of impacts of various alternatives on sage grouse broods.

### ***Mountain Plover***

Mountain plover occurrences and occupied habitat have been recorded for the northern and central portion of the Chokecherry unit. Figure 3.15-4. We are concerned that the project action alternatives as proposed will have a major negative impact on nesting plover populations on these areas. For the Foote Creek Rim wind farm, the principal impact on wildlife was a significant decrease in the nesting plover population at a nesting concentration area at the south end of the rim from which the population has yet to recover. See DEIS v.2 at 4.14-23. Under the RMP, “[s]urface disturbing and disruptive activities located in potential mountain plover habitat are prohibited during the reproductive period of April 10 to July 10 for the protection of breeding and nesting mountain plover.” Rawlins RMP at 2-52. Wind turbine construction and operation are both disruptive activities, therefore rendering it impossible for BLM to permit the siting of turbines in potential mountain plover habitat for this project and still maintain the legally

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<sup>4</sup> Molvar, E.M. 2008. Wind power in Wyoming: Doing it Smart from the Start. Laramie, WY: Biodiversity Conservation Alliance, 55 pp. Available online at [www.voiceforthewild.org/blm/pubs/WindPowerReport.pdf](http://www.voiceforthewild.org/blm/pubs/WindPowerReport.pdf). Submitted to BLM with BCA scoping comments on this project.

required FLPMA RMP conformity. Turbines should be sited not less than ½ mile from potential mountain plover habitat as outlined in Figure 3.15-4.

BLM argues that this EIS represents a programmatic approach to analyzing impacts and thereby justifies the delay of future site-specific mountain plover surveys until the issuance of the ROD for the project. DEIS v.2 at 3.15-16. This is flatly illegal. First, this EIS is not a programmatic document, it is a project-level document, in which the footprint of the wind farm is disclosed for each action alternative. We have no doubt that BLM already has in its possession (or at least the project proponent has developed) site-specific locations for the wind turbine strings under each alternative. (Indeed, under Alternative 1R, 7,221 acres of surface disturbance would occur – that’s a very exact figure, hardly an estimate; DEIS v.2 at 4.9-3; figures for linear feet of riparian areas/wetlands disturbed also look suspiciously precise if BLM did not have access to site-specific design plans; DEIS v.2 at 4.11-11). We would caution BLM against playing games with the NEPA process. The agency has clearly had an opportunity to undertake site-specific surveys for plover (as evidenced by the fact that it has already done so for part of the project area). NEPA conveys an affirmative responsibility for the agency to develop baseline information, and site-specific plover surveys are a key part of this baseline information. The agency’s ability to successfully conduct baseline, site-specific surveys for plovers will not change with the disclosure of exact placement of turbines. Indeed, the location of key plover habitat is fundamentally important information for the agency to consider when evaluating the relative impacts of each alternative and also in the selection of the final alternative (which may, and should, include the consideration of new action alternatives). BLM’s failure to gather the required baseline information on mountain plovers for use in comparing the impacts of alternatives fundamentally cripples its NEPA analysis for this BLM Sensitive Species.

Because mountain plover potential habitat has been found to be occupied inside the project area (DEIS v.2 at Figure 3.15-4), special RMP provisions are triggered. We recommend at minimum that project facilities be located at least ½ mile from the potential habitat as mapped (which is occupied based on BLM surveys) due in part to the noise that will occur from turbine operation potentially disturbing plover breeding and nesting activities. In addition, roads and overhead powerlines should be sited at least ½ mile from the identified plover habitat, and powerlines within ½ mile should be buried underground.

### ***Wyoming Pocket Gopher***

The BLM’s analysis on occurrences of Wyoming pocket gopher is deficient inasmuch as it ignores readily available material documenting not just probable habitat (displayed on Figure 3.15-2 of the DEIS) but also known occurrences in and near the project area. See WYNDD 2010, available online at

<http://www.uwyo.edu/wynddsupport/docs/WYPG/Draft%20WYNDD%20Pocket%20Gopher%20Report%20Jan%202010%20v2%20.pdf>. We incorporate this document into our comments by reference; it appears BLM has also referenced this document but has not incorporated all of the most relevant information. See DEIS v.2 at 4.15-11, where it is cited. BLM also needs to perform a data request from the Wyoming Natural Diversity Database for all Wyoming pocket gopher documented occurrences in and near the project area in order to satisfy NEPA’s baseline information requirements. In addition to the wealth of historical occurrences known from Bridger

Pass, WYNDD surveys in 2009 documented Wyoming pocket gophers on the rocky bluffs beside Teton Reservoir, adjacent to the project area (Hanna Griscom, WYNDD, personal communication 10/10/11). Wyoming pocket gophers in this survey were associated with Gardiner's saltbush and winterfat plant cover types, and on steep slopes and lowlands as well as bluffs as reported in earlier studies (*id.*).

In addition, the proposed wind farms, especially the Sierra Madre unit, are within potential habitat for the Wyoming pocket gopher, a BLM Sensitive Species on the verge of ESA listing. One of the only known Wyoming pocket gopher localities is in the neighborhood of Bridger Pass, within the project area. 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.

There exists no NEPA analysis for impacts to Wyoming pocket gophers at the programmatic level; 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, but wind farms could also have a negative effect. Both breeding and foraging activities of Wyoming pocket gopher populations are impacted by above and below ground disturbances associated with turbine construction and road emplacement. Impacts of wind energy development to the Wyoming pocket gopher would be expected to include (1) direct habitat loss from new construction, (2) increased human activity and vehicle traffic causing generally known and unknown behavioral changes, and (3) direct mortality associated with crushing due to vehicular movements and construction activities. 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.<sup>5</sup> 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.<sup>6</sup> Most do not live more than two breeding seasons, but they are capable of living longer under favorable circumstances.<sup>7</sup> Climate

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<sup>5</sup> 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.

<sup>6</sup> 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>.

<sup>7</sup> 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.

may be a factor in *T. clusius* survival and recruitment.<sup>8</sup> Researchers also stated that sub-adult pocket gophers appeared to experience unusually heavy mortality when forced to live in marginal habitats.<sup>9</sup>

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.<sup>10</sup> 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.<sup>11</sup>

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 abundance.<sup>12</sup> Since gophers evolved with natural predators, it is unlikely such predation would play a role in population declines unless accompanied by other extenuating circumstances.<sup>13</sup> 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).<sup>14</sup> Three-dimensional structures associated with wind farm development, like power lines and buildings, create raptor perches.<sup>15</sup> 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.<sup>16</sup>

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<sup>8</sup> Vaughan, T.A. 1967. Food habits of the northern pocket gopher on shortgrass prairie. *The American Midland Naturalist* 77:176-189.

<sup>9</sup> Howard, W.E. and H.E. Childs. 1959. Ecology of pocket gophers with emphasis on *Thomomys bottae mewa*. *Hilgardia* 29:277-358.

<sup>10</sup> 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>.

<sup>11</sup> 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.

<sup>12</sup> 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.

<sup>13</sup> 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>.

<sup>14</sup> *Id.*

<sup>15</sup> Bureau of Land Management. 2006. Scoping Notice, Continental Divide - Creston, Carbon County, Wyoming..

<sup>16</sup> 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.

Pocket gophers are strongly fossorial, living most of their lives in burrow systems and underground tunnels.<sup>17</sup> 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,<sup>18</sup> 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.<sup>19</sup> Plus, the energetic costs of burrowing are high enough to be a physiological limitation to movement.<sup>20</sup>

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. 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.<sup>21</sup>

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

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<sup>17</sup> 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>.

<sup>18</sup> Clark, T.W. and M.R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas, Lawrence, KS.

<sup>19</sup> Verts, B.J. and L.N. Carraway. 1999. *Thomomys talpoides*. Mammalian Species 618:1-11.

<sup>20</sup> Vleck, D. 1979. The energy cost of burrowing by the pocket gopher *Thomomys bottae*. Physiological Zoology 52:122-136.

<sup>21</sup> Miller, R.S. and R.A. Ward. 1964. Ectoparasites of pocket gophers from Colorado. The American Midland Naturalist 64:382-391.

limited distribution, limited dispersal ability, and the uncertainty surrounding many aspects of their biology.<sup>22</sup>

Small mammals with restricted distributions and/or narrow habitat requirements are more vulnerable than others to habitat loss.<sup>23</sup> 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*. Wind farm 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. \

Development is not just destroying and fragmenting habitat, it is also degrading it. Soil disturbances typical of industrial development projects, motorized vehicle impacts, and other activities are known to exacerbate the introduction and subsequent spread of noxious weeds. Noxious weeds limit population density in fossorial mammals.<sup>24</sup> In addition, herbicide use that invariably precedes and follows most forms of development also degrades pocket gopher habitat.<sup>25</sup> Finally, individual pocket gophers are killed in the pursuit of commercial and industrial development.

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<sup>22</sup> 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>

<sup>23</sup> 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.

<sup>24</sup> 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.

<sup>25</sup> 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.

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.<sup>26</sup> The BLM’s sensitive species management includes “developing conservation strategies” and “prioritizing what conservation work is needed.” Approval of these wind farms would 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.<sup>27</sup> 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.<sup>28</sup>

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.<sup>29</sup> There appear to be insufficiently described mechanisms by which conservation of Wyoming pocket gophers could be achieved as industrial development occurs 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. BLM needs to undertake intensive, on-the-ground field surveys for Wyoming pocket gophers throughout the project area and place a moratorium on turbine sites and access roads within ¼ mile of potential habitat associated with documented occurrences.

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

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<sup>26</sup> Wyoming Game and Fish Department. 2005. A Comprehensive Wildlife Conservation Strategy for Wyoming. Wyoming Game and Fish Department, Cheyenne, WY. Approved July 12, 2005.<sup>32</sup>

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.

<sup>27</sup> <http://uwadmnweb.uwyo.edu/wyndd/>; Keinath et al. 2003.

<sup>28</sup> Keinath, D.A. and G.P. Beauvais. 2003<sup>a</sup>. 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<sup>b</sup>. Wyoming Plant and Animal Species of Concern: November 2003. The Wyoming Natural Diversity Database, University of Wyoming, Laramie, WY.

<sup>29</sup> 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.

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 wind farm 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 industrial projects can move forward.<sup>30</sup>

We object to approval of wind turbines, roads, and associated infrastructure in areas which contain known and potential Wyoming pocket gopher habitat, and lack an underpinning of NEPA analysis. We request that project facilities within potential habitat not be approved until these lands can be surveyed and determined to be free of Wyoming pocket gophers. BLM’s failure to do so will permit wind power 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 BLM should take into account the Wyoming pocket gopher survey data collected in 2008 by consulting firm, Hayden-Wing Associates, LLC.<sup>31</sup>

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.<sup>32</sup> One of our petition’s primary rationales for the species’ listing under the Endangered Species Act is the potential negative effects of energy development taking place within their known range.<sup>33</sup> Energy development is also named as a “more likely” threat than

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<sup>30</sup> 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](ftp://ftp.wygisc.uwyo.edu/pub/gis/wyndd/THCLReport07_15Feb07.pdf).

<sup>31</sup> 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.

<sup>32</sup> Clark, T.W. and M.R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas, Lawrence, Kansas.

<sup>33</sup> 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.

even agriculture to the Wyoming pocket gopher in the Wyoming Natural Diversity Database Wyoming pocket gopher Conservation Assessments.<sup>34</sup>

The Draft EIS should also disclose the cumulative impacts of nearby oil, gas and coalbed methane drilling and production activities on the pocket gopher.

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.

### ***Other BLM Sensitive Species***

While we are less concerned about the impacts of the project to small mammals than to raptors and bats, there are some concerns worth noting. Pygmy rabbits have been documented in the lands south of Rawlins, not far from the project area.<sup>35</sup> While wind turbine arrays are not known to cause declines in small mammal populations, the pygmy rabbit is particularly susceptible to habitat fragmentation of the type that will come with the road network for the project, due to their unwillingness to emerge from heavy cover. As such, roadways can become barriers to dispersal for pygmy rabbits, which is a concern. Should the project be relocated to a more suitable site east of the Laramie Range, there would be no concerns regarding pygmy rabbits.

For prairie dogs, we are less concerned about the impacts of turbine and road construction than the increase in unauthorized motorized access to active prairie dog colonies, which may allow prairie dog shooters access to colonies heretofore inaccessible. Please consider road closures (except for administrative use) in checkerboard areas that have active prairie dog towns.

### **RECREATION AND VISUAL RESOURCES**

We remain concerned that the action alternatives as proposed will have major impacts on recreation opportunities, particularly along the Continental Divide National Scenic Trail. The fact that “Scenic” is part of the trail’s designation underscores the importance of visual resources to the integrity of the Trail and the experience of recreationists following it (who not only include through-travelers but also day users utilizing the trail to travel to the top of the Atlantic rim, DEIS v.2 at 3.7-4). In addition, the Trail is designed to give visitors a chance to view “prehistoric and historic human use of resources along the Continental Divide” (DEIS v.2 at 4.7-2), as opposed to the distinctively modern use of wind power development.

BLM assumes that most recreation resources are associated with non-checkerboard lands. DEIS v.2 at 4.7-3. This appears to be a faulty assumption. Scenic driving opportunities along Wyoming Highway 71 are superb in the scenic cliff areas between Chokecherry Knob and Bridger Pass, all

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<sup>34</sup> 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

<sup>35</sup> Purcell. M.J. 2006. Pygmy rabbit (*Brachylagus idahoensis*) distribution and habitat selection in Wyoming. MS. Thesis, Univ. of Wyoming, 161 pp.

of which is within the Checkerboard. Both this state highway and a number of county roads grant legal public access to BLM checkerboard parcels, as does the Continental Divide NST. And Rim Lake and Teton Reservoir are focal points for public recreation, and they too are in the checkerboard. BLM should perform an analysis to determine which federally-owned checkerboard parcels have legal public access through a connection with a public easement of one kind or another, and present this information in the FEIS to better elucidate the recreational potential for checkerboard lands.

BLM acknowledges for Alternative 1R that the project ““significantly affect visual resources” and “substantially degrade the recreational experience in the analysis area for some visitors.” DEIS v.2 at 4.7-4. Construction activities would degrade recreation experiences on the CDNST and in the North Platte SRMA. *Id.* at 4.7-5. For the operational life of the project, “The proposed project would result in effects to visual resources, and would likely degrade the recreational experience of some but not all visitors to the analysis area. *Id.* This seems to be an honest and accurate statement, but raises the question of whether degradation of the visual resources for the CDNST or North Platte SRMA is in fact appropriate at any level. Overall, BLM concludes that impacts to visual resources from Alternative 1R, perhaps lower than some other action alternatives due to turbine siting choices, are “not expected to be significant” but “may substantially alter or degrade the recreational experience for some visitors in the analysis area.” DEIS v.2 at 6 4.7-6. How is this not a significant impact? Degradation to various types of recreational uses in and adjacent to the project area is listed in the Residual Impacts section, however. DEIS v.2 at 4.7-8. The internally inconsistent approach of the DEIS in describing the magnitude of impacts to recreation is indicative of an inability to reach a unified conclusion on this subject.

It appears that Alternative 3 has the lowest level on impact on the viewshed of the Continental Divide National Scenic Trail (see DEIS v.2 at 4.7-7), but due to a lack of detailed analysis, it is unclear the extent to which turbines will be visible and from which stretches of the CDNST under any alternative. Additional analysis is needed; it should be a relatively straightforward GIS exercise for BLM to perform viewshed analyses specifying the heights of the proposed turbines and be able to identify which proportion of the project area will overlap with turbine arrays under each alternative. BLM should perform this analysis and publish the resulting maps in the Final EIS by way of satisfying NEPA’s ‘hard look’ requirements. This will assist BLM in being able to make an informed comparison among alternatives and/or develop new, lower-impact alternatives.

The significance criteria for the project appear to have been set up to result in no significant impact in light of the proposed VRM Amendment alternative regardless of which project alternative is chosen. In the Preferred Alternative for the VRM plan amendment, all of the Chokecherry unit and the northern two-thirds of the Sierra Madre unit would be downgraded to VRM Class IV. See DEIS v.1 at Figure 2-5. If, as BLM assumes, impacts to visual resources are only significant if VRM Class limits are breached together with a suite of other factors (DEIS v.2 at 4.12-6), there will never be a significant impact in the portion of the project area managed for VRM Class IV. In addition to violating VRM standards, an alternative would have to negatively affect a Class A landscape. DEIS v.2 at 4.12-6. However, there are no Class A landscapes


identified in or near the project area. DEIS v.2 Figure 3.12-4; *see also* DEIS v.2 at 4.12-19. By defining the analysis of impacts to visual resources with a set of assumptions that is impossible to satisfy, BLM guarantees itself the result of no significant impacts for the project. This is a sham analysis. In an near the project area, there are a number of features for which visual resources are of high to paramount importance, most notably the Continental Divide National Scenic Trail (National Scenic Trail - this bears repeating for emphasis), the setting for the Overland Historic Trail, and the North Platte SRMA. Clearly, significant impacts to the viewsheds of these features, which are documented elsewhere in the NEPA analysis, are indeed significant impacts to visual resources. Yet, BLM gamed this part of the analysis to yield the result they sought: for all alternatives, VRM Class requirements are “Achieved.” DEIS at Table 4.12-3. for each viewpoint. This result makes a mockery of the impacts analysis process. It does not represent the ‘hard look’ that NEPA requires.

More telling is that the project yields a “Strong” contrast rating for all 3 sites along the CDNST. *See* Table 4.12-3. And there is one KOP (#19) specifically tied to the Overland Trail (Pioneer Cemetery) where the visual contrast is “Strong.” Id. The fact that no other KOPs were selected along the Overland Trail as it passes even closer to the project area (see DEIS v.2 at Figure 3.12-4) gives the appearance that BLM did not want to have to document that the visual impacts to the setting of this Historic trail would be severe under all action alternatives. The closest other KOP to the Historic Trail, #10, also shows a “Strong” visual contrast in BLM’s table.

## CONCLUSIONS

None of the action alternatives analyzed in detail in the DEIS are environmentally acceptable, despite the advantages of renewable power over fossil fuels. Alternative 3 has a lower impact on wetlands (DEIS v.2 at 4.11-25), lower impact on sage grouse (Table 4.15-5), lower impact on some sections of the Overland Trail and Continental Divide National Scenic Trail but still has a massive impact on sage grouse and a heavy impact on raptors and bats as well, in addition to having a greater mileage of roads and power lines. But even this alternative does not meet the most basic recommendations of *Wind Power in Wyoming: Doing it Smart from the Start*. BLM has several options in order to approve a project that is environmentally responsible. It can re-analyze Alternative 5 in detail and approve it, which may (or may not) constrain Power Company of Wyoming to utilize one of the number of transmission lines slated pass near it (Gateway West, Overland Express, Gateway South) rather than constructing their own TransWest Express line to service the project. Alternately, Power Company of Wyoming could pursue the entire thousand-turbine project on lands in the “Green Rectangle” that have been identified as having no environmental conflicts in our *Smart from the Start* report, located east of the Laramie Range and in areas of extremely high wind energy potential, with our full endorsement.

Respectfully yours,



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