



"Permits to kill eagles just seems unpatriotic, and 30 years is a long time for some of these projects to accrue a high death rate,..." Sen. David Vitter (R-LA)

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U.S. Fish & Wildlife Service
Migratory Birds Program
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Dear Dr. Dixon:

Introductory Remarks

The following are the scoping comments of Biodiversity Conservation Alliance ("BCA") and the American Bird Conservancy ("ABC") on the Eagle Take Permit Application for the Phase I Wind Turbine Development of the Chokecherry/Sierra Madre Wind Energy Project (CCSMP).

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) (Eagle Act or BGEPA) prohibits take of bald eagles and golden eagles by otherwise lawful activities, except pursuant to Federal regulations. The Eagle Act regulations at title 50, part 22 of the Code of Federal Regulations (CFR), define the "take" of an eagle to include the following broad range of actions: "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" (§ 22.3).

At the heart of the permitting question is whether its issuance is appropriate and warranted. The science bar for protecting eagles and all species under the Endangered Species Act is a high bar. The science bar to permit the killing of eagles and all species should be at least as high.

BCA and ABC support the development of clean, renewable sources of energy such as wind power, but like other forms of energy development, it has to be done responsibly. The BLM and USFWS have in their possession BCA's in-depth analysis of where and how to responsibly develop wind power projects, titled *Wind Power in Wyoming: Doing It Smart from the Start*.

BCA's *Wind Power in Wyoming: Doing It Smart from the Start* analysis has been virtually replicated by former Wyoming Governor Dave Freudenthal's office and by other independent groups such as

The Nature Conservancy.¹ Our wind report, backed by other similar reports, show the Chokeycherry/Sierra Madre Wind Farm to be located in one of the most important wildlife areas in the entire state. Raptors and eagles are cited as the most important segment of wildlife placed at risk by wind energy development in the project area. It is upon this basis we oppose its location and, in particular, the density of turbines being proposed.

We also oppose issuance of the eagle take permit due, but not limited, to the following bulleted reasons:

Project Size Renders First Eagle Take Permit Ill-advised

- Given that no active eagle take permit exists for wind farms it would be irresponsible of the U.S. Fish and Wildlife Service (*hereafter*, USFWS or Service) to grant an eagle take permit to a facility that could become the nation's largest of its kind. Common sense, business sense and scientific integrity all demand that the Service first establish a pilot eagle take permitting program, specific to wind energy generation facilities. Such a pilot program, involving only small wind energy generation facilities is needed to assess "on-the-ground" (true, as opposed to theorized or speculated) effectiveness of eagle take permitting.

Permit Purpose and Need Inconsistencies and Inadequacies

- The Service's stated purpose for the permit is to "*meet a need for specific guidance to help make wind energy facilities compatible with eagle conservation and the laws and regulations that protect eagles.*" This guidance has no basis in fact or i.e., absolutely no experiential data to back up the effectiveness of the eagle take permit requirements to "*make wind energy facilities compatible with eagle conservation and the laws and regulations that protect eagles.*" It should be noted, too, that "*guidance*" issued through the permitting process is to make wind energy facilities compatible with eagle conservation rather than to alter eagle conservation measure to be compatible with eagle conservation. In fact the eagle take permit, as it currently exists, alters eagle conservation measures and The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) (Eagle Act or BGEPA) which prohibits take of bald eagles and golden eagles by otherwise lawful activities, except pursuant to Federal regulations. The Eagle Act regulations at title 50, part 22 of the Code of Federal Regulations (CFR), define the "take" of an eagle to include the following broad range of actions: "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" (§ 22.3).

Permit to Kill Bald Eagles is Premature

- Bald eagles, in relative terms, have only recently been removed from the list of species protected under the Endangered Species Act (ESA). While technically no longer protected under the ESA the act of permitting the killing of a species that our nation has spent countless dollars and human resources to bring back from the brink of extinction is disconcerting to say the least. Delisted in 2007, it makes no sense to permit the killing of the species only seven years later, especially when the permit allows a rapidly growing wind energy industry to kill the birds. Once a precedent setting permit is issued, mounting pressure will inundate the Service to issue more permits resulting in more eagle "take."² (emphasis added)

¹ Pocewicz A, Estes-Zumpf WA, Andersen MD, Copeland HE, Keinath DA, Griscom HR (2013) Mapping Migration: Important places for Wyoming's migratory birds. Lander, Wyoming: The Nature Conservancy.

² "U.S. Fish and Wildlife Service does not do this for the electric utility industry or other industries," Kevin Kritz, a government wildlife biologist in the Rocky Mountain region wrote in government records in September 2011. "Other

Climate Change and Associated Eagle Deaths Have Not Been Considered by Project Proponents and Permitting Agencies

- In nearby Utah alone, 29 (to date) bald eagles have died from the West Nile virus so far this winter. Five other West Nile infected bald eagles have been treated. West Nile virus infections are typically associated with warmer seasons. Taking into consideration climate change and the already demonstrably associated shorter and warmer winters in Wyoming (thus the recent mountain pine beetle epidemic in the nearby Medicine Bow-Routt National Forest and coniferous forests throughout the Rocky Mountains from British Columbia to New Mexico). Climate change impacts are a matter of history, not predictions. These concerns must be considered in the issuance of eagle take permits.

[Recent report in LA Times Newspaper](#)

by John M. Glionna *January 3, 2014*

Utah wildlife experts believe they have solved the mystery of what killed at least 29 bald eagles over the last month: West Nile virus. The majestic birds, the national symbol of the United States, apparently became infected after eating smaller birds with the disease, according to the Utah Division of Wildlife Resources.

In December, hunters and farmers across five counties in northern and central Utah began finding the normally skittish raptors lying, listless, on the ground. Many suffered from seizures, head tremors and paralysis in the legs, feet and wings.

Golden Eagle Population Numbers are Not Conclusive³

- Golden eagle populations are considered by some to be on the decline rangewide. Several studies have recently indicated decreasing population estimates for migrant and wintering Golden Eagles in the western US. Of the few long-term studies on breeding populations of Golden Eagles in the continental United States, there are also concerns of population declines. In order to slow these apparent declines, it is first necessary to understand the current migration routes, important stopover areas, winter range movements, and potential hazards within both summer and winter ranges. Movements and important use areas of the non-breeding portion of the population (i.e., sub-adults and floaters) are also critical to the perseverance of this long-lived species through maintained recruitment into the breeding population. To date, this information is woefully lacking.

Migrating Golden Eagle Numbers Decline

- In the mid 1990s, Derek Craighead resurveyed a study site his father had helped to research 30 years prior. Upon his return, Derek documented eagles in many of the previously located historic territories, and he also found similar nest density and productivity rates. At the time, the Golden Eagle population in the Rocky Mountain region was thought to be recovered and stable; it was of little concern to biologists.

industries will want to be judged on a similar standard.” Online at: <http://denver.cbslocal.com/2013/05/14/wind-farms-get-pass-on-eagle-deaths/>

³ Population Level Survey of Golden Eagles (*Aquila chrysaetos*) in the Western United States. 2004. Prepared For: U.S. Fish & Wildlife Service. Prepared By: Rhett E. Good Ryan M. Nielson H. Hall Sawyer Lyman L. McDonald. Western EcoSystems Technology, Inc.

However, this period marked the beginning of what became an annual decline in migrating Golden Eagle count numbers at established locations along known migration routes. This trend soon caught the attention of biologists and land managers, and they shifted their focus to Golden eagles as concern grew for their population numbers.⁴

Changing Trends

- While migration counts are invaluable to monitoring population trends, they are unable to reveal the cause of changing trends. With that in mind, CBS biologists saw an opportunity to continue the research started almost 50 years ago on Golden Eagle nesting demographics in South-Central Montana, to collect information that could potentially help mitigate the decline of Golden Eagles in the Rocky Mountain west. Beginning in 2010, personnel from Craighead Beringia South embarked on the third phase of the Golden Eagle nesting project. The entire study site was revisited in the spring, during the early nesting period, and locations of current territories and active nest sites were documented. During this initial visit, we were able to document the use of nest sites that dated all the way back to the original survey period -- this means that Golden Eagles had been nesting in the same area for at least 50 years! After their initial visit, the crew went back on two additional occasions in order to assess productivity. The number of young entering the population (i.e. productivity) is potentially the most critical factor affecting the population decline and is a missing piece of the puzzle that managers need to make informed decisions. Our goals are to develop seasonal distribution models based on aerial surveys for eagles, and to describe important overwintering areas for sub-adult eagles. The project also seeks to understand the dispersal and movements of juvenile eagles in contrast to sub-adults that originate farther north from Canada and Alaska. Data collection will continue for at least one more year through aerial surveys and satellite tracking.

According to the Service, two important points should be considered for future surveys:

- 1) the effects of cyclic fluctuations on population estimates and trend detection and
- 2) investigating the magnitude of availability bias on population estimates.

We do not believe the above two points have been adequately addressed.

According to Western EcoSystems Technology, Inc. (WEST),

“...golden eagle populations in portions of the U.S. are thought to cycle on a 10-year basis with jackrabbit populations (Kochert and Steenhof 2002). WEST claims, “Our estimates of power to detect population trends are based on linear population trends (log scale). Thus, a cycling Golden Eagle population may complicate our predictions of sample sizes required to detect population trends with the stated USFWS’s power and precision requirements.

The impact of population cycling on our estimates will depend largely on the sample units studied. It is unlikely that jackrabbit populations across the entire study area cycle on a similar schedule due to differences in regional climate, habitat and resulting jackrabbit populations. Thus estimates of Golden Eagle trends across the

⁴ <https://beringiasouth.org/golden-eagle-breeding-ecology>

entire study area may not be greatly impacted by cycling Golden Eagle populations. Jackrabbit and Golden Eagle populations are more likely to fluctuate on a more regional basis. If the scale of cycling populations matches that of the Bird Conservation Regions in our project area, then the impacts to our trend and power estimates may be greater.

The second point of consideration involves availability bias. The proportion of Golden Eagles available to be seen on or near the transect line are not known, thus population estimates are considered conservative. A telemetry study could be conducted in the future to try and determine the extent of this availability bias, allowing a more complete population estimate to be calculated.”

Further WEST states,

Two of the most difficult challenges in wildlife and environmental research are modeling change and testing for trend in data (Edwards 1998). To further complicate issues of designing and analyzing surveys over time the researcher has the choice of estimating net change (e.g., aggregate level) between two points in time, estimating gross change (e.g., element level) between two points in time, or estimating the average net change over time (e.g., average trend) (Duncan and Kalton 1987). We believe that estimation of a net change between two points in time, for example the difference between Golden Eagle population sizes in 2003 and 2013, and estimation of the average net change, for example the average trend in Golden Eagle population sizes from 2003 to 2013, are the primary objectives of the Golden Eagle survey, and so we designed our computer simulation to estimate necessary minimum sample sizes for both types of analyses (trend and net change) for detecting a population decline with 80% power.

- Cumulative, connected, similar and other impacts to eagles have not been adequately addressed at any stage of the project design and permitting process. The BLM must fully evaluate the cumulative impacts of the Phase I Development with nearby oil and gas developments, the TransWest Express transmission line and any other proposed or potential transmission infrastructure projects. Further, BLM must fully evaluate the cumulative impacts the Phase I Development will have on habitat, recreation, and visual resources along with oil and gas drilling impacts. Lacking this information, the USFWS cannot issue an informed eagle take permit that will effectively meet the need stated to provide “specific” guidance to help make wind energy facilities compatible with eagle conservation and the laws and regulations that protect eagles. Consideration of connected, cumulative, and similar existing and potential actions including general growth trends is required by the National Environmental Policy Act (NEPA).⁵ The Service is obligated to assess the BLM’s FEIS for compliance with NEPA requirements and to evaluate its scientific integrity and lack thereof prior to issuing an eagle take permit.
- The project proponents have not properly monitored migrating eagles. Bald eagle migration is both sporadic and unpredictable, depending on annual weather conditions and longer-term climatic changes. No monitoring period long enough to address this fact has occurred.

⁵ Consideration Of Cumulative Impacts In EPA Review of NEPA Documents U.S. Environmental Protection Agency, Office of Federal Activities (2252A) EPA 315-R-99-002/May 1999.

- Sufficient eagle presence/absence and long-term movement information, upon which to base an eagle take permit, has not been provided by the project proponent.
- The project proponent, ISC nor the BLM has established meaningful monitoring and accountability to satisfy requirements for an eagle take permit. The USFWS essentially admitted, without saying so, in its Saratoga, Wyoming open house that the voluntary eagle take monitoring and reporting associated with this project falls in the category of the proverbial “fox guarding the henhouse.”
- Departing from scientific rationale for opposing the eagle take permit is a concern shared by millions of patriotic Americans. The Bald Eagle is our national bird and our symbol of freedom. The bald eagle, unlike our national flag, is a living, flesh and blood symbol of patriotism. Most American citizens deplore the burning or otherwise desecration of our national flag... typically a patch of screen-printed nylon or other synthetic fabric. The issuance of a permit by a federal agency to kill, desecrate or otherwise “take” our living symbol of freedom and patriotism is, to millions, far more deplorable than the desecration of our national flag.

Other concerns about the issuance of an eagle take permit arising from inadequacies in the Chokecherry/Sierra Madre Wind Energy Facility Programmatic and Phase I Environmental Impact Statements.

We submitted our Wyoming placed wind energy development analysis earlier in the NEPA process for the programmatic EIS for the Chokecherry/Sierra Madre Wind Energy Project and, more recently, for the Phase I Wind Turbine Development of the Chokecherry/Sierra Madre Wind Energy Project. We remain concerned that the Chokecherry/Sierra Madre Project does not meet the *Smart from the Start* criteria, and we reiterate the concerns expressed in our protest of the Final EIS for the Chokecherry/Sierra Madre Wind Energy Project and the Phase I Wind Turbine Development of the Chokecherry/Sierra Madre Wind Energy Project and hereby incorporate them and into these scoping comments by reference.

In addition, we have asked the BLM to thoroughly consider the following issues including the literature indicated at the end of our scoping comments on the Phase I Final Environmental Impact Statement (FEIS) and included at the end of these comments. We are asking the same consideration by the USFWS as considers issuing an eagle take permit—one that as of January 31, 2014 has not been applied for by the Chokecherry/Sierra Madre project proponent.⁶

The USFWS states on its Migratory Bird Program website:⁷

“Of all America’s wildlife, eagles hold perhaps the most revered place in our national history and culture. The United States has long imposed special protections for its Bald and Golden eagle populations. Now, as the nation seeks to increase its production of domestic energy, wind energy developers and wildlife agencies have recognized a need for specific guidance to help make wind energy facilities compatible with eagle conservation and the laws and regulations that protect eagles.”

⁶ Kevin Kritz, USFWS (pers. comm) January 31, 2014.

⁷ <http://www.fws.gov/migratorybirds/baldandgoldeneaglemanagement.htm>

To meet this need, the U.S. Fish and Wildlife Service (Service) has developed the Eagle Conservation Plan Guidance (ECPG). This document provides specific in-depth guidance for conserving Bald and Golden eagles in the course of siting, constructing, and operating wind energy facilities.”

It is not clear how the ECPG serves to offer specific in-depth guidance “in the course of siting.” The Wyoming Industrial Siting Council (ISC) approved the CCSMP possessing and considering virtually no sound scientific data regarding impacts to eagles, other raptor and birds. Sound data on the impacts of the project on migrating birds did not exist when the ISC issued its permit. To date, no meaningful data has been collected on the impacts of the project on migrating eagles, other raptors and other birds. Resident populations of eagles have been monitored but resident eagles and other raptors exhibit movement behaviors that cannot be predicted.

Flight and nesting patterns change both within a single year and over years. The flight patterns and behaviors of each new brood is virtually unpredictable. Inexperienced fledglings are at least as likely to collide with blades as are their adult parents. We do not see any evidence that the proponent, the ISC or the BLM has considered this aspect of risk imposed upon resident birds.

Although not directly relevant to the take permit issue, ferruginous hawks are known to build and use, quite unpredictably, several nests over time. The use of multiple nests is known to reflect changing locations of more favorable prey availability over time. Because competition and territoriality is an integral ecological component of the ecosystem shared by the proposed project area, eagles, ferruginous hawks and other competitors, the permit cannot consider only eagle behavior, nesting habits, and flight patterns as if existing in a vacuum.

Raptor Mortality

According to the American Wind and Wildlife Institute, “Generating electricity from wind can wound or kill eagles when they collide with turbine blades, and can also disturb eagles during construction and operation of the wind energy facility resulting in nest abandonment or displacement from breeding territories.”⁸ BLM considers the potential impact to raptors as modest, a speculation at best, on a per-turbine basis, but there are an unprecedented number of turbines in this project, such that 150 to 210 raptor mortalities per year are forecast, including 46-64 golden eagle mortalities. FEIS Vol. 2. at 4.14-20 and 4.12-23. We are concerned that the actual mortality level may be even higher.

If an eagle take permit is to “*help make [this] wind energy facility compatible with eagle conservation and the laws and regulations that protect eagles*” it must not allow a range of numbers or number of eagles to be “taken” equal to that predicted will be taken by the proponents. To do so would do nothing to meet the stated need for the permit or to conserve eagles.

There is a great deal of raptor activity in the project area, including 23 known active raptor nests and 158 inactive nest sites in 2011. FEIS Vol. 2 at 3.14-21. Even more raptor nests have been mapped

⁸ Allison, T.D. 2012. *Eagles and Wind Energy: Identifying Research Priorities*. A white paper of the American Wind and Wildlife Institute, Washington, DC, p. 4. Available online at http://awwi.org/uploads/files/AWWI_White_Paper_Eagles_and_Wind_Energy_May_2012.pdf (last visited January 14, 2014).

by BLM in the area since 1980. FEIS Vol. 2 at 3.14-19. BLM should consider moving turbine arrays away from areas of concentrated raptor use, such as rims and canyon walls. A 50m setback is inadequate to prevent elevated levels of raptor mortality, as borne out in BLM's estimates of projected annual deaths. BLM should also consider keeping wind turbine arrays away from areas with abundant eagle and raptor prey such as pronghorn fawns, livestock newborns, prairie dogs, ground squirrels, and sage-grouse to name a few.

The Service must require the BLM and eagle take permit proponent to disclose how Phase I will affect the viability of the area's golden eagle population. Golden eagles are the single most common raptor using the area, according to BLM. FEIS Vol. 2 at 3.14-11. Losing 46-64 eagles per year in such a slow-reproducing (lacking fecundity), territorial species that is already thinly distributed across the landscape could have major impacts on the local breeding population, as well as the population of migrants traveling seasonally through the project area. We are concerned the project area could turn into a population sink, killing more eagles than the area is able to replace.

No proven methods of compensatory mitigation exist that can "replace" golden eagles lost to the Chokecherry/Sierra Madre wind turbines. While prevention of bird deaths by retrofitting existing bird-killing transmission lines is a desired action, this action only helps mitigate existing bird deaths due to electrocutions and collisions with transmission lines. Such action cannot be construed to mitigate bird deaths caused by collisions with wind turbine blades and related infrastructure. "Take" includes the actions pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb. The guidance (which, unfortunately, does not bear force of law) provided in the eagle take permit does virtually nothing to "mitigate" the aforementioned actions. Published literature contains little information or data to support the possibility of avoiding or minimizing impacts on golden and bald eagles from wind turbines once they are constructed. Avoidance remains the best first step, according to U.S. Fish and Wildlife Service raptor experts.⁹

The golden eagle is a BLM sensitive species. Its viability should not be imperiled, and actions that could send this species toward Endangered Species Act listing are contrary to BLM regulations and policy.

BLM has indicated that additional mitigation measures will be applied when reaching a certain threshold of raptor mortality. FEIS Vol. 2 at 4.14-22. BLM must clarify what that threshold is, and what mitigation measures can be applied. By the time such a threshold is exceeded, it is likely the wind farm will be fully constructed and operational. Will BLM require the dismantling of turbine arrays or shutdown of turbines? The Phase I Development EA must disclose and evaluate the effectiveness of any mitigation measures to comply with NEPA.

BLM should also disclose plans for the demobilization of turbines at the end of the project's life, and associated impacts with such demobilization.

Other Eagle Take Permit Concerns

The Final EIS for the Chokecherry/Sierra Madre Project did not indicate a take permit had been issued for the project. While the FWS considers whether a permit should be issued, the BLM should disclose and evaluate additional mitigation measures required by a take permit. While details of the actual permit are not known or at least undisclosed at this stage an eagle take permit requires

⁹ See Attachments 6, 7, and 9, to our protest of the Final EIS for the Chokecherry/Sierra Madre Wind Energy Project.

modifications to the project design, location of turbine arrays (including overall siting area), equipment specifications, number of turbines, and other features of the project that could substantially alter the nature of the project and accordingly alter the magnitude of environmental impacts for bald and golden eagles, as well as other affected wildlife and resources.

BLM adopted the Final EIS without possession of information that will be disclosed only after a permit application is made by the proponent and evaluated by the Service. BLM must wait to see if the USFWS issues a take permit before it finalizes any further NEPA documents, like an EA for the Phase I development, in order to take a true “hard look” at the environmental impacts of proceeding with the Chokecherry/Sierra Madre Project.

Levels of mortality that will trigger adaptive management have not been identified. The developer of this wind energy project would need to implement compensatory mitigation that numerically offsets predicted fatalities to result in net zero-take in order to receive a programmatic take permit.¹⁰ Such measures need to be disclosed and fully evaluated during this NEPA process. Any further deferral would continue to evade NEPA’s “hard look” requirement.

The Service is asking the public to input on specific turbine locations. This ask is unreasonable and egregious on many levels. While any given turbine location in the project area precludes reasonably safe flight conditions for eagles and other raptors, the momentary and day-to-day flight of any given bird cannot be predicted or its safety assured. Therefore all turbine locations in this valued raptor habitat are dangerous and the danger cannot be quantified by the public, eagle experts or the agencies responsible for issuing permits needed to allow this project to go forward. This ask is a sham and appears to be a distraction from the real issue, which is the siting of the project area.

Radar Baseline Information is Undisclosed

BLM must be required to disclose radar baseline information, collected by a contractor, that has describes raptor flight patterns, particularly for ingress and egress to nest sites. If the Power Company of Wyoming (“PCW”) or other private entities has this information, it should be shared with the BLM and the public before further proceeding with the Chokecherry/Sierra Madre Project. BLM previously conceded that baseline data gathering is still underway. Final EIS Vol. 2 at 4.14-22, 23. Neither an Avian Protection Plan nor the Eagle Conservation Plan was complete at the time of the Final EIS. Final EIS Vol. 2 at 4.14-22 and 25. Have they since been completed? BLM should defer further approval of site-specific activities until these data become available to the public and analysis is complete so turbine siting can be adjusted accordingly. Only then can the impacts of the project be properly evaluated through the NEPA process.

Detailed scientific information is being asked of the public, in terms of input on the eagle take permit. We ask the Service to clarify to explain, at least to the same level of detail, how the eagle take permit will help Phase I Development will comply with the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act and other policies and regulations aimed at species protection and conservation.

¹⁰ See supra, Allison, T.D.

Designated Recreation and Wildlife Areas

We ask Service to analyze and disclose any impacts to Special Recreation Management and Wildlife Habitat Management Areas within the Phase I Development area. We also ask the Service to detail how mitigation measures proposed for those areas, and assured effectiveness will serve to *“meet a need for specific guidance to help make wind energy facilities compatible with eagle conservation and the laws and regulations that protect eagles.”*

We appreciate this opportunity to comment. Please keep us informed of all future developments related to this project and the eagle take permit being considered.

Sincerely,



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Literature for Consideration

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