Shaping the future for birds

Public Comments Processing, Attn: FWS-R9-MB-2011-0094 Division of Policy and Directives Management U.S. Fish and Wildlife Service 4401 N. Fairfax Drive, MS 2042-PDM Arlington, VA 22203 August 4, 2014

## **Comments on Eagle Management and Permitting**

Thank you for the opportunity to participate in the Eagle Scoping process. The American Bird Conservancy (ABC) is a 501(c) (3) not-for-profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas. ABC acts by safeguarding the rarest species, conserving and restoring habitats, and reducing threats, while building capacity in the bird conservation movement.

ABC supports the development of clean, renewable sources of energy such as wind power, but also believes that it must be done responsibly and with minimal impact on our public trust resources, including native species of birds and bats, and particularly threatened, endangered and other protected species, such as Bald and Golden Eagles. ABC also considers the FWS a valued partner in bird conservation and realizes that the Service does a great deal of good work to protect wildlife and their habitats. Although we have had legitimate differences of opinion on wind power development and its potential impact on our nation's native birds (and bats), there are many areas where we collaborate effectively on species and habitat conservation initiatives.

ABC supports Bird Smart Wind Energy, which is described in some detail on our web site (<a href="http://www.abcbirds.org/abcprograms/policy/collisions/wind\_developments.html">http://www.abcbirds.org/abcprograms/policy/collisions/wind\_developments.html</a>). In the case of wind energy, careful siting and mitigation is crucial in preventing the unintended impacts to America's native bird and bat species. This risk to birds (and bats), including eagles, can be substantial, depending on the circumstances ((<a href="http://onlinelibrary.wiley.com/doi/10.1002/wsb.260/abstract">http://onlinelibrary.wiley.com/doi/10.1002/wsb.260/abstract</a>; <a href="http://www.sciencedirect.com/science/article/pii/S0006320713003522">http://www.sciencedirect.com/science/article/pii/S0006320713003522</a>).

ABC has the following comments regarding the entire process developed for eagle take permitting and permitting in general when it comes to wind energy development and its potential impact on federally-protected bird populations:

#### **Legality of the Scoping Process**

While ABC is pleased that FWS has finally initiated this scoping process on the 30-year eagle take rule, we also believe that the process itself is illegal and violates the National Environmental Protection Act (NEPA). NEPA requires that such processes, including a detailed analysis of impacts and opportunity for public input, be undertaken before major policies

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affecting federally-protected wildlife are implemented, not after, which is what is now occurring. Instead, FWS implemented the policy and claimed a categorical exclusion from NEPA, stating that the policy change was merely "administrative" in nature. ABC disagrees and believes that this claim of a categorical exclusion and lack of a detailed analysis of the potential impacts of 30-year permits on Bald and Golden Eagle populations violates NEPA and sets a dangerous precedent for this and future administrations. Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA) and any purposeful take of these species is illegal, except for legitimate educational and scientific purposes and requires a permit. Accidental take is also illegal in the absence of an incidental take permit issued by FWS, but see our concerns about the current process being used to issue these permits, below.

It should also be noted that ABC submitted joint comments in collaboration with the Conservation Law Center to the FWS on the 30-Year eagle take permit in July, 2012 (<a href="http://www.abcbirds.org/abcprograms/policy/collisions/pdf/CLC-ABC\_EaglePermitDuration\_Comments.pdf">http://www.abcbirds.org/abcprograms/policy/collisions/pdf/CLC-ABC\_EaglePermitDuration\_Comments.pdf</a>), which were largely ignored, even though they were supported by more than other 120 other conservation groups (<a href="http://www.abcbirds.org/abcprograms/policy/collisions/pdf/Groups\_opposed\_30yr\_eagle\_take\_permits.pdf">http://www.abcbirds.org/abcprograms/policy/collisions/pdf/Groups\_opposed\_30yr\_eagle\_takee\_permits.pdf</a>). Many of those comments are reiterated here. However, several new observations and issues of concern are included in this analysis as well. The following are ABC's comments on issues that are the focus of the public scoping process:

#### **Permit Duration and Conditions**

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ABC has opposed extending the maximum duration for programmatic permits under the BGEPA from the current 5 years to 30 years from the beginning, for both scientific and legal reasons, including the following: (1) a 30-year programmatic permit puts FWS at a disadvantage relative to periodic renewal of a short-term programmatic permit; (2) uncertainties about eagle populations and project impacts are too large to justify 30-year permits; (3) FWS's framework and plans for adaptive management are inadequate to support a 30-year programmatic permit; (4) a 30-year programmatic permit may significantly decrease opportunities for public involvement compared to a five-year programmatic permit; (5) a 30-year programmatic permit is not necessary for long-term projects because the time frame of investment and financing for wind energy generation projects is relatively short and short-term renewable permits are common; (6) extending take permits to 30 years is inconsistent with past statements and priorities made by FWS; and (7) Golden Eagles may require listing under the Endangered Species Act during the next 30 years. Details are available here: http://www.abcbirds.org/abcprograms/policy/collisions/pdf/CLC-

It is ABC's opinion that permits for wind energy development should be mandatory, not voluntary (see below) and that the five-year period permit re-application schedule be maintained. We understand why the wind industry wants to have more certainty with regard

to how long it can operate. However, the permit is, of course, renewable, as long as large numbers of federally protected bird and bat species are not being taken. If the five-year internal reviews of wind energy site operations are presumably to serve the same purpose, then we see no reason to change permit length. In fact, if switching to a five-year internal review for up to 30 years is no different, as FWS claims, than the previous five-year permitting system, then why would it give lenders any more confidence than the previous system?

As stated in the scoping materials, to qualify for a programmatic permit, current regulations require implementation of "advanced conservation practices" that "reduce eagle disturbance and ongoing mortalities to a level where remaining take is unavoidable." Instead, the FWS is considering elimination of the "unavoidable standard" and instead requiring that all permit holders "take all practicable measures to avoid and minimize take of eagles." ABC disagrees with this change as the vast majority of mitigation methods have not been tested for their efficacy in reducing eagle or other bird mortalities (see Compensatory Mitigation, below). This uncertainly makes it impossible to determine if practicable measures" have indeed been taken, even if the wind energy company agrees to compensatory mitigation. The real issue is how many federally-protected birds (and bats) are being killed post-construction. All decisions on the future operation of any wind energy site should be based on this factor, which makes collection of independent, accurate mortality data essential to the entire process.

In the scoping materials, FWS asks "how 5-year reviews for longer term permits can be most effective?" First, ABC believes strongly that effectiveness could be greatly increased if accountability is improved. More specifically, information on bird (and bat) mortality at specific wind energy sites must be transparent. FWS claims that this will be the case, but, at present, these data are being treated as "proprietary information". One of ABC's concerns about five-year "internal" reviews is that transparency will be further decreased, rather than increased due to the new rule. Yet, these are public trust resources that are being taken and the public has a right to know, so it can be an informed partner in mortality avoidance and minimization discussions.

Second, accountability can also be improved by taking the responsibility for Environmental Assessment (EA) development out of the hands of paid consultants contracted by wind energy developers. ABC is aware of several instances of contacted consultants that inappropriately down-played the potential impacts on federally-protected birds (or bats) during EA development. Examples include the recently rejected Camp Perry, OH and New Era, MN Wind Energy Projects, both of which were shut down partially sue to poorly-developed or deceptive EAs. The current system is clearly a conflict of interest. One possibility is that FWS or a FWS contractor hires the independent consultants with monies provided by the developer, thus removing the direct conflict of interest.

Last, one of the most significant questions ABC has regarding incidental take permits for federally-protected birds (and bats), including Bald and Golden Eagles, is: What precisely will

happen if and when a given wind energy site greatly exceeds its kill limits under an incidental take permit and does so for a number of years in succession, despite mitigation efforts? This is especially concerning given the fact that no wind energy facility has ever been shut down post-construction, even if high levels of bird and bat mortality have been confirmed, including federally-protected species (e.g., Altamont, CA, Criterion, MD). In addition, to date, only one wind energy company (i.e., Duke Energy) has so far been prosecuted for killing large numbers of federally-protected birds. One likely outcome of this penalty is a reduction of self-reporting of mortality, especially of federally-protected species. In summary, the BGEPA, ESA and MBTA are simply not being enforced when it comes to wind energy development, and this must change. If wind energy companies, particularly those that are poorly-sited from the beginning, are killing large numbers of federally-protected birds, then they must be prosecuted. Why have any wildlife protection laws at all if they are not going to be enforced?

## **Voluntary Guidelines**

The current FWS permitting guidelines for wind energy development are voluntary, not mandatory, and this is hindering FWS' ability to do its important job of protecting our nation's public trust resources, including its ecologically-important native birds and bats. Indeed, the current regulations have no teeth and ABC has found little compliance with the FWS' current voluntary guidelines for wind energy development by both public and private entities. For example, ABC was able to shut down a proposed wind site at Camp Perry, Ohio after it was determined that the Ohio Air National Guard ignored FWS' advice on the need for an EIS and Section 7 consultation under the Endangered Species Act. Once ABC and the Black Swamp Bird Observatory threatened to sue, the Air National Guard's legal counsel agreed that they had not followed the voluntary rules and shut the project down. Similarly, the Lake Erie Business Park has built a large turbine and plans five more near Camp Perry on private land with absolutely no EA being conducted what-so-ever, and with no incidental take permit in place. Both of these projects are located within one of the most important migration corridors for neotropical breeding birds in North America, extending along the south shore of Lake Erie to Point Pelee, Ontario and also has the largest Bald Eagle population in the state. The Lake Erie Business Park turbine sits no more than a stone's throw away from an active Bald Eagle nest. There are numerous other examples, including the controversial Mill Creek Wind Energy Project that, if approved and built, will be located adjacent to Squaw Creek National Wildlife Refuge and surrounding habitats in Missouri, one of only 500 sites in the U.S. designated as Important Bird Conservation Areas by ABC. Similarly, ABC has recently been made aware of the Heritage Garden Wind Energy Site on the Garden Peninsula near Lake Michigan. Also on private land, this facility was built in an important bird conservation area, and is now looking to expand. According to our sources, this poorly-placed wind energy site was built in 2011-2012 with no EA, no Environmental Impact Statement, no Habitat Conservation Plan (HCP), and no incidental take-permits. This is despite the fact that endangered Kirtland's Warblers and Piping Plovers are present and tens of thousands of migratory birds pass through the area each year, including eagles and other raptors. We find it problematic that such a facility was apparently

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grandfathered in under the new guidelines. Any proposed expansion of this site should make the entire project subject to intense scrutiny under the new rules. In addition, bird mortality at this site should be closely monitored, and in the absence of the issuance of any incidental take permit under the ESA or BGEPA, prosecuted or even shut down if federally-protected birds are being taken.

If proper siting is the most effective form of wind power mitigation (e.g., Golden Eagles: http://www.scribd.com/doc/206736314/Assessing-Risk-to-Birds-from-Industrial-Wind-Energy-Development-via-Paired-Resource-Selection-Models), then FWS' current non-regulatory paradigm is not producing the intended results. ABC has developed a Google Earth-based wind energy risk assessment map (http://www.abcbirds.org/extra/index\_wind.html), showing important bird conservation areas across the United States, and drawing upon numerous existing databases. Red areas on the map designate areas where wind should not be developed due to the substantial risk to federally-protected birds and orange areas on the map designate areas of significant concern, where great caution must be taken through pre-construction risk assessment. The red areas make up only about 8.8% of the total land area in the U.S. In 2014, ABC supported a research project, which overlaid the ABC map with that of the USGS and FAA maps showing both existing and proposed wind turbines. The results clearly show that the voluntary guidelines are not working. Over 7,200 existing turbines were in or very near red areas and over 8,000 more are planned (these data were recently corrected a bit lower due to issues with the FAA and USGS databases, which included some duplicates. Nevertheless, the numbers are very troubling). This is precisely why ABC and 75 other organizations wrote to DOI Secretary Sally Jewell on April 21, 2014 requesting a National Programmatic Wind Environmental Impact Statement (EIS) that would designate certain areas off limits for wind energy development and require careful risk assessments in others before new wind energy developments are approved

(http://www.abcbirds.org/newsandreports/releases/140424.html). We continue to await the courtesy of a response to our request. There is precedence for this with the recent Bureau of Land Management (BLM) Solar EIS for public lands in the west, which may provide a roadmap for solar energy development, while also helping to protect our precious and irreplaceable natural resources. This is also compatible with the Secretary's recent push toward landscape-scale planning and mitigation to offset energy and other development on public lands (http://www.doi.gov/news/pressreleases/secretary-jewell-releases-landscape-scale-mitigation-strategy-to-encourage-dual-objectives-of-smart-development-and-conservation.cfm).

#### **Management Objectives for Bald and Golden Eagles**

ABC agrees that the FWS should base its eagle management objectives on newer, improved information on "eagle movements, population size, and natal dispersal distances...to revise the Eagle Management Units (EMUs), set explicit numerical population objectives in each EMU, and refine the area we consider on the local scale" (http://eaglescoping.org/background-info). We also agree that the FWS should "adopt an explicit level of risk tolerance relative to how much

take to allow based on uncertainty in the population size estimates." In fact, this is just the kind of detailed analysis that should have been conducted under NEPA before the 30-year eagle take permit rule was illegally implemented.

In its original comments, ABC pushed for a refinement of the regulatory standard of a "stable or increasing population", noting that population stabilization can occur at dangerously low population levels and, furthermore, that it was inconsistent with the statutory standard of "eagle preservation" in BGEPA. One of the biggest challenges ABC sees in this regard is the assessment of the cumulative impacts of all anthropogenic and natural causes of Bald and Golden Eagle mortality to obtain an accurate picture of the potential impact of energy development, including wind, on their populations, both regionally and nationally (e.g., Golden Eagles: <a href="http://aoucospubs.org/doi/abs/10.1525/auk.2011.11078">http://aoucospubs.org/doi/abs/10.1525/auk.2011.11078</a>). Indeed, we do not see how the goal of "maintaining stable or increasing populations over 100 years" of both Bald and Golden Eagle populations can effectively be obtained in the absence of this information. Although the FWS clearly recognizes this need, ABC questions whether FWS or anyone else currently has the methodology and information to make such complex assessments, and to do them with reasonable accuracy.

In our discussions with federal agency personnel, it has become quite clear that the models used for these predictive assessments are still largely untested, thus making the maximum limits established by incidental take permits highly questionable. This is one of the reasons that ABC opposes the FWS' establishment of 30-year incidental take permits for Golden and Bald Eagles. Given the high degree of uncertainty involved, we do not see how the FWS could have established such a guideline without first conducting a detailed analysis of the potential implications of a 30-year permit on Eagle populations, as is required by NEPA. Furthermore, if the FWS is counting on untested mitigation methods (see Compensatory Mitigation, below) to resolve high levels of eagle (and other avian and bat) mortality post-construction, then we also find the entire process that has been developed for the siting and mitigation of wind energy facilities highly problematic.

# **Criteria for Eagle Nest Removal Permits**

ABC opposes any effort to loosen the current guidelines under which permits to remove Bald and Golden Eagle nests to facilitate wind energy development are issued. We understand that the wind energy industry wants less regulation, when just the opposite is needed to protect our public trust resources, including eagles. Loosening the criteria for eagle nest removal would greatly reduce, and in fact inhibit, the FWS' ability protect and conserve federally-protected eagles under the BGEPA.

## **Compensatory Mitigation and Data on Eagle Mortality**

ABC strongly agrees with the Department of Energy's (Energy Efficiency & Renewable Energy's) recent statement that "...technologies to minimize impacts at operational facilities for most species are either in early stages of development or simply do not exist" (https://eere-exchange.energy.gov/). ABC has, in fact been saying this for some time, while the wind industry and its trade organization, the American Wind Energy Association (AWEA), has been incorrectly touting the industry's current ability to effectively mitigate the impact of wind energy on birds and bats, at the same time that hundreds of thousands of birds and bats are being killed annually, many of them federally-protected species

(http://onlinelibrary.wiley.com/doi/10.1002/wsb.260/abstract;

http://www.sciencedirect.com/science/article/pii/S0006320713003522). Note also that these analyses do not include birds killed at associated transmission towers and lines, which could substantially increase those estimates. This is particularly evident from the FWS' investigation of PacifiCorp in 2007, which eventually resulted in \$10.5 million in fines and restitution for killing Golden Eagles and other federally-protected birds

(http://www.wildlifeextra.com/go/news/eagles-killed009.html#cr).

Accurate data on avian and bat mortality at operational wind energy sites is critical for determining appropriate levels of mitigation and compensation for unavoidable bird (and bat) mortality post-construction. ABC believes that methods for collecting post-construction bird kill data should be standardized and automated using new technologies that can deliver independent, real-time, accurate data on the numbers of bird (and bat) strikes and kills at wind energy turbines and also at the associated transmission lines and towers. ABC has become aware of new, cost-effective technologies involving high-resolution digital photography, paired with change-detection software and thermal imaging paired with audio-recording devices that could provide this data in the near future. These technologies, once tested, could be a game changer when it comes to collecting accurate, independent, real time data on bird kills associated with wind energy development, and wind energy companies should be required to use them as a condition of receiving an incidental take permit under the Endangered Species Act (ESA) and Bald and Golden Eagle Protection Act (BGEPA). ABC also hopes that the FWS moves forward quickly to develop an effective permitting system under the Migratory Bird Treaty Act (MBTA), as we had requested in our petition for rulemaking (http://www.abcbirds.org/abcprograms/policy/collisions/pdf/wind\_rulemaking\_petition.pdf).

Currently all reporting of bird (and bat) mortality is self-reporting by industry and thus a serious conflict of interest. At the very least, ABC would like to see independent third party mortality studies and reporting directly to FWS, with independent consultants hired by the FWS or a trusted contractor and paid for by industry. Once automated, real time data collection on bird (and bat) strikes can be perfected, then it can take over the job. All of this would make it less likely that bad players, hoping to avoid substantial fines, obligatory, expensive mitigation, or prosecution, would dig holes in the back forty and fill them with dead federally-protected birds

(and bats)—something that is entirely possible under the current self-monitoring and self-reporting system. It could also help collect data on bird and bat kills at offshore wind energy facilities, where being over open water will make it impossible to use traditional methods of carcass detection.

While ABC believes that appropriate siting is the best and most effective form of mitigation, there are currently several other mitigation methods—though largely untested--that the wind industry has inappropriately promoted as "effective" ways to reduce bird and bat mortality at existing facilities, including use of radar to detect birds, combined with temporary or seasonal shutdowns (e.g., during migration), lighting adjustments to reduce attraction, deterrents (e.g., audio deterrents for bats), habitat management (e.g., removal of standing water and vegetation under turbines), prey population management (e.g., for raptorial birds), and retrofitting of the associated transmission lines and towers to reduce the risk of collisions and electrocution. This, of course, can also include burying the lines, which is likely the most effective type of mitigation.

All of these mitigation techniques have potential—under the right circumstances—to reduce bird and bat kills at wind energy sites. However, as the DOE EERE recently pointed out, before various methods can be promoted as "effective", they must be tested experimentally using scientifically valid methods. ABC also believes that mitigation methods should be systematically tested for their efficacy under a wide range of circumstances, including in different seasons, time of day, landscapes and weather conditions before their efficacy can be appropriately evaluated. For example, it is well known that weather conditions, such as cloud cover and strong wind, can significantly alter the migratory pathways of birds and also influence how often they come to the ground and at what height they fly. All of these factors can influence the risk of wind energy development to federally-protected birds and bats.

ABC strongly agrees with DOE's EERE's statement that: "More research, development, field testing, and validation of impact minimization will therefore be needed in order for the industry to grow while managing the impacts that increased wind energy development may cause to sensitive wildlife" (https://eere-exchange.energy.gov/). ABC is aware that some of this research is being undertaken now by USGS scientists and others in academia and this work should be rapidly expanded and targeted to fill current gaps in our knowledge before it is too late. Thousands of turbines may be constructed in areas that pose grave dangers to federally-protected bird (and bat) populations, including eagles, before such analyses are completed.

ABC believes that mitigation methods that have proven effective through independent scientific studies, such as audio deterrents for bats, transmission tower and line retrofitting and habitat management should be mandatory, not voluntary, as a condition for receiving an incidental take permit for federally-protected birds and bats. In addition, when public trust resources are taken incidentally after all of these safeguards are in place, then any losses of federally-protected birds and bats should be compensated. This could involve a wind energy company

supporting needed conservation research, purchasing and setting aside habitat elsewhere and other appropriate compensatory actions, such as directly addressing other anthropogenic causes of bird and bat mortality, including feral cats, pesticides, and building collisions.

ABC believes that our nation's headlong rush to wind energy development has gotten way out ahead of both the science and regulatory framework. This needs to change. Our nation cannot afford to begin losing or greatly decreasing important populations of birds and bats on which many of our ecological services depend. Indeed, wind energy cannot be considered "green" if it is killing hundreds of thousands of birds and bats annually, including threatened and endangered species. Our nation's native birds and bats are not "collateral damage" in our war on climate change, especially since much of the current conflict could be addressed through better science and regulation.

### **Low Risk Category**

ABC agrees that wind energy facilities—whether or public or private lands--can and should be placed only in areas that pose low or moderate risk to our nation's native birds and bats. ABC agrees that there may be areas that potentially could be classified as "low risk" and could therefore be subject to less scrutiny. However, ABC also wonders how "low risk" areas will be identified and what criteria will be used to designate such areas? ABC has developed a Google Earth-based wind energy risk assessment map

(<a href="http://www.abcbirds.org/extra/index\_wind.html">http://www.abcbirds.org/extra/index\_wind.html</a>), showing important bird conservation areas across the United States, and drawing upon numerous existing databases. Red areas on the map designate areas where wind should not be developed due to the substantial risk to federally-protected birds and orange areas on the map designate areas of significant concern, where great caution must be taken through pre-construction risk assessment. Before FWS can identify low risk areas, ABC believes that FWS will need to conduct a national programmatic wind EIS, as ABC and 75 other conservation organizations recently suggested (<a href="http://www.abcbirds.org/newsandreports/releases/140424.html">http://www.abcbirds.org/newsandreports/releases/140424.html</a>). This would effectively identify areas where wind energy cannot be developed because the risk to public trust resources, including birds and bats, would be unacceptable. However, it would generally not preclude a site-by-site assessment of the risks to federally-protected birds, including eagles. This is especially true since migratory routes and stopover sites can vary from year-to-year based on local weather conditions and other factors.

# A Proposed Alternative for an Effective, Scientifically-Credible, Legally-Defensible, Transparent Permitting Process for Wind Energy Development

There is clearly a need for a new scientifically-credible, legally defensible, and more transparent approach to permitting for wind energy facilities that meets the stated goals of BGEPA, ESA and MBTA. ABC makes the following recommendations:

- (1) Make FWS permitting for wind energy development mandatory, not voluntary.
- (2) Move forward with the development of a permitting process under the MBTA to augment those now available under BGEPA and ESA.
- (3) Openly provide all data on bird mortality at specific wind energy sites for meaningful stakeholder (public) review and analysis on a regular basis, including analyses of the effectiveness of post-construction mitigation in reducing eagle (and other federally-protected birds and bats) mortality.
- (4) Institute a third party, independent monitoring system for post-construction bird (and bat) mortality using new, automated cost-effective technologies and require them as a condition of receiving an incidental take permit. Standardize the reporting format, so that all reports are comparable.
- (5) Exposure-based models used to predict mortality during pre-construction risk assessments should be tested for accuracy and new models should be developed that take cumulative impacts of all sources of mortality into account.
- (6) Identify a way to take initial Environmental Assessment (EA) development out of the hands of consultants contracted by wind energy developers and have them conducted by independent third parties. The current system is clearly a conflict of interest and is, at times. Being abused.
- (7) Require EIS development and Section 7 consultation under the ESA when ESA-listed species are known to be present.
- (8) Require radar data at different times of the year and weather conditions for all EAs to monitor activity and height of migratory birds flying through the area. This is critical for assessing risk.
- (9) Conduct a national programmatic wind EIS as soon as possible and use it to identify areas where wind energy cannot be developed due to unacceptable risk to public trust resources, including eagles and other federally-protected birds and bats.
- (10) Conduct scientifically-sound testing of all mitigation methods under a wide range of environmental and weather conditions as soon as possible in order to verify their effectiveness in reducing bird (and bat) deaths.
- (11) Make compensatory mitigation mandatory for all wind energy facilities and associated transmission towers and lines at which federally-protected birds are being taken.
- (12) Clearly articulate for each eagle take permit issued in a legally sound and scientifically defensible manner how it complies with BGEPA and ensures preservation of eagles, especially in the face of acknowledged uncertainty.
- (13) Conduct more detailed studies of eagle movements, prey populations, habitat use, and populations on a regional basis. Use them to improve siting decisions.
- (14) Remove the reference to "breeding" populations in the preservation standard and replace it with "consistent with the goal of stable or increasing populations." This change will better recognize recent findings clarifying the importance of subadults and floaters to eagle populations.
- (15) Hold the permit duration to five years with the possibility of renewal. Any permit should be rescindable and allow for adaptive management as new information comes to light.

- (16) Develop regional strategies to evaluate whether the predicted magnitude of cumulative impacts on eagles is consistent with the preservation of eagles. This will require that there is sufficient baseline data from each region to monitor any changes that occur over time. Evaluate take not just in a regional context, but also taking into account its impact on local and national populations.
- (17) Actively enforce the ESA, BGEPA and MBTA when it comes to all energy development, whether traditional or alternative. Shut down or relocate wind energy sites that greatly exceed their take limits for federally-protected species, especially if mitigation proves ineffective in reducing bird (and bat) mortality. This means more prosecutions for violation of the laws and predictable consequences for non-compliance.
- (18) Develop effective plans for compensation for the unavoidable loss of public trust resources, including eagles and other federally-protected birds (and bats). This could include buying critical habitat, supporting conservation research, etc.

Please do not hesitate to contact us if you need any further information. ABC stands ready to assist FWS as it moves forward to effectively balance the development of alternative energy with the risks posed to our nation's wildlife and their habitats. In particular, the current system of voluntary permitting and self-reporting of bird and bat deaths is not working to protect our nation's public trust resources, and is in need of significant change. You can contact me by phone at 202-888-7485 or by e-mail at mhutchins@abcbirds.org.

Thank you for your consideration.

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Sincerely,

Michael Hutchins, Ph.D.

National Coordinator, Bird Smart Wind Energy Campaign