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July 14, 2016

Regional Director
Attn: Rick Amidon
U.S. Fish and Wildlife Service
Ecological Services
5600 American Blvd. West, Suite 990
Bloomington, MN 55437-1458

RE: Comments on the Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan and Draft Environmental Impact Statement [DOCKET NO: FWS-R3-2015-0033]

Submitted electronically via Federal e-Rulemaking portal: <http://www.regulations.gov>

Dear Mr. Amidon,

The Conservation Law Center, American Bird Conservancy, Black Swamp Bird Observatory, and Union Neighbors United are pleased to submit the following comments on the Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan (MWE) and its accompanying Draft Environmental Impact Statement (DEIS). We appreciate the opportunity to comment on this major action by the Fish and Wildlife Service (FWS).

The Conservation Law Center (CLC) is a not-for-profit public interest law firm located in Bloomington, Indiana and operates the Conservation Law Clinic in cooperation with the Indiana University Maurer School of Law and Indiana University McKinney School of Law. The CLC has performed significant work on wind energy's effects on birds and bats, having submitted comments on multiple EIS's for wind projects and proposed rules addressing wind power's impacts to birds, as well litigation on related matters in federal court.

American Bird Conservancy (ABC) is a 501(c)(3) science-based, not-for-profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas (www.abcbirds.org). ABC acts by safeguarding the rarest species, conserving and restoring habitats, and reducing threats, while building capacity in the bird conservation movement.

Black Swamp Bird Observatory (BSBO) is a 501(c)(3) organization located in Northwest Ohio whose mission is to inspire the appreciation, enjoyment, and conservation of birds and their habitats through research, education and outreach. Research by BSBO has been used to assist both private and governmental land owners in better managing their properties for migratory bird species.



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Union Neighbors United (UNU) is a nonprofit corporation formed to promote the safety and well-being of the Champaign County, Ohio community by addressing issues relating to the siting of industrial wind turbines, including adverse impacts on wildlife such as Indiana bats.

The MWE stretches across eight states, covering the largest geographic area of any incidental take permit ever issued. DEIS at 1-6. The MWE inappropriately authorizes existing and proposed wind energy developments to kill of hundreds of thousands of federally endangered, threatened, and candidate birds and bats. Millions more birds, many protected under the Migratory Bird Treaty Act (MBTA), and bats will be killed by the projected buildout under the plan, which fails to adequately avoid, minimize and mitigate for anticipated impacts.

We divide our comments into 10 sections. Sections 1–6 address the MWE’s inconsistencies with the Endangered Species Act (ESA), including FWS’ failure to conduct *any* practicability analysis, FWS’ improper authorization of an amount of take unmoored from minimization measures’ effectiveness, and the decision to limit bat mitigation obligations solely to impacts to female bats. Section 7 suggests changes to the mitigation plan for the endangered Kirtland’s warbler. Section 8 recommends that the MWE cover more species. Section 9 addresses the public’s role under the MWE, including access to data generated under the MWE and the need for public comment on individual permits. Lastly, Section 10 compiles miscellaneous comments.

In addition to the comments below, we attach and incorporate by reference comments submitted December 3, 2012 by ABC and CLC regarding the MWE’s Notice of Intent. These comments broadly address the need to include additional protections for birds and bats not covered under the MWE, areas where development should not occur, and how the MWE in general should operate.

We urge FWS to adopt our proposed changes. As currently drafted, the MWE fails to meet the protective mandate of the ESA and MBTA and distorts NEPA’s required environmental analysis.

SECTION 1: THE MWE VIOLATES THE ESA’S REQUIREMENT THAT FWS MAKE A FINDING THAT REDUCED-IMPACT ALTERNATIVES ARE NOT PRACTICABLE BEFORE ISSUING INCIDENTAL TAKE PERMITS.

I. FWS May Not Issue an Incidental Take Permit Without Finding That Reduced Impact Alternatives Are Impracticable.

ESA Section 10(a)(2)(B)(ii) conditions FWS’s authority to issue an incidental take permit upon a finding that “the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.”¹ The D.C. Circuit Court opinion in *Gerber v. Norton* construed this provision as a requirement to find that a recognized “reduced-impact alternative” cannot be practicably implemented.²

Specifically, in *Gerber*, FWS had acknowledged that relocating a road on the incidental take permit applicant’s development was a “Reduced Impact Alternative” that would, compared to the proposed plan, reduce the number of endangered fox squirrels “killed or injured by automobiles.”³ The applicant rejected this reduced-impact alternative. FWS’s response was to issue a permit for the applicant’s original development plan as proposed in the habitat conservation plan.⁴ FWS did not make an independent finding that the reduced-impact alternative was impracticable. The agency simply relied on the applicant’s claims that the alternative was too costly.⁵

Although the *Gerber* decision clearly warns about FWS yielding to the ITP applicant’s conclusions about the practicability of a reduced-impact alternative, the *Gerber* ruling is about more than independent decision-making. The *Gerber* Court construed Section 10(a)(2)(B)(ii) to create an agency obligation: when FWS recognizes that an apparently reasonable alternative

¹ 16 U.S.C. § 1539(a)(2)(B)(ii); *see also* DHCP 1-32; 5-7; I-13.

² *Gerber v. Norton*, 294 F.3d 173, 184–85 (D.C. Cir. 2002).

³ 294 F.3d at 177, 185.

⁴ *Id.* at 178, 185.

⁵ *Id.* at 185.

would further reduce impacts, including individual mortality, the agency cannot lawfully issue a permit that authorizes a less effective plan unless it finds the more effective, reduced-impact alternative would be impracticable.⁶ Because FWS had relied on the applicant's claims that the alternative was too costly and had not analyzed "whether the magnitude of such costs or delay would render the alternative impracticable," the agency "did not make the statutorily mandated finding that the developer's plan would minimize the negative impact on the endangered Delmarva fox squirrel to the maximum extent practicable."⁷

As the *Gerber* Court recognized, identifying and analyzing the practicability of reduced-impact alternatives is crucial to satisfying the requirement in Section 10(a)(2)(B)(ii). When the proposed minimization plan does not reduce individual mortality to zero, the agency cannot determine whether the proposed plan minimizes impacts of take to the maximum extent practicable without comparing the proposed plan to reduced-impact alternatives, if they exist. The proposed plan may reduce individual mortality to some extent, and it may even be deemed cost-effective, but the plan cannot be determined to minimize the impacts "to the maximum extent practicable" until apparently reasonable alternatives that may have lower impact are found to be impracticable.

The minimization requirement for permit issuance in Section 10(a)(2)(B)(ii) thus operates differently than the no-jeopardy criterion in (B)(iv), which requires the agency to determine that "the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild."⁸ If the proposed plan does not cause jeopardy, the Section 10(a)(2)(B)(iv) criterion is satisfied, regardless of whether a reduced-impact alternative exists that also would not cause

⁶ See *Gerber*, 294 F.3d at 185 (concluding that "the agency could not have issued the permit consistent with section 10(a) without making a finding that the Reduced Impact Alternative was impracticable").

⁷ *Id.* at 185–86.

⁸ 16 U.S.C. § 1539(a)(2)(B)(iv).

jeopardy. Section 10(a)(2)(B)(ii), in contrast, requires comparing the proposed plan to other plans. Section 10(a)(2)(B)(ii) does not ask whether the proposed plan is itself practicable; rather, it asks whether the plan will minimize the impacts “to the maximum extent practicable.” By its nature, this question cannot be answered by evaluating only the proposed plan – the practicability of reduced-impact alternatives must be considered.

II. A Reduced-Impact Alternative Is “Practicable” If it Is Technically and Economically Feasible Such That it Is Capable of Being Accomplished.

As FWS recognizes, no definition of “practicable” is provided in ESA or its implementing regulations.⁹ FWS adopts the Clean Water Act definition of practicability for the MWE.¹⁰ We agree that “practicable,” in the context of ESA Section 10(a), means capable of being accomplished, with the additional observation that “capable of being accomplished” means technically and economically feasible after taking into account cost, technology, and logistics.

A. The dictionary equates “practicable” with feasible.

The above construction of “practicable” is supported by dictionaries available when Section 10(a)(2)(B)(ii) was added to the ESA. If a statutory term is not defined, the “words will be interpreted as taking their ordinary, contemporary, common meaning.”¹¹ Congress, when it added the Section 10(a) amendments in 1982, most likely understood the term “practicable” to mean that which is “feasible.” *See, e.g.*, Black’s Law Dictionary (5th ed. 1979) (equating “practicable” with “feasible”).

⁹ *See* DHCP at I-13.

¹⁰ *See id.* (“Under the Clean Water Act, practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose (45 Federal Register (FR) 85344, December 24, 1980: U.S. Environmental Protection Agency, Part 40 Code of Federal Regulations 230.3, Definitions). This Clean Water Act definition is used for the MWE.”).

¹¹ *In re Polar Bear Endangered Species Act Listing and Section 4(d) Rule Litig.*, 709 F.3d 1, 15 (D.C. Cir. 2013) (citation omitted).

B. ESA case law equates “maximum extent practicable” with feasibility.

District court decisions from the D.C. Circuit have concluded that the term “practicable” as used in the ESA means feasible. In *Fund for Animals v. Babbitt*, for example, the district court stated that the phrase “to the maximum extent practicable” in ESA Section 4(f)(1) (16 U.S.C. § 1533(f)(1)) “does not permit an agency unbridled discretion” but rather it “indicates a strong congressional preference that the agency fulfill its obligation to the extent that it is *possible or feasible*.”¹²

C. The D.C. Circuit Court construes the similar phrase “as far as practicable” stringently.

The D.C. Circuit Court has interpreted the Lead-Based Paint Poisoning Prevention Act’s “as far as practicable” standard.¹³ The Court rejected agency regulations that selected hazard reduction methods based on the degree they were deemed cost-effective. According to the Court, the statute’s requirement to eliminate hazards “as far as practicable” shows that “[i]n plain language Congress commanded that if it is ‘practicable’ to eliminate an immediate hazard, that hazard *must* be eliminated.”¹⁴ Similarly, the ESA requirement to minimize impacts “to the maximum extent practicable” means that if it is practicable for the permit applicant to reduce impacts further, those impacts must be reduced.

It is important to keep in mind that ESA Section 10(a) does not simply require minimization measures that are practicable, or minimization “to the extent practicable.” Rather, ESA Section 10(a)(2)(B)(ii) requires minimization “*to the maximum extent practicable*.” This language signifies a significantly more stringent standard than if Congress had simply said “if practicable” or “to the extent practicable.”

¹² 903 F. Supp. 96, 107, 111 (D.D.C. 1995), *amended by* 967 F. Supp. 6 (D.D.C. 1997) (emphasis added); *accord Defenders of Wildlife v. Babbitt*, 130 F. Supp. 2d 121, 131 (D.D.C. 2001).

¹³ *Ashton v. Pierce*, 716 F.2d 56 (D.C. Cir. 1983), *amended by* 723 F.2d 70 (D.C. Cir. 1983).

¹⁴ 716 F.2d at 63–64 (emphasis in original).

D. The practicability analysis must be tailored to specific applicants.

Whether a reduced-impact alternative is “impracticable” requires an analysis of the specific capabilities of the applicant. Cost figures alone do not determine practicability. A million dollar cost in a billion dollar BP project with a projected ten percent return is different from the same cost in a ten million dollar Mom&Pop Oil Co. project that aims for the same return. An independent analysis of how costs translate to impracticability ensures that the agency does not uncritically accept the applicant’s conclusion. FWS is required at least to make a cogent statement about why the costs put forth by an applicant support a claim that the HCP’s proposed minimization is the maximum that could practicably be achieved. Any less would trivialize the ruling in *Gerber*.¹⁵

E. A cost-benefit analysis does not satisfy the ESA Section 10(a) requirement to analyze practicability.

The “maximum extent practicable” standard in ESA Section 10(a) does not authorize the agency to do a cost-benefit analysis.¹⁶ The “capable of being accomplished” definition does not allow the agency to make a judgment about whether adopting a reduced-impact alternative would be worth the reduction in deaths of threatened or endangered bats and birds.¹⁷ Congress has already made the cost-benefit judgment that the deaths of threatened or endangered bats and birds should be reduced if doing so can be feasibly accomplished.

¹⁵ See *Pub. Emps. for Envtl. Responsibility v. Beaudreau*, 25 F. Supp. 3d 67, 86, 107–10 (D.D.C. 2014) (appeal dismissed) (ruling that FWS acted contrary to *Gerber* because it was not clear that FWS’s decision to reject a reduced-impact alternative “was based on its independent determination”); see also USFWS, Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects Revised: 26 October 2011, p. 48 (“An independent analysis or third party should review the information provided by the applicant to verify they have sited the turbines to the maximum extent practicable.”).

¹⁶ See *Ashton*, 716 F.2d at 63–64 (interpreting “as far as practicable” standard to preclude cost-benefit analysis); Cf. *State of Ohio v. U.S.E.P.A.*, 997 F.2d 1520, 1531–32 (D.C. Cir. 1993) (ruling that plain language of CERCLA provision allowed EPA to consider cost-effectiveness of remedies despite “maximum extent practicable” language because the statute explicitly directed the agency to consider cost-effectiveness).

¹⁷ See *Gerber*, 294 F.3d at 184–86.

III. The Draft HCP Identifies Reduced-Impact Alternatives for Bats That Require an Independent Practicability Analysis.

The Draft HCP sets forth specific avoidance and minimization measures for the Indiana bat, northern long-eared bat, and little brown bat.¹⁸ These measures are mainly based on feathering wind turbine blades below designated cut-in speeds that vary with seasons, presence of maternity colonies, and proximity to hibernacula.¹⁹

The Draft HCP briefly discusses two action alternatives: Alternative 2, “take avoidance,” and Alternative 3, “take minimization.”²⁰ Alternative 2 would feather the turbine blades below a cut-in speed of 6.9 meters per second every night during the active period for Indiana bats. Alternative 3 would feather the turbine blades below a cut-in speed of 6.5 meters per second every night during the active period for Indiana bats.²¹

An alternative minimization plan is a “reduced-impact alternative” as that term is used in *Gerber* if it can reasonably be expected to reduce any type of impact, including individual mortality. Both here and in *Gerber*, an important measure of “reduced impact” is a reduction in individual mortality. Here, higher cut-in speeds than used in the proposed minimization plan would likely result in fewer bats killed by wind turbines. In *Gerber*, moving the access road would have likely reduced the number of fox squirrels killed or injured by automobiles.²²

Both Alternative 2 and 3 would likely reduce the killing of bats more than the proposed minimization plan, and thus are reduced-impact alternatives pursuant to Section 10(a)(2)(B)(ii).

¹⁸ See, e.g., DHCP at 5-27–29.

¹⁹ DHCP at 5-28, Table 5-4.

²⁰ DHCP at 6-2.

²¹ DHCP at 6-2.

²² 294 F.3d at 185.

IV. The Draft HCP Does Not Independently Analyze Whether the Known Reduced-Impact Alternatives Would Be “Impracticable” Pursuant to Section 10(a)(2)(B)(ii).

FWS’s Draft HCP plans for issuance of take permits to ITP applicants without a showing that the reduced-impact alternatives – i.e., Alternatives 2 and 3 – are impracticable. In other words, both here and in *Gerber*, FWS failed to independently find that no practicable alternative to the proposed plan would minimize the taking of endangered animals.

To make a practicability finding, FWS has to determine whether an apparently reasonable alternative to the applicant’s proposed plan would further reduce *any* impact of taking – with impacts ranging from individual mortality to loss of subpopulation viability to population declines – and whether that alternative would be capable of being accomplished.

The Draft HCP’s reasons for rejecting Alternatives 2 and 3 do not constitute the finding of impracticability required in *Gerber*.²³ The Draft HCP rejects reduced-impact alternatives for all project applicants covered by the HCP without an analysis of costs or feasibility. The agency simply makes conclusory statements about how Alternatives 2 and 3 would render take authorization unnecessary for most wind energy facilities and would be a disincentive for wind energy companies to participate in the programmatic HCP.²⁴ FWS cannot rest on such bare and unsupported conclusions. The *Gerber* Court found comparable statements insufficient to satisfy the agency’s obligation to independently determine impracticability, explaining that “the agency’s decisional documents do not contain any *analysis* whatsoever as to whether implementation of the Reduced Impact Alternative would actually result in additional costs and delay, or whether the magnitude of such costs or delay would render the alternative

²³ Compare the reasoning in DHCP at 6-2 with the analysis required in *Gerber*, 294 F.3d at 184–85 and *Beaudreau*, 25 F. Supp. 3d at 107–10.

²⁴ See DHCP at 6-2.

impracticable.”²⁵ Similarly, the D.C. district court in *PEER v. Beaudreau*, in ruling that FWS acted contrary to *Gerber* when it failed to independently determine that a rejected reduced-impact alternative was unreasonable, stated that “[w]hile it might be true that the FWS grappled with the issues raised by the [Bureau of Ocean Energy Management],” it was not clear that FWS’s ultimate decision “was based on its independent determination.”²⁶

FWS apparently does not plan to make this practicability finding for any ITP applicant seeking coverage under the MWE. That is, there appears to be no plan for any practicability analysis at the time applicants seek coverage under the MWE.

Given the lack of analysis of economic and technological feasibility of reduced-impact alternatives, FWS cannot say that no wind power company applicant would be able to practicably do more to protect threatened or endangered bats or birds than the proposed minimization plan outlined in the Draft HCP. If Alternative 2 or 3 were practicable – that is, capable of being accomplished – then the proposed minimization measures in the Draft HCP would not minimize the impacts to the maximum extent practicable. FWS’s failure to make the required practicability finding is contrary to ESA Section 10(a)(2)(b)(ii) as interpreted by the D.C. Circuit Court in *Gerber v. Norton*, 294 F.3d 173.

V. Possible Modifications to the Draft HCP That Could Satisfy Section 10(a)(2)(B)(ii).

FWS’s goal of developing a programmatic HCP to help streamline the ITP process for wind energy facilities might indeed contribute to the conservation of threatened and endangered species, but only if the requirements of Section 10(a)(2)(B)(ii) are satisfied. The following are a few proposals for satisfying the practicability requirement outlined in *Gerber v. Norton* in the context of a programmatic HCP.

²⁵ 294 F.3d at 185 (emphasis in original).

²⁶ 25 F. Supp. 3d at 107–10.

1. Require that the agency or administrative implementing entity perform a practicability analysis of reduced-impact alternatives for each individual applicant opting for coverage under the programmatic HCP.
2. Analyze in the programmatic HCP whether the *average* applicant would be capable of implementing either of the reduced-impact alternatives. Then, at time of an application to be covered by the HCP, an applicant may opt to demonstrate that it should be exempted from a practicable reduced-impact alternative.

SECTION 2: THE DRAFT HCP IMPROPERLY AUTHORIZES A LEVEL OF TAKE ASSOCIATED WITH ZERO MINIMIZATION MEASURES.

FWS estimates and authorizes take on both the plan-wide and individual permit level without regard to predicted reductions in bat mortality associated with the plan's required minimization measures. FWS requires the use of cut-in speeds, which can effectively reduce bat mortality at wind farms according to both the agency and the best available science. Despite estimating the level of take associated with the draft HCP's required cut-in speed regime, the draft HCP authorizes a higher level of take. Authorizing a level of take associated with zero minimization measures violates Sections 7 and 10 of the ESA, renders the adaptive management plan irrelevant, and taints the EIS' analysis of a reasonable range of alternatives. If FWS has an estimate of how much take is expected with the minimization measures, why is it authorizing applicants to take more?

I. FWS Proposes To Authorize Take Of Covered Bats Consistent With Zero Minimization Measures.

FWS allocates take of covered species differently depending on the species and whether the take is attributable to an existing or proposed facility.

For both covered bird and bat species, the MWE allocates take consistent with the plan's avoidance measures. For example, the MWE does not authorize take attributable to an existing or proposed wind facility within three miles of the Great Lakes.²⁷ Although take will occur from existing or proposed operations in the excluded areas, the MWE's terms are designed to avoid this take, and thus the avoided take is not authorized.

For covered bird species, FWS recognizes that implementation of minimization measures is "not expected to result in an appreciable reduction in...incidental take" so the plan authorizes a level of take consistent with zero minimization measures for both existing and proposed operations.²⁸ A recent study confirmed that the only known measures to reduce bird mortality from wind facilities are proper siting and total curtailment.²⁹ Although more controls on siting, operations, and monitoring are necessary, the draft HCP logically authorizes only the take of birds that the agency expects will occur under the MWE's terms.

This reasonableness breaks down for the MWE's take authorization for covered bat species. For both proposed and existing facilities, neither the plan-wide take limit nor the facility-specific bat take limit reflects minimization measures required under the plan.³⁰ The MWE provides no limit to authorized take of bats from existing facilities.³¹ Each individual existing facility receives its own take assessment, but the aggregate take from existing facilities is irrelevant under the plan. The MWE authorizes that maximum amount of take predicted from existing and proposed wind development in the covered area.

²⁷ DHCP at 1-14.

²⁸ DHCP at 9-22-23.

²⁹ E.B. Arnett and R.F. May, *Mitigating wind energy impacts on wildlife: Approaches for multiple taxa* 10 Human-Wildlife Interactions 28-41 (2016).

³⁰ DHCP at 9-23 (allocating plan-wide take without regard to minimization measures); 9-24 (allocating individual project take without regard to minimization measures).

³¹ DHCP at 9-23.

FWS reaches this take authorization using its species composition model. FWS begins by estimating the amount of bat mortality in the proposed ITP area per MW of wind development. FWS then estimates the percent of covered bats in the proposed ITP area out of the total number of bats. Combining these two estimates results in an estimate of the proposed facility's per MW take of covered bats without minimization measures. Lastly, FWS calculates the facility's total take authorization by multiplying the covered bat fatalities per MW by the total generating capacity of the facility to reach the total take of covered bats by the wind facility.³²

The MWE contains rough estimates of mortality reductions that could be expected from the required cut-in speeds. Mortality of the federally endangered Indiana bat could be reduced by three to six thousand individuals.³³ Five to ten thousand fewer federally threatened northern long eared bats would die.³⁴ Anywhere from 225,000 to 452,000 ESA-candidate little brown bat deaths could be reduced.³⁵ Although the MWE requires minimization measures that will likely cause these or greater reductions in mortality, the MWE authorizes these extra deaths. Simply adding up the above estimates shows that the MWE authorizes anywhere from 233,000 to 468,000 extra bat deaths than are expected given the operational measures in the MWE.

II. Authorizing More Take Than Projected With the HCP's Minimization Measures Violates the ESA.

An ITP provides a narrow exception to ESA Section 9's prohibition of take. The ITP allows a developer to take a certain number or extent of individuals of a listed species

³² DHCP at 4-15.

³³ DHCP at 5-14.

³⁴ DHCP at 5-14.

³⁵ DHCP at 5-14.

incidentally to her development without fear of violating the Act. If the developer takes even one more protected individual than authorized in her ITP, that taking violates ESA Section 9.³⁶

An applicant receives take authorization under Section 10 only after she demonstrates that her project will minimize impacts to the maximum extent practicable. The take authorization must itself reflect that crucial minimization step because the amount of take FWS authorizes in an ITP is legally equivalent to the amount of take the agency predicts will occur. As FWS has noted, individual mortality is an impact of the take.³⁷ As explained in more detail in Section 1, an applicant may receive a permit only after promising to implement measures that will minimize individual mortality to the maximum extent practicable. This is designed to ensure that the applicant has the smallest practicable impact on endangered species. Authorizing more take than the practicable minimum destroys this vital purpose of Section 10.

Usually, there is no difference between these two values. FWS authorizes the amount of take it predicts will occur. In this instance, however, FWS has authorized significantly more take than it predicted would occur.³⁸ Most dramatically, for existing operations FWS proposes to authorize take consistent with the status quo, no additional minimization, despite the ESA's mandate to minimize impacts to the maximum extent practicable.

III. The Draft HCP Marginalizes Adaptive Management and ESA Section 7 Reconsultation.

Authorizing more take than the practicable minimum distorts safeguards Congress and FWS use to respond to uncertainty. Both adaptive management and the reconsultation provisions of ESA Section 7 are designed to ensure that applicants stay within the amount of take FWS

³⁶ 16 U.S.C. § 1538(a)(2) (prohibiting the taking of an endangered species).

³⁷ DHCP at 4-2.

³⁸ See DEIS at 4.1-31-32 (“Wind energy development under the MSHCP will result in substantially lower mortality than under Alternative D which is the baseline condition that the overall take permit cap is based on.”).

authorized. By authorizing an unminimized amount of take on both the individual and plan-wide level, FWS has left little role for these tools.

Authorizing a level of take that assumes no minimization measures creates a self-fulfilling prophecy. Under the MWE's terms, there is no way to prevent take from rising to a level consistent with zero minimization measures. FWS has already stated that this much take is acceptable. As a result, developers may choose not to follow the MWE's minimization regime if they believe that less stringent minimization measures will still keep take beneath the authorized amount. The ESA requires more than implementation of measures believed to be associated with take minimization. Congress required applicants to actually minimize the take and directed FWS to step in if applicants exceeded the authorized – i.e. minimized – level of take.

A. The adaptive management plan will not keep take to levels associated with take minimization.

The adaptive management plan in the MWE has both long and short triggers, but neither is likely to deploy given the proposed take authorization. The long term trigger will deploy when monitoring shows “a wind energy facility exceeds the total level of take authorized for the facility if adaptive management is not implemented.”³⁹ The short term trigger will deploy when the estimated 3-year take rate is being exceeded.⁴⁰ The short term trigger “provides a warning signal” that more take is occurring than is acceptable, meaning that the long term trigger will deploy before the end of take authorization without adaptive management.⁴¹ Because FWS plans to authorize take consistent with zero minimization measures, these triggers deploy only when take is expected to exceed the amount predicted with zero minimization measures.

³⁹ DHCP at 7-12.

⁴⁰ DHCP at 7-12.

⁴¹ DHCP at 7-13.

Adaptive management is meant to keep the take of endangered species to a minimum should minimization measures fail to perform as expected. Thus, if a minimization measure designed to achieve an 80% mortality reduction achieves only a 60% mortality reduction, adaptive management steps in to ensure that the project achieves the 80% mortality reduction target. Under the MWE, the failure of minimization measures is not tied to deployment of adaptive management. Instead, adaptive management triggers actuate only when the minimization measures fail entirely. From the perspective of the adaptive management plan's requirements, the MWE's cut-in speed requirements do not matter because the plan gets triggered only by a level of take associated with zero minimization.

B. Section 7 reconsultation will occur only if plan-wide take exceeds the amount associated with zero minimization measures.

Section 7 of the ESA requires agencies to consult with FWS to ensure that “any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any [listed] species or result in the destruction or adverse modification of [critical habitat].”⁴² As the acting agency for the MWE, FWS must conduct intra-agency consultation. If FWS is satisfied that the proposed agency action will not cause jeopardy, it issues a biological opinion and an incidental take statement (ITS).⁴³

The ITS must specify both the impact of the incidental taking on the species and “those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact.”⁴⁴ Congress intended the ITS to specify the impact on the species “in

⁴² 16 U.S.C. § 1536(a)(2).

⁴³ 16 U.S.C. § 1536(b).

⁴⁴ 16 U.S.C. § 1536(b)(5). *See also* 50 C.F.R. § 402.14(i)(1)(i) (ITS must specify the impact “i.e., the amount or extent, of such incidental taking on the species”).

terms of a numerical limitation,” where possible.⁴⁵ The ITS’ numerical limitation must incorporate those reasonable and prudent minimization measures. If during the course of the federal action, the MWE term in this instance, “the amount or extent of incidental taking, as specified [in the ITS], is exceeded, the Federal agency must reinitiate consultation immediately.”⁴⁶

By authorizing take consistent with no minimization measures, the MWE runs afoul of ESA Section 7 in two ways. First, the take authorized in the ITS, which should be identical to the take authorized in the ITP, would not reflect the reasonable and prudent measures required in the ITS.⁴⁷ Second, FWS would only reinitiate consultation once take exceeded that amount consistent with zero minimization measures. The MWE ignores this important requirement of the ESA. Instead, the MWE must authorize only that take that is expected with implementation of the minimization measures.

IV. The DEIS Fails to Analyze a Reasonable Range of Alternatives Under NEPA by Refusing to Analyze the Impacts of Authorizing Less Take.

NEPA is “our basic national charter for the protection of the environment.”⁴⁸ As the U.S. Supreme Court explained, “by focusing the agency’s attention on the environmental consequences of a proposed project, NEPA ensures that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die

⁴⁵ H.R. Conf. Rep. No. 97-567 at 27 (May 17, 1982), reprinted in 1982 U.S.C.C.A.N. at 2827. If incidental take cannot be expressed in terms of a numerical limitation, FWS may use a surrogate under certain circumstances. FWS has authorized incidental take in terms of a numerical limitation in the MWE and can likely authorize a numerical limitation consistent with minimization measures for reasons discussed below.

⁴⁶ 50 C.F.R. § 402.14(i)(4).

⁴⁷ The amount or extent of take in the ITS and ITP must be identical because the ITS specifies the amount of take attributable to the federal action at issue, in this case the issuance of incidental take authorization under the ITPs implementing the MWE.

⁴⁸ 40 C.F.R. § 1500.1(a).

otherwise cast.”⁴⁹ Consideration of alternatives to the proposed action, and the effects of those alternatives, is the heart of the Environmental Impact Statement (EIS).⁵⁰

A. FWS’ comparison of alternatives in the DEIS.

The DEIS analyzes four alternatives. Alternative A, the proposed alternative, is the MWE. Alternative B provides a 5-year opt in period for both existing and proposed wind facilities to gain coverage under the MWE, compared to the 5- and 15-year opt in periods for existing and proposed facilities, respectively, under the MWE. Alternative C requires the use of higher cut-in speeds. Alternative D is the no action alternative.

Each alternative assumes an equal level of development. Under each alternative, 33,000 MW of new wind energy will be constructed and 18,004 MW of existing wind energy will remain operational.⁵¹ The only difference among the alternatives is how many MW of wind power are covered under the MWE. Alternatives A and C, the MWE and increased cut-in speed alternatives, both seek to cover all these projects. Alternative B, reduced permit duration, grants incidental take protection to only 11,000 MW of new wind facilities, but assumes the remaining 22,000 MW will be constructed. Alternative D, no action, provides no incidental take coverage to existing or proposed wind energy facilities in the Covered Lands.

Each alternative also authorizes the same level of take. According to the DEIS, “Alternative D’s level of take would be authorized under any of the alternatives, but the level of take would be reduced under Alternatives A, B, and C for most species.”⁵² Although FWS says it

⁴⁹ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

⁵⁰ 40 C.F.R. § 1502.14.

⁵¹ DEIS at ES-6–7.

⁵² DEIS at ES-12.

anticipates “Minor to Moderate” impacts on biological resources for Alternatives A, B, and C, it plans to authorize the “Substantial” impacts in Alternative D for all alternatives.⁵³

B. The DEIS’ analysis of alternatives violates NEPA by authorizing the same amount of take in each alternative.

Under NEPA, FWS must analyze reasonable alternatives to the project’s purpose and need. FWS classifies the MWE’s purpose as “to review and approve requests for ITPs and COIs and to streamline the permitting process under the MSHCP which, if granted, will authorize the incidental take of Covered Species resulting from existing and future wind energy development within the Covered Lands.”⁵⁴ Although FWS notes a need to minimize and mitigate the take of bats from wind development⁵⁵ and provide broader protection and conservation of Covered Species, FWS classifies the proposed action as “issuance of ITPs and subsequent implementation of the MSHCP.”⁵⁶ Thus, the central action FWS proposes to take in the MWE is authorizing the take of listed species from existing and future wind energy operations within the Plan Area.

Once phrased in this way, any difference among the alternatives disappears. If the core purpose of the proposed activity is to authorize take associated with wind development, then each alternative is the same. Each alternative authorizes an identical amount of take. Although each alternative proposes a different form for the HCP that accompanies the take authorization, the fundamental federal action remains the same.

⁵³ DEIS at ES-13 (classifying intensity of impacts by alternative).

⁵⁴ DEIS at 1-4.

⁵⁵ DEIS at 1-4 (improperly stating that FWS needed to ensure take of bats “is avoided and minimized to the maximum extent *practical*, and that the impact of any take is fully mitigated” instead of recognizing the ESA’s requirement to minimize and mitigate impacts of take to the maximum extent *practicable*).

⁵⁶ DEIS at 1-4.

C. FWS failed to analyze a reasonable range of alternatives by failing to analyze an alternative with less development.

FWS assumed an equal level of development across all alternatives and differed only with how much development would receive incidental take authorization. According to FWS, authorizing less take under the MWE, either through limiting the number of wind facilities that receive take authorization or requiring higher cut-in speeds, will cause more wildlife mortality because more future wind facilities will operate outside the MWE's parameters.⁵⁷ Under this assumption, no reduced impact alternative would ever exist to the proposed plan. The equal build-out assumption also ignores the possibility that the lack of take authorization may result in developers deciding to build fewer or no turbines. FWS' equal build-out assumption flies in the face of NEPA's requirement to evaluate a reasonable range of alternatives that includes a reduced impact alternative.

V. FWS Has Not Adequately Explained Why it Chose to Authorize Take Consistent With Zero Minimization Measures.

FWS gives two main reasons for allowing wind facilities to kill hundreds of thousands more bats than predicted with the required minimization measures. First, requiring facilities to implement cut-in speeds is "expected to reduce the actual level of take from the estimated take level, thus ensuring the Plan Area-Wide and facility-specific levels of authorized take will not be exceeded."⁵⁸ In other words, allocating significantly more take than would actually occur is a buffer for the wind industry. The second reason FWS gives for authorizing take without regard to minimization measures is "the uncertainties regarding estimating the level of take on a Plan

⁵⁷ See, e.g., DEIS at 4.1-53-65 (finding that Alternative B will have greater impacts than proposed alternative, despite authorizing less development).

⁵⁸ DHCP at 4-152.

Area-wide basis and the effectiveness of the [minimization measures].”⁵⁹ In other words, although FWS successfully estimated the Plan Area-wide take without minimization measures and successfully devised a regime of different cut-in speeds based on past studies, the agency finds itself unable to combine these two measures to authorize only the take that is consistent with the required cut-in speeds. Both reasons lack merit.

A. ESA Section 10 does not allow an extra take buffer, as FWS provided the wind industry in the MWE.

The proper response to uncertainty is adaptive management and reconsultation, not authorizing more take than the practicable minimum in the first place. FWS has cited no authority for the proposition that it may grant more take than it expects would occur with minimization.

Providing a buffer between the expected and allowed take also improperly excludes the public from the citizen suit process. Citizens can bring suit if an applicant is violating the terms of the ESA, including taking more individuals of a species than authorized.⁶⁰ Citizen suits are an essential way to ensure that applicants actually minimize the impacts of their take to the maximum extent practicable. By authorizing more take than applicants can practicably cause, FWS has prevented the government and private organizations and individuals from ensuring that ITP holders stay within the take contemplated by the assigned minimization measures.

B. FWS can estimate the take associated with minimization measures.

FWS has already provided a rough estimate of the take reduction that could be expected with the MWE’s minimization measures. FWS cites numerous studies that measure the

⁵⁹ DHCP at 4-1.

⁶⁰ 16 U.S.C. § 1540(g)(1)(A).

effectiveness of increased cut-in speeds and feathering on the mortality of the covered bats.⁶¹ FWS itself provided estimates of the range of bat mortality reduction that is possible from the MWE's proposed cut-in speeds.⁶² The DEIS also states "it is likely that bat mortality under the MSHCP will be reduced by at least 50 percent."⁶³ Finally, FWS estimates there will be no bat mortality using 6.9 m/s cut-in speeds.⁶⁴

FWS knew enough about the take that would occur under various cut-in speeds to mandate different cut-in speeds depending on the risk to bats. According to the MWE, "higher cut-in speeds yield greater reduction in wind turbine-related mortality."⁶⁵ FWS uses this conclusion to require 6.5 m/s cut-in speeds, associated with a "mean percent reduction in mortality" of 77 percent,⁶⁶ for turbines within defined distances of priority hibernacula during bat swarming and staging seasons.⁶⁷ On the other hand, the MWE requires cut-in speeds of only 5.0 m/s, associated with a "mean percent reduction in mortality" of 61%,⁶⁸ for turbines operating in the fall that do not have a maternity colony present.⁶⁹ FWS relied on the mortality reductions from these studies to tailor minimization measures based on the risks it believed should be addressed.

Although FWS says that site-specific factors could influence the effectiveness of cut-in speeds, the MWE states that 6.9 m/s cut-in speeds will avoid the take of bats entirely. FWS has not explained why it is impossible to estimate take due to site-specific factors for cut-in speeds lower than 6.9 m/s. Do site-specific factors drop out of the equation at 6.9 m/s cut-in speeds?

⁶¹ See, e.g., DHCP Table 5-1 (reporting bat mortality reductions between 47 and 82 percent).

⁶² DHCP at 5-14.

⁶³ DEIS at 4.1-31.

⁶⁴ DHCP 6-2 (referencing the same studies).

⁶⁵ DHCP at 5-13 (citing DHCP Table 5-1).

⁶⁶ DHCP Table 5-1.

⁶⁷ DHCP Table 5-4.

⁶⁸ DHCP Table 5-1.

⁶⁹ DHCP Table 5-4.

The models FWS uses to calculate mitigation requirements for the take of covered bat species are all designed to mitigate for residual take, i.e., that take remaining after minimization measures have been implemented.⁷⁰ How does FWS plan to determine the inputs to these mitigation models if it is unable to determine how much take would occur with the implementation of minimization measures?

FWS has used these cut-in speed studies to generate minimized take authorizations in past ITPs. The ITP for the Buckeye Wind facility in Ohio relied upon similar studies as the MWE and concluded that the proposed cut-in speed regime, which had a highest cut-in speed of 6.0 m/s, would reduce Indiana bat mortality by 68%.⁷¹ FWS was able to reach this 68% mortality reduction conclusion even though none of the cut-in speed studies it used for the Buckeye ITP came from Ohio. According to the Final EIS for the Buckeye facility, “Although site-specific factors...may affect the relative effectiveness of operational adjustments at different wind facilities, the finding that similar reductions in bat mortality were achieved in geographically diverse areas holds promising support for broad application of operational adjustments including feathering and cut-in speeds as a take minimization technique.”⁷²

Under the ESA, FWS must use the best available science when issuing ITPs and approving HCPs. It is not enough to say that studies do not exist in the specific geographic area where projects covered by the MWE will be constructed. FWS cited a range of cut-in speed studies in the MWE that all demonstrate greater mortality reduction at higher cut-in speeds, and has relied on those mortality reduction values to create different levels of protection across

⁷⁰ DHCP App. C (REA Models).

⁷¹ USFWS, Final Environmental Impact Statement for the Buckeye Wind Power Project Champaign County, Ohio at 5-42 (Apr. 19, 2013) (“Buckeye FEIS”). *See also* Stantec Consulting Services, Final Buckeye Wind Power Project Habitat Conservation Plan at 176–178 (March 2013).

⁷² Buckeye FEIS at 5-41–42.

location and season. These studies also show generally similar mortality reductions at a set cut-in speed.⁷³ FWS must apply the results of these studies to the take it authorizes in the MWE.

If FWS believes that the science of bat mortality reduction from cut-in speeds is truly unknown and that it is unable to determine how many bats would be killed under a set cut-in speed regime, it should refuse to proceed with the MWE. The answer is not to grant take authorizations unmoored from minimization measures' effectiveness.

SECTION 3: FWS APPARENTLY APPLIES THE MINIMIZATION REQUIREMENT ONLY TO BAT POPULATION-LEVEL IMPACTS, BUT INDIVIDUAL-LEVEL IMPACTS MUST ALSO BE MINIMIZED UNDER ESA SECTION 10(A)(2)(B)(II).

I. The “Impacts of Take” Must Include the Number of Individual Killed, Not Just the Effect on the Population or Subpopulation to Which the Individuals Belong.

ESA Section 10(a)(2)(B)(ii) requires that the agency, before issuing a take permit, find that the applicant will, to the maximum extent practicable, “minimize and mitigate the impacts of such taking.” “The impacts of such taking” occur at several levels of organization. Killing animals is a form of “take” and the resulting individual mortality is included in the types of impacts to be minimized and mitigated.⁷⁴ There are, of course, other impacts of killing endangered birds and bats: such as reducing the viability of populations and subpopulations.

Reducing the mortality of individuals of an endangered species is not merely a means to the endpoint of minimizing or eliminating adverse effects at the species or population level. Rather, minimizing mortality is itself one of the objectives of Section 10(a)(2)(B)(ii). Because the affected animals are endangered, individual mortality needs to be minimized to the maximum

⁷³ Ranging from a 36 mean percent reduction in mortality at 3.5 m/s cut-in speeds to a 77 mean percent reduction in mortality at 6.5 m/s cut-in speeds.

⁷⁴ FWS agrees that individual mortality is an impact of take under the ESA. *See* DHCP at 4-2.

extent practicable *even if the take does not result in an adverse impact to higher biological levels of organization.*

Although the ESA is ultimately about saving species from extinction, that does not imply that Congress intended that members of the species could be incidentally harassed, harmed, or killed so long as species- or population-level effects are not triggered. The logic of “institutionalized caution” embedded in the ESA⁷⁵ requires that we govern ourselves so as to kill as few endangered animals as practicable. That is why Section 9 proscribes all take. And for Section 10(a) purposes as well, mortality matters, whether or not the models predict an additional impact at the species, population, or subpopulation levels.

II. The Draft HCP Sends Mixed Messages Regarding the Impact of Take That Must Be Minimized and Mitigated.

FWS states that an objective of the programmatic HCP for Indiana bats is to “implement strategies at individual wind energy facilities that minimize the mortality of migrating, maternity, and staging/swarming Indiana bats from the operation of turbines.”⁷⁶ This statement appears to be consistent with including individual mortality as an impact of the take.

However, in other subsections of the Draft HCP the agency appears to define or conceptualize the minimization and mitigation of “impacts of take” as limited to effects at the subpopulation and population levels. For example, FWS states that it will not issue take authorizations to operations that could result in the loss of bat maternity colonies or hibernacula.⁷⁷ The MWE also does not contemplate issuing take authorizations that would cause

⁷⁵ *Tenn. Valley Authority v. Hill*, 437 U.S. 153, 194 (1978).

⁷⁶ DHCP at 5-27.

⁷⁷ *See, e.g.*, DHCP at 9-14 (for approval of ITP applications, “[t]he USFWS will evaluate the ITP application to confirm that the results of the analysis of the impact of covered bat species take on maternity colonies and hibernacula are consistent with the programmatic ESA analysis.”); DHCP at 9-21 (same for certificates of inclusion); DHCP at 4-41 (“The general distribution of Indiana bat within the Plan Area is unlikely to be impacted because, as described in Section 9.4.4.3.1, take authorizations will not be issued to facilities with take that could

greater than 5% reductions in local bald eagle populations.⁷⁸ For covered bats and eagles, ITP issuance does not depend on killing the fewest individuals as practicable. Instead, only impacts to subpopulations and local area populations serve as barriers to ITP issuance.

To be consistent with Section 10(a)(2)(B)(ii), the HCP minimization plan must minimize to the maximum extent practicable *all* impacts of the taking. For bats, that includes individual mortality, effects on maternity colonies, and effects on hibernacula. For birds, that includes individual mortality and effects on populations. An ITP should not be approved and a certificate of inclusion should not be issued unless and until the agency finds that these requirements will be satisfied.

III. Possible Modifications to the Draft HCP That Could Satisfy Section 10(a)(2)(B)(ii).

The MWE should ensure that all impacts of the take will be minimized and mitigated at every covered wind facility. For example, for a given threatened or endangered species of bat, FWS should first determine measures that would minimize to the maximum extent practicable the impacts of take on maternity colonies and hibernacula. If the viability of maternity colonies and hibernacula is more sensitive to the loss of females and pups as opposed to males, and if minimization measures could specifically target protection of females and pups, then protection of females and pups would be an appropriate focus of attention.

At some level of take, impacts on maternity colonies and hibernacula could not practicably be reduced any further. But the agency should not stop there. FWS must next determine whether more stringent minimization measures could practicably reduce the amount of individual mortality even further, accounting for both males and females. If further reduction of

result in the loss of a known Indiana bat colony or the loss of a hibernaculum.”); DHCP at 4-54 (same for northern long-eared bat).

⁷⁸ DHCP at 4-147, 9-14, -21, -28

mortality is practicable – i.e., is capable of being accomplished – then Section 10(a)(2)(B)(ii) requires it.⁷⁹

SECTION 4: THE MWE IMPROPERLY LIMITS MITIGATION OBLIGATIONS FOR TAKE OF BATS TO FEMALE BAT MORTALITY.

In the Draft HCP, FWS analyzes the impacts of take based only on take of female bats.⁸⁰ FWS focuses on only female bats because of the agency’s mistaken notion that minimizing and mitigating “impacts of such taking” under ESA Section 10(a)(2)(B)(ii) does not include minimizing and mitigating individual mortality in addition to higher-level (e.g., population) impacts. When the HCP properly accounts for individual mortality as an impact that must be minimized and mitigated to the maximum extent practicable, the killing of male bats logically cannot be ignored. Rather, it must be *expressly* factored into the agency’s determination of the total impacts of the taking.

This exclusion of mortality of male bats from the impacts of take has important implications for the Draft HCP mitigation plan. The Draft HCP’s mitigation model calculates the amount of compensation based on mortality of female bats only.⁸¹ The REA model is used to calculate the amount of mitigation compensating for take of covered bat species.⁸² In the REA model, the “debit” and “credit” accrued are based solely on take of female bats. But ESA Section 10(a)(2)(B)(ii) requires that all impacts of taking, including allowed individual mortality, be mitigated to the maximum extent practicable. If individual mortality includes dead male bats, the mortality of males also must be mitigated.

⁷⁹ See *Gerber v. Norton*, 294 F.3d at 184–85.

⁸⁰ See, e.g., DHCP at 4-41, 4-45, 4-55, 4-58.

⁸¹ See DHCP at 9-33, 9-36, App. C. (Resource Equivalency Analysis (REA) Models).

⁸² DHCP at 9-36, App. C.

SECTION 5: THE MWE’S ADAPTIVE MANAGEMENT PROVISIONS LACK CLEARLY DEFINED ACTIONS REQUIRED BY THE ESA AND IMPROPERLY ALLOW INCREASED TAKE AS AN ADAPTIVE MANAGEMENT MEASURE.

Adaptive management is meant to respond to scientific uncertainty in a way that ensures environmental effects are properly minimized and mitigated. Under the ESA, mitigation programs, including adaptive management, “must be reasonably specific, certain to occur, and capable of implementation.”⁸³ Adaptive management plans must provide some certainty that their terms will actually protect endangered species should the original minimization and mitigation plans fail. As the 9th Circuit recognized, “it is not enough to invoke ‘adaptive management’ as an answer to scientific uncertainty.”⁸⁴ Instead, “specific management responses, tied to...specific triggering criteria, are required.”⁸⁵

The MWE’s adaptive management provisions fail to meet the ESA’s protective mandate in three ways. First, the plan improperly raises take limits as a response to taking too many covered bats and birds. Second, the adaptive management plans for bats, Great Lakes piping plovers, and least terns lack defined management steps that would be taken upon take exceedance. Third, curtailing problem turbines should be an adaptive management strategy for all species. These failures must be addressed in the final HCP to comply with the ESA.

I. The MWE Improperly Allows Increases in Take Authorization as Adaptive Management.

The MWE allows increases in authorized take as adaptive management in many instances. For example, facilities authorized to take two or fewer individuals of a covered bat species per year can implement a one-time increase in their take authorization if monitoring

⁸³ *Natural Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Cal. 2007).

⁸⁴ *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1029 (9th Cir. 2011).

⁸⁵ *Id.* at 1029.

shows they will exceed the initial authorization.⁸⁶ If a wind energy facility takes an interior least tern or Northern Great Plains piping plover, that facility may receive an authorization to take an additional tern and/or plover.⁸⁷ The adaptive management provisions for bald eagles are the most glaring. If the short term trigger fires, the MWE allows for increases in take authorization for eagles “up to the level of take that is estimated from operations effectiveness monitoring results.”⁸⁸ This additional take is limited only by the plan-wide take number.⁸⁹

Each of these examples violates the core purpose of adaptive management. Properly considered, adaptive management is triggered by the failure of a prescribed approach to meet a fixed management target, (or, more rarely, the apparent overperformance of an approach). The adaptation is a change in the approach, with the objective of hitting the target. In the examples above, the response to the failure of an expected approach to hit the target is to change the target. That approach is not in accordance with law.

Allowing increases in take authorization as adaptive management violates the ESA’s requirement to minimize and mitigate take to the maximum extent practicable. FWS is supposed to set the take authorization at the lowest practicable level, i.e., at the lowest level at which the applicant can feasibly move forward with her project. Allowing applicants to increase the amount of take as adaptive management disregards the practicability requirement of ESA Section 10 entirely.

FWS should remove increases in take authorization as an adaptive management measure under the MWE.

⁸⁶ DHCP at 7-14.

⁸⁷ DHCP at 7-17.

⁸⁸ DHCP at 7-19.

⁸⁹ DHCP at 7-19.

II. The Adaptive Management Plans for Bats, Plovers, and Terns Lack Clearly Defined Management Actions in Violation of the ESA.

The MWE lacks clearly defined management actions in the adaptive management plans for many species. If a facility exceeds short term adaptive management triggers for bats, the adaptive management plan provides only that “the degree to which wind turbine cut-in speeds will be increased...will be determined by the affected individual Permittee/COI-holder.”⁹⁰ Likewise, if monitoring indicates the plan-wide take level for least terns and Northern Great Plains piping plovers will be exceeded, the adaptive management plan commits FWS to only meeting and conferring with applicants to identify an appropriate adaptive management action, although it does list some possible actions that may be taken.⁹¹ The adaptive management plan for Great Lakes piping plover populations is even worse than the plan for terns and Northern Great Plains plovers, providing only that FWS will confer with permittees and decide upon what adaptive management they will implement without listing any potential actions.⁹² It is entirely unknown what actions will be taken as adaptive management under these plans or whether those actions will actually keep take to a minimum.

Merely stating intentions to take action in the future does not meet the ESA’s standards for adaptive management. The plan lacks the “specific management actions tied to...specific triggering criteria” required under the ESA.⁹³ FWS should develop clearly defined actions that it will take in response to exceedances of the take trigger for covered species. It is unlawful to give applicants free rein to select adaptive management responses.

⁹⁰ DHCP at 7-13.

⁹¹ DHCP at 7-17.

⁹² DHCP at 7-18.

⁹³ *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1029 (9th Cir. 2011).

III. FWS Should Make Curtailing Problem Turbines an Adaptive Management Strategy for all Covered Species.

The numerous individual turbines at a wind energy facility can sometimes make it easy to take adaptive management actions. If monitoring discovers a large amount of take attributable to a small number of turbines, curtailing those turbines during high risk periods or relocating those turbines can be an efficient way to minimize take. FWS should include curtailment or relocation of individual turbines as a potential adaptive management action for all covered species.

SECTION 6: THE MWE IMPROPERLY PROVIDES DIFFERENT LEVELS OF PROTECTION FOR THE COVERED ENDANGERED SPECIES.

The MWE covers four federally endangered species, the Indiana bat, Kirtland's warbler, piping plover, and least tern. Although FWS listed all these species as endangered, the MWE provides different levels of protection for bats and birds. FWS does not have the discretion to provide different levels of protection for different species listed as endangered. Congress clearly stated that each endangered species deserves the highest degree of protection.⁹⁴ The MWE fails to provide that high level of protection for Indiana bats.

I. The MWE Provides Less Protection for Indiana Bats Than the Other Federally Endangered Covered Species.

The MWE treats the endangered Indiana bat differently than the endangered bird species in three main ways, each of which is discussed in other sections of these comments as separate failures of the MWE. First, the MWE provides limits on take of endangered birds, but not Indiana bats, from existing wind facilities.⁹⁵ Second, the individual ITP/COI issuance criteria for endangered birds contemplate individual mortality that must be minimized and mitigated. FWS may approve an ITP or COI based solely on population level impacts to Indiana bats, ignoring

⁹⁴ *Tenn. Valley Auth. v. Hill*, 437 U.S. at 174.

⁹⁵ DHCP at 9-23.

individual mortality.⁹⁶ Finally, the MWE's mitigation for endangered birds is designed to compensate for *all* impacts of take. The MWE mitigates for only Indiana bat female mortality and lost female reproduction.⁹⁷

II. FWS Lacks the Authority to Provide Less Protection for One Endangered Species Compared to Another.

The ESA provides only two mechanisms to provide different levels of protection to species listed under the Act: a 4(d) rule for threatened species and listing those populations of a single species that need more protections than others as either an endangered or threatened distinct population segment (DPS). Outside of these mechanisms, FWS does not have the authority to provide different levels of protection to species with identical conservation classification under the ESA.

First, for threatened species FWS may specify what activities do and do not constitute a violation of ESA Section 9 via what is known as a 4(d) rule.⁹⁸ The northern long-eared bat, a covered species in the MWE, has such a 4(d) rule that exempts take from certain industries from Section 9's broad no take mandate.⁹⁹ Thus, although the ESA authorizes the FWS to issue regulations deemed "necessary and advisable for the conservation of [the threatened species]"...There is no equivalent authorization for the Service to tailor protections for an endangered species."¹⁰⁰

Second, if populations of a single species have different conservation needs, FWS can list the populations as either endangered/threatened DPS's or not list those populations that do not need protection. Thus, a Midwestern population of wolves that is at risk of extinction throughout

⁹⁶ DHCP at 9-14.

⁹⁷ DHCP at 9-33, 36.

⁹⁸ 16 U.S.C. § 1533(d).

⁹⁹ 4(d) Rule for the Northern Long-Eared Bat, 81 Fed. Reg. 1900 (Jan. 14, 2016).

¹⁰⁰ *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207, 1219 n.2 (D. Mont. 2010) (quoting *Trout Unlimited v. Lohn*, 559 F.3d 946 (9th Cir. 2009)).

that population's range may be properly listed as endangered, without extending ESA protections to healthy wolf populations in Alaska.

FWS lacks the discretion to mandate different levels of protection for different endangered species. The level of protection in ITPs covering the Indiana bat, Kirtland's warbler piping plover, least tern, and all other endangered species comes from Section 10: "to the maximum extent practicable, minimize and mitigate the impacts of [the] taking."¹⁰¹ The ESA provides no mechanism to say that some impacts, such as individual mortality, matter for some endangered species but do not matter for others. Although the endangered bat and bird species covered by the MWE differ in biological organization and social behavior, they each deserve the full protection of the ESA. This means that FWS must require that applicants minimize and mitigate *all* impacts of the take of Indiana bats, including individual mortality and male mortality, to the maximum extent practicable.

SECTION 7: THE MWE'S PROTECTIONS FOR ENDANGERED KIRTLAND'S WARBLERS ARE INSUFFICIENT.

The Kirtland's warbler was listed as endangered in 1967.¹⁰² Although populations are now higher, due in large part to successful recovery efforts by FWS and partners, Kirtland's warblers still face serious risks, including growing risks associated with wind development. The MWE fails to protect this endangered species in two important ways. First, it improperly authorizes wind development in and near Kirtland's Warbler Management Areas (KWMA). Second, the MWE does not provide enough mitigation for the amount of take predicted over the MWE term.

¹⁰¹ 16 U.S.C. § 1539(a)(2)(B)(ii).

¹⁰² USFWS, Species Profile for Kirtland's Warbler, available at http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B03I.

I. The MWE Should Not Authorize Take of Kirtland’s Warblers Within and Near Warbler Management Areas.

As currently proposed, the MWE recommends that applicants avoid siting wind turbines within 0.5 miles of a KWMA.¹⁰³ If siting close to KWMA’s cannot “reasonably be avoided with the concurrence of the USFWS,” MWE urges applicants to avoid direct impacts to nesting territory/nests and limit construction during nesting seasons, as well as curtail operations during nesting and migration periods.¹⁰⁴ The Plan should strictly prohibit the location of wind facilities in both KWMA’s and (more generally) in occupied Kirtland’s warbler habitat, as well as within a half mile of either.

FWS and others are to be congratulated for their role in facilitating an increase of Kirtland’s warbler populations from perilous lows. But the recovery is not complete. The MWE covers an entire region and an enormous amount of land. It simply is not credible to claim that provision must be made for construction of wind facilities in or very near known habitat of Kirtland’s warblers, and the MWE should forthrightly refuse take coverage in those areas rather than merely discouraging siting in and near KWMA’s.

II. The MWE Does Not Provide Enough Mitigation for the Projected Take of Kirtland’s Warblers.

The MWE proposes to create up to “100 acres of Kirtland’s warbler breeding habitat...to mitigate the impacts of the taking of up to 60 Kirtland’s warblers.”¹⁰⁵ Because Kirtland’s warblers nest in jack pine stands that are 5–20 years of age, “habitat creation will have to be ongoing throughout the 45-year life of the MWE.”¹⁰⁶

¹⁰³ DHCP at 5-46.

¹⁰⁴ DHCP at 5-47–48.

¹⁰⁵ DHCP at 5-49.

¹⁰⁶ DHCP at 5-49.

The explanation of Kirtland's warbler habitat needs contradicts the small acreage FWS proposes to provide under the MWE. As the MWE indicates, Kirtland's warblers prefer to nest in jack pine stands that are 1000 acres or larger in size.¹⁰⁷ A pair of warblers "requires at least eight acres of dense young jack pine forest to nest, but often 30 to 40 acres is needed to raise their young."¹⁰⁸ Thus, a mitigation plan that calls for developing and maintaining 100 acres of jack pine habitat, while large enough to accommodate the minimum range of a nesting pair of Kirtland's warblers, is inadequate mitigation for the expected take of warblers because a habitat patch of that size is one tenth of the known nesting size preference for Kirtland's warblers. A reasonable mitigation plan would call for the restoration and maintenance of at least 500 acres, and if the selected mitigation site is not located relatively near existing and active Kirtland's breeding habitat, 1000 acres, to account for breeding and nesting preference and secure a likelihood of mitigation success. Securing such large patches will provide redundancy in the event of unforeseen circumstances and allow FWS to ensure that enough jack pine habitat of the proper age is always available during the MWE's term.

The mitigation area must be monitored to confirm that it actually attracts at least the minimum compensatory two breeding pairs of Kirtland's warblers. If the mitigation tract does not meet that test, other compensatory mitigation must be required.

FWS should also ensure that impacts to stopover habitat for Kirtland's warblers are mitigated. FWS states that stopover sites "are not currently well enough defined to be included as a MWE mitigation option at this time."¹⁰⁹ On the contrary, the Black Swamp Bird Observatory in Ohio has sighted Kirtland's warblers annually for the past seven years and captured and

¹⁰⁷ DHCP at 5-49.

¹⁰⁸ DHCP at 5-49.

¹⁰⁹ DHCP at 5-45.

banded a Kirtland's warbler each of the past two years. Lake Erie marsh lands are likely crucial migratory stopover habitat for Kirtland's warblers, as well as other migratory birds impacted by the MWE, and should be included as mitigation sites.

Mitigating for impacts in stopover habitat by protecting breeding habitat does not adequately offset the risk to birds killed in stopover habitat. Those additional birds produced in the mitigated breeding habitat could just as easily be lost due to the MWE's covered operations without more stopover habitat. Furthermore, protecting stopover habitat can benefit a larger number of Kirtland's warblers and other birds than simply focusing on breeding habitat.

SECTION 8: THE MWE IMPROPERLY EXCLUDES MANY PROTECTED SPECIES FROM ITS COVERAGE.

I. The MWE Improperly Excludes the Gray Bat from Coverage Despite Noting that Permitted Operations Will Take Some Individuals.

The MWE does not cover the gray bat (*myotis grisescens*) despite FWS's acknowledgment that some gray bats will be killed by covered operations. The notice of intent for the MWE proposed to include the gray bat.¹¹⁰ Now, the MWE excludes the gray bat because "potential for take will be avoided because the species not expected to occur within the Covered Lands."¹¹¹ Parts of the DEIS also state that the gray bat was not included because "the potential for take of individuals was determined to be low."¹¹²

FWS' analysis of the MWE's environmental consequences tells another story. According to Chapter 4 of the DEIS, "even with the MSHCP there will still be some potential that individual bats will be killed."¹¹³ According to the DEIS, "Gray bats have several ecological

¹¹⁰ Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan Within Eight-State Planning Area, 77 Fed. Reg. 52754, 52754 (Aug. 30, 2012).

¹¹¹ DHCP at 1-20.

¹¹² DEIS at 2-32.

¹¹³ DEIS at 4.1-50.

factors that likely put the species at risk. The species is highly migratory, moving each year between summer and winter caves.”¹¹⁴ Simply stating that the deaths of few individuals will have little population effect¹¹⁵ does not change the fact that individual gray bats will be taken by the proposed operations.

The risk of gray bat take from covered operations poses a dilemma for the MWE’s desired operation. FWS designed the MWE to streamline the ESA permitting process across the Midwest. However, to receive an ITP or COI, the proposed or existing facility must ensure that “take of all federally listed non-covered species will be avoided or take of any listed non-covered species is covered under a separate ITP.”¹¹⁶ If a project seeking coverage under the MWE may take a gray bat, that project is ineligible for the MWE unless it separately receives an ITP for the gray bat take. By failing to include the gray bat as a covered species, FWS must pursue individual ITPs for projects at risk of taking a gray bat: either covering all covered species through a separate ITP or pursuing a gray bat-specific ITP. This will not streamline the ITP process for Midwest wind energy projects.

II. The MWE Improperly Excludes the Sprague’s Pipit and Golden-Winged Warbler from Coverage.

As we stated in our comments on the 2012 Notice of Intent, FWS should include Sprague’s pipit as a covered species. Sprague’s pipit is an ESA candidate species and a Midwest Bird of Conservation Concern.¹¹⁷ The bird is found within the plan area and is at special risk for take by collisions with wind turbines. Its behavior includes the longest periods of aerial display of any passerine species, and its display heights put the pipit within the rotor-swept zone of

¹¹⁴ DEIS at 4.1-88.

¹¹⁵ See DEIS at 4.1-88.

¹¹⁶ DHCP at 9-14, 9-20.

¹¹⁷ See USFWS, *Species Profile for Sprague’s Pipit*, https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0GD.

modern wind turbines.¹¹⁸ FWS' justification that Sprague's pipit breeding range overlaps only a small area of the covered lands is insufficient.¹¹⁹ Sprague's pipits regularly use the covered lands and are at special risk of take by operations under the MWE. The MWE should include the Sprague's pipit.

The MWE should also include the golden-winged warbler (*Vermivora chrysoptera*) as a covered species. The golden-winged warbler is an ESA-candidate species that extensively uses the Covered Lands as breeding and migratory habitat. A recent study classified the golden-winged warbler as a "supercollider" that is at especially high risk for collision with manmade structures such as wind turbines.¹²⁰ Avoiding known warbler habitat and requiring mitigation for take of golden-winged warblers killed at covered facilities may prevent listing under the ESA.

III. The MWE Should Provide Protection for Birds of Conservation Concern in the Covered Lands.

As mentioned in our 2012 comments, FWS should include protections for birds of conservation concern in the MWE.¹²¹ These birds are protected under the Migratory Bird Treaty Act (MBTA), which prohibits unpermitted take whether it occurs intentionally or incidentally.¹²² In addition, Executive Order 13186 directs federal agencies and executive department to promote the conservation of migratory birds protected by the MBTA, including the identification and minimization of incidental or unintentional take of migratory birds that is reasonably attributable to agency actions.¹²³ Although including all these birds as covered species may be impracticable,

¹¹⁸ Mark B. Robbins, *Display Behavior of Male Sprague's Pipits*, 110 *Wilson Bull. Ornithology* 435 (1998).

¹¹⁹ See DHCP at 1-17.

¹²⁰ T.W. Arnold and R.M. Zink *Collision Mortality has no Discernible Effect on Population Trends of North American Birds* 6 *PLoS ONE* 9: e24708 (2011).

¹²¹ See USFWS, *Migratory Birds: Midwest Birds of Concern*, <https://www.fws.gov/midwest/midwestbird/concern.html>.

¹²² 16 U.S.C. § 703.

¹²³ Exec. Order No. 13186 (Jan. 10, 2001).

additional protections are needed, including feathering or curtailing turbines during migratory seasons and periods of bad weather when migratory birds are most at risk of collision.

SECTION 9: THE MWE PROPERLY DISCLOSES MONITORING DATA TO THE PUBLIC, BUT WRONGLY LACKS PUBLIC COMMENT ON INDIVIDUAL PROJECTS.

I. The MWE Properly Requires Public Disclosure of Monitoring Data.

The MWE requires individual permittees, the Administrative Implementing Entity (AIE), COI-holders, and the Mitigation Implementing Entity (MIE) to prepare an Annual Compliance Report each year to demonstrate compliance with the MWE.¹²⁴ These entities must also report fatalities of covered species and other native wildlife species, potential changed or unforeseen circumstances, and exceedance of adaptive management triggers.¹²⁵ We strongly support the decision to make all this information available for public review.¹²⁶

Public disclosure of this information is needed to ensure the MWE works as promised and chart the future of responsible wind energy.¹²⁷ Understanding how many species are killed at each facility will help drive scientific research into bird- and bat-safe wind energy technology. Currently, major wind corporations are suing to keep mortality data secret from the public.¹²⁸ Unless FWS requires public disclosure of mortality information, the public and scientific community will face many barriers to understanding how many federal trust species are being killed by wind power projects.

¹²⁴ DHCP at 9-43.

¹²⁵ DHCP at 9-43.

¹²⁶ DHCP at 9-43.

¹²⁷ See Section 10 Part III for a discussion about scientific integrity and credibility that comes with data collection by third party, independent experts using standardized methods.

¹²⁸ See <http://www.pbs.org/newshour/rundown/wind-energy-firm-sues-block-bird-death-data-release/>;
<http://www.sanduskyregister.com/Environment/2016/06/24/Wind-farm-sues-to-block-bird-death-data-release>.

In a separate section of the MWE, FWS states that it plans to develop and maintain one or more databases of MWE reporting-related information.¹²⁹ FWS should make any database containing this information publicly accessible.

II. FWS Must Provide Public Notice and Opportunity to Comment on All Proposed ITPs and COIs Issued Under the MWE.

As currently proposed, the public may comment only on the Draft HCP and EIS. Once the MWE is issued, FWS does not contemplate providing public comment on individual ITPs or COIs issued pursuant to the MWE.¹³⁰ The lack of public comment at the individual project stage violates both the ESA and NEPA and is bad policy.

The ESA's ITP issuance criteria require public comment. Section 10 provides: "If the Secretary finds, *after opportunity for public comment*, with respect to *a permit application* and the related conservation plan that [the issuance criteria are met]...the Secretary shall issue *the permit*."¹³¹ Section 10 of the ESA requires FWS to "publish notice in the Federal Register of *each application* for an exemption or *permit* which is made under this subsection."¹³² The "permit" and "permit application" referred to in Section 10 is the incidental take authorization itself, separate from the accompanying conservation plan.¹³³ The MWE is the conservation plan accompanying a permit. Although FWS is properly taking public comment on the MWE, the ESA still requires public comment at the individual permit issuance stage.

NEPA also requires the opportunity for public comment at the individual permit issuance stage. Issuance of an incidental take permit is a major federal action subject to NEPA. FWS is

¹²⁹ DHCP at 7-31.

¹³⁰ DHCP at 9-14 (stating FWS will issue individual ITP after publication in the Federal Register but not mentioning solicitation of public comment).

¹³¹ 16 U.S.C. § 1539(a)(2)(B) (emphasis added).

¹³² 16 U.S.C. § 1539(c) (emphasis added).

¹³³ Compare 16 U.S.C. § 1539(a)(2)(A) & (a)(2)(B) (distinguishing between the conservation plan accompanying the ITP and the actual ITP issued by FWS).

correctly preparing an EIS for the region-wide take authorization, but still needs to comply with NEPA when it authorizes individual permits. Although FWS will be able to use the EIS' general analysis of effects when studying the impacts of individual permits, a process known as "tiering," the agency must still conduct an EA or EIS at the individual permit stage to analyze the impacts to the local environment and evaluate reasonable alternatives to the proposed action.

Public comment at the individual permit stage is good policy. Given the 45-year duration of the MWE, the initial analysis is likely to change. We may learn better ways to minimize bird and bat mortality associated with wind operations. The ranges of the covered species may change due to climate change. Providing public comment at the individual permit issuance stage allows conservation organizations to provide FWS and the permit applicant with the best available science on how a proposed wind facility will impact birds and bats. Specific siting criteria for such a project may have been overlooked by the necessarily broad scale of the MWE. FWS should require public comment before the issuance of individual ITPs and COIs.¹³⁴

SECTION 10: MISCELLANEOUS COMMENTS.

I. 7.3 Million Dead Birds is Not a Small Impact.

FWS must consider more than just impacts to threatened and endangered species under NEPA. The EIS properly quantifies the MWE's projected impacts on birds not listed under the ESA: 192,000 dead birds every year at full build out for a total of 7.3 million dead birds over the term of the MWE.¹³⁵ FWS characterizes this impact as "minor."¹³⁶ This high level of mortality is anything but minor, especially given the cumulative effect this additional source of mortality will have when combined with other threats facing birds such as feral cats and collisions with

¹³⁴ The ESA also requires public comment for the issuance of a COI under the MWE because FWS will conduct a consistency review before issuance. *See* DHCP 9-20.

¹³⁵ DEIS at 4.1-45.

¹³⁶ DEIS at 4.1-46.

buildings. Many of these birds are listed under the MBTA, which prohibits the killing of a single protected bird. Furthermore, many MBTA-listed birds are birds of conservation concern that, without additional conservation action, may become listed under the ESA. A recent report indicated that up to one-third of North American bird species may require conservation action.¹³⁷ FWS should not classify the deaths of 7.3 million birds as a minor impact.

II. The MWE Should Exclude More Land From Coverage to Protect Birds.

The MWE properly excludes wind facilities three miles from the Great Lakes from take coverage. This buffer zone should be extended to five miles from the Great Lakes as the Nature Conservancy recommends.¹³⁸ Five miles should be the base buffer, with site-specific extensions of the buffer where large concentrations of migratory birds and bats or declining populations of breeding grassland birds have been documented. For example, the Lake Erie marshes, such as the one at the Black Swamp Bird Observatory, support large populations of migratory birds, including some covered species, and serve as a crucial migratory stopover point. Wind development under the MWE should not be allowed within 10 miles of the Lake Erie coast in this geographic area.

III. All Monitoring of Take Under the MWE Should Be Conducted By Independent, Third-Party Experts to Ensure Accurate Reporting.

The MWE establishes standards for monitoring under the plan, but does not specify who may conduct the monitoring.¹³⁹ The MWE should require that applicants use independent, third-party experts to conduct MWE-required monitoring and report the information to the applicant, FWS, and the public. These experts should clearly state how their monitoring protocol complies

¹³⁷ North American Bird Conservation Initiative 2016: http://www.stateofthebirds.org/2016/wp-content/uploads/2016/05/SotB_16-04-26-ENGLISH-BEST.pdf

¹³⁸ Ewert, D.N., J.B. Cole, and E. Grman, *Wind energy: Great Lakes regional guidelines*. Unpublished report, The Nature Conservancy, Lansing, Michigan (2011) available at <http://glc.org/files/projects/glwc/2011-tnc-gl-regional-guidelines.pdf>.

¹³⁹ See DHCP 7-3-9

with the standards in the MWE. Independent monitoring is necessary to ensure that all take is accurately reported in compliance with modern scientific standards and the protocols established in the MWE.

Allowing wind energy companies to collect this data and self-report possible violations of wildlife laws creates a direct conflict of interest. Hawai'i already requires collection of bird and bat mortality data at wind energy facilities by independent, third-party experts. This model is appropriate for the MWE as well. Letting regulated entities self-report wildlife crimes creates strong risks that mortality data will be underreported. Major wind power corporations have already sued to keep mortality data secret from the public.¹⁴⁰ Robust monitoring is crucial to the MWE's success and must be conducted by independent, third-party experts.

IV. The Administrative Implementing Entity Board Should Have Balanced Representation.

Under the MWE's programmatic permit approach, FWS intends to issue a single ITP to an AIE, the Master Permittee, which will then issue COIs to companies that agree to adopt the MWE's terms.¹⁴¹ FWS states that the AIE will be established as a corporation and comprised of a five-person board. The proposed board will contain three representatives from wind energy companies and two members of "conservation and other interests."¹⁴²

The proposed board structure impermissibly stacks the deck in favor of the wind industry. As proposed, the wind industry will always have a majority interest in the AIE, negating the AIE's effectiveness as a watchdog. Instead of the proposed structure, the AIE should have equal representation of industry and conservation interests. We propose that the board be composed of

¹⁴⁰ See <http://www.pbs.org/newshour/rundown/wind-energy-firm-sues-block-bird-death-data-release/>; <http://www.sanduskyregister.com/Environment/2016/06/24/Wind-farm-sues-to-block-bird-death-data-release>).

¹⁴¹ DHCP at 9-3.

¹⁴² DHCP at 9-3.

two wind industry representatives, two conservation representatives, and one representative from FWS. Of the two conservation representatives, one should have expertise in wind energy's effects on bats and the other should have expertise in wind energy's effects on birds. Our proposed structure more fairly implements the MWE and ensures that the board will have representatives with the knowledge to avoid, minimize, and compensate for impacts to wildlife in the covered lands.

If FWS does not create a board with equal representation, it should not delegate its take authorization to the AIE.

V. FWS Should Adopt a 6.5 m/s Cut-in Speed as Its Preferred Alternative to Protect Covered Bats.

Both the Draft HCP and Draft EIS consider alternatives that would require 6.5 m/s cut-in speeds when bats are present.¹⁴³ Based on the studies quoted in the Draft HCP, this cut-in speed produces the greatest mortality reductions for the covered bat species. Although FWS failed to assess the practicability of this reduced impact alternative, as required by the ESA, a 6.5 m/s cut-in speed is likely practicable for the majority of wind facilities. A recent study found that implementing 6.5 m/s cut-in speeds reduced the annual power generated by turbines by only 1%.¹⁴⁴ It is highly unlikely that a 1% annual reduction in power generated, which could produce even smaller reductions in profit margins, is impracticable for the bulk of existing and proposed wind facilities that would seek authorization under the MWE. FWS should require that facilities covered under the MWE implement 6.5 m/s cut-in speeds when covered bats are present.

¹⁴³ DEIS at ES-4; DHCP at 6-2.

¹⁴⁴ E.B. Arnett et al., *Altering turbine speed reduces bat mortality at wind-energy facilities* 9 *Front Ecol Environ* 4 209–214 (2011).

VI. Separately From the MWE, FWS Should Not Authorize Take of Covered Species by Wind Facilities in the MWE's Excluded Areas and Should Vigorously Enforce Any Take or Projected Take in Those Areas.

FWS has correctly excluded many areas from the MWE's take coverage that would pose high risks to covered birds and bats. In order to ensure that the rapid development of wind power does not seriously harm bird and bat populations, FWS should decline to issue ITPs for any wind project located within the excluded lands. FWS should also vigorously enforce violations of the ESA and MBTA by existing and proposed wind facilities in the excluded areas. FWS has the authority and the obligation to protect endangered birds and bats and migratory birds from these known sources of mortality.

Simply promulgating the MWE is not enough to ensure bird- and bat-safe wind development. The MWE's take authorization provides an incentive for wind developers to site their projects within the Covered Lands, away from areas of high risk to bats and birds. This incentive breaks down if FWS rarely enforces violations of the ESA and MBTA by wind companies. Developers may choose to operate without take coverage at all. The best way to ensure participation in the MWE and protect birds and bats is to develop a clear policy of ESA and MBTA enforcement against existing and proposed wind turbines in areas of high risk to birds and bats. Otherwise, the MWE is all carrot and no stick.

CONCLUSION

If properly designed and enforced, the Midwest Wind Energy Multi-Species Habitat Conservation Plan will provide the necessary blueprint for responsible wind development in the Midwest. Wind energy can coexist with birds and bats if appropriate safeguards and operational restrictions are put in place. As proposed, the MWE does not adequately protect federally protected birds and bats from existing and future wind development. The MWE also fails to meet

the protective mandates of the Endangered Species Act and Migratory Bird Treaty Act, as well as the hard look requirements in NEPA. We urge FWS to make the changes we suggested above, including conducting an independent practicability analysis to ensure no feasible alternatives with fewer impacts than the MWE's measures exist and authorizing only the take that FWS expects will occur *with* the implementation of minimization measures required under the plan. Please add us to your notice list using the contact information below.

Sincerely,



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Attachment 1

Comments on Draft Midwest Wind Energy Multi-Species Habitat
Conservation Plan Within Eight-State Planning Area

Submitted by the Conservation Law Center and American Bird Conservancy
December 3, 2012



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December 3, 2012

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**Subject: Comments on Draft Midwest Wind Energy Multi-Species Habitat
Conservation Plan Within Eight-State Planning Area**

Sent via E-mail (receipt verification requested)

Dear Mr. Amidon:

Please find below our timely submitted comments on the U.S. Fish and Wildlife Service's notice of intent and request for comments pertaining to the Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan Within Eight-State Planning Area [FWS-R3-ES-2012-N225; FXES11120300000F2-123-FF03E00000].¹ The deadline for comments on this notice and request is December 3, 2012.

Thank you for this opportunity to comment. These comments are jointly submitted by the Conservation Law Center and the American Bird Conservancy. The Conservation Law Center ("CLC") is a not-for-profit public interest law firm located in Bloomington, Indiana, and operates the Conservation Law Clinic under an agreement with Indiana University Maurer School of Law. The CLC represents non-profit environmental organizations and governmental entities in conservation matters and works to improve conservation law and policy. American Bird Conservancy ("ABC") is a not-for-profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas. ABC acts across the full spectrum of threats to birds to safeguard the rarest bird species, restore habitats, and reduce threats, unifying and strengthening the bird conservation movement.

¹ The original Federal Register notice coordinates were FWS-R3-ES-2012-N179; FXES11120300000F2-123-FF03E00000. See 77 Fed. Reg. 52754 (*Draft Midwest Wind Energy Multi-Species Habitat Conservation Plan Within Eight-State Planning Area*) (Aug. 30, 2012).



Wind power is one of the fastest developing sources of energy in the United States and could be an important part of the solution to climate change. However, wind farms can kill wildlife through collisions with turbines and associated structures. Wind farms can also harm wildlife by displacing species from habitat needed for survival, as well as by destroying, degrading, or fragmenting habitat. The CLC and ABC believe that wildlife and wind power can co-exist if wind projects are carefully designed, sited, studied, operated, monitored, and mitigated. Of these principles, careful siting is the most important.

We divide our comments below into six parts. In Part I we comment on species that should be covered and protected under the Midwest Wind Energy Multi-Species Habitat Conservation Plan (“MSHCP”). Part II discusses areas in the eight-state planning region that should be excluded from permitted wind development. In Part III we comment on avoidance and minimization measures for the proposed MSHCP. Part IV discusses the need for a clear and well-defined adaptive management scheme. Part V focuses on the permitting structures proposed for the MSHCP/ITP(s) and the need for second-tier siting analysis. In Part VI, we comment on planning the direct, indirect, and cumulative effects analysis for the MSHCP to assist the U.S. Fish and Wildlife Service (“USFWS”) with its Section 7 jeopardy assessment under the Endangered Species Act (“ESA”).

PART I: PROTECTION FOR SPECIES

COMMENT I.1. **Besides the Eight Proposed Listed and Candidate Species, the MSHCP Should Cover Several Additional Listed, Candidate, and Non-Listed Species.**

A. **Background to Comment.**

The MSHCP planning partners are proposing to cover eight ESA-listed or ESA-candidate species: the endangered Indiana Bat (*Myotis sodalis*), the endangered Gray Bat (*Myotis grisescens*), the endangered Piping Plover (*Charadrius melodus*), the endangered Interior Least Tern (*Sterna antillarum athalassos*), the endangered Kirtland's Warbler (*Setophaga kirtlandii*), the Little Brown Bat (*Myotis lucifugus*), the Northern-Long Eared Bat (*Myotis septentrionalis*), and the Eastern Small-Footed Bat (*Myotis leibii*). The Bald Eagle (*Haliaeetus leucocephalus*) is also being considered for inclusion but no decision has yet been made.

The original grant proposal for the MSHCP, submitted by Indiana, Ohio, Michigan, Missouri, and Iowa in 2009, planned to include 30 species, from bats and birds to mollusks and fish.² These species were identified by comparing high potential wind development areas with information on the presence/absence of federally listed or candidate species in the Midwest region.³ This shows that, at least initially, the states anticipated that the MSHCP would protect a range of species against a number of threats. The Federal Register notice does not provide an explanation for the reduction in the number of proposed covered species, and we urge the planning partners to incorporate additional ESA-related species (endangered, threatened, or candidate) into the MSHCP as well as additional bird species that are most susceptible to becoming listed in the near future.

² Grant Proposal, *Development of a Multi-Species Habitat Conservation Plan for Wind Energy Development in the Midwest*, Table 1, available at <http://www.fws.gov/midwest/endangered/grants/2010/pdf/MultiStateWindHCPproposal.pdf>.

³ *Id.* at p. 4. High potential wind development areas in the Midwest region are those with average wind speeds of 7 meters per second or greater at 50 meters in height. *Id.*

B. The MSHCP Should Cover All ESA-Listed Species that Occur or May Occur in the Eight-State Planning Region.

The USFWS HCP Handbook advises permit applicants “to include all federally listed wildlife species likely to be incidentally taken during the life of the project or permit.”⁴ If take of ESA-listed species not covered by the MSHCP/ITP(s) occurs, the wind companies can be liable for violating the ESA and “project activities could be stopped or delayed after the permit has been issued.”⁵ Even prior to any take, if take of any of these species appears imminent, the wind companies can be enjoined from moving forward with construction and operation of their wind facilities.⁶

To avoid such a result, the MSHCP should cover all ESA-listed species (endangered or threatened) that currently use the plan area or that may occur anywhere within the proposed plan area over the term of the MSHCP. The Ozark Big-Eared Bat (*Corynorhinus townsendii ingens*), for example, is a federally listed endangered species and is known to or is believed to occur in Missouri.⁷ Unless it is covered under the proposed MSHCP, any take of this species is prohibited and wind facilities can be held liable.

C. The MSHCP Should Cover All ESA Candidate Species that Occur or May Occur in the Eight-State Planning Region.

USFWS strongly encourages applicants to include candidate species in HCPs as well as non-listed species having the potential to become listed during the life of the HCP.⁸ All candidate species that currently use the MSHCP plan area or that may expand their distribution into the plan area should be included as covered species in the MSHCP.

In particular, USFWS and its planning partners should cover Sprague’s Pipit (*Anthus spragueii*). Sprague’s Pipit is an ESA candidate species and a Midwest Bird of Conservation

⁴ USFWS, *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* (Nov. 1996), at p. 3-7 (emphasis in original) [hereinafter “*HCP/ITP Handbook*”].

⁵ USFWS, *HCP/ITP Handbook*, at p. 3-7.

⁶ *See, e.g., Animal Welfare Institute v. Beech Ridge*, 675 F.Supp.2d 540 (D. Md. 2009).

⁷ USFWS, *Species Profile for the Ozark Big-Eared Bat*, <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A075>; *see also* USFWS Midwest Region, *Missouri: Federally-Listed Threatened, Endangered and Candidate Species County Distribution*, <http://www.fws.gov/midwest/endangered/lists/missouri-spp.html>.

⁸ USFWS, *HCP/ITP Handbook*, Chapt. 4. The Handbook identifies two main reasons for including unlisted species in an HCP: “(1) to provide more planning certainty to the permittee in the face of future species listings; and (2) to increase the biological value of HCPs through comprehensive multi-species or ecosystem planning that provides early, proactive consideration of the needs of unlisted species.” *Id.* at 4-1.

Concern.⁹ Its current range includes northeastern Minnesota,¹⁰ though there have been sightings in Michigan and Ohio, which were part of the Pipit's historic range.¹¹ Once common, their numbers have now declined drastically.¹² Sprague's Pipit is one of the few species endemic to the North American grasslands. Like many grassland species, Sprague's Pipits are semi-nomadic, seeking suitable grassland conditions within their range for nesting in any particular year. Sprague's Pipits require unbroken tracts of native grassland and have high altitude aerial displays. They would clearly be at risk of colliding with wind turbines, and wind farms might cause abandonment of otherwise suitable habitat.

Sprague's Pipit is at special risk for take by collisions with wind turbines because its behavior includes the longest periods of aerial display of any passerine species, and its display heights place the Pipit within the rotor-swept zone of modern wind turbines. Aerial display times may be as long as three hours by a single Pipit, and display heights of 50 to more than 100 meters above the ground have been documented.¹³ In addition, the Government of Alberta's Wildlife Guidelines for Alberta Wind Energy Projects identify Sprague's Pipit as a species with potential for collisions with wind turbines due to its aerial display.¹⁴

D. The MSHCP Should Cover Additional Bird Species that Occur in the Eight-State Planning Region and Are Most At Risk of Becoming Listed Under the ESA.

ABC recently published a comprehensive study on the conservation status of American bird species and sub-species.¹⁵ Using a range of factors, the study ranked species into four categories in order of increasing risk: Secure, Potential Concern, Vulnerable, and At-Risk. The

⁹ See USFWS, *Species Profile for Sprague's Pipit*, <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0GD>; USFWS News Release, *Listing of Sprague's Pipit Under ESA Found Warranted But Precluded* (Sept. 14, 2010), available at <http://www.fws.gov/mountain-prairie/pressrel/10-61.htm>.

¹⁰ See USFWS, *Species Profile for Sprague's Pipit*, <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0GD>.

¹¹ See 74 Fed. Reg. 63337 (90-Day Finding on a Petition to List Sprague's Pipit as Threatened or Endangered), available at <http://www.gpo.gov/fdsys/pkg/FR-2009-12-03/html/E9-28868.htm>. Michigan and Ohio were part of the Pipit's historic range. See USFWS, *Region 3 Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/candidat.html>.

¹² See USFWS, *Region 3 Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/candidat.html>.

¹³ Mark B Robbins, "Display Behavior of Male Sprague's Pipits," 110 *Wilson Bulletin of Ornithology* 435 (1998).

¹⁴ Government of Alberta, *Wildlife Guidelines for Wind Energy Projects* (Sept. 2011), at p. 3, available at <http://srd.alberta.ca/FishWildlife/WildlifeLandUseGuidelines/documents/WildlifeGuidelines-AlbertaWindEnergyProjects-Sep19-2011.pdf>.

¹⁵ American Bird Conservancy, *List of the Birds of the United States with Conservation Rankings* (2012) <http://www.abcbirds.org/abcprograms/science/conservationchecklist/index.html>.

MSHCP planning partners should cover the bird species that occur in the planning area and are identified in the ABC study as “At-Risk.”¹⁶ These are species that need immediate conservation attention if they are to survive the range of environmental challenges they face, such as habitat loss, global warming, and invasive species.

The following “At-Risk” species are not currently listed under the ESA and stand to gain significantly from conservation measures targeting their habitat needs under a MSHCP. If they are not incorporated into the MSHCP and do not receive those habitat benefits, these species are more likely to become endangered over the next 30 years:

- Yellow Rail
- Black Rail
- Buff-breasted Sandpiper
- Golden-winged Warbler (currently under USFWS review for listing under the ESA)¹⁷

E. Bald Eagles Should Be a Covered Species Given Their Presence in the Eight-State Planning Region.

The Bald and Golden Eagle Protection Act (“BGEPA”) prohibits the unpermitted take of Bald and Golden Eagles.¹⁸ The BGEPA defines “take” broadly to include, among other activities, the wounding, killing, or disturbing of Bald and Golden Eagles or their nests.¹⁹ The prohibitions of the BGEPA extend to activities that result in the unintentional or incidental take of Bald and Golden Eagles, and when the recurring take of Bald and Golden Eagles is associated with but is not the purpose of a given project or activity, the proponent of the project or activity must obtain a programmatic permit from USFWS to avoid liability for take.²⁰

The 2009 Eagle Permit Take Rule defines a programmatic take as one that is “recurring, but not caused solely by indirect effects, and...occurs over the long term and/or in a location or locations that cannot be specifically identified.”²¹ The programmatic permit strategy is “designed to provide a net benefit to eagles by reducing ongoing unauthorized take.”²² USFWS

¹⁶ American Bird Conservancy, *At-Risk Birds – Lists and Charts*, available at <http://www.abcbirds.org/abcprograms/science/conservationchecklist/charts.html>.

¹⁷ See USFWS, *Species Profile for the Golden-Winged Warbler*, <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G4>.

¹⁸ 16 U.S.C. § 668.

¹⁹ 16 U.S.C. § 668c.

²⁰ 50 C.F.R. § 22.26.

²¹ 74 Fed. Reg. 46836, 46841 (*Eagle Permits; Take Necessary To Protect Interests in Particular Localities*) (Sept. 11, 2009).

²² 74 Fed. Reg. at 46842.

regulations implementing the BGEPA allow the Service to issue programmatic eagle take permits only when the direct and indirect effects of the take and required mitigation, together with the cumulative effects of other permitted take, are compatible with the “preservation” of Bald and Golden Eagles, the permitted take is “unavoidable,” and the taking will occur “despite application of advanced conservation practices.”²³ In short, if the proponent of a project that is likely to take Bald or Golden Eagles fails to obtain a programmatic eagle take permit, then that project proceeds in violation of the BGEPA.

Project developers may seek to include Bald and Golden Eagles as covered species under an ESA Section 10 ITP.²⁴ To do so, the HCP must meet BGEPA permit issuance criteria. A Section 10 ITP can be issued only if it is otherwise lawful, meaning here that the ITP will not cause the unauthorized take of Bald or Golden Eagles. Hence, if the HCP does not meet BGEPA permit issuance criteria, the ITP would be unlawful because it would cause the unauthorized take of Bald or Golden Eagles.²⁵ Similarly, if the HCP seeks to cover Bald or Golden Eagles as non-listed species but BGEPA mitigation and minimization requirements are not met, the ITP cannot be issued, given that the “permitted activity [would be] incompatible with the preservation of the bald or golden eagle.”²⁶

We support including the Bald Eagle as a covered species under the MSHCP. We discuss the Golden Eagle below in Comment I.2.C. The National Bald Eagle Management Guidelines state that significant Bald Eagle populations occur in the Great Lakes states.²⁷ Although delisted in 2007, the Bald Eagle remains a Bird of Conservation Concern and FWS continues to monitor the species’ progress post-delisting. The expanding wind energy sector presents serious risks to Bald Eagles. A 2004 Bald Eagle assessment by the U.S. Bureau of Land Management states that “an increase in the number and type of wind-power turbines will generally increase the number of Bald Eagle deaths by aerial collisions, especially if such turbines are positioned with little consideration of Bald Eagle habitat.”²⁸ Bald Eagle deaths at

²³ 74 Fed. Reg. at 46842.

²⁴ See USFWS, *Draft Eagle Conservation Plan Guidance* (Jan. 2011), at p. 9.

²⁵ USFWS, *Draft Eagle Conservation Plan Guidance* (Jan. 2011), at p. 9.

²⁶ 50 C.F.R. § 22.11.

²⁷ USFWS, *National Bald Eagle Management Guidelines* (2007), at p. 3.

²⁸ Amber Travsky & Gary P. Beauvais, *Species Assessment for Bald Eagle (*Haliaeetus Leucocephalus*) in Wyoming* (prepared for BLM, 2004).

wind energy facilities in the United States appear to be increasing and have occurred at facilities as small as a single 10 kW wind turbine.²⁹

COMMENT I.2. In Addition to Covered Species, the MSHCP Should Incorporate a Second Tier of Protection for Bird Species Vulnerable to Threats from Development.

A. Background to Comment.

The list of species currently proposed for coverage suggests that the planning partners are focusing on bird and bat species that occur widely in the eight-state planning region, are most susceptible to collision with wind turbines and associated facility infrastructure, and with the exceptions of the Bald Eagle and the Little Brown Bat, are already listed as endangered species or are pending review under the ESA. Although collision risk may be the most visible threat to wildlife, wind development has other important repercussions on habitat, breeding, and migratory movement. Many species are vulnerable to habitat disturbance, degradation, and fragmentation and may be equally harmed by those threats as by collision.

The MSHCP should adopt a two-tiered approach to protecting species. As discussed above in Comment I.1., the MSHCP should fully cover all ESA-related species (endangered, threatened, and candidate) that occur in the eight-state planning region, the Bald Eagle, and bird species that are most at risk of becoming listed under the ESA. A second tier of protection should be developed for bird species that are less at risk of being listed – and therefore are not proposed as “covered species” – but that would benefit significantly from siting restrictions and operational measures specific to the individual species.

B. Bird Species Identified as “Vulnerable” in ABC’s Conservation Checklist Merit Protective Measures Under the MSHCP.

The Migratory Bird Treaty Act (“MBTA”) prohibits the unpermitted take of listed migratory birds, whether done intentionally or occurring incidentally to an otherwise lawful activity.³⁰ The regulations implementing the MBTA define “take” broadly to include, among

²⁹ See, e.g., USFWS, *Eagle’s Cause of Death Confirmed at Eastern Neck National Wildlife Refuge in Maryland* (undated), available at

<http://www.fws.gov/northeast/ecologicalservices/pdf/EasternNeckeaglestrikeatturbine7312.pdf>.

³⁰ 16 U.S.C. §§ 703, 707.

other activities, the wounding and killing of migratory birds.³¹ In addition, Executive Order 13186 directs federal agencies and executive departments to promote the conservation of migratory birds protected by the MBTA, including the identification and minimization of incidental or unintentional take of migratory birds that is reasonably attributable to agency actions.³²

The MSHCP should develop measures to avoid take of individuals from sensitive bird species vulnerable to habitat loss and collision. Examples of protective measures include avoiding important habitat like breeding/nesting grounds and curtailing/feathering turbines upon observation of a bird of a particular species. It may also be possible to include habitat acquisition or restoration for these birds in the MSHCP's proposed "green infrastructure" mitigation approach, especially for those species that have similar habitat needs to the covered species.

Specifically, the USFWS Midwest Birds of Concern³³ that are designated as Rare or Declining and that have been identified as Vulnerable in ABC's Conservation Checklist³⁴ should be afforded protection under the MSHCP. Birds of these species need conservation attention because they have limited habitat ranges, live in smaller populations, face significant threats, or are experiencing negative population trends. The needs of these species, given their low population numbers and declining trends, should be given adequate consideration under the MSHCP. Under the MBTA and Executive Order 13186, USFWS has a duty to protect these species and a responsibility to prevent their take from threats such as wind energy development. In addition, because these are USFWS-designated Birds of Conservation Concern,³⁵ including protections for them in the MSHCP will help USFWS fulfill a major objective of the Birds of Conservation Concern list: "Our goal is to prevent or remove the need for additional ESA bird listings by implementing proactive management and conservation actions."³⁶ Keeping these birds off the endangered species list will also benefit the wind industry.

³¹ 50 C.F.R. § 10.12.

³² Exec. Order No. 13186 (Jan. 10, 2001).

³³ USFWS, *Migratory Birds: Midwest Birds of Concern*, <http://www.fws.gov/midwest/midwestbird/concern.html>.

³⁴ See American Bird Conservancy, *List of the Birds of the United States with Conservation Rankings*, <http://www.abcbirds.org/abcprograms/science/conservationchecklist/index.html>. ABC's Conservation Checklist utilizes the 2012 Partners in Flight update to species assessment scores.

³⁵ See USFWS, *Birds of Conservation Concern 2008*, Table 41 (USFWS Region 3), at p. 59, available at <http://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf>.

³⁶ See USFWS, *Birds of Conservation Concern 2008*, at p. iii, <http://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf>.

The following species are “Vulnerable” bird species that should benefit from a second tier of protective measures under the MSHCP:

- Whooping Crane (experimental population) [avoid developing in stopover habitat, curtail turbines on observation of individual in project area]
- Cerulean Warbler [avoid developing in breeding habitat]
- Henslow’s Sparrow [avoid developing in breeding and other important habitat]
- Baird’s Sparrow [avoid developing in breeding habitat]
- Olive-sided Flycatcher [avoid developing in breeding habitat]
- Nelson’s Sparrow [avoid developing in breeding and stopover habitat]
- Marbled Godwit [avoid developing in breeding and general habitat]
- Semipalmated Sandpiper [avoid developing in stopover habitat]
- Red-headed Woodpecker [avoid developing in breeding habitat]
- Wood Thrush [avoid developing in breeding habitat]
- Chestnut-collared Longspur [avoid developing in habitat]
- Blue-winged Warbler [avoid developing in breeding habitat]
- Prairie Warbler [avoid developing in breeding habitat]
- Prothonotary Warbler [avoid developing in breeding habitat]
- Swainson’s Warbler [avoid developing in breeding habitat]
- Kentucky Warbler [avoid developing in breeding habitat]
- Canada Warbler [avoid developing in breeding habitat]

C. The MSHCP Must Incorporate Protective Measures for the Golden Eagle.

USFWS has estimated the U.S. Golden Eagle population at approximately 30,000,³⁷ and 1,000 to 2,500 individuals of that population have been estimated to occur east of the Mississippi River.³⁸ Golden Eagles use a range of habitats including grasslands, tundra, forested habitat, brush lands, deserts, and woodlands. The species is thus exposed to a multitude of threats, and Golden Eagle experts have ranked wind energy as the third greatest mortality threat.³⁹

It is a violation of the BGEPA to kill or disturb a single Golden Eagle without an appropriate permit. Given that the distribution of Golden Eagles includes areas in the eight-state planning area, the MSHCP must incorporate measures that protect against take of Golden Eagles. It is likely that wind turbines in the Midwest Region will take Golden Eagles and thus create a violation of the BGEPA. Under the current eagle permitting structure, however, USFWS cannot provide for the legal programmatic take of Golden Eagles in the eastern United States. The Federal Register notice for the 2009 Eagle Permit Rule specifies that “[f]or golden eagles east of

³⁷ USFWS, *Golden Eagles Status Fact Sheet* (2011).

³⁸ See Todd Katzner, et al. *Status, Biology, and Conservation Priorities for North America’s Eastern Golden Eagle (Aquila Chrysaetos) Population* (2012), *The Auk* 129(1):168–176, at p. 168.

³⁹ See USFWS, *Minutes and Notes from the North American Golden Eagle Science Meeting* (Sept. 21, 2010).

100 degrees West longitude, [the Service] will not issue any take permits unless necessary to alleviate an immediate safety emergency.”⁴⁰ Insufficient information on the rates of Golden Eagle mortality in the eastern U.S. provided the basis for this prohibition.

As a result of this conflict, USFWS must complete an Environmental Assessment (“EA”) or an Environmental Impact Statement (“EIS”) under the National Environmental Policy Act (“NEPA”) if the agency seeks to permit take of Golden Eagles beyond the western U.S. An EA or EIS is necessary to determine the effects of permitting programmatic take of Golden Eagles, and the results of the agency’s analysis will provide a scientific basis for determining whether take of Golden Eagles east of 100 degrees West longitude should or should not be permitted.

Given the current conflict in the BGEPA permitting structure, the MSHCP must incorporate protective measures for Golden Eagles. Proper siting and operational measures should be implemented to avoid take of the species and to avoid development in its breeding habitat. We further discuss siting, design, and operational measures in Parts II and III below.

⁴⁰ 74 Fed. Reg. at 46840.

PART II: NO-DEVELOPMENT ZONES

COMMENT II.1. Designated Critical Habitat Within the Eight-State Planning Region Should Be Excluded from Wind Energy Development, As Should Important Habitat for ESA-Listed Species That Have Not Had Critical Habitat Designated.

All ESA-designated critical habitat in the eight-state planning region should be off-limits to siting of proposed wind projects and should not be eligible for the legal protection granted by an ITP. Critical habitat has been designated in the eight-state region for the following species (by state):

- Illinois: Piping Plover, Hine’s Emerald Dragonfly⁴¹
- Indiana: Piping Plover⁴²
- Iowa: Topeka Shiner, Higgins Eye Pearlymussel⁴³
- Michigan: Piping Plover⁴⁴
- Minnesota: Canada Lynx, Piping Plover, Topeka Shiner⁴⁵
- Missouri: Indiana Bat, Niangua Darter, Hine’s Emerald Dragonfly, Tumbling Creek Cave Snail⁴⁶
- Ohio: Piping Plover⁴⁷
- Wisconsin: Piping Plover, Hine’s Emerald Dragonfly⁴⁸

Kirtland’s Warbler is an example of an endangered species that has not had critical habitat designated in the eight-state planning region. Important habitat for it and any other ESA-listed species without designated critical habitat should also be off-limits to siting of proposed wind projects and should not be eligible for the legal protection granted by an ITP.

⁴¹ USFWS Midwest Region, *Illinois: Endangered, Threatened, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/state-il.html>.

⁴² USFWS Midwest Region, *Indiana: Endangered, Threatened, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/state-in.html>.

⁴³ USFWS Midwest Region, *Iowa: Endangered, Threatened, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/state-ia.html>.

⁴⁴ USFWS Midwest Region, *Michigan: Federally-listed Threatened, Endangered, Proposed, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/michigan-spp.html>.

⁴⁵ USFWS Midwest Region, *Minnesota: Endangered, Threatened, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/state-mn.html>.

⁴⁶ USFWS Midwest Region, *Missouri: Federally-Listed Threatened, Endangered and Candidate Species County Distribution*, <http://www.fws.gov/midwest/endangered/lists/missouri-spp.html>.

⁴⁷ USFWS Midwest Region, *Ohio: Endangered, Threatened, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/state-oh.html>.

⁴⁸ USFWS Midwest Region, *Wisconsin: Endangered, Threatened, and Candidate Species*, <http://www.fws.gov/midwest/endangered/lists/state-wi.html>.

COMMENT II.2. Wind Energy Development Should Be Excluded from Areas That Pose High Risk to Birds.

The MSHCP should channel wind development to areas that pose low risk to birds by excluding high risk land from development. USFWS and its planning partners should consult ABC's Wind Development Bird Risk Map ("the Map").⁴⁹ The Map identifies areas in the U.S. that pose elevated risk to birds, based on susceptibility to collision and/or susceptibility to displacement from nesting, foraging, and transit areas.

Areas that pose a high risk and are of critical importance to bird species are shown in red on the Map. These lands include the following: ESA-designated critical habitat, other important habitat for bird species, important bird areas where large numbers of migratory birds congregate, important bird areas that are home to rare birds, and areas where large number of birds are present on a seasonal basis. Wind facility development presents significant threats to birds and their habitat in these environs. Any land labeled by the color red in the eight-state planning region should be a no wind facility development zone. USFWS and its planning partners should also consult Audubon Important Bird Areas for exclusion areas.⁵⁰

COMMENT II.3. The MSHCP Should Channel Wind Development to Lands that Pose the Lowest Risk to Bats by Excluding Development in Areas That Are Home to Important Bat Hibernacula, Habitats, and Aggregations.

Similar to ABC's Wind Risk Map, the MSHCP planning partners should conduct a regional, landscape-level analysis of collision/barotrauma and displacement risks for bat species. Wind development should not be permitted in areas that are home to important bat hibernacula, maternity colonies, or spring or fall swarming aggregations. Major migratory corridors from winter habitat to summer habitat for covered bat species should likewise be excluded from wind development.

⁴⁹ American Bird Conservancy, *Wind Development Bird Risk Map*, available at <http://www.abcbirds.org/extra/windmap.html>.

⁵⁰ See Audubon, *Important Bird Areas Program*, available at <http://web4.audubon.org/bird/iba/>.

COMMENT II.4. Sensitive, Essential, and Exceptional Areas Such As Refuges, Migratory Routes, and Large Blocks of Intact Native Landscapes Should Be Excluded from Wind Energy Development.

USFWS and its planning partners should identify sensitive, essential, and exceptional locations potentially used by one or more of the species covered by the MSHCP and should exclude those areas from the MSHCP's coverage. The following general areas are likely to contain sensitive, essential, or exceptional locations:

- Broad geographic areas of high sensitivity such as those mentioned in the USFWS *Land-Based Wind Energy Guidelines* and The Nature Conservancy's *Great Lakes Regional Guidelines*.
 - large blocks of intact native landscapes and intact ecological communities, especially rare landscape types such as intact grasslands greater than 76 acres in size, forest patches greater than 5,080 acres in size in agricultural or urban landscapes, and prairie or savanna remnants of any size;
 - riparian corridors and lake shorelines;
 - inland wetland complexes and connected upland habitats;
 - known migratory routes and staging areas;
 - fragmentation-sensitive species' habitats;
 - high-priority conservation areas for NGOs;
 - other local, state, regional, federal, tribal, or international categorizations.
- River and forest systems acting as valuable diurnal migration corridors.
 - Maps of "Potential Bird-Structure Collision Areas" for Iowa, Minnesota, and Wisconsin with accompanying descriptions are available at <http://www.fws.gov/midwest/wind/resources/biomaps.html>.
- Sensitive natural resources areas.
 - USFWS provides several maps of biological resources in the Midwest Region, including "Areas of Concern for Wind Farm Sitings" (Iowa), areas with potential species richness, Service lands, staging areas, and bird migration routes. These maps are available at <http://www.fws.gov/midwest/wind/resources/biomaps.html>.
- Wildlife refuges.
 - A list of national wildlife refuges and wetland management districts in the Midwest can be found at <http://www.fws.gov/midwest/Refuges/visit.html>.
 - An overview of conservation planning on the national wildlife refuges in the Midwest Region is available at <http://www.fws.gov/midwest/planning/plansbystate.html>.
- Locations where partnerships with private landowners are being formed to protect habitat where imperiled species are present or where those species could be reintroduced.

- Formation of such partnerships is underway throughout the MSHCP corridor. To learn their locations, we suggest contacting the recovery coordinators for each of the covered species, the Nature Conservancy office for each state in the MSHCP plan area, and each national wildlife refuge in the MSHCP plan area.

COMMENT II.5. “No-Development” Zones Should Be the Basis for Setting the MSHCP’s Boundaries.

The Federal Register notice for the MSHCP states that the planning area encompasses the Midwest Region of the Service but that the specific land covered by the MSHCP has not yet been determined and “could be all or portions of the eight States.” The USFWS’s HCP Handbook encourages applicants “to consider as large and comprehensive a plan area as is feasible and consistent with their land or natural resource use authorities”⁵¹ but notes that boundaries should “be as exact as possible” to “avoid later uncertainty about where the [ITP] applies or where permittees have responsibilities under the HCP.”⁵²

The HCP Handbook also states that “HCP boundaries should encompass *all areas* within the applicant’s project, land use area, or jurisdiction *within which any permit or planned activities likely to result in incidental take are expected to occur.*”⁵³ Thus, in the context of this MSHCP, the “planned activities likely to result in incidental take” include the siting, construction, operation, maintenance, and decommissioning of wind energy facilities. These are the only areas where incidental take is expected to occur. The Federal Register notice states that once identified, the “‘covered land’ will be the general locations where future ITPs could be issued under the MSHCP.”⁵⁴ It follows, then, that “covered land” and “HCP boundaries” are synonymous. General locations where future ITPs could be issued are the same as areas where incidental take is expected to occur.

Future ITPs should not be issued in the areas we recommend above as no-development zones and, therefore, these areas should not be included within the MSHCP’s boundaries. ESA-designated critical habitat, sensitive ecological areas, bird and bat migration corridors, red zones on ABC’s wind map, and bat hibernacula, for example, should *not* be “locations where future ITPs could be issued.” None of these areas should be afforded the protection of an ITP under

⁵¹ USFWS, *HCP/ITP Handbook*, at p. 3-11.

⁵² USFWS, *HCP/ITP Handbook*, at p. 3-11.

⁵³ USFWS, *HCP/ITP Handbook*, at p. 3-11 (emphasis added).

⁵⁴ 77 Fed. Reg. at 52754.

this MSHCP. By excluding these areas from the MSHCP's boundaries, developers seeking to build in those no-development zones will not be able to rely on the MSHCP and will therefore need to apply for individual ITPs and develop full, separate HCPs for project proposals.

Generally, we believe the approach to delineating the MSHCP's boundaries should promote the channeling of wind facility development to areas that pose the least risk to birds, bats, and other covered or vulnerable species⁵⁵ and away from areas that pose the highest risk to those species. USFWS and its planning partners should focus on impact prevention in setting the MSHCP boundaries. Impact prevention encompasses both impacts from collision/barotrauma as well as impacts from habitat displacement, loss, fragmentation, and degradation.

⁵⁵ That is, both the MSHCP-covered species as well as the second-tier vulnerable species discussed in Part I above.

PART III: AVOIDANCE AND MINIMIZATION MANAGEMENT

COMMENT III.1. The MSHCP Should Incorporate General Fine-Scale Siting Criteria for Proposed Wind Facilities.

The MSHCP should specify criteria for micro-siting of individual wind facility projects. This will provide a second habitat assessment over and above the general, landscape siting assessments recommended in the above comments.⁵⁶ Areas of suitable or potentially suitable habitat should be assessed at the individual project level for potential present and future use by covered species and prioritized for different levels of protection depending on whether the species are listed, candidate, or non-listed as well as on biological and ecological factors.

To illustrate, mandatory buffer zones of approximately five miles from Indiana bat roost trees and foraging areas should be required as a siting criterion in the MSHCP.⁵⁷ Also, project areas should be thoroughly surveyed for bird presence and habitat use. Assuming that project areas do not overlap with excluded bird areas discussed in Part II, take of birds may be able to be avoided and minimized effectively using fine-scale siting adjustments.

Areas that are not excluded from wind energy development (see Part II for recommended exclusions) may still pose a high risk to bats, birds, and other species relative to other lower-risk areas. For example, although the red areas on ABC's Wind Risk Map should be excluded, the orange areas on the Map are also important to birds and the risks posed by wind development are still substantial. The fine-scale siting criteria for such higher risk areas should be more stringent than the siting criteria used to locate facilities in low risk areas. Buffer distances, for instance, should be wider and pre- and post-construction monitoring more frequent and extensive in these higher risk areas. Similarly, in higher risk areas wind turbines should not be sited on ridges that may be followed by migrating birds. Moreover, the determination of whether a proposed set of avoidance and minimization measures is practicable should be more conservative (i.e., precautionary on the side of species protection) in higher risk areas.

⁵⁶ The USFWS's Final Land-Based Wind Energy Guidelines sets forth a multi-tier, multi-scale process relevant for siting. See USFWS, *Land-Based Wind Energy Guidelines* (Mar. 2012), available at http://www.fws.gov/windenergy/docs/WEG_final.pdf.

⁵⁷ See USFWS, *Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects* (Revised 26 October 2011), p. 9, available at <http://www.fws.gov/midwest/Endangered/mammals/inba/pdf/inbaS7and10WindGuidanceFinal26Oct2011.pdf>.

COMMENT III.2. Take of Birds Should Be Avoided and Minimized Through Design Measures in Addition to Appropriate Siting.

A. Background to Comment.

Because the presence of individual birds is not entirely predictable, sensitive siting alone is not sufficient to protect birds from collision risk. The design of wind facilities and power lines must be appropriate to ensure to the fullest extent possible that birds do not contact wind turbines, power lines, or associated structures.

B. The USFWS Land-Based Wind Energy Guidelines Should Be Mandatory Rather than Voluntary Under the Terms of the MSHCP.

USFWS recommends measures and best management practices for avoiding contact with birds and bats in the Service's Final Land-Based Wind Energy Guidelines ("the Guidelines").⁵⁸ We believe that the planning partners should incorporate the Guidelines' tiered approach and its recommendations for wind development as mandatory rather than merely voluntary.

C. Best Practices for Managing Avian/Power Line Issues Should Be Incorporated into the MSHCP's Take Minimization Plan.

The Avian Power Line Interaction Committee and USFWS jointly developed Avian Protection Plan Guidelines in 2006 to provide a framework for utilities to manage avian/power line problems.⁵⁹ The MSHCP should require wind developers to adhere to these guidelines and any updates of them in the design, construction, and operation of power transmission lines and other associated infrastructure at wind project sites. This includes, among other practices, requiring complete line marking and bird diverters, nest management, and reporting systems. Not only are many of these best practices inexpensive as compared to the cost of wind turbines and other infrastructure, they are also easily implemented and effective at minimizing avian mortality when incorporated at the beginning of a project's planning phase.

⁵⁸ USFWS, *Land-Based Wind Energy Guidelines* (Mar. 2012), Chap. 9, at pp. 49-50, available at http://www.fws.gov/windenergy/docs/WEG_final.pdf.

⁵⁹ See Avian Power Line Interaction Committee, *Suggested Practices for Avian Protection on Power Lines* (2006), available at http://www.dodpif.org/downloads/APLIC_2006_SuggestedPractices.pdf.

COMMENT III.3. In Addition to Appropriate Siting and Design, Take of Birds Should Be Minimized Through Operational Measures.

In addition to siting and design provisions and restrictions, the MSHCP should incorporate operational measures to reduce bird mortality. Nocturnally migrating birds are at increased risk of collision with turbines on nights with low-altitude cloud cover and bad weather. Birds fly at lower heights in poor weather conditions when visibility is reduced (such as with rain or fog), increasing their risk of flying in rotor swept zones. Additionally, studies have shown that birds are attracted to continuous light and are therefore at increased risk of colliding with stationary objects during bad weather events.⁶⁰

To reduce risk of collision, the MSHCP should require turbine curtailment, turbine feathering, and lighting adjustments for birds. Events like mass migration movements and weather patterns are generally short (hours or days). Operational measures therefore have the benefit of being short in duration but effective at reducing large-scale bird mortality. Turbine curtailment should be triggered during peak bird migration periods when weather conditions force birds to fly at low altitudes. The Great Lakes Regional Guidance handbook notes, for example, that in the western Lake Erie basin, westerly winds in the fall and southerly winds in the spring bring mass movements of migrating birds.⁶¹ When bad weather is predicted during these periods, turbines should be shut off to permit safe passage for birds. Turbine curtailment for both ESA-listed and non-ESA listed species is already taking place at multiple wind energy facilities in the United States, so it is not unreasonable to include it as a condition in the MSHCP.⁶² Additionally, rotor blades should be adjusted to minimize their surface in relation to the direction of migration, and developers should follow USFWS wind guideline recommendations for installing lighting in compliance with Federal Aviation Administration requirements.

⁶⁰ The Nature Conservancy, *Wind Energy: Great Lakes Regional Guidance* (2011), at p. 4, available at <http://www.glc.org/energy/wind/pdf/TNC-Great-Lakes-Regional-Guidelines.pdf>.

⁶¹ The Nature Conservancy, *Wind Energy: Great Lakes Regional Guidance* (2011), at p. 40.

⁶² We are aware of turbine curtailment taking place in Texas (for both ESA-listed and non-ESA listed species), South Dakota (for Whooping Cranes), and Maine (for Bald Eagles), but it may be happening in other locations as well since there is no publicly available national list of curtailing facilities.

COMMENT III.4. Take of Bats Should Be Avoided and Minimized Through a Turbine Curtailment Plan Based on the Best Available Science.

A. The Baseline Curtailment Plan Provided for in the MSHCP Should Reflect the Best Available Science.

Several experimental studies have examined the relationship between increases in cut-in speed and reductions in bat mortality due to turbines.⁶³ These studies are the best available science to date on the effects of curtailing cut-in speeds of wind turbines on bat fatalities.⁶⁴ The CLC has commented on the results of these studies in our submission to USFWS on Beech Ridge Energy's Draft Habitat Conservation Plan for its Beech Ridge Wind Facility in West Virginia. We incorporate our comments in Part I of that document by reference here.⁶⁵

Together, the results of the most recent turbine curtailment studies reasonably indicate that a cut-in speed of 6.5 m/s may produce a significantly larger reduction in bat fatalities compared to a cut-in speed of 5.0 m/s.⁶⁶ In addition, these studies also show that curtailing turbines to a cut-in speed of 6.5 m/s should be implemented over the entire nightly active period: from 30 minutes before sunset to 15 minutes after sunrise. Although activity levels of bats from just before sundown to just after sunrise is to some extent uncertain and may exhibit a decreasing trend over the course of the night, blade feathering during the second half of the night still reduces bat mortality substantially compared with unfeathered blades.

The MSHCP planning partners should recognize and acknowledge that the best available science points to a baseline curtailment regime for all turbines of a 6.5 m/s cut-in speed with blade feathering, from 30 minutes before sunset through 15 minutes after sunrise, during the entire active season from emergence to hibernation (which may differ depending on latitude).

⁶³ See Arnett et al., *Effectiveness of changing wind turbine cut-in speed to reduce bat fatalities at wind facilities. A final report submitted to the Bats and Wind Energy Cooperative* (May 2010); Good et al., *Bat Monitoring Studies at the Fowler Ridge Wind Energy Facility, Benton County, Indiana, April 13 – October 15, 2010, A report prepared for Fowler Ridge Wind Farm* (Jan. 28, 2011); see also Good et al., *Bat Monitoring Studies at the Fowler Ridge Wind Farm, Benton County, Indiana, April 1 – October 31, 2011, A report prepared for Fowler Ridge Wind Farm* (Jan. 31, 2012).

⁶⁴ See *id.*

⁶⁵ See Conservation Law Center, Comments on Draft EIS and Draft HCP for Beech Ridge Energy Wind Facility (Oct. 2012) (Docket ID: FWS-R5-ES-2012-0059-0032), available at <http://www.regulations.gov/#!documentDetail;D=FWS-R5-ES-2012-0059-0032>.

⁶⁶ It is possible that a cut-in speed higher than 6.5 m/s may not significantly reduce impact to bats any further, but this has yet to be established.

B. The Baseline Curtailment Plan Provided for in the MSHCP Should Minimize the Impact of Take to the Maximum Extent Practicable.

Since an applicant for an ITP must minimize the impact of take to the maximum extent practicable in order to obtain an incidental take permit, choosing a minimization plan that is reasonably likely to be *less* effective at reducing take than an alternative minimization plan will fail the permit issuance criteria, unless the applicant can show that the more effective alternative is “impracticable.” The MSHCP thus should set forth the reasoning behind selection and rejection of alternative minimization measures in a stepwise manner: first select measures that the best available science reasonably indicates will minimize take, and then examine and discuss why those measures are practicable or impracticable. If the baseline set of measures is impracticable, chose the next best alternative set of measures that will minimize take and will also be practicable.

The following steps should be implemented under the MSHCP for ITP applicants:

- Require a baseline cut-in speed of 6.5 m/s with turbine feathering below that wind speed, from 30 minutes before sunset through 15 minutes after sunrise, during the period from emergence to hibernation – the best available science reasonably indicates that this regime may minimize impact of take to covered bat species to the maximum extent practicable;
- Determine whether those measures are practicable, and justify the decision based on FWS’s guidance;
- If and only if that set of measures is shown to be impracticable, select and analyze another alternative for the project that is most likely to produce similar reductions in take but that is also practicable (e.g., cut-in speed of 6.5 m/s with feathering, for the entire night, from mid-July through mid-October).
- Take that remains after implementing such minimization measures must be mitigated to the maximum extent practicable.

C. The Operational Regime and Adaptive Management Plan Should Work in Tandem to Best Protect Covered Species.

The MSHCP should use the operational regime described above as the starting point for the research and adaptive management plan section for covered bat species. In other words, the triggers and processes for research, monitoring, and adaptive management should be based on the operational regime that the best available science reasonably indicates will minimize take to

the maximum extent practicable. Monitoring and adaptive management may be used to determine whether the selected minimization plan is performing as expected. If the selected curtailment plan is found to be performing as expected, then project developers may experiment with *incrementally* lower cut-in speeds and shorter nightly and seasonal curtailment periods using a subset of facility turbines to determine if the same effectiveness can be achieved at lower cost. Care must be taken, however, that the experimentation is not likely to unduly compromise the take reductions produced by the initial baseline measures. On the other hand, if the selected curtailment plan is found to be performing below expectations, additional measures such as shutting down or relocating problematic turbines would be implemented as specified in the adaptive management plan.

However, as discussed more extensively below in Part IV, the MSHCP's adaptive management plan should not be a substitute for specifying and implementing those baseline operational measures that the best available science reasonably indicates will best avoid and minimize impacts to covered species. The adaptive management plan should not be used to lock in a curtailment regime that the best available science now indicates is sub-par relative to other regimes under the rationale that "more research is needed." Given the scope of this MSHCP, USFWS and its planning partners must proceed cautiously. If the planning partners feel that more research and experimentation is needed to test hypotheses about curtailment regimes, that research and experimentation should be conducted incrementally at a small scale and should proceed from more restrictive to less restrictive, not vice versa.

COMMENT III.5. Measures to Avoid and Minimize Take of Birds and Bats Must Be Consistent and Integrated.

Measures to avoid and minimize take of birds must be integrated with measures for bats. Avoiding and minimizing direct take of bats at wind turbines may require some measures not relevant or not protective for birds, such as adjustment of wind turbine height,⁶⁷ reducing operation during periods of low wind speeds,⁶⁸ and use of electromagnetic fields for

⁶⁷ Robert M.R. Barclay et al., *Variation in Bat and Bird Fatalities at Wind Energy Facilities: Assessing the Effects of Rotor Size and Tower Height*, 85 Canadian J. of Zoology 3, 381-387 (2007), available at <http://www.nrcresearchpress.com/doi/abs/10.1139/Z07-011>.

⁶⁸ Edward B. Arnett et al., *Effectiveness of Changing Wind Turbine Cut-in Speed to Reduce Bat Fatalities at Wind Facilities*, Bat Conservation International (Apr. 2009), available at http://www.batsandwind.org/pdf/Curtailment_2008_Final_Report.pdf.

deterrence.⁶⁹ Thus, measures that focus on avian species alone will not be sufficient to protect bats as well, and vice versa. Not only must the MSHCP provide a plan for implementing avoidance measures for both birds and bats, it must also find ways to avoid conflicts between measures for different taxa.

⁶⁹ Barry Nicholls & Paul A. Racey, *Bats Avoid Radar Installations: Could Electromagnetic Fields Deter Bats from Colliding with Wind Turbines?*, PLoS ONE 2(3), at 1 (2007), available at <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0000297>.

PART IV: ADAPTIVE MANAGEMENT, CHANGED CIRCUMSTANCES, AND MONITORING

COMMENT IV.1. Adaptive Management Provisions Should Be Incorporated With Clear and Well-Defined Implementation Criteria.

A. Background to Comment.

Achieving the objectives of this MSHCP is going to be a complex undertaking. There are clear goals to be met (e.g., remaining within allowable take levels for the ITP) and a mandate to protect species (e.g., large-scale wind energy development is taking place in areas with wildlife species protected by the ESA, BGEPA, and MBTA), but there is significant uncertainty about how the goals can be achieved (e.g., how can take levels be managed given the large geographic area and multiple wind energy projects that could potentially take protected wildlife). Adaptive management, if properly structured and implemented, will provide a structured method for managing this uncertainty and complexity while still achieving the goals.

Adaptive management may be implemented as part of an HCP for several reasons: (1) to determine whether implemented minimization and mitigation measures are as effective as predicted and to modify the measures if not; (2) to resolve a specific uncertainty about the effectiveness of planned minimization and mitigation measures; (3) to determine the potential effects of the activity on the species covered in the HCP/ITP; and (4) to test hypotheses about the relative effectiveness or feasibility of measures that are not planned but which may be as effective as the planned measures. Especially for the third and fourth uses of adaptive management, experiments must not pose too much risk to the covered species.⁷⁰

The HCP Handbook emphasizes that while the “base mitigation strategy or initial minimization and mitigation measures which are implemented must be sufficiently vigorous so that the Service may reasonably believe that they will be successful,” an “adaptive management approach is particularly useful when significant questions remain regarding an HCP’s initial mitigation strategy.”⁷¹ The Five-Point Policy states that adaptive management is “essential” for HCPs that pose significant risks to species as a result of data and information gaps.

⁷⁰ 65 Fed. Reg. 35242, 35252 (*Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting Process*) (June 1, 2000) [hereinafter “*HCP/ITP Handbook Addendum*”].

⁷¹ USFWS, *HCP/ITP Handbook*, at p. 3-25.

It is important to note that a commitment to adaptive management is not by itself a valid mitigation measure. Adaptive management seeks to address uncertainties about impacts to species and allows for the implementation of measures that reduce, remove, or mitigate impacts of take.⁷² Reducing uncertainty “does not compensate for take that occurs, and therefore, is not a mitigation measure.”⁷³

B. The Adaptive Management Plan Should Cautiously Allow For the Implementation of Updated Minimization and Mitigation Techniques.

While there is consensus in the scientific community that wind facilities cause mortality in birds, bats, and other species and can result in habitat degradation, results of monitoring and from studies of effects of wind turbines on bats and birds shed new light on the appropriateness of existing mitigation and minimization techniques. In addition, there is a high level of risk associated with this MSHCP, considering that it is one of the first of its kind and one of the first on this geographic scale. In the face of such uncertainty and risk and given the scale of this MSHCP, the conservation program for the Midwest region should be “cautious initially and adjusted later based on new information.”⁷⁴ The adaptive management strategy should therefore employ active experiments only if experimental treatments reflect relatively small and incremental adjustments to initial baseline measures. The adaptive management strategy should also require early and frequent monitoring and adjustments based on monitoring results. Indeed, monitoring is the key element of a successful adaptive management strategy and, as discussed further below, must be designed to allow the efficient reporting and dissemination of monitoring data to permit timely adjustments to the conservation plan.

To illustrate with an example, the adaptive management plan for covered bat species should contain triggers and specific modifications to the turbine curtailment regime if roosting or maternity sites are newly identified. The Indiana Bat draft recovery plan notes that “[b]ecause maternity colonies are widely dispersed during the summer and difficult to locate, all the combined summer survey efforts have found only a fraction of the maternity colonies presumed to exist based on the rangewide population estimates derived from winter hibernacula surveys. . .

⁷² USFWS, *Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects* (Revised 26 Oct. 2011), question 73, at 49, available at <http://www.fws.gov/midwest/endangered/mammals/inba/pdf/inbaS7and10WindGuidanceFinal26Oct2011.pdf>.

⁷³ *Id.* at 49.

⁷⁴ USFWS, *HCP/ITP Handbook Addendum*, at p. 35252.

Regardless of reasonable disagreements regarding the average colony size, the geographic locations of the majority of Indiana bat maternity colonies remain unknown.”⁷⁵ Thus, the adaptive management plan and the changed circumstances provisions of the MSHCP should provide for locating previously unobserved roosting sites and maternity colonies within commuting distance of projects and provide for specific modifications over and above the baseline minimization and mitigation plans if any are found.

C. The Adaptive Management Plan Must Not Be a Substitute for Avoidance, Minimization, and Mitigation Measures that Reflect the Best Available Science.

Every adaptive management plan should begin with identifying the key uncertainties and the questions that need to be addressed to resolve the uncertainties. “Identifying the uncertainty to be addressed is the foundation of the adaptive management strategy.”⁷⁶ A second foundational feature of an adaptive management plan is that adaptive management cannot substitute for a showing of reasonable certainty that the substantive criteria will be met.⁷⁷ An important role of adaptive management is to resolve key uncertainties while satisfying statutory and regulatory standards. Specifically, the MSHCP cannot use uncertainty as a justification for holding back measures that are reasonably indicated by the best available science to minimize and mitigate the impact of take to the maximum extent practicable.⁷⁸

COMMENT IV.2. The Range of Responses to Information Gained Through Adaptive Management and to Changed Circumstances Must Be Clearly Specified in the MSHCP.

A common shortcoming of draft HCPs for wind facilities has been the failure to adequately specify the range of measures that will be implemented in response to new

⁷⁵ USFWS, *Indiana Bat Draft Recovery Plan, First Revision* (Apr. 2007), at p. 27, available at http://www.fws.gov/midwest/endangered/mammals/inba/pdf/inba_fnldrftrecpln_apr07.pdf.

⁷⁶ USFWS, *HCP/ITP Handbook Addendum*, at p. 35252.

⁷⁷ J.B. Ruhl & Robert L. Fischman, *Adaptive Management in the Courts*, 95 Minn. L. Rev. 424, 472 (2010).

⁷⁸ This view is supported by *Greater Yellowstone Coalition, Inc. v. Servheen*. In *Greater Yellowstone* the court addressed the agency’s plan to remove the grizzly bear population from the threatened species list in the face of substantial uncertainties about the impact of whitebark pine declines. The agency decided to rely on monitoring and adaptive management rather than ensure that the applicable ESA standards were satisfied. The court stated, “Just as it is not enough simply to invoke ‘scientific uncertainty’ to justify an agency action, it is not enough to invoke ‘adaptive management’ as an answer to scientific uncertainty.” *Greater Yellowstone Coalition, Inc. v. Servheen*, 665 F.3d 1015, 1028–29 (9th Cir. 2011).

information gained through adaptive management or in response to the triggering of changed circumstances provisions.

According to USFWS, “[a]daptive management strategies, if used, are part of [the HCP] provisions, and their implementation becomes part of a properly implemented conservation plan”⁷⁹ but “[a]daptive management should not be a catchall for every uncertainty or a means to address issues that could not be resolved during negotiations of the HCP.”⁸⁰ The adaptive management plan must clearly and with specificity state the range of possible operating conservation program adjustments that would be triggered by new information.⁸¹ “Whenever an adaptive management strategy is used, the approved HCP must outline the agreed-upon future changes to the operating conservation program.”⁸² This requirement is relatively straightforward. If new information reveals that take is greater than expected or initial measures are not as effective as expected, then one or more additional *specified* measures are triggered depending on the deviation. Alternatively, if appropriate responses to new information are uncertain initially, experimentation may be included as part of the adaptive management plan – for example, a comparison of the effectiveness of three cut-in speeds. The plan would then call for implementation of the treatment alternative that produces the best result. Either way, the range of additional measures can be described with specificity in the HCP – i.e., they are either known additional measures or known treatment alternatives in planned experiments. An adaptive management plan is not an excuse for failing to specify a range of measures that will be triggered based on specified scenarios, even though the scenario that will occur and the precise measure called for may be uncertain at the time of permit issuance.

According to USFWS, adaptive management is compatible with the No Surprises policy only if the HCP, ITP, and Implementing Agreement “clearly state the range of possible operating conservation program adjustments due to significant new information, risk, or uncertainty.”⁸³ The description of such adjustments must be specific enough to delineate “the limits of what resource commitments may be required of the permittee” so that the applicant can “assess the potential economic impacts of adjustments before agreeing to the HCP.”⁸⁴ An adaptive

⁷⁹ USFWS, *HCP/ITP Handbook Addendum*, at p. 35253.

⁸⁰ USFWS, *HCP/ITP Handbook Addendum*, at p. 35252.

⁸¹ *NRDC v. Kempthorne*, 506 F.Supp.2d 322, 356–57 (E.D. Cal. 2007).

⁸² USFWS, *HCP/ITP Handbook Addendum*, at p. 35252.

⁸³ USFWS, *HCP/ITP Handbook Addendum*, at p. 35253.

⁸⁴ USFWS, *HCP/ITP Handbook Addendum*, at p. 35253.

management plan that sets forth only a process for meetings, consultation, and recommendations, or that sets forth only vague and generalized responses to new information, is insufficient under the ESA⁸⁵ and would not be compatible with No Surprises assurances.

Under the “No Surprises” policy, if the status of a species worsens because of changed circumstances the responsibility for implementing additional conservation measures falls on the federal government and all other entities except the HCP permittee – the entity taking the species – unless the specific measures deemed necessary to respond to the changed circumstances are “provided for” in the HCP. Changed circumstances, as opposed to unforeseen circumstances, “can reasonably be anticipated and planned for.”⁸⁶ The regulations provide as follows with respect to changed circumstances:

(i) Changed circumstances provided for in the plan. If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and were provided for in the plan’s operating conservation program, the permittee will implement the measures specified in the plan.

(ii) Changed circumstances not provided for in the plan. If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and such measures were not provided for in the plan’s operating conservation program, the Director will not require any conservation and mitigation measures in addition to those provided for in the plan without the consent of the permittee, provided the plan is being properly implemented.⁸⁷

If operational or mitigation measures are not “provided for” in the MSHCP, those measures cannot be required of wind energy facilities for the term of the associated ITPs. USFWS has stated that, with respect to changed circumstances, “[t]he HCP, incidental take permit, and IA, if any, must describe the agreed upon range of management and/or mitigation actions and the process by which the management and funding decisions are made and implemented.”⁸⁸ Therefore, the MSHCP’s changed circumstances plan must describe a range of specific agreed-upon measures and must commit to the implementation of one or more of those measures in response to the changed circumstances scenarios presented. It is insufficient to commit only to “confer” with USFWS or to “research” a solution to the problem without specifying a range of possible actions and without committing to implementation. The

⁸⁵ *NRDC v. Kempthorne*, 506 F.Supp.2d at 356–57.

⁸⁶ USFWS, *HCP/ITP Handbook*, at p. 3-28.

⁸⁷ 50 C.F.R. § 17.22(b)(5)(i)-(ii).

⁸⁸ USFWS, *HCP/ITP Handbook Addendum*, at p. 35253.

specificity with which the range of responses to changed circumstances must be described in the MSHCP must be sufficient to delineate “the limits of the resource commitments that may be required of the permittee.”⁸⁹ Thus, vague and generalized descriptions such as “additional operational measures” are insufficient because such statements do not allow delineation of the resources that can be required of the permittee over the term of the ITP/HCP.

COMMENT IV.3. The MSHCP Should Implement a Robust Mortality Monitoring Program.

Monitoring will be a necessary part of the MSHCP. This MSHCP could be a model for other efforts if it includes a robust mortality monitoring program, funded by permit applicants. The monitoring program should contain the following elements:

1. The monitoring program should feed information into an adaptive management approach towards decision making about future wind farm proposals. USFWS already has guidelines for adaptive management in the context of structured decision making that should be followed.
2. Design and implementation of the monitoring program should be overseen by an independent science advisory group (including representatives from multiple agencies, academia, and NGOs). While USFWS facilitators could assist in the design of this program, they should not be voting members of the working group.
3. Standardized data collection protocols that have been peer-reviewed by the science advisory working group should be implemented at all project sites.
4. Monitoring protocols should have sufficient statistical power to detect trends in local populations over the relevant timeframe.
5. Data entry into a central repository that has been designed by database professionals (and is freely accessible to the science advisory group and the public for analysis) should be a mandatory permit condition. Failure to meet this condition should have consequences.
6. Bi-annual analyses of this database (documented in written reports) should be produced by scientists/statisticians approved by the science advisory group.
7. These bi-annual monitoring reports should be reviewed and evaluated in public forums involving USFWS, industry professionals, NGOs, academics and other experts. Mitigation practices should be evaluated in light of the monitoring data and reports.

⁸⁹ USFWS, *HCP/ITP Handbook Addendum*, at p. 35253 (stating also, with respect to changed circumstances, “[t]he HCP, incidental take permit, and IA, if any, must describe the agreed upon range of management and/or mitigation actions and the process by which the management and funding decisions are made and implemented.”).

8. A National Academy of Sciences panel should evaluate the success of the monitoring program once every 2 to 3 years.
9. The recommendations on pre-construction and post-construction mortality study design appearing in the USFWS Land-Based Wind Energy Guidelines should be followed.

PART V: PERMIT STRUCTURE

COMMENT V.1. Second Tier Analysis for Site-Specific Impacts Must Be Incorporated Into the Permitting Structure.

A. Background to Comment.

The CEQ defines “tiering” as “the process of addressing a broad, general program, policy, or proposal in an initial environmental impact statement (EIS), and analyzing a narrower site-specific proposal, related to the initial program, plan or policy in a subsequent EIS.”⁹⁰ Tiering is appropriate in two situations:

- (a) From a program, plan, or policy environmental impact statement to a program, plan, or policy statement or analysis of lesser scope or to a site-specific statement or analysis.
- (b) From an environmental impact statement on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation).⁹¹

Furthermore, CEQ guidance material provides that:

...where a Federal agency adopts a formal plan which will be executed throughout a particular region, and later proposes a specific activity to implement that plan in the same region, both actions need to be analyzed under NEPA to determine whether they are major actions which will significantly affect the environment. If...both actions will be subject to the EIS requirement...[and] tiering is utilized, the site-specific EIS contains a summary of the issues discussed in the first statement...[and] the site-specific statement would focus primarily on the issues relevant to the specific proposal.⁹²

The Federal Register notice soliciting these comments sets forth two main MSHCP structures: a template/umbrella MSHCP and a programmatic MSHCP. Under the umbrella approach, “the Service would issue individual ITPs to applicants that agree to implement the MSHCP.” Under the programmatic approach, “each State agency would apply for and receive an ITP and would issue certificates of inclusion to wind energy companies that agreed to

⁹⁰ 48 Fed. Reg. 34263 (*Guidance Regarding NEPA Regulations*) (July 28, 1983); *see also* 40 C.F.R. § 1508.28.

⁹¹ 40 C.F.R. § 1508.28.

⁹² 48 Fed. Reg. at 34268.

implement the MSHCP at their facility.”⁹³ According to USFWS, at this time it is anticipated that the umbrella approach – in which individual ITPs would be issued – is the more likely for this MSHCP, although the programmatic approach and other permit structure options are being considered.⁹⁴ Whatever permit structure is adopted, USFWS expects that the MSHCP “would meet all ITP issuance criteria found at 50 CFR 13.21, 17.22(b), and 17.32(b),” and would be evaluated under NEPA and Section 7 of the ESA only once – that is, “the partners envision that under any permit approach, no additional NEPA or Section 7 analysis would occur.”⁹⁵

B. The Permit Structure Will Need to Include Site-Specific and Project-Specific Analysis of Impacts and Risks.

The agency’s description in the Federal Register notice suggests that at the time a company applies for an ITP or a certificate of inclusion, the USFWS (under the umbrella approach) or the State conservation agency (under the programmatic approach) would issue the ITP or certificate of inclusion if the company “agree[s] to implement the MSHCP at their facility.” USFWS has not provided sufficient information in the Federal Register notice about whether specific project locations are currently known or will be included in the final EIS and MSHCP.

Regardless of which permitting option is chosen, unless the proposed locations of individual projects covered under the MSHCP are included in the final EIS and MSHCP, or unless the siting of future projects is confined to pre-evaluated locations, the permitting process must provide for a second tier, more detailed assessment of impacts in addition to the single programmatic EIS. Failure to analyze potential impacts and risks at the site or project scale would most likely leave impacts and risks unanalyzed.⁹⁶

A programmatic-level EIS, without analysis of the proposed locations of wind projects, would not be able to address site-specific details of project impacts, costs, and mitigation measures. The programmatic analysis emphasizes cumulative effects of multiple future activities, whereas a second tier analysis would emphasize direct and indirect effects of a single

⁹³ 77 Fed. Reg. at 52755.

⁹⁴ 77 Fed. Reg. at 52755.

⁹⁵ 77 Fed. Reg. at 52755.

⁹⁶ This is made clear in USFWS’s Land Based Wind Energy Guidelines, which calls for site characterization and field studies to document site wildlife and habitat after a landscape scale siting evaluation. USFWS, *Land-Based Wind Energy Guidelines* (Mar. 23, 2012), Chapters 3 & 4.

activity.⁹⁷ The broad geographic scope of most programmatic NEPA analyses requires different data sources than project-level analyses. The remaining question is what type of second tier compliance document – e.g., a site-specific EIS or a site-specific EA – is required under NEPA, which will be answered independently for each separate project.⁹⁸

Moreover, the public should have the opportunity to comment on site-specific wind project proposals and to challenge proposed locations, which would not be possible without an analysis of the site- and project-specific impacts and risks.

The requirements of the ESA also indicate the need for a site-specific or project-specific analysis of impacts. The baseline and cumulative effects analysis required by ESA Section 7 depends on the delineation of an “action area,” which typically is separately delineated for each project. ESA regulations define the term “action area” as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”⁹⁹ The action area is a biological determination of the reach of the proposed action on listed species. Careful delineation and explanation of the chosen action area is important because the determination of the environmental baseline and cumulative effects are tied to the action area.¹⁰⁰ Determining the scope of an action area requires application of scientific methodology and the agency must explain the “scientific methodology, relevant facts, or rational connections linking the project’s potential impacts” to the action area boundaries to enable a reviewing court to determine whether the action area was properly conceived.¹⁰¹ Cumulative effects analyses for action areas delineated for sited wind energy projects may not be equivalent to an analysis of cumulative effects for a programmatic or regional-scale action area or to the larger-scale cumulative impact analysis required by NEPA. For example, a cluster of projects in a particular local area may have disproportionate cumulative effects that are not revealed by a larger scale cumulative effects analysis that does not consider location-specific information. Thus, a failure to delineate project-specific action areas and to then analyze project-specific baselines and cumulative effects may leave impacts and risks unanalyzed and ESA requirements unfulfilled.

⁹⁷ See USFWS, *Land-Based Wind Energy Guidelines* (Mar. 23, 2012), Chapters 3 & 4.

⁹⁸ See CEQ regulation at 40 C.F.R. § 1508.28; 48 Fed. Reg. 34263 (*Guidance Regarding NEPA Regulations*) (July 28, 1983).

⁹⁹ 50 C.F.R. § 402.02. Section 7 of the ESA applies to the USFWS issuance of an ITP. See USFWS, *HCP/ITP Handbook*, at pp. 6-12 to 6-14.

¹⁰⁰ *Defenders of Wildlife v. Babbitt*, 130 F.Supp.2d 121, 129 (D.D.C. 2001).

¹⁰¹ *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 902 (9th Cir. 2002).

COMMENT V.2. The ITPs or Certificates of Inclusion May Need to Incorporate Site-Specific and Project-Specific Avoidance, Minimization, and Mitigation Measures.

The main potential shortcoming of both the umbrella and programmatic permitting structures is that it is unclear how the features of specific project locations will be assessed and incorporated into avoidance, minimization, and mitigation measures. The planning partners should explain as soon as possible in the scoping process how each permitting structure will tailor allowable take, terms and conditions, minimization and mitigation measures, and adaptive management provisions to the specific characteristics of individual wind projects, and under what circumstances this is necessary.

Required determinations may not be able to be made at the program level. For example, USFWS may not be able to programmatically determine whether all wind energy projects to be covered under the MSHCP will meet the ITP issuance criteria – in particular the criterion that the impacts of take will be minimized and mitigated “to the maximum extent practicable” – without knowing specifically where those projects will be sited and what local impacts they may have. On one hand it may be possible to programmatically identify measures that the best available science indicates will likely minimize or mitigate take of a covered species. However, if the agency interprets the term “practicability” to depend on the estimate of local impacts, the resources of the project proponent, or the localized costs of alternative turbine configurations and operations, whether such measures are “practicable” may not be clear until the project owner is known and a specific site is characterized and studied. In other words, how can USFWS ensure that the program-level MSHCP “would meet all ITP issuance criteria found at 50 CFR 13.21, 17.22(b), and 17.32(b)”¹⁰² if the “practicability” determination depends on site- or project-specific characteristics? Moreover, at least one court has ruled that USFWS cannot impose compensatory mitigation that is not tailored to the level of unavoidable impact that remains after practicable avoidance and minimization measures are accounted for. It is unclear how USFWS can specify mitigation measures without knowing the level of practicable avoidance and minimization, which in turn may depend on local factors.

Of the two proposed permit structures as currently described, the umbrella option has the potential to allow USFWS to tailor the allowable take and the measures of the MSHCP to the

¹⁰² 77 Fed. Reg. at 52755.

specific characteristics and needs of each individual project (characteristics and needs that might change due to the project’s owner, size, location, etc.) because an individual ITP would be issued for each project. Such tailoring would benefit permittees, who will not be saddled with a permit that is overly broad or narrow, as could be the case under a state-held ITP. Issuing individual ITPs also allows more flexibility in setting take limits and in the agency’s response to monitoring data on takings. Presumably, at the time the MSHCP is evaluated, the agency would have to estimate a cumulative allowable take for each covered species over the entire MSHCP plan area. With the umbrella option, the agency would be able to fine tune allowable take at finer spatial scales to account for differences in species distributions, ecological sensitivity, and anthropogenic threats across the Midwest region. Note, however, that even with the umbrella option with individual ITPs it may not be possible for the agency to determine satisfaction of the permit issuance criteria based on the MSHCP before knowing the locations, characteristics, and owners of the covered wind energy projects.

The programmatic option, which apparently would use a “certificate of inclusion” to bind individual projects to the MSHCP and state-held ITP, would be especially problematic if it is not possible to determine satisfaction of the permit issuance criteria before knowing the locations, characteristics, and owners of the covered wind energy projects. Neither USFWS regulations nor, to our knowledge, USFWS guidance describes certificates of inclusion. NOAA Fisheries Service regulations do have such regulations,¹⁰³ but the criteria for issuing a certificate under those regulations do not include a finding that the permittee will minimize and mitigate the impacts of take to the maximum extent practicable. If the NOAA regulations are used for this ITP process, they would thus require only findings that the applicant will be engaged in the activity covered by the MSHCP and that the applicant will fund and implement the applicable measures in the MSHCP (measures which are programmatic and not site or project specific). This is inadequate without an additional requirement of a finding that the permittee will minimize and mitigate the impacts of take to the maximum extent practicable. Unless USFWS issues regulations or guidance on certificates of inclusion, it appears unlikely that such certificates will require or include any consideration of site- or project-specific characteristics.

¹⁰³ 50 C.F.R. § 222.307(f).

COMMENT V.3. ESA Section 7 Consultation Is Required for Each Project if Wind Projects Are Allowed in Designated Critical Habitat.

The descriptions of the structural options indicate that only one ESA Section 7 consultation will be completed for the single MSHCP, and that Section 7 consultations or analyses will not be applied to individual ITP issuances or certificates of inclusion. The potential problem with this scheme is that at the time the single MSHCP is evaluated by the agency, the specific locations of some wind projects will likely be unknown to USFWS or unrevealed to the public. Unless all designated critical habitat, regardless of species, is declared off limits to wind energy projects under the MSHCP, which we recommend in Part II above, a site- and project-specific Section 7 analysis will be required in order to determine whether the project will result in “destruction or adverse modification” of designated critical habitat. Destruction or adverse modification cannot be assessed without knowing the specific locations and extent of the wind projects.

This determination of destruction or adverse modification would not otherwise be made pursuant to an ITP issuance or certificate of inclusion under ESA Section 10. The questions asked during a Section 7 consultation are not identical to the questions asked prior to Section 10 ITP issuance. Specifically, before issuing an ITP the agency must ask whether the taking “will not appreciably reduce the likelihood of survival and recovery of the species in the wild”:

(2) Issuance criteria. (i) Upon receiving an application completed in accordance with paragraph (b)(1) of this section, the Director will decide whether or not a permit should be issued. The Director shall consider the general issuance criteria in § 13.21(b) of this subchapter, except for § 13.21(b)(4), and shall issue the permit if he or she finds that: (A) The taking will be incidental; (B) The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such takings; (C) The applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided; (D) *The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild*; (E) The measures, if any, required under paragraph (b)(1)(iii)(D) of this section will be met; and (F) He or she has received such other assurances as he or she may require that the plan will be implemented.¹⁰⁴

In contrast, during a Section 7 consultation the agency must ask whether the agency action “is not likely to jeopardize the continued existence of any endangered species or threatened species

¹⁰⁴ 50 C.F.R. § 17.22(b)(2) (emphasis added).

or result in the destruction or adverse modification of [designated critical] habitat of such species.”¹⁰⁵ “Destruction or adverse modification” means a direct or indirect alteration that appreciably diminishes the value of critical habitat for *either* the survival *or* recovery of a listed species.¹⁰⁶ The “destruction or adverse modification” standard accounts for impacts to species recovery whereas the ITP issuance standard, in contrast, accounts only for species survival and not recovery.¹⁰⁷ The “destruction or adverse modification” standard does not appear in the § 17.22 or § 17.32 ITP issuance criteria.

COMMENT V.4. Permittees Must Be Held Accountable for Noncompliance Under a Programmatic Permit Structure.

Under an umbrella permit approach, which would require individual ITPs for each wind project, each wind facility can be held individually accountable for noncompliance under its individual ITP. Under that approach USFWS plays an active and clear role in monitoring compliance with take limits and triggers for the implementation of adaptive management measures. Monitoring and assuring compliance with take limits and permit terms under a state-held ITP could pose difficulties, however. If the planning partners choose to proceed with the programmatic permit structure for the MSHCP, they must explain how a wind facility’s certificate of inclusion under a state-held ITP may be suspended or revoked, and how the suspension or revocation of a facility’s certificate of inclusion will affect the validity of the state ITP. This is especially important if, as we recommend above, certificates of inclusion are tailored to individual facilities. The MSHCP/ITP permit structure must provide a documented avenue through which USFWS, the state conservation agencies, and the public can enforce permit conditions and project adherence to permit terms.

COMMENT V.5. An Independent Oversight and Advisory Committee Is Important and Needed for a Program of this Breadth.

A. Background to Comment.

The USFWS’s Five-Point Policy states the following about oversight committees:

¹⁰⁵ 16 U.S.C. § 1536(a)(2).

¹⁰⁶ 50 C.F.R. § 402.02. *See also* Butte Environmental Council v. USACE, 620 F.3d 936 (9th Cir. 2010) (interpreting “adverse modification”); Gifford Pinchot Task Force v. U.S. Fish & Wildlife Services, 378 F.3d 1059 (9th Cir. 2004) (same).

¹⁰⁷ *See* Spirit of the Sage Council v. Kempthorne, 511 F. Supp.2d 31, 43–44 (D.D.C. 2007).

For large-scale or regional HCPs, oversight committees, made up of representatives from significantly affected entities...are often used to ensure proper and periodic review of the monitoring program and to ensure that each program properly implements the terms and conditions of the incidental take permit...For large-scale or regional HCPs, oversight committees should periodically evaluate the permittee's implementation of the HCP, its incidental take permit, and [Implementation Agreement (IA)] and the success of the operating conservation program in reaching its identified biological goals and objectives. Such committees usually include species experts and representatives of the permittee, the Services, and other affected agencies and entities. Submitting the committee's findings to recognized experts in pertinent fields (*e.g.*, conservation biologists or restoration specialists) for review or having technical experts conduct field investigations to assess implementation of the terms and conditions would also be beneficial. Because the formation of these committees may be subject to the Federal Advisory Committee Act, the role of the participants and the purpose of the meetings must be clearly identified. Oversight committees should meet at least annually and review implementation of the monitoring program and filing of reports as defined in the HCP, permit, and/or IA, if one is used.¹⁰⁸

The Five-Point Policy also encourages the use of science advisory committees, which are active during both HCP development and implementation phases:

The Services encourage the use of scientific advisory committees during the development and implementation of an HCP. The integration of a scientific advisory committee and perhaps other stakeholders improves the development and implementation of any adaptive management strategy. Advisory committees can assist the Services and applicants in identifying key components of uncertainty and determining alternative strategies for addressing that uncertainty. We also encourage the use of peer review for an HCP. An applicant, with guidance from the Services, may seek independent scientific review of specific sections of an HCP and its operating conservation strategy to ensure the use of the best scientific information.¹⁰⁹

Lastly, USFWS's HCP Handbook, Chapter 3.A.3, states the following regarding HCP steering committees, which assist with the development of the HCP:

Steering committees are particularly useful in regional HCPs, especially those in which the prospective permittee is a state or local government agency, and are recommended for these types of HCP efforts.¹¹⁰

¹⁰⁸ USFWS, *HCP/ITP Handbook Addendum*, at p. 35255.

¹⁰⁹ USFWS, *HCP/ITP Handbook Addendum*, at p. 35256.

¹¹⁰ USFWS, *HCP/ITP Handbook*, at p. 3-3.

B. Oversight and Advisory Committees Should Be Used.

Development of an MSHCP and ITP(s) at this spatial scale and involving this many species is replete with uncertainties. Oversight and science advisory committees, independent from potential future permit holders and representing a range of viewpoints, should be assembled for implementation of this proposed MSHCP.

COMMENT V.6. Whichever Permit Structure is Chosen, USFWS Cannot Sub-Delegate Particular Responsibilities.

A. Background to Comment.

The HCP Handbook states that for “large-scale HCPs, monitoring programs should include periodic accountings of take, surveys to determine species status in project areas or mitigation habitats, and progress reports on fulfillment of mitigation requirements.”¹¹¹ The Five-Point Policy also provides that “[t]he Service should verify adherence to the terms and conditions of the incidental take permit, HCP, IA, and any other related agreements and should ensure that incidental take of the covered species does not exceed the level authorized under the incidental take permit.”¹¹² The above USFWS policy expressly reflects the oversight role of the agency.

B. USFWS Must Have an Active Monitoring Role Under Any Permit Structure.

In the context of HCPs and ITPs, USFWS has repeatedly assumed an active role as an overseer – not only by working alongside ITP holders to set biological objectives and create adaptive management plans but also by supervising ITP compliance and, if necessary, implementing the agency’s power of permit revocation.¹¹³ The Programmatic option appears to relieve USFWS of its supervisory role after the ITPs are granted to the state agencies – this option relies on the state conservation agencies to exclusively monitor *and determine* compliance of the individual wind companies and projects with the terms and conditions of certificates of inclusion. The option as described does not explicitly provide for USFWS compliance oversight, such as site visits.

¹¹¹ USFWS, *HCP/ITP Handbook*, at p. 3-26.

¹¹² USFWS, *HCP/ITP Handbook Addendum*, at p. 35254.

¹¹³ See e.g., 69 Fed. Reg. 71723 (*Endangered Species Act Incidental Take Permit Revocation Regulations*) (Dec. 10, 2004).

In general, the ESA and implementing regulations set forth a number of decision making responsibilities for the Service. Regardless of which MSHCP/ITP structure the planning partners choose to implement, the ESA regulations prescribe a set of decisions that may not be sub-delegated by USFWS. These decisions include whether each project satisfies ITP criteria, whether the permit should be suspended or revoked, whether permit succession or transfer should be authorized, and whether and how the permit should be amended. At this stage of program development, USFWS should clarify its role and level of oversight with respect to these and similar decisions.

PART VI: COORDINATION WITH ESA SECTION 7

COMMENT VI.1. To Assist USFWS in Meeting ESA Section 7 Consultation Requirements, the MSHCP Should Carefully Consider the Full Spectrum of Potential Effects of Issuing ITPs on a Regional Scale.

The ESA seeks to ensure by way of the Section 7 consultation requirement that “any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of critical habitat.¹¹⁴ While consultation is the federal agency’s responsibility rather than the applicant’s, the HCP Handbook urges ITP applicants to “ensure that those considerations required of the Services by section 7 have been addressed in the HCP.”¹¹⁵ Thus, USFWS considers the HCP development process under Section 10 of the ESA and the consultation process under Section 7 to be concurrent and related rather than independent and sequential.¹¹⁶ If this is to be the case here, the MSHCP must adequately meet Section 10 issuance criteria as well as Section 7 standards.

In satisfying the Section 7 consultation requirement, USFWS must “[e]valuate the effects of the action and cumulative effects on the listed species or critical habitat.”¹¹⁷ “Effects of the action” means “the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline.”¹¹⁸ “Cumulative effects” refers to “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area.”¹¹⁹ Action area, in turn, constitutes “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”¹²⁰

In general, there is growing concern in the scientific community regarding the potential for bat and bird kills and population declines given the rapid proliferation of wind power facilities and the large- scale mortality that has occurred at some facilities. The USFWS’s direct,

¹¹⁴ 16 U.S.C. § 1536(a)(2); USFWS, *HCP/ITP Handbook*, at p. 3-15.

¹¹⁵ USFWS, *HCP/ITP Handbook*, at p. 3-15.

¹¹⁶ USFWS, *HCP/ITP Handbook*. at p. 3-16.

¹¹⁷ 50 C.F.R. § 402.14(g)(3).

¹¹⁸ 50 C.F.R. § 402.02.

¹¹⁹ 50 C.F.R. § 402.02.

¹²⁰ 50 C.F.R. § 402.02.

indirect, and cumulative effects analysis for this MSHCP must consider the potential impacts to all threatened and endangered species and designated critical habitat from at least the following sources: (1) wind facilities not covered under the proposed MSHCP; (2) other HCPs and ITPs (and incidental take statements) issued in the region; (3) construction of transmission and distribution lines associated with the wind energy facilities; (4) other causes of habitat loss and fragmentation affecting the species such as logging, agriculture, oil and gas development, power line construction, agricultural conversion, and residential development; (5) shifts in summer, stopover, and winter habitats and in migration pathways due to climate change; (6) disease and parasites (e.g., White Nose Syndrome); (7) predation; (8) competition between species; (9) environmental contaminants (not just “pesticides”); (10) collisions with man-made objects; and (11) any other threats to the species of which USFWS is aware.

COMMENT VI.2. The Duration of the MSHCP/ITP(s) Should Be Specified to Direct the Cumulative Effects Analysis.

ESA Section 7 specifically notes that the Service’s responsibility is to “[f]ormulate its biological opinion as to whether the action, *taken together with cumulative effects*, is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.”¹²¹ In order to properly assess cumulative effects and thereby assist USFWS in reaching a biological opinion, the planning partners will need to specify the proposed duration for the MSHCP and ITP(s). The cumulative effects analysis is tied to foreseeable future events that correspond to the timeframe of the projects’ impacts or the timeframe of the MSHCP, whichever is longer. Without a specified duration, the scope of the cumulative effects analysis cannot be adequately planned.

¹²¹ 50 C.F.R. § 402.14(g)(4) (emphasis added).

SUMMARY

In summary, the MSHCP should cover additional ESA endangered, threatened, and candidate species. It should also provide a second tier of protection for bird species that are vulnerable to the collision and habitat risks of wind development, and which have been identified by USFWS and ABC as in need of conservation action. Wind energy development should be excluded from ecologically valuable areas, such as in designated critical habitat, near bat hibernacula and habitat, in ABC Red Zones, and within migratory routes. These no-development zones can help delineate the covered land for the MSHCP's boundaries. Take of birds and bats should be avoided and minimized through appropriate siting, design, and operational measures. The MSHCP's mortality monitoring program and adaptive management provisions must be clearly defined, and any actions that are to be required of project developers in response to information gained through adaptive management or in response to changed circumstances must be fully specified.

With respect to the permitting structure of the MSHCP, the planning partners should be cognizant of USFWS's supervisory role and responsibilities under the ESA and implementing regulations. Additionally, under either proposed approach, the individual ITPs or Certificates of Inclusion should be tailored to incorporate site-specific and project-specific avoidance, minimization, and mitigation measures, and the planning partners need to develop a system for holding permittees accountable for noncompliance. Finally, looking forward to the next stages of the planning process, the MSHCP should evaluate the full range of potential effects due to issuing ITPs on a regional scale.

In closing, thank you for this opportunity to comment. The MSHCP could be a strong tool for facilitating both wildlife conservation and wind power, but it will require careful planning and implementation. We look forward to further participation in the planning process as it develops. Please add CLC and ABC to the notification list, using the names and contact information below.

Sincerely,

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