

FINDINGS AND RECOMMENDATIONS
FOR THE ISSUANCE OF A SECTION 10(a)(1)(B)
INCIDENTAL TAKE PERMIT
ASSOCIATED WITH THE
FOWLER RIDGE WIND FARM HABITAT CONSERVATION PLAN

I. DESCRIPTION OF THE PROPOSED ACTION

A. Introduction

The U.S. Fish and Wildlife Service (Service) proposes to issue an Incidental Take Permit (Permit) for 21 years to Fowler Ridge Wind Farm LLC, Fowler Ridge II Wind Farm LLC, Fowler Ridge III Wind Farm LLC and Fowler Ridge IV Wind Farm LLC (collectively referred to as Fowler Ridge) (Permittees) for the Indiana bat (*Myotis sodalis*), a Federal and State listed endangered species. The Service is authorized to complete this action under the authority of section 10(a)(1)(B) and section 10(a)(2) of the Endangered Species Act of 1973, as amended (Act). The purpose of the Permit is to authorize the incidental take of Indiana bats associated with the operation of Fowler Ridge Wind Farm (FRWF) (the Project) in Benton County, Indiana.

In support of their section 10(a)(1)(B) permit application, and as required by the Act, the applicant has submitted to the Service a habitat conservation plan entitled “Fowler Ridge Wind Farm, Benton County, Indiana, Indiana Bat Habitat Conservation Plan” (HCP) (Fowler Ridge 2013). The effects of the Service issuing the section 10(a)(1)(B) permit are analyzed in the Service’s Biological Opinion (USFWS 2014). The Service’s Final Environmental Impact Statement (USFWS 2013) for the Project was also used in preparation of this statement of findings. All of these documents are incorporated by reference as described in 40 CFR § 1508.13.

The Service has determined that activities conducted in compliance with the incidental take permit are not likely to jeopardize the continued existence of the Indiana bat. This document presents the Service’s analysis and finding regarding whether the HCP meets the incidental take permit issuance criteria described in section 10(a)(2)(B) of the Act.

B. Project Description and Project Area

The FRWF is being developed in four separate phases for a total of 750 MW. The Project currently consists of 355 wind turbines in three phases (Phases I, II, and III) in western Indiana in Benton County near the Illinois state line. Up to an additional 94 turbines are currently planned for construction of Phase IV in 2014.

The proposed Project area includes lands leased by the Permittees for the operation of the FRWF. The wind turbine generators (WTGs) constructed for the Project are the primary component that may cause take of the Indiana bat; therefore, the project area includes the area in which all 355 of

the existing Phases I, II, and III turbines will be located, plus the area in which the proposed locations of the up to 94 additional Phase IV turbines will be located. In addition, the Project area includes land leased for other facilities associated with the FRWF, such as the collection system, switchyard, meteorological tower, and connector lines.

The total area under lease for the FRWF Phases I, II, and III consists of 239 landowners and is approximately 23,310 hectares (ha; 57,600 acres [ac]) in size. The landcover/vegetation type in which the FRWF was constructed is agricultural, primarily corn (*Zea mays*) and soybean (*Glycine max*) fields. All temporarily disturbed areas from construction and all area above underground facilities (e.g., collector lines) for Phases I, II, and III were restored to the agricultural vegetation type, post-construction. Similar in type, an additional 50 landowners and approximately 2,590 ha (6,400 ac) are under lease for Phase IV. All temporarily disturbed areas from construction and all areas above underground facilities will also be restored to pre-construction vegetation after construction. All leases are signed for a duration of 30 years with an option to extend to 50 years, and are recorded with their respective county.

The proposed term of the ITP is 21 years. This 21-year ITP term provides for a minimum 20-year functional operational life of all turbines in each phase (Phases I, II, III, and IV).

C. Covered Species

The Permittees are applying for an ITP for the Indiana bat for the covered activities as described below. The Indiana bat is currently listed as endangered under the ESA (see USFWS 2012a, 2012b). Currently no other listed species are known to occur within the project area.

D. Types of Activities Covered

The Permittees have determined which activities could potentially result in incidental take of Indiana bats, that are reasonably certain to occur, and for which the applicant has control. Therefore, the Permittees are requesting the following activities be considered covered activities under the HCP:

1. Operation of the existing 355 turbines (Phases I, II, and III) over the 20-year operational life-of-phases, started in 2009; and
2. Operation of up to 94 additional turbines (Phase IV) over the 20-year operational life-of-phase, expected to begin in 2015.

The Permittees will implement conservation measures to minimize and mitigate potential take that may occur as a result of Project operations.

E. Conservation Strategy

The purpose of the HCP is to avoid, minimize, and mitigate effects to the Indiana bat. The conservation strategy contains the following: (1) identification and implementation of incidental

take avoidance, minimization, and mitigation measures to reduce impacts to the Indiana bat; (2) monitoring, reporting and notification requirements; and (3) responses to changed circumstances. Incidental Take Avoidance, Minimization and Mitigation Measures

The proposed action describes a number of measures to avoid, minimize or mitigate the adverse effects to the Indiana bat. Collectively these proposed actions reduce take of Indiana bats, restore and protect summer habitat, and restore a Priority 1 hibernaculum. These measures include:

1. Feathering the turbine blades up to a cut-in speed of 5.0 meters per second (m/s [11.2 miles per hour]) during the fall migration season, August 1 – October 15. Feathering involves changing the pitch of the turbine blades so that they are parallel to the wind and, therefore, are rotating very slowly, if at all. Previous studies at the FRWF and other facilities have shown that feathering turbine blades below a higher cut-in speed significantly reduces the number of bat fatalities. Based on data collected at FRWF, it is estimated that feathering turbine blades below 5.0 m/s wind speed will reduce bat fatalities by at least 50 percent from normal operation levels.
2. Restoring and permanently protecting 260 acres of summer habitat within the range of one or more extant maternity colonies. Lands targeted for protection and restoration will be at least 60 acre blocks within the home range of a maternity colony located in Putnam, Tippecanoe, Vermillion, or Warren counties, Indiana (roughly equivalent to the local watershed of FRWF).
3. Re-gating of Wyandotte Cave, a Priority 1 hibernaculum located in Crawford County, Indiana. The new gate will protect approximately 10,000 vulnerable bats that hibernate in an area between the entrance to the cave and the current gate.

Monitoring, Reporting, and Notification

The HCP proposes fatality monitoring at the wind farm site and biological monitoring at the summer habitat mitigation site(s). The monitoring, reporting, and notification requirements focus on the collection of fatality data at the wind farm, success of the proposed restoration at the summer mitigation site(s), the continued presence of a maternity colony in the summer mitigation site(s), and a notification process necessary for the Service to ensure HCP compliance. These requirements include:

1. Annual mortality monitoring and reporting of bat and bird carcasses found at search turbines during the fall, August 1 – October 15, at the FRWF for the operational life of the project (21 years);
2. Habitat suitability and colony presence monitoring and reporting of potential summer habitat mitigation areas in the year prior to acquiring the habitat;

3. Monitoring and reporting of restoration success and invasive species presence at summer mitigation sites three years and seven years after implementing mitigation activities;
4. Biennial aerial monitoring and reporting of summer habitat mitigation areas to begin two years after implementing mitigation activities;
5. Indiana bat maternity colony persistence monitoring and reporting at summer habitat areas every three years after implementation of mitigation activities;
6. Notifying the Service within 24 hours if any eagles or federally threatened or endangered species carcasses are discovered during fall mortality monitoring;
7. Notifying the Service within 48 hours of any operational changes made as a result of adaptive management.

Unforeseen and Changed Circumstances

HCP assurances ('No Surprises'), described in 63 FR 8859, provides a foundation for contingency planning in a HCP. The contingency planning is addressed by identifying potential unforeseen and changed circumstances and the appropriate response to these events. Unforeseen circumstances means changes in circumstances that could not be anticipated or planned for that result in a substantial and adverse change in the status of a covered species. Changed circumstances are those changes that can be reasonably anticipated or planned for. Should they occur, the process for responding to them in 50 CFR 17.32(a)(5) or 17.22(a)(5) will be followed.

The HCP identifies the following as foreseeable changed circumstances warranting planning consideration: 1) climate change, 2) drought, 3) flooding; 4) fire, 5) tornadoes, and 6) WNS or other diseases. Each of these potential changed circumstances are addressed in the HCP, along with descriptions of triggers that will indicate the circumstances have occurred and responses that can be implemented and measured for effectiveness (see HCP Section 8.4).

II. ANALYSIS OF EFFECTS

The Service has determined that the impacts likely to result to the Indiana bat from the proposed action will be minimized and mitigated to the maximum extent practicable by measures described in the HCP and the associated Permit. The effects of the proposed action on the Indiana bat are fully analyzed in the HCP and the Service's Biological Opinion (BO), which are incorporated by reference, and a summary of the analysis is provided below.

For the proposed Project, effects were analyzed for Indiana bats that migrate through the Action Area. There is no Indiana bat habitat in the Action Area; we assumed that the only Indiana bat use of the area is bats flying through the airspace above FRWF during migration. Effects of proposed mitigation, which have been incorporated into the project, were assessed. The Action Area and all proposed mitigation sites are within the Midwest Recovery Unit (RU). All effects

were evaluated as they pertain to the Indiana bat population within the Midwest RU, and local populations (summering or wintering populations to which impacted bats belong) within the Midwest RU.

A hierarchal framework was used to analyze the effects of the proposed project to Indiana bats, and included the following steps: 1) effects to individuals, 2) effects to maternity colonies and hibernating populations, 3) effects to the Midwest Recovery Unit, and 4) effects to the rangewide population. We expect that a maximum of 184 Indiana bats will die as the result of interactions with wind turbines at FRWF during the fall migration period over the 21-year life of the project. In step 2, we analyzed the impacts of the taking of 184 individuals on the maternity colonies and hibernating populations to which those individuals belong.

To “assign” bats passing through FRWF to maternity colonies and hibernating colonies, we used a model that simulated Indiana bat migration pathways through FRWF (WEST 2013). The model incorporated data on the location (and Indiana bat population size) of known hibernacula, known migration distances, and maternity colony habitat characteristics. The WEST (2013) model result was that 29 maternity colonies are within the maximum migratory distance of the Action Area and that some individuals from those 29 colonies will be exposed to the project. We assumed that individuals from all 29 colonies will be similarly exposed to the wind turbines. For this reason, take of adult females per year was equally divided among all 29 colonies. Relative to hibernating colonies impacted by the proposed project, the WEST (2013) model result was that 48 hibernacula are within the maximum migratory distance of the Action Area and that portions of their populations would be exposed to the project. However, four hibernacula in Indiana – Coon, Ray’s, Wyandotte and Jug Hole Caves – accounted for 75% of predicted bat encounters with the Action Area. To simulate the impacts of take on hibernating colonies, we modeled that 100% of the take impacted only these four hibernacula.

Using the demographic model developed by Thogmartin et al. (2013), we modeled these populations over the next 50 years under two scenarios each for maternity colonies (1) and hibernacula (2) – the “Baseline” scenario (A) with no take from the project and the “Expected Take” scenario (B) that included project take. We calculated three metrics for both the “Baseline” and “Expected Take” scenarios: probability of extinction in 50 years, median time to extinction, and median ending lambda (population growth rate) after 50 years. We then evaluated the difference in the metrics between the two scenarios; we defined an appreciable difference as a greater than 5% change in any of the metrics between the two scenarios. If any of the metrics approached this 5% change threshold, we would further evaluate the impacts.

We compared the results of each Baseline scenario (1A, 2A) to the corresponding Expected Take Scenario (1B, 2B).

Scenarios 1A and 1B: The Thogmartin et al. (2013) model predicted that the maternity colony that we modeled had a median time to extinction of 19 years (with a median ending lambda at 50 years of zero), regardless of whether or not individuals from that colony encountered the Expected Take from the project. That is, the median time to

extinction and ending lambda were not different for the Baseline scenario (1A) and the Expected Take scenario (1B). Further, the probability of extinction for the Expected Take scenario was less than 1% different compared to the Baseline scenario (probability of extinction was 0.92% higher for the Expected Take scenario). Therefore, based on

these metrics we concluded that take from the project will not cause an appreciable difference in the fitness of the maternity colony.

Scenarios 2A and 2B: For the Expected Take scenario (2B) with take allotted among four hibernacula, the results did not show appreciable reductions relative to the Baseline scenario (2A) in any of the metrics for any of the four hibernacula. For every modeled hibernaculum, regardless of take, there was no probability of population extinction within 50 years. Take also had a negligible impact on the ending lambda of the hibernacula colonies. Median ending lambdas for the Expected Take scenarios were very similar to the Baseline scenarios for all hibernacula (less than 1% change in median ending lambda). Therefore, based on these metrics we concluded that the project will not cause appreciable reductions in the fitness of the hibernating colonies to which the taken individuals belong.

Since the project does not cause an appreciable difference in the fitness of the maternity colonies or hibernating populations, we concluded that it is unlikely that the proposed project will cause appreciable reductions in the likelihood of survival and recovery of Indiana bats within the Midwest Recovery Unit or the rangewide population.

III. PUBLIC COMMENT

The Service determined that this Project warranted an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA) (42 U.S.C. §4321 et seq.). The Service formally initiated public scoping and an environmental review of the project through publication of a Notice of Intent to prepare an Environmental Impact Statement in the Federal Register on May 25, 2011 (76 FR 30384–30386). The Service also conducted outreach by press release and public notification to inform interested parties to request comments on the scope of the NEPA analysis. A public scoping meeting was held on June 7, 2011 in Fowler, Indiana. A total of 17 written comments were received during the scoping comment period identifying issues about the proposed action and the preparation of the NEPA document. These comments were carefully reviewed and categorized into the issues that informed the analyses in the EIS.

During the EIS development, the Service and the Permittees consulted with the Indiana Historic Preservation Office in conjunction with obligations to fulfill requirements under NEPA and Section 106 of the National Historic Preservation Act (16 U.S.C. §§ 470a to 470w-6). Section 106 consultation with the Indiana Historic Preservation Office was concluded with a Programmatic Agreement.

On April 5, 2013, the Service published the Draft EIS and Draft HCP in the Federal Register (78 FR 20690–20692). One public information meeting was held during the comment period, on April 18, 2013 in Fowler, Indiana. Public comments were accepted during a 60-day period following publication of the Federal Register Notice of Availability. Ninety-five comments were received and were taken into account in assessing Project impacts and resulted in some modifications in the EIS and HCP. Responses to comments on the Draft EIS and Draft HCP can be found in Appendix I of the Final EIS and are incorporated herein by reference.

The Final EIS and Final HCP were published in the Federal Register for review on January 17, 2014, for a 30-day period (79 FR 3224-3225). Comments were received from one organization. The process of reviewing and considering these comments led to no changes to the final HCP or final EIS. A summary of the comments and the Service’s responses are below:

United States Environmental Protection Agency – Letter of February 5, 2014

Comment 1: EPA reiterates their previous recommendation that motion detection lights be installed in the turbine nacelles to ensure that lights are not inadvertently left on.

Response: The Permittees have committed to incorporating the importance of light management into their personnel training program. For the Service’s full response to EPA’s previous comment on this matter refer to the Final EIS, Appendix I, Section 1, Comment No. 89.

Comment 2: Permitting for temporary stream crossings should be coordinated under Sections 404/401 of the Clean Water Act with both the U.S. Army Corps of Engineers (USACE) and the Indiana Department of Environmental Management (IDEM).

Response: Prior to construction the Permittees will consult with appropriate state and federal agencies regarding any permit requirements or other authorizations that may be required as detailed in the Final EIS, Table 1.2. For the Service’s full response to EPA’s previous comment on this matter refer to the Final EIS, Appendix I, Section 1, Comment No. 83.

IV. INCIDENTAL TAKE PERMIT CRITERIA - ANALYSIS AND FINDINGS

Section 10(a)(2)(A) of the Act requires that no permit may be issued by the Service authorizing any taking unless the applicant submits a conservation plan that specifies the following: the impact that will likely result from such taking; what steps the applicant will take to minimize and mitigate such impacts and the funding that will be available to implement such steps; what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and such other measures as the Service may require as being necessary or appropriate for the purposes of the plan. Section 10(a)(2)(B) of the Act mandates that the Service issue a permit if the taking will be incidental; the impacts of such taking are minimized and mitigated to the maximum extent practicable; the applicant assures adequate funding for the plan; and if the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

With regard to this specific project, permit actions, and section 10(a)(2)(B) requirements, the Service makes the following findings:

1. The taking will be incidental.

The Service finds that the taking of Indiana bats under the HCP will be incidental to otherwise lawful activities. The activities for which incidental take coverage are sought under the Permit is the operation of the Fowler Ridge Wind Farm in Benton County, Indiana. Any take of Indiana bats from wind energy generators associated with the operation of the wind energy facility will be incidental to, and not the purpose of, this lawful activity.

2. The Permittees will, to the maximum extent practicable, minimize and mitigate the impacts of taking of covered animal species and the effects to other Covered Species that may occur within the Permit Areas.

The Service finds that Fowler Ridge will minimize and mitigate the impacts of take of Indiana bats to the maximum extent practicable. They have developed a HCP, pursuant to the incidental take permit requirements codified at 50 CFR 17.22(b)(1) and 50 CFR 17.32(b)(1), which require measures to minimize and mitigate the effects of issuing the Permit. Under the provisions of the HCP, the impacts of take will be minimized, mitigated, and monitored through the following measures:

- (a) Identification and implementation of incidental take avoidance and minimization measures to reduce impacts to the Indiana bat, as described above in Section D and in Section 5.2 of the HCP;
- (b) Restoring and permanently protecting summer habitat within the range of one or more extant Indiana bat maternity colonies;
- (c) Permanently protecting a vulnerable population of Indiana bats at a Priority 1 hibernaculum; and
- (c) The establishment of a monitoring and reporting plan to ensure the success of the mitigation and notification of the Service.

To make the finding that the conservation measures included in the HCP avoid, minimize and mitigate the impacts of take to the maximum extent practicable, the Service must first evaluate whether the conservation measures are rationally related to the level of take anticipated under the plan. Take is defined under the Act to include those actions that harass, harm or kill listed fish or wildlife. In effect, the conservation measures need to address the biological needs of the Indiana bat in a manner that is commensurate with the impacts to the species allowed under the HCP.

The Service believes the level of avoidance, minimization, and/or mitigation provided for in the HCP compensates for the impacts of take of the Indiana bat that will or could potentially occur under the plan. The primary form of take is direct mortality resulting from interactions with the wind turbine generators associated with the proposed action.

The Service further concludes that with respect to the Indiana bat the impacts of take will be effectively minimized and mitigated by three conservation actions. First, the project will reduce take by at least 50% by feathering turbines up to a cut-in speed of 5.0 m/s during the fall migratory period. Second, 260 acres of known Indiana bat summer habitat will be restored and protected. Third, vulnerable Indiana bats that hibernate within a Priority 1 hibernaculum will be protected through re-gating of the cave entrance.

To make a finding that the HCP minimizes and mitigates the impacts of take to the maximum extent practicable, the Service first must find that the minimization and mitigation measures provided under the plan are rationally related to the level of take anticipated under the plan. As explained above, the Service believes the HCP prescriptions effectively compensate for the take anticipated to occur.

Three alternatives were considered in the HCP to determine its practicability: complete operation curtailment, reduced operational curtailment, and the proposed action. Under the first alternative, take of Indiana bats would be avoided by completely curtailing the turbines at night during the fall migratory season. As a result, no section 10(a)(1)(B) permit would be issued and no HCP would be implemented by the applicants. This alternative was rejected because it would not meet the purpose and need of the Project, and the negative effects on the Permittees would be significant and the Project would not be economically feasible. Under the reduced operational curtailment alternative, the turbines would be feathered up to a cut-in speed of 4.0 m/s during the fall migratory period. This proposal was rejected because there is insufficient evidence that this operational strategy will provide an adequate reduction in take of Indiana bats.

In addition to evaluating the effectiveness of the minimization and mitigation provided under the HCP, the Service must also evaluate whether these measures minimize and mitigate the impacts of take "to the maximum extent practicable." This requires evidence in the record that additional mitigation would not be feasible. The Permittees provided confidential information related to financial and contractual agreements that must be met in order to maintain a financially viable project. Based on this information, the Service determined the minimization and mitigation measures will minimize and mitigate the impacts of take of Indiana bats to the maximum extent practicable. The FRWF confidential information can be found in Appendix J of the Final HCP and is incorporated herein by reference.

3. The applicant(s) will ensure that adequate funding for the plan and procedures to deal with unforeseen circumstances will be provided.

Fowler Ridge warrants that it has, and will expend, the funds identified in Chapter 6 of the HCP, as such funds may be necessary to fulfill its obligations under the HCP. FRWF will establish a

Surety into which the Permittees will make scheduled payments to provide funds for monitoring, mitigation, annual meetings, reporting, and contingencies for adaptive management and changed circumstances in advance of the time at which they are needed.

The Permittees will place funding in the Surety in an amount sufficient to cover the costs of monitoring required for the upcoming year. The Surety will be made payable to the independent consultant selected by FRWF, and approved by USFWS, to conduct the monitoring. Funding for winter habitat mitigation will be guaranteed by increasing the cash balance of the Surety to an amount equal to the funding required to complete these activities at least one year before they are required. Funding for land acquisition and restoration for summer habitat mitigation will be guaranteed by increasing the cash balance of the Surety to an amount equal to the funding required to complete the mitigation at least one year before the mitigation is required. Funding for acquisition of 48.6 ha of summer habitat will be placed in the Surety in Year 9, one year before it is needed. Funding for the acquisition of the remaining 48.6 ha of land will be placed in the Surety in Year 13, one year before it is needed. Funding for monitoring (including surveys and reporting for habitat suitability, tree survival, restoration success, and colony presence/persistence) of summer habitat mitigation will be self-funded through the annual operation and maintenance budget, although, similar to mortality monitoring, funding for one year of mitigation monitoring will be placed in the Surety in advance of the year it is needed.

The Permittees will create a changed circumstance Surety in the amount equal to the cost of the original winter habitat mitigation project in Year 1 of the ITP (\$48,571), the cost estimate for acquisition of 46.8 ha of summer habitat in Year 10 (at an estimated cost of \$8,649/ha [\$3,500/ac]) in 2013 (and adjusted for inflation at 2.9% per year –total of \$558,989) and restoration and maintenance of summer habitat in subsequent years (\$723,765), for a total changed circumstance Surety of \$1,331,153. Evidence of the Surety will be provided to the USFWS in Year 13 of the ITP.

The Permittees will create a contingency fund to provide a reasonable buffer if costs are higher than anticipated. The Contingency Fund takes 5% of the annual base costs that will be placed in a Surety to provide funding assurance. This equals a total contingency base of \$1,352,449; 5% of which equal \$67,622.

4. The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

The Service finds that the taking to be authorized under the proposed Permit will not appreciably reduce the likelihood of the survival and recovery of the Indiana bat in the wild. The Act's legislative history establishes the intent of Congress that this issuance criterion be identical to a finding of "no jeopardy" pursuant to section 7(a)(2) of the Act and the implementing regulations pertaining thereto (50 CFR 402.02). As a result, the Service has reviewed the HCP under section 7 of the Act. In the BO, which is incorporated herein by reference, the Service has concluded that the issuance of the proposed Permit is not likely to jeopardize the continued existence of the Indiana bat. Our conclusion is based on the results of the effects analysis that indicate the project

does not cause an appreciable difference in the fitness of the maternity colonies or hibernating populations. Therefore, we conclude that it is unlikely that the proposed project will cause appreciable reductions in the likelihood of survival and recovery of Indiana bats within the Midwest Recovery Unit or the rangewide population.

In addition to the Effects from the proposed action, the implementing regulations require the Service to evaluate the effects of the action taken together with cumulative effects. Cumulative effects include the effects of future state, tribal, local or private actions that are reasonably certain to occur in the Action Area considered in the BO. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

As stated in the BO, the only known Indiana bat use of the Action Area is that the airspace over FRWF is used by migrating bats during fall migration. Therefore, actions on the ground (e.g. tree clearing, road construction) will not affect Indiana bat habitat, because none is present. We also do not anticipate that Indiana bat habitat will develop in the action area in the foreseeable future. Land cover in the Action Area is over 93% cultivated crops, 2% hay/pasture, and less than 1% forest; the area is likely to continue to be dominated by agriculture to the extent that it will not become suitable for Indiana bats. The Service is unaware of any future state, tribal, local or private actions, other than the proposed project, which would impose significant cumulative effects on the Indiana bats that use the area.

Similarly, there is no designated critical habitat for the Indiana bat in or near the Action Area. Thus, cumulative effects to critical habitat, from the proposed action in concert with any future state, tribal, local or private actions in the Action Area, are not anticipated.

After reviewing the current status of the Indiana bat, the environmental baseline for the Action Area, the effects of the proposed actions at Fowler Ridge Wind Farm, and the cumulative effects, it is the Service's biological opinion that construction and operation of FRWF, as proposed, is not likely to jeopardize the continued existence of the Indiana bat.

5. Other measures, as required by the Director of the Fish and Wildlife Service, as necessary or appropriate for purposes of the plan will be met.

The Service finds that all additional measures required by the Service as necessary or appropriate for the HCP are included in the HCP, IA, the Permit, and by extension the BO.

6. The Service has received the necessary assurances that the plan will be implemented.

The Service finds that the HCP provides the necessary assurances that the plan will be carried out by Fowler Ridge Wind Farm LLC, Fowler Ridge II Wind Farm LLC, Fowler Ridge III Wind Farm LLC and Fowler Ridge IV Wind Farm LLC or future permittees by the execution of an Implementing Agreement.

V. GENERAL CRITERIA AND DISQUALIFYING FACTORS -- FINDINGS

The Service has no evidence that the Permit application should be denied on the basis of the criteria and conditions set forth in 50 CFR 13.21(b) - (c).

VI. RECOMMENDATION ON PERMIT ISSUANCE

Based on the foregoing findings with respect to the proposed action, I recommend approval of a permit to Fowler Ridge Wind Farm LLC, Fowler Ridge II Wind Farm LLC, Fowler Ridge III Wind Farm LLC and Fowler Ridge IV Wind Farm LLC for the incidental take of the Indiana bat in accordance with the HCP.

Lynn M. Lewis
Lynn M. Lewis
Acting Regional Director
Regional Director, Region 3

3/14/14
Date

References

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- U.S. Fish and Wildlife Service (USFWS). 2012a. Indiana Bat (*Myotis sodalis*). USFWS Endangered Species Program: Midwest Region. Updated March 6, 2012. Available online at: <http://www.fws.gov/midwest/endangered/mammals/inba/index.html>
- U.S. Fish and Wildlife Service (USFWS). 2012b. Species Profiles. Last updated August 2012. USFWS Endangered Species Program homepage: <http://www.fws.gov/endangered/>; Environmental Conservation Online System (ECOS): <http://ecos.fws.gov/ecos/indexPublic.do>. Species profile for Indiana bat page available online at: <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A000>;
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- U.S. Fish and Wildlife Service (USFWS). 2014. Biological Opinion and Incidental Take Statement for the Application for an Incidental Take Permit for the Federally Endangered Indiana Bat (*Myotis Sodalis*) for the Fowler Ridge Wind Farm, Benton County, Indiana.
- Western EcoSystems Technology, Inc. (WEST). 2013. Indiana bat spatial modeling for the Fowler Ridge Wind Project. Draft unpublished report. 43 pp.