RESOLVING ENDANGERED SPECIES CONFLICTS: WIND FARM HABITAT CONSERVATION PLANNING

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ABSTRACT

Mortality of federally listed bats related to development or operation of a wind facility has never been documented. However, as increasing numbers of facilities are built within the range of species listed under the Endangered Species Act (ESA,1973 as amended), such an impact becomes more likely. Impacts to listed Indiana (*Myotis sodalis*) and Virginia big-eared bats (*Corynorhinus townsendii virginianus*), as well as to any listed animal species including birds such as the whooping crane (*Grus americana*) are of concern to developers/operators because harming listed species is strictly prohibited by Section 9 of the ESA and can result in project injunction or closure, as well as civil and criminal penalties. Specifically, the ESA prohibits "take" of listed species, which may include not only direct mortality, but also harming and harassing such species, which in turn may extend to displacement and impacts to the habitat which supports them.

At the same time, compliance with environmental stewardship goals and legal policy requirements compels us to develop clean, sustainable energy. Wind energy allows power production that is widely compatible with these objectives. There is, therefore, an inherent conflict between our need to comply with the ESA and prevent loss of listed species, and the need to site, permit, and rapidly develop renewable energy generation.

The process for resolving this conflict at the federal regulatory level is defined by Section 10(a)(1)(B) of the ESA, which allows for US Fish and Wildlife or National Marines Fisheries Service issuance of an Incidental Take Permit (ITP) for otherwise legal and non-federal activities that will result in take of listed species. A central component of the ITP application package is a Habitat Conservation Plan (HCP).

Herein, we describe how developers/operators can navigate through the HCP process to resolve conflicts between listed species conservation and wind energy projects to obtain an ITP. We describe timing and major steps in preparing the HCP, including necessary components, requirements, challenges, and benefits.

INTRODUCTION

THE CONFLICT: WIND ENERGY AND LISTED SPECIES

Mortality of federally listed bats related to development or operation of a wind facility has never been documented. However, as increasing numbers of facilities are built within the range of species listed under the Endangered Species Act (ESA,1973 as amended), such an impact becomes more likely. Impacts to listed Indiana (*Myotis sodalis*) and Virginia big-eared bats (*Corynorhinus townsendii virginianus*), as well as to any listed animal species including birds such as the whooping crane (*Grus americana*) are of concern to developers/operators because harming listed species is strictly prohibited by Section 9 of the ESA and can result in project injunction or closure, as well as civil and criminal penalties. Specifically, the ESA prohibits "take" of listed species, which may include not only direct mortality, but also harming and harassing such species, which in turn may extend to displacement and impacts to the habitat which supports them.

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THE SOLUTION: THE HABITAT CONSERVATION PLANNING PROCESS

Section 10(a)(1)(B) of the ESA outlines the process by which a developer/operator may obtain a permit covering take of listed species. This type of permit is called an Incidental Take Permit (ITP), and is issued by the US Fish and Wildlife Service or National Marines Fisheries Service (Service). To obtain an ITP, the developer/operator must complete an ITP application package. A central component of the ITP application package is development of a Habitat Conservation Plan (HCP).

The purpose of developing the HCP and obtaining the ITP is to authorize the take of federally listed species and to ensure that the effects of the authorized take will be adequately minimized and mitigated by the project proponent.

With this introduction, we have established that:

- take of listed species is prohibited by Section 9 of the ESA;
- take of listed species can be authorized via issuance of an ITP under Section 10 of the ESA; and
- the process for obtaining an ITP is through developing an HCP.

Let us assume that a developer/operator has determined, typically in close coordination with the Service that take of a listed species is likely to occur as a result of construction and/or operation of a wind facility and that obtaining an ITP to legally cover this possibility is warranted. Now the important questions are:

- What is the process for obtaining an ITP? What are common challenges in obtaining an ITP?
- What are my responsibilities after I get the ITP?

- How long does it take? How much does it cost?
- What exactly are the benefits of obtaining an ITP?

METHODS

The process through which an ITP is obtained commonly is referred to as the "Section 10 process" or the “HCP Process”. There are three phases to this process:

- HCP development,
- formal permit processing, and
- post-issuance.

Each of these phases is described in more detail below.

HCP DEVELOPMENT

Developing the HCP is an applicant-driven process, and the developer/operator authors the document. However, we strongly recommend the Service be invited to participate at the onset of this phase to avoid the need for renegotiation of the HCP following submission of the application package, ultimately saving the project proponent time and money.

The HCP can be a short or a very robust document depending upon variables such as complexity of the project and the information available about the species involved. The HCP must contain basic but detailed information including a description of the proposed project, existing conditions at the site, and description of the listed species found on the site and their use of the project area. The document must also contain the following elements that often become critical in completing the HCP; preparation of these elements can be both costly and time-consuming:

- Effects analysis - including a determination of how to predict and quantify the amount of take likely to occur as a result of construction and/or operation of the wind facility; and determination of an acceptable level of take (e.g., number of individual animals) that may be covered by the ITP.
- Conservation Program - including measures the developer/operator will take during project implementation to avoid, minimize, and mitigate take of listed species (this will often include Adaptive Management).

Adaptive management is a structured and iterative process for addressing uncertainty wherein responses to defined approaches influence future management actions. The overall intent of adaptive management is to track action, change, and response, and to eliminate uncertainty overtime. Adaptive Management provides developers/operators a mechanism to address uncertainty about impacts to listed species covered in the HCP, while prioritizing project development goals. Adaptive Management Scenarios (AMSs) can be incorporated early in wind project design to evaluate the effect of avoidance, minimization, and mitigation measures under various operational conditions. A developer/operator can use AMSs to evaluate financial impacts of the HCP’s Conservation Program, and to determine if a project can proceed and be compatible with listed species conservation needs. Applying AMSs at wind projects currently provides the best opportunity for limiting effects to listed species, such as bats, at operational wind farms.

In an HCP, AMSs should be tailored to site conditions, support ESA compliance and listed species conservation, and emphasize cost-effective management for the developer/operator. When needed, AMSs should be designed during development of the HCP to resolve conflicts between project financial goals and potential impacts to listed species, and to facilitate a successful conservation approach with agencies - ultimately allowing the project to be permitted and to proceed.

HCP development ends when a "complete application package" is forwarded to the appropriate ITP issuing office. A complete application package consists of a:

- completed HCP,
- permit application form,
- fee (if required),
- draft National Environmental Policy Act (NEPA) document (if requested by the Service), and
- Implementing Agreement (if requested by the Service).

PROCESSING THE INCIDENTAL TAKE PERMIT

This phase involves review of the ITP application package by the appropriate Service office; announcement in the Federal Register of the receipt of the ITP application and availability of the NEPA analysis for public review and comment; intra-Service consultation under Section 7 of the ESA; and determination of whether the HCP meets ESA statutory issuance criteria.

If the Service determines, after considering public comment, that the HCP is statutorily "complete" and that permit issuance criteria have been satisfied, it must issue the ITP.

No mandatory permit processing timelines have been established under Section 10 or its implementing regulations. However, the Service's HCP Handbook (USDOI 1996) describes target permit processing timelines of:

- Less than 10 months for an HCP with an EIS;
- 3 to 5 months for an HCP with an EA; and
- less than 3 months for a low effect HCP (categorically excluded).

POST-ISSUANCE

The post-issuance phase is the period during which the permittee, and other responsible Parties, implement the HCP and its monitoring and funding programs. During this phase, the permittee's responsibilities are to fund and implement the HCP, including post-construction monitoring and/or AMS requirements, as established by terms and conditions of the ITP. The Service's responsibilities, in addition to those identified in the HCP, are to monitor compliance with the HCP and terms and conditions of the corresponding ITP, and to monitor and evaluate the HCP's long-term progress and success. These responsibilities continue for the life of the permit, which is described in both the HCP and ITP.

When an ITP is issued, the Service will notify the general public via a Federal Register notice of the outcome of the permit application. There are also specific notification requirements under NEPA.

DISCUSSION

The time and cost required to complete an HCP varies. Generally speaking, development of a single-project HCP document may take 12-18 months and cost $100,000-$500,000, depending upon project variables.

The following are required to successfully and efficiently develop an HCP:

- Early, consistent, and productive coordination among the developer/operator, the Service, and potentially third-party shareholders, such as state wildlife agencies or private land owners.
- Adherence to the HCP development schedule, as agreed to among all parties and driven by project development requirements.
- A thorough understanding of both the technical (project related), biological (listed species related), and procedural (Section 10/HCP process related) needs and requirements.

With an ITP, risk of the developer/operator incurring unexpected costs and/or project injunctions is substantially reduced. Without an ITP, documented take resulting from construction and/or operation of the project can result in civil and/or criminal penalty under Section 11 of the ESA. Section 11 of the ESA defines penalties for those who knowingly violate the ESA. Penalties include:

- $25,000 in civil penalties per violation;
- $50,000 in criminal fines and 1 year imprisonment; and
- suspension or revocation of any federal lease, license, or permit (resulting in project injunctions and/or closures).

The ITP offers the developer/operator assurances prior to undertaking a project, such as specific, agreed upon descriptions of:

- project construction and operational requirements aimed at conserving listed species (e.g., inventory, monitoring, AMS requirements); and
- constraints on activities (e.g., seasonal restrictions).

Specifically, the Service's "No Surprises" Rule provides assurances to developers/operators holding an ITP, and says that no additional land use restrictions or financial compensation will be required of the permit holder with respect to the covered species, even if unforeseen circumstances arise which indicate additional mitigation is needed for the covered species.

Ultimately, issuance of the ITP protects the developer from federal penalties, provides assurances to the permit holder, and allows the wind project to move forward in a predictable way.

CONCLUSION

An inherent conflict exists between the need to permit and generate renewable energy and the federal, regulatory obligation to protect listed species. The solution for resolving this conflict, obtaining an ITP under Section 10 of the ESA through development of an HCP, can be potentially difficult, costly, and time-consuming. However, the process when executed correctly builds in protection not only for listed species but also for developers/operators.

The effort to obtain an ITP should be undertaken only with the idea of future returns. That is is, the HCP will ultimately allow less money and time to be spent later, will streamline the siting process for a critical element in our country's energy program, and will provide regulatory assurances (e.g., legal coverage) to the permittees. In some cases, HCPs are the only way to keep a project moving forward in light of regulatory criteria that must be met.

REFERENCES

US Department of the Interior and US Department of Commerce. 1996. Habitat Conservation Planning and Incidental Take Permit Processing Handbook.