



HABITAT CONSERVATION PLANS – WHAT, WHY AND HOW FOR LAND MANAGERS

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17 MAY 2016

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EXECUTIVE SUMMARY

The Endangered Species Act of 1973 (ESA) provides for the conservation of endangered and threatened species and their habitats in the United States. In recent years, the ESA has made headlines with new listings and proposals that impact land management, including a proposal to list the northern long-eared bat (*Myotis septentrionalis*) as endangered. The proposal potentially affects more than 35 states, primarily in the eastern half of the country.

In response to a species listing, development of a Habitat Conservation Plan (HCP) is required as part of an application for an Incidental Take Permit (ITP). An HCP is developed to describe the likely effect of an activity and how impacts will be minimized or mitigated. An HCP is intended to provide the opportunity for a partnership between the U.S. Fish and Wildlife Service (FWS) and stakeholders in the shared interest of conserving species and their habitats.

Background

A recent proposal under the Endangered Species Act of 1973 (ESA) is for the listing of the northern long-eared bat (*Myotis septentrionalis*) due to recent population declines across a broad region. It has been proposed to list the species as endangered¹, an action that would impact land management activities in more than 35 states, and primarily in the eastern half of the United States. This proposed listing is significant due to the size of the impacted geographic area and the fact that the population declines are due to the exotic fungal disease affecting bats called white-nose syndrome.² Along with other actions, this proposed listing has led land managers to take a closer look at the ESA and the tools it offers for protecting endangered and threatened species and their habitats.

One tool the ESA offers to land managers is the development of a Habitat Conservation Plan (HCP). These planning documents are developed when management activities are likely to impact listed species. An HCP is required as part of an application for an Incidental Take Permit (ITP) and is developed to describe the anticipated effect of an activity and how impacts will be minimized or mitigated.³ To date, more than 700 HCPs have been developed in support of 826 approved ITPs across the U.S.⁴

While the development of an HCP is a requirement of the permitting process, it can also provide benefits beyond legal compliance. An HCP is intended to provide the opportunity for a partnership between the U.S. Fish and Wildlife Service (FWS) and stakeholders in the shared

¹ The ESA includes two categories of declining species of plants and animals under protection – endangered species and threatened species – defined as: *Endangered* - any species that is in danger of extinction throughout all or a significant portion of its range; *Threatened* - any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Source: <http://www.fws.gov/midwest/wolf/esastatus/e-vs-t.htm>

² White-nose syndrome is a disease affecting hibernating bats, and associated with extensive mortality of bats in eastern North America. The fungus, *Pseudogymnoascus destructans*, or pd, (formerly *Geomyces destructans*), has been demonstrated to cause white-nose syndrome. Source: <https://www.whitenosesyndrome.org/about-white-nose-syndrome>

³ The one-stop-shop to learn about HCPs is: <http://www.fws.gov/endangered/what-we-do/hcp-overview.html>

⁴ FWS database, formerly available at: http://ecos.fws.gov/conserv_plans/public.jsp and accessed 20 Dec 2015. Now available at: http://ecos.fws.gov/tess_public/conservationPlan/ and accessed 16 May 2016.

interest of conserving species and their habitats. A completed HCP can provide stability and regulatory clarity for land managers and land owners engaged in activities with anticipated impacts.

Introduction

The ESA provides for the conservation of endangered and threatened species and their habitats. Included within the ESA are provisions for defining the status of protected species, identification of various alternatives for mitigating potential impacts, and penalties for violation of the law. Also included in the ESA is a provision for the development of HCPs as a tool for conserving habitats and supporting species recoveries. The development of an HCP is required for activities that are anticipated to affect protected species, but an HCP can also be developed for non-listed species or species that have been proposed for listing. An HCP includes a focus on maintaining habitat conditions, and it is increasingly common to develop an HCP to address a number of species of concern within a specific ecosystem type or geographically defined eco-region.⁵ For example, Pacific Gas & Electric collaborated with federal and state natural resource agencies to develop an HCP addressing more than 175 sensitive wildlife and plant species occurring throughout their 74,000 square mile service area in the San Joaquin Valley region of Northern California.⁶ The development of an HCP in advance of a formal listing of a species may contribute to habitat conservation that prevents the need for listing while also getting the required planning documents in-place if listing becomes necessary, thus providing a smooth management transition from non-listed to listed status.

What is a Habitat Conservation Plan?

An HCP is part of the process for applying for an Incidental Take Permit (ITP). An incidental take permit is required in order to exempt landowners from the prohibitions of the ESA when they are engaged in activities that may result in take of endangered and threatened species. A subtle but important clarification is that: *the ITP is intended to address exempting landowners from ESA penalties and enforcement – it is not designed to authorize activities that result in take.*

What is “take”?

A Habitat Conservation Plan (HCP) is required whenever an otherwise-lawful activity will result in the “incidental take” of a listed wildlife species. So, what is “take”?

The Endangered Species Act (ESA) defines “take” as: “...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct.” The ESA also defines “harm” to include significant habitat modification that impairs essential behaviors (e.g., breeding, feeding, or sheltering).

In practice, many everyday activities undertaken by landowners could result in “take”, including timber harvesting, recreational activities, or other land use changes.

The ESA prohibits the “take” of endangered and threatened species, and an “incidental take permit” is required to exempt landowners from the prohibitions of the ESA.

Part of the application for an incidental take permit is the development of an HCP that describes how the impacts will be minimized and mitigated, ensures that the taking will be incidental, and demonstrates the impacts will not significantly reduce the survival and recovery of the species.

⁵ For a discussion of multi-species, habitat-based HCPs, see: <http://www.fws.gov/endangered/esa-library/pdf/20-22.pdf>

⁶ For more information, see: http://www.pge.com/about/newsroom/newsreleases/20080225/pge_launches_industry-leading_habitat_conservation_plan.shtml

In other words, individual landowners need to develop their own HCPs, participate in a collaborative HCP development process, or agree to adopt and implement the mitigations provided in an existing HCP as part of their permit application.⁷

An HCP is part of the permitting process of the ESA. The *permit issuance criteria* listed in the ESA are:

- Taking will be incidental;
- The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of the taking;
- The applicant will ensure that adequate funding for the HCP will be provided;
- Taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and
- Other measures, as required by the Secretary of the Interior, will be met.⁸

The contents of an HCP are defined within the ESA, and are as follows:

- An assessment of impacts likely to result from the proposed taking of one or more federally listed species;
- Measures that the permit applicant will undertake to monitor, minimize, and mitigate such impacts, identification of funding available to implement such measures, and procedures to deal with unforeseen or extraordinary circumstances;
- Alternative actions to the taking that the applicant analyzed, and the reasons why the applicant did not adopt such alternatives; and
- Additional measures that the Fish and Wildlife Service may require.

The development of the HCP also requires meeting what is known as the “Five Points Policy” by including within the HCP:

1. Biological goals and objectives, which define the expected biological outcome for each species covered by the HCP;
2. Adaptive management, which includes methods for addressing uncertainty and also monitoring and feedback to biological goals and objectives;
3. Monitoring for compliance, effectiveness, and effects;
4. Permit duration, which is determined by the time-span of the project and designed to provide the time needed to achieve biological goals and address biological uncertainty; and
5. Provisions for public participation according to the National Environmental Policy Act (NEPA).⁹

⁷ An alternative to applying for an ITP which includes establishing an HCP is to follow FWS guidelines for avoiding take; however, the FWS guidelines may prohibit or severely restrict management activities. For example, FWS guidelines for avoiding take may limit the season or type of timber harvest significantly (i.e., winter-harvest only or restrictive canopy retention requirements).

⁸ Habitat Conservation Plans are legally binding agreements between the Secretary of the Interior and the permit holder.

⁹ The FWS has responsibility for ensuring compliance with NEPA during the HCP development process. The applicant may prepare the draft NEPA analysis for review by the FWS.

Why do land managers develop HCPs?

The development of an HCP is required as part of an application for an ITP which land managers must have if they engage in activities that impact threatened or endangered species. In other words, land managers mainly develop HCPs as part of a legal strategy to demonstrate compliance with ESA and avoid lawsuit(s), enforcement action by FWS, or other negative impacts. However, HCPs can also be developed for non-listed species as a means to stay ahead of potential regulations and associated land management impacts. An HCP can also make consultation with the FWS more efficient. For example, the Pennsylvania Department of Conservation and Natural Resources and the Pennsylvania Game Commission have worked with the FWS to establish an HCP for Indiana bats, allowing the agencies to address impacts across nearly 4 million acres of land over a 30-year period, rather than on a project-by-project basis. The HCP allows the managers to be more proactive in planning for bat conservation.¹⁰

One of the benefits of establishing an HCP is that the FWS provides “No Surprises” assurances to holders of ITPs as long as permit holders are implementing the terms and conditions of the HCPs, permits, and other requirements in good faith. Under the “No Surprises” assurances, permit holders are assured that if “unforeseen circumstances” arise, the FWS will not require the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed to in the HCP without the consent of the permit holder. In effect, the establishment of an ITP can reward early adopters of HCPs.

How is an HCP developed?

The landowner first must decide if an ITP is desirable. An alternative to applying for an ITP, which includes establishing an HCP, is to follow FWS guidelines for avoiding take. However, the FWS guidelines may prohibit or severely restrict management activities, may change at any time, and/or may be variable between FWS regions. For example, FWS guidelines for avoiding take may limit the season or type of timber harvest significantly (i.e., winter-harvest only, or restrictive canopy retention requirements).

Once the landowner decides to seek an ITP, then the landowner is responsible for developing an HCP as part of the application. The complete permit application includes the application form, an HCP, an Implementation Agreement (if applicable), a draft NEPA analysis, and payment of an application fee. The NEPA analysis may lead to an environmental assessment or an environmental impact statement.

The development of a permit application, including the HCP and NEPA analysis can be a significant undertaking for an individual landowner. For this reason, multiple landowners may choose to work together across a region to complete an HCP. There is also an option for a “low effect” HCP in situations involving minor or negligible effects on the species.¹¹ In recent years, there have been several examples of state agencies developing HCPs on a statewide basis to support more efficient permitting processes. The Karner Blue Butterfly HCP developed in Wisconsin with leadership from the Wisconsin Department of Natural Resources was the first

¹⁰ As of January 2014, the PA DCNR and PGC are investigating the inclusion of the northern long-eared bat in the HCP.

¹¹ <http://www.fws.gov/midwest/endangered/permits/hcp/loweffecthcp.html>

statewide HCP and is utilized by private and public land managers throughout the state (also see case study section).¹²

The HCP development process includes a number of components, as outlined in the Habitat Conservation Planning Handbook:¹³

- Determining the appropriate applicant
- Consideration of a steering committee structure, including the role of the FWS
- Preparing the HCP species list
- Involving other agencies
- Treaty rights and trust responsibilities
- HCP elements
 - Identifying Project Impacts
 - Delineation of HCP boundaries
 - Collection and synthesis of biological data
 - Determination of proposed activities
 - Determining anticipated incidental take levels
 - Coordinating the HCP with Section 7 of the ESA (*Federal agency responsibilities for consultation*)
 - Addressing indirect project effects
 - Consideration of plants in the HCP and permit
 - Addressing effects on critical habitat
 - Mitigation Programs and Standards
 - Regulatory standards & relationship to recovery
 - Mitigation for habitat loss
 - Funding recovery measures as mitigation
 - Mitigation for small-scale, low-effect projects
 - Consistency in mitigation standards
 - Adaptive management
 - Monitoring measures
 - Unforeseen circumstances/extraordinary circumstances
 - Amendments
 - HCP funding
 - Alternatives analyzed
 - Additional measures – implementing agreements

The development of an HCP may include establishing a science team. This team may include state, federal, local, and independent scientists with knowledge of habitat needs and other considerations. The science team is responsible for identifying HCP strategies, which are informed by the various scientific reports and prior FWS actions related to the species of concern. Where scientific information is limited, a decision may be made to develop a short-term conservation strategy that is later revised after additional research becomes available.

An HCP Stakeholder Group may also be established to inform the process. For example, the HCP process for the Indiana bat in Pennsylvania included land management agencies, forestry

¹² For more information, see: <http://dnr.wi.gov/topic/ForestPlanning/karner/karnerHCP.html>

¹³ <http://www.fws.gov/midwest/endangered/permits/hcp/hcphandbook.html>

professionals, prescribed fire professionals, and wildlife professionals from conservation organizations, academic institutions, and related business and development interests. Other stakeholders, including the general public, are given the opportunity to participate and comment through the federal review process.

Typical avoidance and mitigation strategies within an HCP may include:

- Payment into a conservation fund or bank;
- Buffers or set-aside areas that protect existing habitat (e.g., buffers around known nesting sites, riparian areas, etc);
- Seasonal protections (e.g., limits during breeding season or other life stages);
- Road management systems (e.g., reduce sedimentation) or restriction on access;
- Habitat structure and component retention (e.g., maintaining large snags);
- Protection of critical areas (e.g., caves); and
- Adaptive management (e.g., integration of new research finding).

An important part of the HCP is establishing biological goals and objectives. In some instances, this may include monitoring for population changes and having goals for population stability or recovery. However in situations where measuring population is difficult (e.g., fisheries or widely distributed populations), most HCPs use quality of habitat as a measure of success.

The development of a multi-species HCP can include grouping species together that have similar habitat requirements to facilitate a more efficient evaluation of management effects and habitat conditions within alternatives (e.g., a habitat-based HCP). HCPs developed within California's Natural Communities Conservation Program are examples of habitat-based HCPs.¹⁴ The FWS also offers the approach of "programmatic HCPs" for county and state governments. This approach allows numerous entities to be involved in the HCP through "certificates of inclusion" which convey the take authorization of the permit to the certificate holder. A programmatic HCP can be used to address a group of actions (e.g., over time and space).

In multi-species or habitat-based HCPs it is important to recognize the potential for trade-offs or competing habitat needs between species of concern within a given geographical region. For example, some species may benefit from increased availability of early successional forest types while other species require late successional habitat. With this in mind, it is often easier and more effective to evaluate current habitat types, determine if any are significantly limited or under-represented, and then establish strategies that will maintain or enhance a diversity of habitat types, including diverse structures, functions, and native plant communities.

What about Safe Harbor Agreements?

An additional tool within the ESA is a Safe Harbor Agreement (SHA) which is associated with an application to the FWS for an Enhancement of Survival Permit (ESP). A SHA involves a landowner who voluntarily intends to take actions on his or her property which contribute to the recovery of species listed as threatened or endangered. The actions taken under the SHA must provide a net conservation benefit. Examples of actions that may result in conservation benefit include the maintenance, restoration or enhancement of existing habitats; reductions in habitat fragmentation; the creation of buffers for protected areas; or testing and development of new management techniques. In exchange for contributing to species recovery, the landowner

¹⁴ For more information, see: <https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans>

receives assurances that the FWS will not require additional or different management activities without the landowner's consent. At the end of the permit period, the landowner may return the property to the baseline conditions that existed prior to the SHA.

Most SHAs are initiated by individual property owners; however, the FWS encourages the development of programmatic SHAs with state, local, or tribal governments that can allow for the inclusion of multiple property owners. Similar to an HCP and ITPs, the SHA and associated ESP protect the landowner from the take prohibitions of the ESA.

In some situations, a SHA can be very compatible with diverse management objectives, including periodic timber harvesting. For example, in the case of longleaf pine restoration and management in the Southeast United States, periodic thinning, low-impact logging, uneven aged timber management, and the use of prescribed fire to maintain an open understory can enhance the habitat and conservation benefits for the threatened gopher tortoise and endangered red-cockaded woodpecker. This management and conservation benefit approach has been supported within SHAs in the region.¹⁵

Case study examples of HCPs affecting forest management

Following are examples of HCPs affecting forestland owners and managers. A complete database of conservation plans and agreements is available from the FWS at: http://ecos.fws.gov/tess_public/conservationPlan/

Karner Blue Butterfly HCP in Wisconsin

The Karner blue butterfly (*Lycaeides melissa samuelis*)¹⁶ is a small (e.g., one inch wingspan) butterfly associated with oak savanna and pine barren habitats found in Wisconsin, Indiana, Michigan, Minnesota, New Hampshire, New York and Ohio (it may also be present in Illinois). The Karner blue caterpillars feed only on the leaves of the wild lupine plant, which severely restricts where the species can survive. The butterfly was federally listed as an endangered species in 1992 due to loss or degradation of its habitat as a result of land development and a lack of natural disturbance needed to maintain lupine and flowering plant growth. The statewide HCP developed in Wisconsin permits roadside maintenance, timber harvests, and other human activities in areas that provide habitat for Karner blue butterflies while ensuring the activities conserve and protect the species.^{17, 18} The HCP in Wisconsin has over 40 partners across the state. The HCP partners agree to follow the avoidance and minimization measures in the HCP during the course of their activities. Through this agreement, the HCP extends permit coverage allowing the partners to conduct activities that may inadvertently "take" the federally endangered Karner blue butterfly. The user's guide for the HCP includes detailed protocols for conserving habitat when conducting a range of activities, including forest management and recreation management. Protocols address specific actions, including mechanical site prep, mowing and brushing, pesticide use, prescribed burning, snow plowing, timber harvest, and timber stand improvement. The complete Wisconsin's Karner Blue Butterfly Habitat Conservation Plan, including the User's Guide, is available at: <http://dnr.wi.gov/topic/ForestPlanning/karner/karnerHCP.html>

¹⁵ For more information, see: <http://www.fws.gov/endangered/>

¹⁶ <http://www.fws.gov/midwest/endangered/insects/kbb/index.html>

¹⁷ http://www.fws.gov/midwest/endangered/insects/kbb/kbb_fact.html

¹⁸ Habitat Conservation Plans for the species were also developed in Indiana and Michigan.

Northern Spotted Owl HCP in Washington State

The northern spotted owl (*Strix occidentalis caurina*) is a federally designated threatened species found in California, Oregon and Washington and was listed in 1990.¹⁹ The HCP prepared in 1997 by the Washington State Department of Natural Resources (WDNR) covered the northern spotted owl and marbled murrelet as well as seven other federal listed species found within the same range, along with anadromous salmonid, and bull trout habitat needs. Since the original listing in 1990, there have been eighteen HCPs developed in relation to northern spotted owl, as well as six SHAs. In 1993 and 1999 there were failed petitions to delist the species, and in 2012 a petition was filed to reclassify the northern spotted owl as endangered¹, which is an active petition as of this writing.²⁰

The complete Washington DNR HCP is available at:

http://ecos.fws.gov/tess_public/conservationPlan/plan?plan_id=18
http://ecos.fws.gov/docs/plan_documents/thcp/thcp_1138.pdf

Indiana Bat HCP in Indiana

Beginning in 2000, the Indiana Department of Natural Resources (IN DNR) first developed a habitat strategy related to bats and in response to concerns about the Indiana bat (*Myotis sodalis*). The *Indiana State Forest Bat Strategy* was based on guidance developed by the Ohio DNR and included practices for providing summer habitat and protecting hibernacula (i.e., caves). The guidance included snag retention, large live tree retention, and riparian buffers with applicability to all state forest lands. The strategies to protect the Indiana bat did not include any seasonal harvest restrictions. Beginning in 2003, the IN DNR engaged in an HCP development process. The measures resulting from this process included management restrictions in areas near high priority bat hibernacula. The restrictions near the hibernacula included required forest cover retention, shagbark hickory (*Carya ovata*)²¹ and snag retention, large tree retention, riparian buffers, and seasonal harvesting and prescribed fire limitations. Between 2003 and 2012, the environmental assessment process continued to develop as new information became available.

Since 2012, the following Indiana bat management guidance has been in place for the IN DNR:

- Maintain 60% canopy cover at landscape level
- Snag retention (excluding salvage)
- Monitor and maintain shagbark hickory at the landscape scale
- Monitor and maintain large live trees at the landscape scale that can provide future large snags
- Follow Best Management Practices (BMPs), including limited harvest within riparian areas
- Seasonal harvest restrictions in areas affected by hibernacula or maternity colonies
- Northern long-eared bat (NLEB)- 4(d) rule addressing known roosts and hibernacula (*added in 2015*)

¹⁹ http://ecos.fws.gov/tess_public/profile/speciesProfile?spcode=B08B

²⁰ The latest information and full listing of federal documents related to the Northern Spotted Owl listing are available at: http://ecos.fws.gov/tess_public/profile/speciesProfile?spcode=B08B

²¹ The unique bark characteristics of shagbark hickory trees provide habitat benefits for Indiana bat. For more information, see: <http://www.conservewildlifenj.org/protecting/projects/bat/indiana/>

With the additional guidance due to the NLEB, the Indiana DNR has decided to pursue a revised HCP to manage the potential impacts from seasonal harvest restrictions as outlined in the FWS guidance for avoiding take. The IN DNR estimates that there would be significantly increased environmental and economic impact from shifting harvesting to the winter season. The increased costs include pre- and post-harvest mitigations and road construction. There are also additional environmental considerations because harvesting impacts to soil and water are reduced when harvesting during summer and early autumn (dry soil conditions).

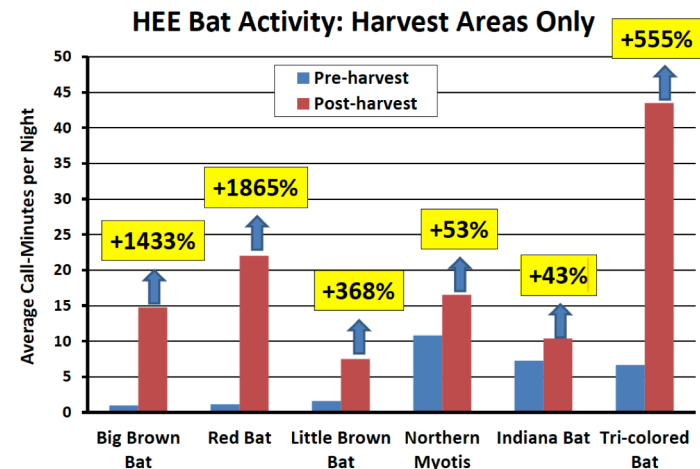
To develop a revised HCP, the IN DNR has engaged in a process to analyze long and short-term habitat effects, alternative management scenario analysis, and take analysis (as detailed in Pauli et al. 2015). There is also ongoing research of roost and foraging habitat use on managed state forests, habitat suitability, and forest succession modeling. Research partners in these efforts include Indiana State University, Ball State University, Indiana University of Pennsylvania, and Purdue University. The research is part of the long-term Hardwood Ecosystem Experiment (HEE) efforts.²²

The research includes pre-harvest and post-harvest acoustical surveys²³ to

evaluate foraging activity in openings, along edges, and in un-harvested sites. This research began in 2007 and has continued since. To date, the findings show that across all species, bats were detected in harvested areas more or equal to intact forest (Figure 1). No species has been found to avoid harvest areas (i.e., they were detected as likely foraging or commuting through the habitat).²⁴ The research of roosting habitat from 2012-2014 found that 54% of all roost trees were in recently harvested areas (67% for Indiana bats, 51% for NLEB).

One of the challenges emerging in the analysis is identifying management strategies that are compatible across multiple bat species. There isn't a management strategy that is a perfect fit for both the Indiana bat and the NLEB; however, analysis indicates the highest suitability with a scenario of a moderate amount of selection harvesting and suitability is lowest in a "no harvest" scenario. To date, the IN DNR has completed several components of the HCP and permit application, including the alternative analysis, habitat effects analysis, "take" estimation,

Figure 1. Indiana DNR Acoustical Bat Survey Results 2007-2014



Source: Haulton, S. 2015. IN DNR.

²² <https://ag.purdue.edu/hee/Pages/Project.aspx>

²³ Acoustical surveys include recording the echolocation calls of bats as the researcher moves along a transect.

²⁴ Generally speaking, evidence suggests these species tend to use harvested areas more than intact forest: big brown bat (favors big openings), eastern red bat, and tri-colored bat. There also seems to be a tendency for both little brown bats and hoary bats to use harvest areas, particularly openings more, but the sample for each is too low to reliably test. In general, Indiana bat and NLEB use is similar between harvested and intact forest, though some of the studies have showed a tendency among Indiana bats to have highest activity rates at forest edges. (IN DNR personal correspondence, 17 May 2016)

avoidance and minimization measures, and mitigation and monitoring commitments. A complete draft of the HCP is anticipated later in 2016. The revised HCP is planned to cover Indiana bat, and NLEB is to be a species that is considered but not covered by the HCP.

For more information:

<http://www.fws.gov/midwest/Endangered/mammals/inba/index.html#hcp>

<http://www.inwoodlands.org/conserving-federally-endangere/>

Pauli et. al. 2015. *The simulated effects of timber harvest on suitable habitat for Indiana and northern long-eared bats*. *Ecosphere* 6(4):58.

Northern long-eared bat – HCP Amendments – Columbia Pipeline Group

In January 2015, the Columbia Pipeline Group (subsidiaries of NiSource, Inc.) completed a *Multi-Species Habitat Conservation Plan Amendment to address Northern long-eared bat*. An ITP had been issued to Columbia in September 2013 addressing impacts for 89 listed and candidate species (42 species were analyzed, 47 additional species were considered by the FWS) within the land covered by the Columbia Pipeline Group. Lands included in “take” areas included tracts in Delaware, Indiana, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, New York, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. After the NLEB was proposed for listing in October 2013, the process for amending the permit and associated HCP was initiated so that NLEB could be added to the ten “take species” for which coverage was granted in the ITP. The duration of the ITP is through 2063 (i.e., 50 years).

The activities addressed within the HCP relate to Columbia’s natural gas systems and include general operation and maintenance, safety-related repairs, and expansion. These activities are recognized to include the potential for tree clearing, tree side-trimming, access road maintenance and construction, herbicide application, and other land use impacts. The impacts to NLEB are anticipated to include risk for potential loss of habitat, crushing bats, flushing bats, entrapment, noise and chemical contaminants, any of which may kill, wound, harm, or harass the species if it is present during the activity.

A swarming and staging habitat model as well as a summer habitat identification model were used to identify impact areas. The summer habitat model was based on the suitable habitat modeling method previously used for Indiana bats, including the use of National Land Cover Database classifications. The analysis built from more than 1,200 known hibernacula records, including 95 records for sites in or near lands covered by the ITP. A set of assumptions were used to estimate impacts to NLEB maternity colonies. These assumptions included using a 1.5 mile radius to define home ranges, an even population distribution, and assuming no overlap in home ranges.

To meet the FWS’s Five Point Policy, the Columbia Pipeline Group’s HCP includes biological goals for NLEBs:

Goal 1 – Permanently protect, restore, enhance and/or manage priority NLEB hibernacula, including establishing and maintaining buffer lands surrounding each priority hibernacula.

Goal 2 – Permanently protect, restore, and/or manage optimal NLEB summer habitat to maximize survival and fecundity. This includes, but is not limited to, maternity sites, foraging habitat, water sources, and travel corridors.

Goal 3 – Permanently protect, restore, and/or manage NLEB fall swarming/spring staging habitat to maximize survival and fecundity. This includes, but is not limited to, roost sites, foraging habitat, water resources, and travel corridors.

The sub-goals within the HCP that support the conservation strategy are:

- *Protect and manage known hibernacula.*
- *Protect and manage (including restoration) existing forested habitat:*
 - o *Swarming habitat within 5 miles of a known hibernaculum; and/or*
 - o *Summer habitat within 1.5 miles of a documented maternity roost tree or within 3.0 miles of a capture (mist-net) record.*
- *If and when suitable control options are available for White-Nose Syndrome, Columbia would fund implementation of these measures at infected hibernacula.*
- *Restore winter habitat conditions in degraded hibernacula that exhibit the potential for successful restoration.*

The mitigation strategy provided for NLEB in the amendment to the HCP references the conservation efforts undertaken by Columbia to offset impact on the Indiana bat. The measures that Columbia will use include a survey process to evaluate the presence of NLEB and/or suitable habitat; alternatively, Columbia can assume presence.

For more information:

<http://www.fws.gov/midwest/Endangered/permits/hcp/nisource/index.html>

Multi-Species Habitat Conservation Plan Amendment, Northern Long-eared Bat January 2015

<http://www.fws.gov/midwest/Endangered/permits/hcp/nisource/2015NOA/pdf/NLEBAment27February2015%20FINAL.pdf>

The Bottom Line

The Endangered Species Act of 1973 (ESA) provides for the conservation of endangered and threatened species and their habitats. In response to a species listing, development of a Habitat Conservation Plan (HCP) is required whenever activity resulting in take is anticipated. An HCP is required as part of an application for an Incidental Take Permit (ITP) and is developed to describe the anticipated effect of the activity and how the impact will be minimized or mitigated. An HCP is intended to provide the opportunity for a partnership between the U.S. Fish and Wildlife Service (FWS) and stakeholders in the shared interest of conserving species and their habitats. The development of a permit application, including the HCP can be a significant undertaking for an individual landowner. For this reason, multiple landowners may choose to work together across a region to complete an HCP. In recent years, there have been examples of state agencies developing HCPs on a statewide basis to support more efficient permitting processes. One of the benefits of establishing an HCP is that the FWS provides “No Surprises” assurances to holders of ITPs as long as permit holders are implementing the terms and conditions of the HCPs, permits, and other requirements in good faith. In effect, this can reward early adopters of HCPs. A completed HCP can provide stability and regulatory clarity for land managers and land owners engaged in activities with anticipated impacts.

Resources

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