

Evolution of Wind Energy HCPs in the Midwest Region

Karen Herrington

Missouri Ecological Services Field Office

Columbia, MO





What is an HCP?

- Agreement between the Service and a non-Federal entity allowing them to undertake activities that may result in the incidental take of listed species
- Permit applicants must avoid, minimize and mitigate all incidental take caused by their actions
- HCPs specify how these activities will be carried out and funded



Midwest Wind Energy HCPs

- First documented Indiana bat fatality in 2009
- 6 total permitted Wind HCPs in the Midwest
 - 1 Ohio: 2013
 - 3 Indiana: 2014; 2016; 2019
 - 2 Illinois: 2015; 2017
- Many more in process: IA, MO, IL, OH, IN
- Individual permits



Regional Approach

- Regional HCP could provide more organized and effective conservation program
- Coordinated effort with 7 states, AWEA and many member companies, FWS/DOI
- S6 Grant to states funded HCP/EIS





MWE MSHCP Basics

- Covered activities: up to 51,000 MW of wind development/operations
- Covered lands: 8 Midwestern states
- 7 Covered species: Indiana, northern long-eared, and little brown bats, bald eagle, piping plover, Kirtland's warbler, and interior least tern



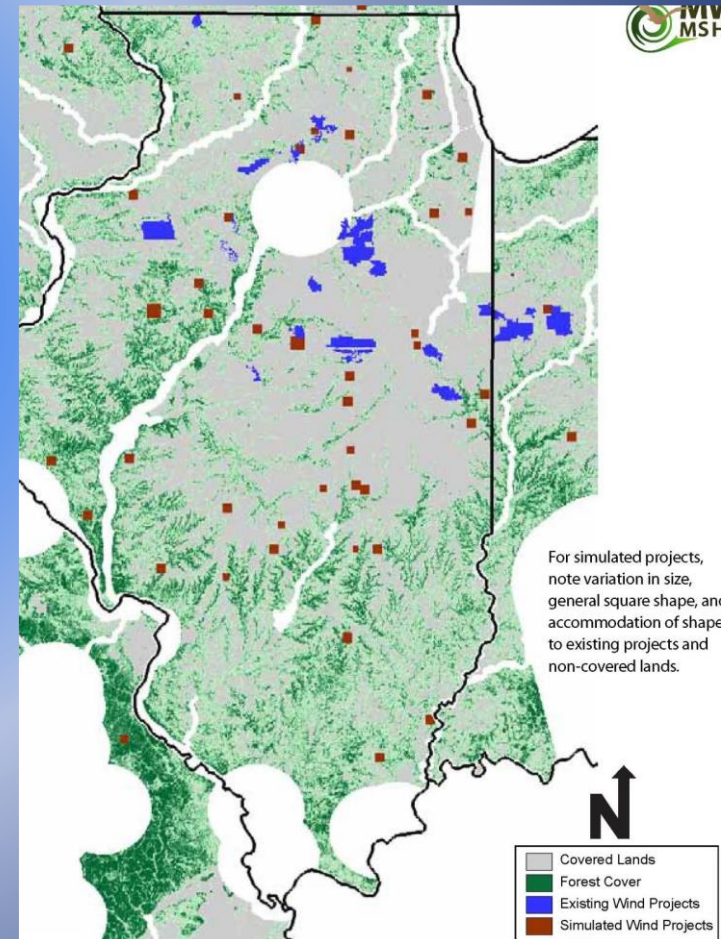
MWE MSHCP Challenges

- Relatively new industry for HCP permitting
- Relatively little known about wind-wildlife interactions and few documented listed bat fatalities
- WNS was emerging threat in Midwest
- Lots of players
- Complex Permit type/structure



MWE MSHCP Innovation

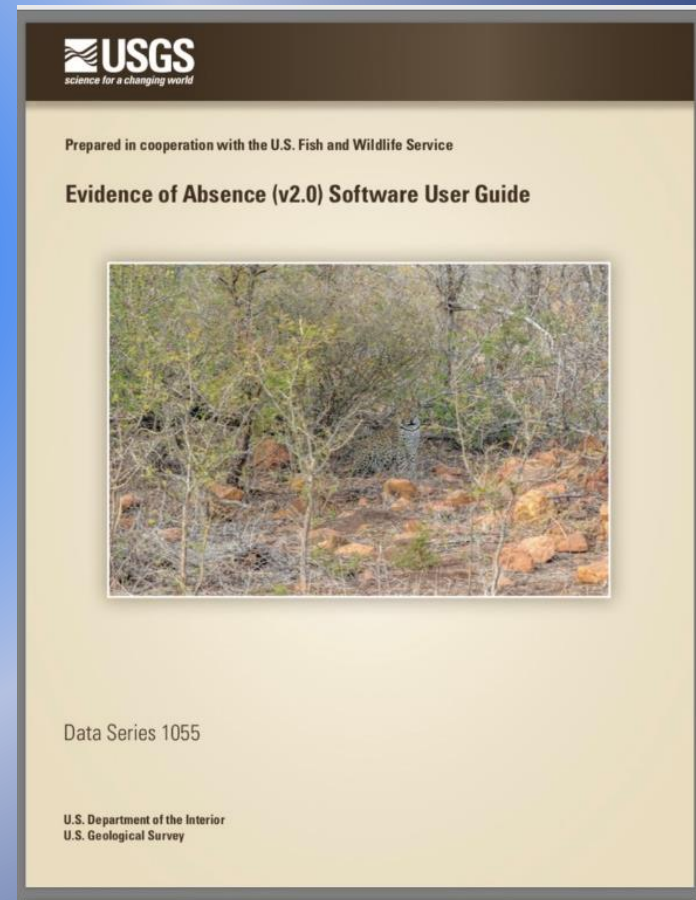
- Where would wind farms be located?
 - Wind build out models
- Where are bats/maternity colonies?
 - Maternity colony models
- What routes do bats migrate?
 - Migration models





MWE MSHCP Innovation

- How to mitigate effectively?
 - developed Bat REAs
- How to monitor effectively?
 - Worked with USGS to develop Evidence of Absence





MWE MSHCP Outcome

- 500+ page EIS and HCP
- Ran out of S6 funding
- Lost industry support due to costs, adaptive management and mitigation implementation issues, and issues with including bald eagles and little brown bats as covered species
- Project Suspended



Lessons Learned

Simplify!

- MSHCP was ambitious given the context
 - relatively new industry, limited data available on impacts
 - lots of species, large area, lots of entities
- HCP and EIS were complex – too many options and new approaches that weren't fully excepted



Lessons Learned

- Develop outline and seek agreement on key aspects early in the process
 - Take estimation
 - Minimization
 - Mitigation
 - Monitoring
 - Adaptive management





Now What?

- MSHCP process provided new and critical tools and more robust understanding of the challenges and needs
- Estimating take of listed bats at any wind facility prior to operation is difficult and highly variable
- Desire more informed HCP process using site specific data to make long term permitting and operational decisions
- Need remains for an HCP template that reduces staff time and improves consistency, permitting time, and industry predictability



Short-Term Low Effect HCP

Used lessons learned and tried to simplify:

- Developed a short-term, low effect HCP framework with key parameters we think industry can accept
- dropped little brown bats, bald eagles, other birds
- reduced EoA to minimum needs for lower risk projects
- Straight-forward adaptive management framework that informs future permit need at end of 6 year term
- Upfront mitigation of 30 acres via ILF, conservation bank, or permittee responsible (if desired)



Short-Term Low Effect HCP

Basic Elements

- Take permitted for 3/species/year
- Feather all turbines below a minimum of 3.0 m/s for the entire all-bat active season (Mar 15 – Nov 15)
- If fall-only risk, feather turbines below 5.0 m/s during the fall migration season (Aug 1 – Oct 15)
- If summer risk, feather turbines below 5.0 m/s from Apr 1 – Oct 15



Short-Term Low Effect HCP

Basic Elements

- Fatality monitoring for years 1-3 at $g = 0.2$ for the spring and fall seasons, and if summer risk, $g=0.2$ during the summer
- For years 4-6, $g = 0.08$ for the spring and fall seasons unless adaptive management indicates otherwise. Also for turbines with summer risk



Short-Term Low Effect HCP

Basic Elements

- If average annual take is less than 1 at end of 6 years, no long-term permit is needed, 5.0 TAL issued
- If average annual take is less than 1 at end of 3 years, option to reduce cut-in speed to 4.0 and continue monitoring at $g=0.2$. TAL issued for 4.0 if annual take is less than 1 at end of 6 years



Short-Term Low Effect HCP

Basic Elements

- If average annual take is 1-3 at end of 3 years, start work on long-term HCP to be issued at year 6
- If average annual take is > 3 in any year or if 2 carcasses of either species are found, begin 6.9 avoidance because take is exceeded and start work on long-term HCP



Short-Term Low Effect HCP

- Presented to AWEA in fall 2018
- Initial feedback: good concept but more desire for a similar framework with a 30 year HCP
- AWEA is currently working on draft HCP following the LEHCP terms provided – we expect something this fall
- Service will consider turning it into template HCP or GCP, likely not a low-effect HCP for 30 year term
- Companies are welcome to use terms now for LEHCP



Hoary Bats

- Focal species – have action plan
- Currently gathering data to refine population models to understand implications of wind fatalities
- What Can you Do?
 - Work with us to preclude the need to list
 - Engage with the “Bats and Wind Coexistence Group”
 - Send us hair and tissue samples for the national repository
 - Feathering and cut-in speeds of at least 5.0 or higher
 - Keep working on deterrents and minimization



Take Home Message

- Still want to work collaboratively with industry
- Goal is to come up with solutions that meet both of our needs
- Contact me if you want a copy of the LEHCP framework:

Karen_Herrington@fws.gov

573-234-5031