

Triggers for Implementing Adaptive Management Techniques for Bald Eagles at Windfarms Once Windfarms are Operational.

*Good adaptive management for windfarms occurs before the windfarm is built. Pre-construction surveys can be used to identify areas of eagle risk and site turbines away from those areas. Surveys can also identify times of the year with high eagle use/increased eagle risk when turbines can be curtailed.

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1. New bald eagle nests built within the 10-mile or 2-mile radius of the project
2. New bald eagle nest built within the project footprint
3. An inactive nest becomes active within the 2-mile radius of the project
4. A change (increase) in the $\frac{1}{2}$ Mean Intersite Distance (MID) around project site (ie: new or increased overlap of MID with project footprint)
5. A significant event that may concentrate eagles near the wind farm
 - a. Example: Black Oak Wind farm is near many WMAs and WPAs. A disease-outbreak of waterfowl may increase eagle concentrations (scavenging).
 - b. Example: Severe winter causes increased deer mortality in the area, concentrating eagles near wind farm.
6. Post-Construction movement surveys that indicate new areas of eagle risk.
7. Model with updated priors specific to bald eagles indicated higher risk level to this project (updated priors can be project specific or elsewhere in the US).
8. An increase in the Local Area Population
 - a. However this would decrease % of LAP taken
9. A change in national or regional status of bald eagles relative to the recovery goals.
 - a. Reduce of take thresholds
10. One or more site-specific mortalities of a non-eagle raptor (hawk, osprey, turkey vulture, etc).
11. Confirmed presence of a golden eagle on site.
12. A site-specific mortality of a bald eagle.
13. Mortality modeling indicates a high degree of uncertainty of actual mortalities (ie: no dead eagles found, however level of effort/area searched does not give confidence that no eagles have actually been killed).
14. Additional infrastructure (new turbines or transmission lines) added to the existing project.
15. An increase in cumulative effects from a new adjacent wind farm.
16. More GOEA triggers?
 - a. Increased incidental sightings of GOEA in county from MOU or ebirds?
 - b. Eagle center radio tracking of GOEA show migration through county or site?

*Conversely, a change in circumstances that could indicate a decreased risk to eagles may be cause for decreasing avoidance and minimization measures (ie: a decrease of eagles nests in the area, etc).

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