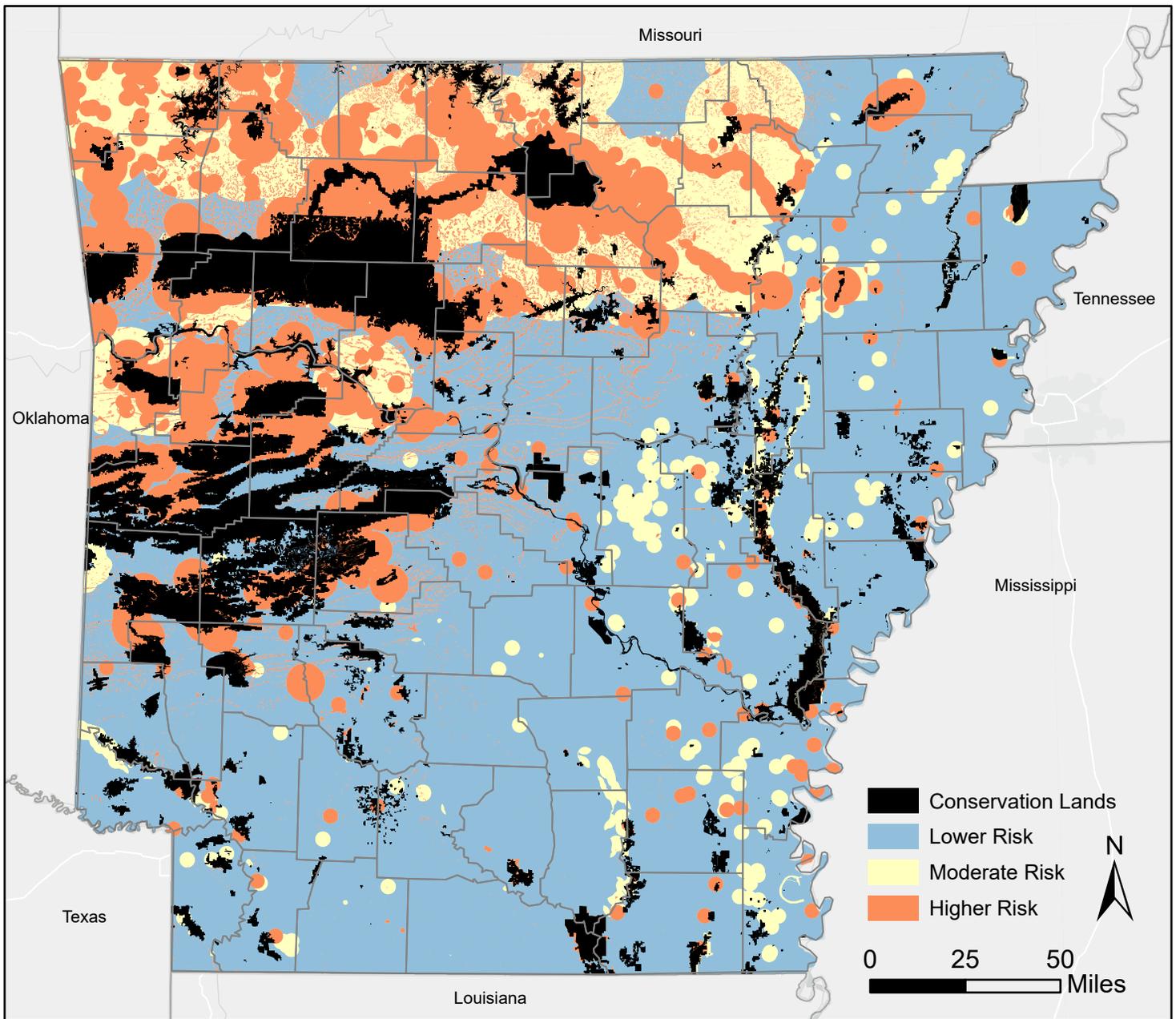




# Wildlife and Habitat Risk Map for Wind Energy Projects in Arkansas



## Explanation of Colors

**Black:** All Federal lands and managed conservation lands, owned and/or administered by Federal, State, or other entities. A wind project developer is encouraged to coordinate with the land manager/owner early in the assessment process to determine the potential risk to species or habitats from a proposed wind project and any needed authorizations for projects proposed on or near these lands.

**Blue:** Areas assigned a lower environmental risk associated with proposed wind energy projects, or areas with no data. Tier 1 and 2 evaluations should be conducted to ensure that no known species of concern or sensitive habitats will be impacted by the proposed project. If Tier 1 or 2 evaluations reveal potential impacts to sensitive habitats or species of concern, further evaluations and studies may be needed.

**Yellow:** Areas assigned a moderate environmental risk associated with proposed wind energy projects. Tier 1- 4 evaluations will likely be needed to adequately characterize the potential impacts of the project.

**Orange:** Areas assigned the highest environmental risk associated with proposed wind energy projects. The Service has data indicating sensitive habitats or species of concern that would likely be adversely impacted by a proposed project. Tier 1-4 evaluations are recommended in these areas.

**Note:** Tier 5 studies may be recommended for any project if the anticipated levels of take are exceeded, to verify that mitigation measures were successful, or to answer a research question.

# Wildlife and Habitat Risk Map for Wind Energy Projects in Arkansas

## ***How to Read This Map***

This mapping project is a collaboration among the U.S. Fish and Wildlife Service (Service) and staff from the Arkansas Game and Fish and Natural Heritage Commissions. It provides general information on the potential environmental risk to species of concern and sensitive habitats from proposed wind energy projects in Arkansas. The purpose of the map is to assist wind energy developers with appropriate siting of proposed wind energy projects as described in the Service's 2012 Land-Based Wind Energy Guidelines ([Land-Based Wind Energy Guidelines | FWS.gov](#)), particularly during Tiers 1 (Preliminary Site Evaluation) and 2 (Site Characterization) of the decision framework. The map provides general guidance and should not be used for final decision-making. According to the Land-Based Wind Energy Guidelines, environmental risks include direct impacts e.g., collisions with turbines and associated infrastructure, habitat loss or degradation from turbines and infrastructure, habitat fragmentation, displacement or behavioral changes, and indirect impacts e.g., reduced nesting and breeding densities and the social ramifications of those reductions, loss or modification of foraging habitat, loss of population vigor and overall population density, increased isolation between habitat patches, loss of habitat refugia; attraction to modified habitats, effects on behavior, physiological disturbance, and habitat unsuitability. The assigned environmental risk categories and corresponding colors presented in the map represent the Service's estimation of the relative environmental risk to species of concern and sensitive habitats within an area. Regardless of the environmental risk associated with a particular area, wind energy developers should coordinate with the Service and other appropriate Federal and State agencies and follow the Land-Based Wind Energy Guidelines to inform the siting and development of any proposed wind energy project.

The boundaries of various layers on the map do not necessarily reflect the mobility of a species of concern, or the potential for interaction with a wind project. In all cases, Tiers 1 and 2 of the decision framework are recommended to ensure that no known species of concern or sensitive habitats will be impacted by the proposed project. If Tier 1 or 2 reveal potential impacts to species of concern or sensitive habitats, then Tier 3 (Field Studies to Document Site Wildlife and Habitat and Predict Project Impacts) of the decision framework may be needed.

For the purpose of this project, species of concern include the following: Federally listed species, migratory birds including areas with high densities of migratory waterfowl, Bald and Golden Eagles, state wildlife action plan terrestrial species, and G1–3 plant species. Other areas identified as having environmental risk include Arkansas Natural Heritage Commission Natural Areas, glades, and areas designated as critical habitat for Federally listed species.

## ***Environmental Risk Categories***

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project. If Tier 1 or 2 evaluations reveal potential impacts to sensitive habitats or species of concern, further evaluations and studies may be needed.

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NOTE: Tier 5 studies may be recommended for any project if the anticipated levels of take are exceeded, to verify that conservation measures were successful or to answer a research question.