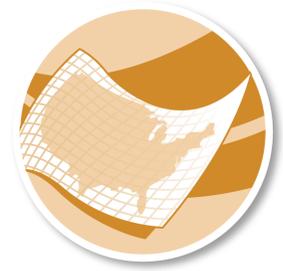


## Landscape Assessment Tool

AWWI'S GIS-based Landscape Assessment Tool (LAT) advances the responsible siting of wind energy projects by supporting cost-effective, preliminary screening for potential sites.



### The Challenge: Screen Early for Sensitive Wildlife and Habitat

In order to facilitate wind energy development while protecting wildlife and natural habitat, wind project developers and decision makers need cost-effective tools that enable them to screen locations for potential wildlife and habitat conflicts early in the siting process.

### AWWI's Approach: Create a GIS-Based, Big-Picture Tool That Collates and Displays Relevant Biological Information

The American Wind Wildlife Institute (AWWI) and The Nature Conservancy (TNC) together have created the Landscape Assessment Tool (LAT), which combines mapping and database functions in a single, interactive GIS-based tool. Users can display web-based maps featuring information culled from over 1,000 data layers relevant to the identification of potential wildlife and environmental impacts and to landscape-level screening for potential project sites.

AWWI continually enhances the LAT with relevant new data layers and software upgrades. Building on recommendations from a workshop on GIS-based tools for renewable energy development held jointly with the Western Governors Association in January 2012, AWWI is continuing to expand functionality of the tool and is developing an online catalogue of decision support tools for renewable energy development.

The LAT is available online at and <http://wind.tnc.org>.

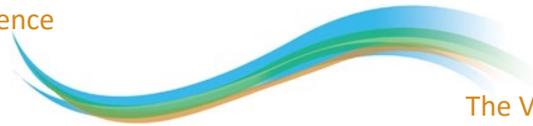
*"AWWI's Wind-Wildlife Landscape Assessment Tool saves valuable time as we look into preliminary, Tier 1 analysis of potential sites for wind energy projects. I can get information, including a full report, in a very short amount of time, which would otherwise take several hours to compile from various data sources."*

*In addition to the time savings for the Tier 1 analysis itself, in a couple of cases, it has helped us quickly eliminate high risk sites from further consideration, which saved considerable time and money."*

Timothy A. Hayes  
Environmental Director,  
Duke Energy  
Renewables

### Golden Eagle Data Layer in the LAT

The screenshot shows the 'Wind and Wildlife Landscape Assessment Tool' interface. On the left, there are panels for 'Species Data' and 'Others Layers'. The 'Species Data' panel includes a search bar, a 'Browse' dropdown set to 'Species TL', and a list of 'Golden Eagle (Aquila chrysaetos)' data layers: Summer Distribution, Winter Distribution, and Year Round Distribution. The 'Others Layers' panel lists various data layers like Migration Count Data, Wind Power, Disturbance, Protected Areas, etc. The main map area shows a map of North America with a data layer for Golden Eagles. A pop-up window for 'Golden Eagle (Aquila chrysaetos)' is open, displaying the following information: Nature Serve Status: Secure; ESA Status: None; Critical Habitat: No; States Listed: CA, AK, CO, KS, MD, ME, ND, NE, NH, NM, NY, PA, TN, TX, WA; Migratory Bird Treaty Act: Yes; and Audubon: View Page. There are 'Metadata' and 'Download' links at the bottom of the pop-up. The map interface includes navigation controls and a 'Take User Survey' button in the top right.



## The LAT: Comprehensive Information At A Glance

The wildlife and habitat data layers of the LAT are collated and evaluated from public sources. Examples of layers included are:

- the potential distribution of endangered and other protected species,
- the potential distribution of several species that are of conservation concern, such as greater prairie chickens,
- designated critical habitat for endangered species,
- land ownership and land use, and
- wind resource.

The critical habitat data layer alone covers 225 species, including amphibians, birds, fish, invertebrates, mammals, reptiles, and plants.

The LAT is intended for use at “Tier 1” (*see sidebar*). An LAT search can indicate what type of species may be present in the area under consideration, or it can display the estimated distribution of a species on the landscape. While the evaluation of a specific site will require additional study or site characterization (Tier 2), the LAT can help identify the type of specific studies needed for further site evaluation.

### Disturbance Data Layer in the LAT



## USFWS Land-Based Wind Energy Guidelines Tiered Approach

The LAT is well suited for “Tier 1” site evaluation under the Land-Based Wind Energy Guidelines issued in March 2012 by the U.S. Fish and Wildlife Service.

According to the Service, “the tiered approach is an iterative decision-making process for collecting information in increasing detail; quantifying the possible risks of proposed wind energy projects to species of concern and their habitats; and evaluating those risks to make siting, construction, and operation decisions.”

The tiered approach consists of up to five iterative stages, or tiers, which include:

- Tier 1 – Preliminary site evaluation (landscape-scale screening of possible project sites)
- Tier 2 – Site characterization (broad characterization of one or more potential project sites)
- Tier 3 – Field studies to document site wildlife and habitat and predict project impacts
- Tier 4 – Post-construction studies to estimate impacts
- Tier 5 – Other post-construction studies and research

*U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines, March 23, 2012*



AWWI brings together conservation organizations and members of the wind energy industry to develop tools and strategies that facilitate the timely and responsible development of wind energy while protecting wildlife and wildlife habitat. To accomplish this mission AWWI combines the power of science with the voice of collaboration and a unique governing structure. For more information about AWWI, AWWI Partners, and AWWI Initiatives, see [www.awwi.org](http://www.awwi.org).