

Pandion

Balancing the **needs** of **people** and the **environment**

"Pandion proposed a very unique project, followed through with their projected methodology, finished in a timely manner, and kept to the budget."

– Ana María Monte Flores, Southwest Florida Water Management District

GIS and Mapping GIS and Mapping for Natural Resources

GIS is a useful decision-making tool that helps us understand and predict the relationships between human uses and natural systems. Applications include risk assessment, screening for listed species and sensitive areas, habitat delineation, assessing recreation impacts, and mapping natural resources.

What We Do

Analysis

GIS analysis answers spatial questions about animals and plants in their environment. This includes habitat relationships, population changes, and species distributions. We carefully identify and consider the questions that need to be answered first, then determine how to best use GIS as a tool to answer those questions.

Modeling

High-level GIS modeling uses existing data to answer complex ecological questions within a spatial framework. For example, Pandion used GIS to create a risk model for Bald Eagle susceptibility to electrocutions on transmission lines, to model wind turbine collision risks to birds, to identify areas where sensitive natural and cultural resources and recreation use intersect, and to identify potential areas of high mortality for the endangered West Indian manatee.

Mapping

GIS maps are powerful visual aids and serve as supporting documentation for desktop studies and field surveys. They have also been used to site facilities in areas with the least environmental impact. Our maps commonly include aerial imagery, site boundaries, protected species, water features, habitat types, and other natural resources.



Featured Project

Spatial Collision Risk Model for Wind-Wildlife Interactions

To predict how many flight paths would intersect turbine blades, Pandion used existing radar data as well as weather, turbine, bird abundance, flight height, and trajectory data to simulate bird flight paths from 50 random starting locations. The results of this model provided a measure of risk to birds flying over the study area.



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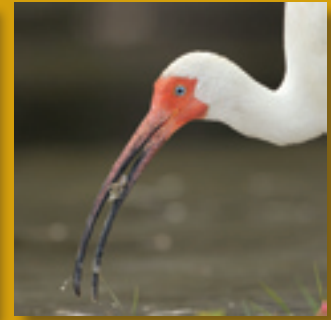
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Our Clients

Pandion's clients include the wind and electric utility industries, governments, land developers, nonprofits and educational institutions, and industry associations. Representative clients and GIS projects include the following:

U.S. Department of Energy

- A Habitat-Based Wind-Wildlife Risk Tool with Application to the Upper Great Plains Region: Collisions and Habitat Displacement

Volusia County, Florida

- Manatee GIS Habitat Impact Model
- Watercraft-Related Manatee Mortality Analysis
- Characterization of Environmentally Sensitive Lands

NOAA Coastal Services Center

- Visitor Use and Recreation Resource Management Planning

Florida Power and Light Company

- GIS-Based Risk Assessment for Bald Eagle Avian Protection Plan
- Monk Parakeet Population Growth Model

East Central Florida Regional Planning Council

- Wekiva River Protection Area Model
- GIS Data Management and Training



Our Story

Founded in 1997, Pandion Systems, Inc. is an environmental science, ecology, and communications company. We are multidisciplinary problem-solvers who bring creative solutions to our clients. We pursue imaginative, interesting, and important work that focuses on the interactions between people and natural systems.

We take our name from the Osprey, *Pandion haliaetus*, a bird that uses its strength, resilience, and adaptability to live successfully in the balance between the human and natural worlds.

For more information about Pandion or our services, please visit our website at:

www.pandionsystems.com

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