The Challenge
Sustaining healthy populations of waterbirds that migrate long distances (waterfowl, shorebirds, and wading birds) is a major challenge for land managers. How does a manager know which species to manage for at a specific site? How important is a single site in the big picture? How can many managers coordinate their actions across the landscape so that the birds have the right amount and quality of habitat, at the right time, in the right places? These questions are difficult to answer without understanding how all the pieces fit together.

Managers and scientists are working together in a new project to understand and optimally manage conservation lands along the Atlantic and Mississippi Flyways to support continental populations of waterbirds. They are using adaptive management and modeling in an innovative way that incorporates their management expertise as well as new conservation planning and modeling tools.

Management Decisions
To begin the process of developing an integrated management and monitoring program, managers at each spatial scale have identified the management decisions they make, the timing of those decisions, and the factors that influence those decisions.

What to Monitor
Resource management decisions should be based on the best available information. We are developing a monitoring program that will collect data to inform and improve management decisions at each spatial scale. Habitat and population monitoring protocols and databases will allow data to be linked to provide the right habitat, at the right time, in the right places.
across spatial scales, promote the use of adaptive management, and help rank management actions.

At the flyway scale, waterbird species, population objectives and the locations of priority stop-over and wintering habitats are identified. Biologists with agencies and organizations that are part of the Flyway Councils and Joint Ventures develop models and decision support tools to identify critical migration stop-over and wintering sites for each species guild. This information is used to determine the relative importance of a management site to a waterbird guild, alter management to meet changing needs, and guide the development of management plan objectives.

At the regional scale, each regional office or state program reviews the priority sites identified by the flyway scale model and determines optimum allocation of resources (funds and staff) to meet flyway waterbird population and habitat objectives.

At the local scale, land managers record the species, their relative abundances, and the timing of birds using the managed wetlands. These managers use adaptive management to improve habitat quality and optimize waterbird use at each site. They monitor waterbird responses to changes in habitat quality and quantity.

**Hierarchy of management decisions, and monitoring needs to inform decisions, at each landscape scale.**

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**Need For Assistance**

The U.S. Fish & Wildlife Service Offices of Migratory Birds and Refuges, the States, the Lincoln Park Zoo, and other partners are leading the project. Teams are working on monitoring metrics, protocols, and sampling designs. A diversity of knowledge, skills, and energy will be needed to make the project a success. We invite anyone with an interest in learning about or helping with the project to contact us.

**For additional information or questions contact:**

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More information  
Project Website:  
http://www.acjv.org/waterbird_project.htm

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June 2009