

National Wildlife Refuge System

Strategic Plan for the National Wildlife Refuge System Biological Monitoring Team Pilot Project - Executive Summary

The U.S. Fish and Wildlife Service National Wildlife Refuge System (NWRS) is the premier system of federal lands set aside primarily for the purpose of conserving fish, wildlife, and plants. Science based management decisions are needed for refuges to achieve their highest contributions toward wildlife resources, support refuge management decisions, reduce the uncertainty of management outcomes, and improve efficiency. The need to increase science capacity within the NWRS was identified as a priority issue by NWRS Promises Teams and the Conservation in Action Summit. The Strategic Plan for NWRS Biological Monitoring Team Pilot Project for Fiscal Years 2006 -2010 addresses biological monitoring and adaptive management as components of the NWRS biology program.

The Biological Monitoring Team (BMT) is implementing a pilot program to address biological monitoring and



Monitoring wetland vegetation at Rice Lake NWR.

USFWS



Collecting impoundment bathymetric data at Prime Hook NWR

adaptive management needs for refuges. The BMT is starting as a small effort and will not address all monitoring needs of refuges nationwide. The BMT will focus on high priority monitoring and adaptive management needs common to multiple refuges in Regions 3 and 5. The pilot program defines a vision for biological monitoring and adaptive management in the NWRS and identifies three major goals and related objectives, with outcomes and strategies. The BMT will initiate the Strategic Plan under the auspices of the U.S. Fish and Wildlife Service NWRS Regions 3 and 5 as a first step towards a national monitoring program.

BMT Vision for Biological Monitoring and Adaptive Management

The NWRS achieves its highest contributions toward sustaining wildlife resources through effective collection, storage, and analysis of biological data to help determine management priorities, inform management decisions, and guide management actions. Refuges make efficient use of biological information to

determine the status of trust resources and evaluate resource responses to management leading to state-of-the-art wildlife management programs. The exchange of data while monitoring wildlife and associated habitats at multiple landscape scales contributes to the efficiency of the NWRS.

To help achieve this vision, the BMT will facilitate the development of biological inventory and monitoring tools that help refuges:

- Achieve biological goals and objectives;
- Determine when to initiate management actions to benefit trust resources;
- Evaluate management actions to optimize benefits to trust resources;
- Evaluate progress toward meeting local, regional, and national NWRS performance objectives; and
- Share biological data with other conservation partners to achieve landscape-scale conservation objectives.



Surveying habitat for the multi-refuge study at Sherburne NWR



Refuge biologist discussing invasive species management issues at Supawna Meadows NWR

BMT Goals and Objectives for Biological Monitoring and Adaptive Management

1. Refuges will evaluate achievement of their wildlife and habitat goals and track the management and conservation of their natural resources over time and space through systematic collection, storage, and reporting of biological data addressing specific management information needs.
 - a. Develop or initiate monitoring plans (protocols, sample designs, and databases) for five high priority NWRS inventory and monitoring needs by 2010.
 - b. Make refuge ecological data from five monitoring plans readily available to internal users and outside partners by 2010.
 - c. Develop efficient systems for synthesis, analysis, and reporting of refuge inventory and monitoring data for five monitoring plans by 2010.
2. Refuges will initiate management-focused research (Adaptive Management) and develop new tools and techniques to fill information gaps. (Adaptive management research will be used to clarify the outcomes of specific management actions and guide future management programs.)
 - a. Identify information gaps and needed management tools, seek funding to support four management-focused research projects, and coordinate two or more active projects through 2010.
 - b. Apply new information from research and new, innovative tools to fill refuge information gaps and increase the effectiveness of management actions on at least 100 refuges by 2010.
3. Refuges will contribute to regional, national, and continental conservation of trust resources as partners with other FWS Programs (Migratory Birds, Fisheries, Endangered Species, and others) and the States by collaborating with other agencies performing similar monitoring efforts to ensure that data can be easily exchanged for analyses at multiple landscape scales.
 - a. Synthesize and report refuge biological data from three monitoring plans to show the relative contributions of individual refuges to the conservation of trust resources within a larger context (state, ecosystem, region, nation, and continent) by 2010.
 - b. Make refuge ecological data from five monitoring plans readily available to internal users and outside partners by 2010.



Shorebird use at Edwin B. Forsythe NWR

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