An Upper Mississippi Forest Partnership Success Story

Focusing to Keep the Water Clean and the Birds Happy

The Challenge

The focus of the Upper Mississippi Forest Partnership is to improve water quality and bird habitat by restoring riparian forests and improving the condition of existing forests in the watershed. The challenge is that the Upper Mississippi watershed covers 189,000 square miles in parts of six Midwest states. Where would our efforts be most effective?

The Solution

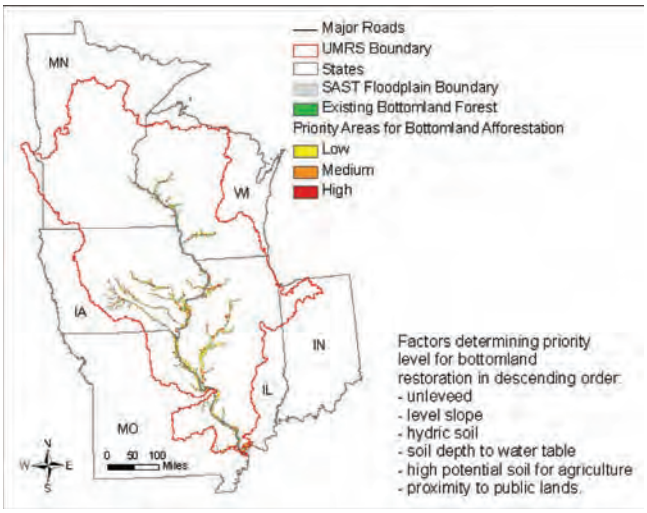
The Northeastern Area contracted with the USGS, Upper Midwest Environment al Sciences center, to conduct a geographic information system analysis focusing on four questions:

1. Where do bottomland forests exist today and which are high priority sites for restoration?
2. Which watersheds have a high percentage of agricultural land within 300 of water? How much of that buffer zone is still in agriculture and how much is forested?
3. Identification of those forested areas that are important for bottomlands birds, uplands birds, shrub birds, and grassland birds.
4. Identification of those forest areas significant because of their value as bird habitat and producing clean water that are threatened by development.

Resulting Benefits

This GIS analysis produced eight maps each yielding a wealth of information. The Upper Mississippi River floodplain is 21% forested. Of the 2.3M acres of floodplain forests with restoration potential 24% was high priority, 35% medium, and 41% low. Using the more detailed SSURGO soils data, a methodology was developed to identify where riparian buffers could be the most effective at stopping soil and nutrients from reaching water bodies. Those watersheds where it was important to maintain forest cover were identified: highest priority was in north central Minnesota and south of St. Louis, Missouri.

> ***Why is mapping needed? "The wild things that live on my farm are reluctant to tell me, in so many words, how much of my township is included in their daily or nightly beat." Aldo Leopold***



The GIS analysis found a wide variety of high priority sites for bottomland forest restoration.

Sharing Success

There are four working groups addressing these four key issues. Each working group will use the information produced through this analysis to target their work. Also, the National Fish and Wildlife Foundation will use the maps in prioritizing projects to fund through their Upper Mississippi Watershed Fund.

USDA Forest Service
Northeastern Area
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