Upper Mississippi Forest Partnership

Highlights 2005–2010

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Introduction

The Upper Mississippi Forest Partnership (UMFP) began in 2005 with the belief that stewardship and restoration of forests of the Upper Mississippi River Basin would help address the problems of water pollution and loss of bird habitat. Maintaining and restoring forests addresses both of these issues by producing clean water and providing food and nesting habitat for birds.

This document highlights the progress made by the UMFP in addressing these natural resource concerns, from 2005 through 2010.

Healthy bottomland forests, located where the land and water meet, support a productive aquatics system and provide many other benefits including wildlife habitat, improved water quality, flood control, and recreational opportunities.

Upper Mississippi River Basin

A major subbasin of the Mississippi River Basin, the Upper Mississippi River Basin extends 800 miles from northern Minnesota to the confluence with the Ohio River at the southern tip of Illinois (map). For the purposes of the Upper Mississippi Forest Partnership, additional watersheds in southern Missouri that drain into the Lower Mississippi River Basin were added, as they include some of the more heavily forested areas of the state.

United States Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry

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Water Pollution

Sediment, nitrogen, and phosphorus are the primary pollutants of concern in the Mississippi River Basin. A significant portion of them comes from human activities: surface runoff from agricultural practices, discharge from sewage treatment and industrial wastewater plants, and stormwater runoff from city streets.

Benefits to Commerce and Communities

On average, 80 million tons of agricultural commodities, petroleum products, and coal are transported annually on the Mississippi and Illinois rivers. The river basin is home to 30 million residents, and over half of them use rivers as their drinking water supply. Nearly 12 million people use the river system each year to hunt, fish, and recreate.

Loss of Bird Habitat

The UMFP has focused its bird conservation efforts on maintaining and improving the condition of forests; particularly focusing on forest fragmentation and the loss of bottomland forests. Forest fragmentation affects forest-interior birds needing larger blocks of forests for successful breeding. An example would be the cerulean warbler (*Dendroica cerulean*), whose population is declining. As bottomland forests become less diverse both in terms of species and age class, conditions for bottomland birds deteriorate. Examples of other bird species that use bottomland forests and whose numbers are declining include the Acadian flycatcher (*Empidonax virescens*) and the blue-winged warbler (*Vermivora pinus*) (figure 1).

Benefits to Wildlife

The Upper Mississippi River bottomland ecosystem consists of a mosaic of forests, grasslands, islands, backwaters, side channels, and wetlands—all of which support a wide variety of wildlife. The diverse landscapes of the Upper Mississippi River Basin provide critical bird habitat for breeding birds and those that use the river as a flyway, including more than 40 percent of North America's migratory waterfowl.

Figure 1.—The blue-winged warbler's numbers are declining with the loss of bottomland forests. (Photo: Jim Rathert, Missouri Department of Conservation)

State Forest Resource Assessments and Strategies

In 2010 each State in the Upper Mississippi River Basin completed a forest resource assessment and strategy as required by the 2008 Farm Bill as amended February 1, 2010 (16 U.S.C. chapter 41, sec. 2101a). Many of the issues identified are related to the UMFP concerns of water pollution and loss of bird habitat. In addition the Upper Mississippi River Basin is identified as a multi-state priority area in forest resource assessments of five of the six Upper Mississippi River Basin states (excluding Indiana). The most common issues and goals of states across the Midwest and Northeast and the District of Columbia are listed below.

- Keeping forests as forests
- Forest ecosystem health and productivity
- Urban and community forest health and sustainability
- Water, biodiversity, recreation, and other ecosystem services
- Forest products industry and markets
- Sustainable forest management across all ownerships
- Climate change
- Wildfire threats to forests, public safety, and property
- State and private capacity for forestry
- Awareness and support for forests

Setting Priorities Using GIS

To help guide its actions, the UMFP conducted a Geographic Information System (GIS) study in cooperation with the U.S. Geological Survey's (USGS) Upper Midwest Environmental Sciences Center.

Prioritizing Forests for Conservation

The GIS analysis that prioritized forests for conservation in 2006 used several different input data layers. Forests were considered higher priority if they

- were within watersheds (8-digit Hydrologic Unit Code) with low nitrogen yield,
- had a high relative density of water consumers,
- had more habitat for targeted bottomland forest bird species,
- had more habitat for targeted upland forest bird species,
- had high percent slope,
- resided on erodible soils,
- were close to water,
- were delineated as a forested or scrub/shrub wetland,
- were in close proximity to publicly managed lands,
- were subject to pressure from projected housing development,
- were in close proximity to a threatened or endangered species.

The resulting map, initially published in 2006 and updated in 2009, indicates those forests most important for providing clean water and migratory bird habitat (figure 2).

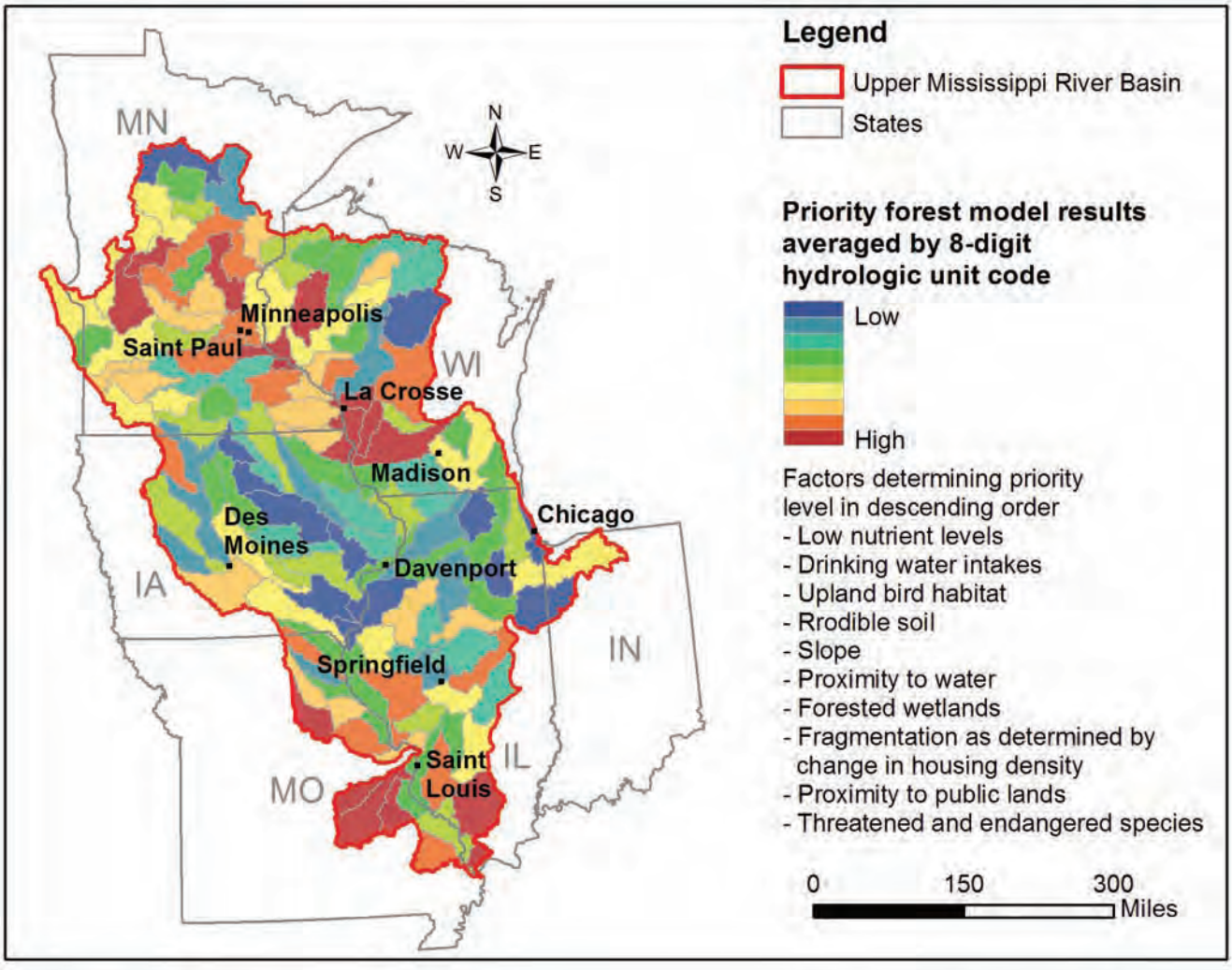


Figure 2.—GIS analysis ranked priority forests for conservation.

Prioritizing Opportunities to Restore Bottomland Forests

A separate GIS analysis was completed to identify existing bottomland forests and to prioritize areas in the floodplains of the Upper Mississippi River and its major tributaries for restoration, or replanting (afforestation), to bottomland forest. The analysis scored these areas as low, medium, or high priority for restoration. Areas with high priority included areas currently classified as shrubland, pasture, or row crops; unleveed; wetter soils; and closer to public lands. Conversely, areas with low priority for restoration included areas currently classified as small grains, leveed, dried soils, and farther from public land. The analysis defined existing bottomland forest as coniferous forest, deciduous forest, mixed forest, or woody wetland. All other land uses were called "other."

The Des Moines, Skunk, and Iowa rivers in Iowa and the Illinois River in Illinois scored high in the analysis because they have fewer levees and a high percentage of intact bottomland forests. While the main stem of the Mississippi River contained some high priority areas, in general, the predominance of low priority areas on the main stem results from a high percentage of levees, good agricultural soils, and fewer bottomland forests.

Maps of both the priority forests for conservation, and the existing bottomland forests and priority forests for bottomland restoration are available on the Web (U.S. Department of Agriculture, Forest Service, Northeastern Area State and Private Forestry, n.d.).

Land use in the Upper Mississippi River Basin floodplain

Land use	Acres	Percent
Area available for replanting bottomland forest (afforestation). (Next tabulation shows restoration priority by acreage)	2,113,640	49
Existing bottomland forest	836,109	19
Other	1,390,185	32
Total	**4,439,934**	**100**

Area available for replanting bottomland forest

Restoration priority	Acres	Percent
Low	888,740	42
Medium	749,216	35
High	475,684	23
Total	**2,113,640**	**100**

Photo: U.S. Army Corps of Engineers

Changes to the Basin Over Time

Over 200 years of land use and navigational use changes have transformed both the river and its basin. Construction of levees and 29 locks and dams (photo) has transformed the free-flowing river into a series of pools and separated it from its floodplain. The amount of the floodplain connected to river (unleveed) decreases from north to south. From Minneapolis, MN, to Rock Island, IL, 3 percent of the floodplain is leveed; from Rock Island to St. Louis, MO, 53 percent; and from St. Louis to Cairo, IL, 82 percent. These changes have also altered the forests of the Upper Mississippi River Basin, particularly the bottomland forests, resulting in less species diversity and a lack of regeneration.

Selecting Demonstration Watersheds

In 2009 the UMFP steering committee decided that a second analysis was needed to integrate the priority forests for conservation with priorities of the Northeastern Area State and Private Forestry and its partners. The purpose was twofold. The first was to identify watersheds that could serve as demonstration sites for showcasing forest stewardship practices that can positively affect water quality, migratory bird habitat, or both. The second was to provide an opportunity for UMFP partners to cooperate and contribute towards the over-all UMFP goals at a smaller, more measurable scale.

This analysis identified 21 priority watersheds using the following criteria (figure 3):

- Identified as a high or medium priority from the first analysis of priority forests for conservation
- Identified as a high priority for bottomland restoration
- Ranked high for forest stewardship potential in the Forest Service's Spatial Analysis Project
- Identified as a high priority watershed from the Forest Service's Forests, Water and People analysis
- Is a Natural Resources Conservation Service Mississippi River Basin Initiative Watershed
- Is a Conservation Opportunity Area in the State's Wildlife Action Plan
- Contains an Audubon Society Important Bird Area
- Has local organizations that could provide leadership in working with forest landowners
- Has baseline data for water quality or migratory bird monitoring or both
- Has citizen-based monitoring efforts focused on water quality, migratory birds, or both

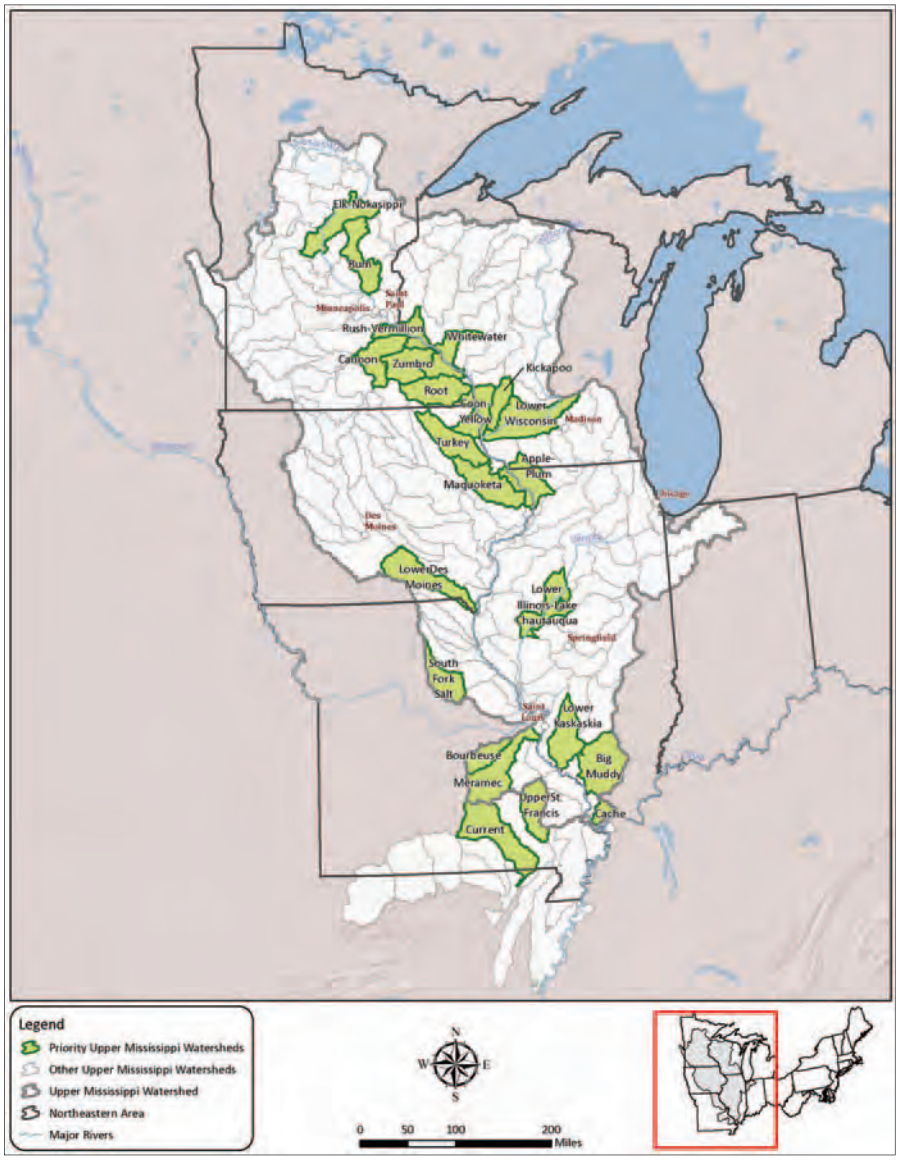


Figure 3.—GIS analysis identified 21 watersheds where improving water quality and migratory bird habitat are priorities for the Forest Service and partners.

Studying Trends in Larger Blocks of Forest

The UMFP goals of improving water quality and migratory bird habitat would be met by restoring and enhancing forests in the river basin and particularly by maintaining larger blocks of forest and increasing their number. For the Upper Mississippi, the cerulean warbler was selected as an indicator species. This means that if the breeding and habitat needs for this species are met, many other birds that need larger blocks of forest habitat will benefit as well. According to Rosenberg (2000) the cerulean warbler needs 1,000-acre blocks of forest for nesting. The U.S. Forest Service's Forest Inventory and Analysis data show the 1,000-acre blocks of forest by percent forest in the river basin in 2006 (figure 4).

In this analysis it was assumed that the blocks that are 70 percent forested or more would provide enough forest area to meet the cerulean warbler's needs. On a 5-year basis 1,000-acre blocks of forest in the watershed will be studied to identify trends. Future analysis should include additional cerulean warbler habitat needs such as forest type, tree height, and tree diameter. Currently about 22,248,000 acres (16 percent) of the Upper Mississippi River Basin is at least 70 percent forested and in 1,000-acre blocks.

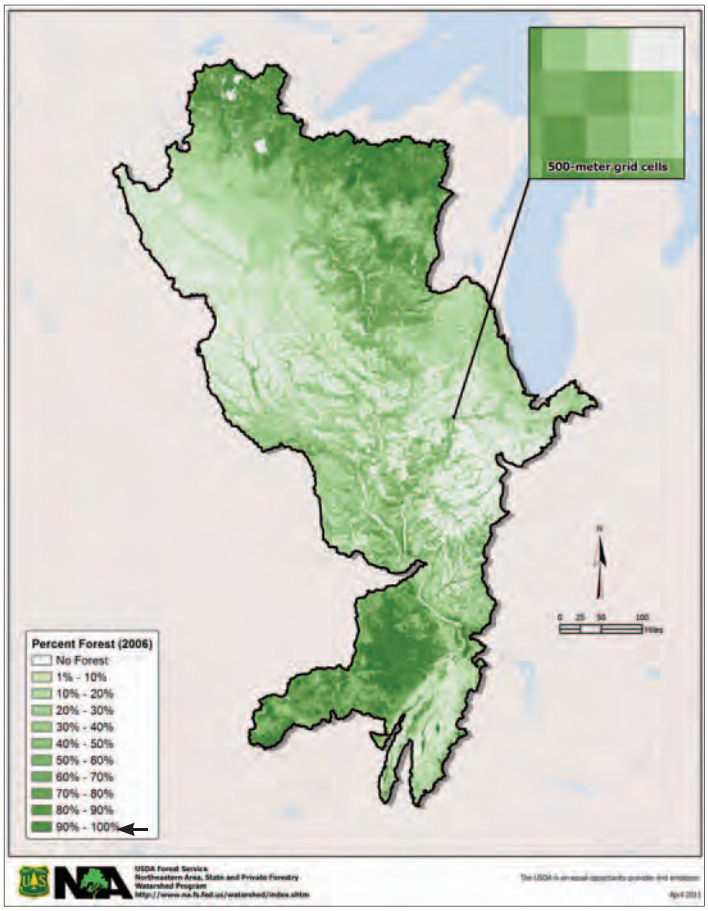


Figure 4.—Forested area in 1,000-acre blocks by percent forest in the Upper Mississippi River Basin, 2006. Sixteen percent of the Upper Mississippi River Basin is in forested, 1,000-acre blocks that meet the breeding and habitat needs of the Cerulean warbler indicator species. These large blocks will also satisfy other bird species that need similar-sized and smaller forest blocks."

Upper Mississippi River Watershed Fund

In 2006, the National Fish and Wildlife Foundation (the Foundation) and the Northeastern Area State and Private Forestry, Forest Service, U.S. Department of Agriculture (Forest Service) entered into a partnership to establish and administer the Upper Mississippi River Watershed Fund (the Fund). This fund is an important source of financial assistance for the UMFP habitat restoration work supporting projects that

- conserve and manage existing priority forested areas,
- reverse the loss of migratory bird habitat,
- manage existing and replant new bottomland hardwood forests,
- enhance water quality and aquatic habitat through the establishment of riparian buffers, and
- improve wildlife habitat through restoration strategies as identified in a state's Wildlife Action Plan.

Projects are funded in part by a portion of the Foundation's annual appropriation from the Forest Service. In return the Foundation solicits and accepts grant applications, seeks other sources of financial support, leverages all Federal dollars through grantee match, and manages the grants supported by the Fund. Since its inception, the Fund has awarded 30 grants totaling more than $1.6 million and leveraging an additional $4 million in matching funds (table).

Table—Grants awarded by the Upper Mississippi River Watershed Fund, 2006–2010

Year	State	Grantee	Project
2006	Illinois	Ducks Unlimited	Rockwood Island Wetland Restoration
	Iowa	Iowa Department of Natural Resources (Project not completed; most funds returned to the foundation.)	Restoration of Bottomland Forests
	Minnesota	The Science Museum of Minnesota	Restoring Upland Habitat to the St. Croix River
	Wisconsin	Wisconsin Department of Natural Resources	Lower Chippewa River Restoration
	Iowa, Illinois, Minnesota, Wisconsin	Institute for Agriculture and Trade Policy	Driftless Area Private Land Demonstration Projects
		Trout Unlimited	Driftless Area Stream Restoration
2007	Iowa	Iowa Natural Heritage Foundation	Upper Iowa Restoration
	Missouri	Missouri Conservation Heritage Foundation	River Hills Restoration Partnership Project
	Wisconsin	Wisconsin Department of Natural Resources	Conservation of Big River Forests
2008	Iowa	The Nature Conservancy	Ecological Restoration of a Swamp White Oak Woodland
		Trees Forever	Conservation Demonstration Sites in Flooded Watersheds
	Minnesota	Friends of the Mississippi River	Mississippi River Bottomland Restoration
		University of Minnesota	Biomass Harvest Effects on Amphibians and Mammals
		Minnesota Department of Natural Resources	Fuels Reduction for Wildlife—A Landowner Based Approach
		Great River Greening	Anoka Sandplain Forest and Savannah Conservation
	Missouri	Missouri Conservation Heritage Foundation	Middle Meramec River Conservation Opportunity Area
		Trust for Public Lands	Source Water Protection in the Lower Meramec
	Wisconsin	The Nature Conservancy	Restoring the Riparian Corridor of the Pecatonica River
		Wisconsin Department of Natural Resources	Hazardous Fuels Reductions in Pine-Oak Barrens
2009	Indiana	The Nature Conservancy	Oak Savannah Habitat Restoration/Fuels Reduction in northwest Indiana
	Minnesota	Great River Greening	Restoring the Lower St. Croix Bottomland and Blufflands
		Minnesota Department of Natural Resources	Zumbro Bottoms Bottomland Restoration
	Missouri	Ozark Regional Land Trust	Forest Protection in the Meramec River Watershed
	Wisconsin	West Wisconsin Land Trust	Maiden Rock Bluff State Natural Area Oak Savannah Restoration
		Wisconsin Department of Natural Resources	Glacial Lake Grantsburg Pine – Oak Barrens Project
2010	Illinois	American Land Conservancy	Protecting Native Forests in the Cache River Wetlands
	Iowa	National Wild Turkey Federation	Oak Woodland and Savanna Restoration
	Minnesota	Great River Greening	Anoka Sandplain Forest/Savanna Conservation – Phase 2
		Friends of the Mississippi River	Forest enhancement at Hastings Scientific and Natural Area
	Minnesota, Iowa	National Audubon Society	Bottomland Forest Bird Habitat Conservation – Private Lands

Case Studies

The following examples of accomplishments by the UMFP are organized by its goals for 2008–2013.

Upper Mississippi Forest Partnership Goals

The partnership defined three goals in its Action Plan for 2008–2013 (UMPF Steering Committee 2009, p. 8-12):

1. *Demonstrate through conservation efforts the application of sustainable forestry to protect, maintain, and restore healthy forests.*
2. *Improve water quality to support healthy and productive aquatic ecosystems with forest-based strategies at the site, watershed, and basin scales.*
3. *Increase quality and quantity of migratory bird habitat, to support stable or increasing forest bird populations.*

Sustainable Forests

Goal 1
Demonstrate through conservation efforts the application of sustainable forestry to protect, maintain, and restore healthy forests.

The analysis of assessments and strategies from the 20 states in the Northeast and Midwest found that "keeping forests as forests" was an issue in every State strategy document, often the most significant issue. It was expressed in different ways, but it came down to having enough forest land available for it to sustain itself and provide the many benefits associated with forests.

Meramec River in Missouri—Conservation Challenges and Solutions

The Meramec River is one of the longest free-flowing rivers in the United States. Its watershed was identified as a high priority by the UMFP Demonstration Watershed analysis. The Meramec flows some 220 miles from the forest region in the Ozark Mountains eastward to where it enters the Mississippi River near St. Louis. The river is home to many endangered mussel species. To maintain the water quality in the Meramec River, many of the UMFP partners have been working to enhance forest conservation through a multi-pronged approach that includes the following measures:

- Establishing conservation easements on forested tracts where long-term protection supports multiple conservation values
- Developing conservation marketing strategies to attract forest landowners to forest stewardship planning and practices
- Retaining rural landscapes by partnering with livestock farmers to protect water quality by installing watering devices and restoring riparian forest
- Partnering with multiple organizations, including the Trust for Public Land, the Missouri Department of Conservation, and the Lower Bourbeuse Landowner Committee

Early successes of these efforts include protecting 685 acres of forest through conservation easements; improving grazing practices and tree plantings on 16 farms totaling 3,900 acres and 11 miles of stream frontage; and bringing together local officials and partners for watershed training and information exchange in meetings conducted by the Trust for Public Land.

Upper Mississippi Headwaters—Working Forest Conservation Easements

Like many forests across the country, Minnesota's forests are at risk from development and parcelization as larger timberlands are subdivided and sold in smaller tracts. The Minnesota Forest Legacy Partnership came together in 2005 to work with forest landowners, loggers, forest recreationists, public agencies, local units of government, and others, to help protect and preserve Minnesota's northern forests.

The Minnesota Forest Legacy Partnership's largest working conservation easement to date, completed in July 2010, was the Upper Mississippi Forest Project with Blandin Paper Company, a subsidiary of UPM-Kymmene of Finland. This project, at nearly 188,000 acres and a cost of $44 million, is also the largest conservation easement project ever undertaken in Minnesota. Private funding for the project came

from a $7 million grant from the Blandin Foundation (unrelated to the Blandin Paper Company), $2 million from the R. K. Mellon Foundation, and $750,000 from the National Fish and Wildlife Foundation. Public funds came from the Minnesota Outdoor Heritage Fund.

The Upper Mississippi Forest Project lies within seven counties in northern Minnesota (figure 5). Approximately two-thirds of the project area is within the Upper Mississippi River Basin. The working forest conservation easement prevents development and fragmentation of the forest, protects wildlife habitat and water resources, and guarantees public access for recreation. Like other conservation easements, it is perpetual and allows the landowner to derive income from the property while it provides important public benefits.

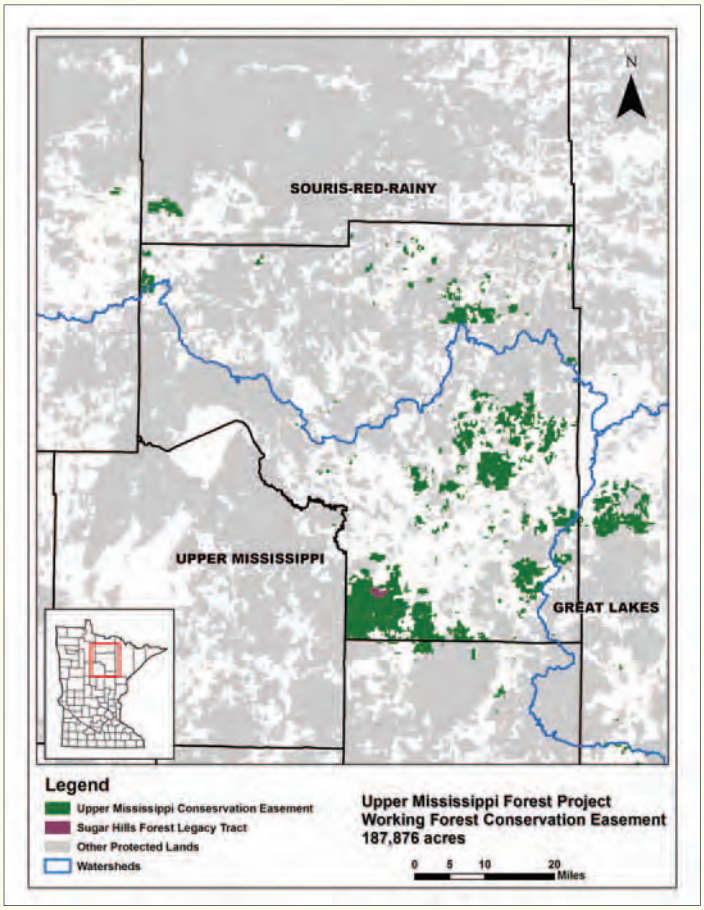


Figure 5.—Forests are protected by conservation easements in the northern Minnesota portion of the Upper Mississippi River Basin.

Water Quality

Goal 2

Improve water quality to support healthy and productive aquatic ecosystems with forest-based strategies at the site, watershed, and basin scale.

Bottomland forests by definition are located where the land and water meet. A healthy bottomland forest supports a productive aquatics system and provides many other benefits including wildlife habitat, improved water quality, flood control, and recreational opportunities. Starting in 2009, the UMFP steering committee decided to focus most of its water quality related efforts on restoring bottomland forests, to capitalize on the multiple benefits they provide. These forests are not regenerating in the Mississippi and Illinois Rivers due to agricultural and urban development, changes in natural river flood pulses, rising water tables, wind and wave erosion, and aggressive invasion by exotic plants, such as reed canarygrass and common native competitors. The remaining bottomland forests are changing in composition from shade-intolerant species such as cottonwood, American elm, and silver maple, to forests dominated by shade-tolerant species such as hackberry and the nonnative mulberry (Urich and others 2002).

Bottomland Hardwoods Web-Based Forest Management Guide

With a goal of managing bottomland hardwoods for multiple objectives, a multidisciplinary team of public and private forestry professionals, researchers, and practitioners developed a major revision of the Elm, Ash, Cottonwood Manager's Handbook (Myers and Buchman 1984). The revision provides up-to-date information from many disciplines addressing a wide range of bottomland hardwood management issues, including ecology, silviculture, forest health, and economics, as well as management examples for bottomland hardwoods in the Upper Mississippi River Basin (U.S. Department of Agriculture, Forest Service, Northern Research Station 2009).

Examples of Active Bottomland Forest Restoration and Management

Since 2004, many partners have collaborated on bottomland restoration and management in the section of the Mississippi River from the confluence of the Missouri River south to the confluence of the Ohio River. Nearly 600 acres of wetland have been restored, and over 2,750 acres of forests planted. In 2009, 300 acres of bottomland forest were planted at Oakwood Bottoms Greentree Reservoir in the Shawnee National Forest. The plantings included 270 acres planted by the Root Production Method and 30 acres of bareroot stock. The plantings focused on areas of oak mortality and gaps created by timber stand improvement projects.

In the Iowa and Cedar River basins in Iowa, a variety of groups, including The Nature Conservancy, U.S. Fish and Wildlife Service, and the Natural Resources Conservation Service, have been working to manage and restore bottomland forests in an area with a checkerboard of landowners. Challenges in the area include altered hydrologic flows, loss of historic fire regimes, introduction of invasive species, and conversion of bottomland forests. A recent project at the Swamp White Oak Preserve, a property of The Nature Conservancy, includes reducing the canopy cover by 50 percent, removing all nonnative woody species, and controlling reed canarygrass with fire and herbicide. This 82-acre project was funded by a grant from the National Fish and Wildlife Foundation.

The Lower Wisconsin Riverway comprises approximately 80,000 acres of land, beginning at the dam in Prairie du Sac and extending downstream to the Mississippi River. Over 44,000 acres of the riverway are owned by the State and managed by a team of wildlife managers, fisheries staff, foresters, park managers, wardens, and other natural resource specialists. While there are no dams in the lower river, dams upstream have altered the river hydrology and affected the bottomland forests. Changes have been noted in the tree species composition, as well as increases in nonnative invasive species. The current goal in the riverway is to manage approximately 640 acres of State-owned forest per year by thinning or regeneration harvests.

Partners in Aquatic Habitat Restoration

The National Fish Habitat Action Plan (Baughman and others 2006) has a goal of protecting, restoring, and enhancing the nation's fish and aquatic communities through partnerships that foster conservation of fish habitat and improve the quality of life for the American people. The Upper Mississippi River has two partnerships that are implementing the Fish Habitat Action Plan: the Driftless Area Restoration Effort, and the Fishers and Farmers Partnership.

The Driftless Area Restoration Effort led by Trout Unlimited includes portions of southeast Minnesota, northeast Iowa, southwest Wisconsin, and northwest Illinois. The effort was developed to address the degradation, alteration, and loss of habitat, which are the primary contributing factors to the decline of trout populations in this area known for its concentration of spring-fed coldwater streams.

The Fishers and Farmers Partnership covers the remaining portions of the Upper Mississippi River Basin outside the Driftless Area. The partnership seeks to advance long-term strategies for stream health and sustainable agriculture. The Fishers and Farmers Partnership works with landowners to restore aquatic habitat while adding value to farms. Projects include stabilizing eroding stream banks, installing forested buffers, and constructing in-stream habitat.

Migratory Bird Habitat

The focus of the UMFP migratory bird habitat conservation effort has been maintaining larger forest landscapes so as to benefit forest interior birds. According to the Partners in Flight, Conservation of Land Birds in the United States (Pashley and others 2000), Midwest forests are relatively abundant but very fragmented. Priority should be given to identifying and maintaining those blocks large enough to support a full array of breeding birds. The three primary challenges for the UMFP and its work on migratory bird habitat are lack of leadership, lack of focus, and poor coordination between the similar groups operating in the same landscape.

Habitat Improvement Projects

One of the barriers to improving bird habitat at the individual landowner level is a lack of knowledge about how to manage for bird habitat. A project funded by the National Fish and Wildlife Foundation's Upper Mississippi Watershed Fund identified landowners in southwest Wisconsin, southeast Minnesota, and northeast Iowa who are interested in using their properties as demonstration sites for how forest management can improve bird habitat. A total of 10 field days and workshops were held. Forest management activities included harvesting oak regeneration, removing buckthorn and other invasive species, conducting prescribed burns, and harvesting for timber stand improvement. These projects showed:

- Landowners are interested in bird friendly forestry.
- Landowners enjoyed hands on, field based learning experiences.
- Coordination is challenging when implementing plans from multiple landowners.
- Finding a consultant willing to work on a smaller scale and tackle the varied landowner needs can also be a challenge.

Primarily due to a much lower fire frequency, the oak savannah ecosystem is significantly smaller in the Upper Mississippi River Basin now than it was in presettlement times. Wildlife that use the oak savannah include deer, turkey, ruffed grouse, and many cavity nesting birds, such as the red-headed woodpecker whose population has shown significant declines. Several projects funded by the National Fish and Wildlife Foundation's Upper Mississippi Watershed Fund have supported oak savannah restoration through prescribed burning.

Information for Resource Managers and Landowners

The UMFP supported production of two publications aimed at educating landowners and natural resource professionals about forest management activities that would improve bird habitat in the Driftless Area:

1. A bird's eye view: a guide to managing and protecting your land for neotropical migratory birds in the Upper Mississippi River blufflands (Ehresman 2003).
2. Managing from a landscape perspective: a guide for integrating forest interior bird habitat considerations and forest management planning in the Driftless Area of the Upper Mississippi River Basin (Wilson 2008).

Bird Monitoring

The impact of habitat improvement projects can be known from monitoring. The Fish and Wildlife Service has recognized that while there are many bird monitoring efforts in the Midwest, they are fragmented and lack consistency in terms of protocol. To address these issues the *Midwest Coordinated Bird Monitoring Partnership* was formed. The goals of this group include these:

- Integrate monitoring into bird management and conservation
- Broaden the scope of monitoring for species most at risk and for which adequate information for decisionmaking is lacking
- Coordinate programs among organizations and across spatial scales
- Improve survey design, field methods, and data analysis
- Deploy modern data management strategies

(More information about this partnership is available on their Web site: http://midwestbirdmonitoring.ning.com/.)

"The relationship between forests and rivers is like father and son."
—Gifford Pinchot,1905

Challenges Remaining

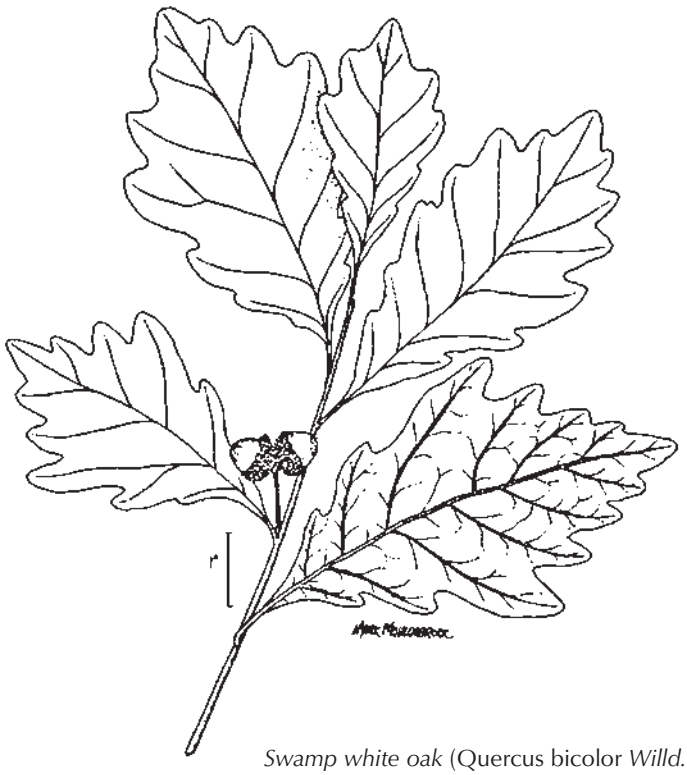
While managing the extensive Upper Mississippi River Basin can be daunting, the UMFP has made good progress through using resource analyses and designating priority watersheds. The current challenge is incorporating the State Forest Resource Strategies as future priorities are decided.

Likewise, the UMFP is focusing on restoring bottomland forest. Stewardship of upland forest, particularly as it provides forest interior bird habitat and clean water, is receiving less attention. This choice is in response to limited financial and staff resources.

Finally, the Army Corps of Engineers and the Sand County Foundation are continuing their efforts in developing a 200-year vision for the Mississippi River. How will forest resource issues be brought to the table as this vision is developed? Who will "speak for the trees"?

Working towards this long-range vision will require a much broader voice, including speaking to the forest condition from the headwaters to the mouth of this great river and all the land that drains into it. At the "America's Inner Coastal Summit" meeting where the need for this 200-year vision was articulated, Mark Gorman, policy analyst for the Northeast Midwest Institute, spoke these profound words that bear repeating:

> The regions' waters now flow through a fragmented bureaucratic and social reality, whose functions and structures are equally fragmented.… Before we take another step, we need to reconnect with and listen to the land and the water and the people—stop to listen, re-imagine the possibilities laid out on a new map, and then, together, make those possibilities real, because the old maps just aren't working; they never have (Gorman 2010).



Swamp white oak (Quercus bicolor *Willd.*)

Upper Mississippi Forest Partnership

The Upper Mississippi Forest Partnership (UMFP) consists of the Northeastern Area State and Private Forestry of the Forest Service, U.S. Department of Agriculture, and the forestry agencies of the six states in the river basin: Illinois, Indiana, Iowa, Minnesota, Missouri, and Wisconsin. In 2008, the Eastern Region of the National Forest System, and the Natural Resource Conservation Service, also of the U.S. Department of Agriculture, were added to the partnership. In 2010, the Fish and Wildlife Service and the Army Corps of Engineers were added. The vision of the UMFP is to maintain and restore the water quality and wildlife habitat of the Upper Mississippi River Basin by restoring riparian forests and improving the condition of forests throughout the river basin .

Illustration: Mark Mohlenbrock, U.S. Department of Agriculture, Natural Resources Conservation Service. 2011. The PLANTS Database. http://plants.usda.gov. (12 July 2011). Greensboro, NC. National Plant Data Team. Originally published in U.S. Department of Agriculture, Natural Resources Conservation Service. [n.d.] Wetland flora: field office illustrated guide to plant species. Fort Worth, TX: National Wetland Team.

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