

Dept. of Natural Resources: Announces new Upper Mississippi River System report

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MADISON, Wis. – The Wisconsin Department of Natural Resources (DNR) today announced the release of a new report regarding the [Ecological Status and Trends of the Upper Mississippi River System](#).

The Status and Trends Report is the third of its kind produced as part of the [Upper Mississippi River Restoration \(UMRR\) program](#). It includes information on long-term changes in water quality, aquatic vegetation and fish from six study areas spread across the Upper Mississippi and Illinois rivers. The report also summarizes trends in possible drivers of long-term changes in the river, including river flow volume and floodplain land cover.

This seminal report represents more than 25 years of data and will inform river management and investments in the coming years. It reaches Illinois, Iowa, Minnesota, Missouri and Wisconsin to inform and influence the work of the many government agencies, non-governmental organizations and other partners that play a role in caring for the river.

The DNR Long Term Resource Monitoring (LTRM) Field Station in La Crosse is a key member of the data collection network operated by the five Upper Mississippi River states and the U.S. Geological Survey under the Upper Mississippi River Restoration program.

The UMRR program is a diverse partnership that includes the U.S. Army Corps of Engineers, U.S. Geological Survey, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, U.S. Department of Agriculture, Illinois, Iowa, Minnesota,

Missouri and Wisconsin and other non-governmental organizations and private citizens.

This strong regional partnership guides the program in fulfilling its vision to build a healthier, more resilient Upper Mississippi River ecosystem that sustains the river's multiple uses.

"The Upper Mississippi River is a diverse and dynamic system with many regional differences," said Jim Fischer, DNR Mississippi River Team Leader and LTRM Field Station Supervisor. "Understanding those differences takes a collaborative effort like the UMRR program's Long Term Resource Monitoring."

"The long-term data collected across the network helps us assess overall river system health by highlighting system-wide changes and changes occurring in only parts of the system," Fischer said. "The data collected by Wisconsin DNR staff in Pool 8 at La Crosse, and by Minnesota DNR in Pool 4 at Pepin, WI, provides specific insights into the health of the fisheries, water quality and aquatic vegetation along Wisconsin's border."

"Long-term datasets are crucial to understanding both slow and fast-moving changes in the river," Fischer said. "With more than 25 years of data, the report helps us understand how and where this complex system is changing over time. It identifies where we're making progress, where we need more work, and how the river responds to new stressors— such as more frequent and longer-duration high-water events. It informs our strategies and priorities for future collaborative work."

Congress established the Upper Mississippi River Restoration program in the Water Resources Development Act of 1986 to provide fish and wildlife habitat rehabilitation and enhancement in the Upper Mississippi River System. The act also implemented long-term resource monitoring and research efforts, including state-of-the-art scientific methods to understand changing environmental conditions within the river system. The Status and Trends Report describes what was learned from that monitoring. Previous reports were released in 1998 and 2008.

Key Findings From The Status And Trends Report That Are Important To Wisconsin

- The river is changing mainly because of changing hydrology and invasive species. The changes reflect the changing nature of the river itself and the

presence of physical structures such as levees.

- More water is in the river, with high flows lasting longer and occurring more frequently throughout the system. These trends are likely permanent changes to the river's hydrology driven by land-use changes and a shifting climate. Water flow is the primary driver affecting the quality and quantity of habitat.
- Floodplain forest loss has occurred through nearly all the study areas except south of the locked portion of the river. The forests may be responding to several interacting factors and environmental changes, including increasing flood inundation and invasive species.
- In Pools 4 and 8, water has become clearer and aquatic plants more abundant and diverse, improving habitat for fish and wildlife and leading to a decline in invasive fish species.
- An overall pattern of increasing bed elevation in Pools 4 and 8 indicates that many backwater lakes have become shallower and can be expected to continue to do so, resulting in a decline in the abundance of deep water in off-channel areas.
- Concentrations of nutrients— notably nitrogen and phosphorus— remain high, exceeding U.S. Environmental Protection Agency benchmarks and threatening aquatic life and water supplies along the Upper Mississippi River System. However, total phosphorus concentrations have declined in many studied river areas. Improvements to the Chippewa and Black River watersheds significantly improved water quality in the Mississippi River along the Wisconsin border.
- The Upper Mississippi River System continues to support diverse and abundant fishes. Economically and socially important recreational fish have increased in the northern portion of the river. However, forage fish have substantially declined throughout the river network. Forage fish serve as an important food for larger fishes and other animals. Invasive carps have been unable to establish self-sustaining populations in Wisconsin.