

# River Connections

News about the Management of the Upper Mississippi River Natural Resources

Fall/Winter 2010



## A Message from the River Resources Forum

Welcome to the first “River Connections” a newsletter designed to bring you the latest updates on what is happening on the Upper Mississippi River including:

- ◆ Habitat restoration and enhancement,
- ◆ Beach planning and maintenance,
- ◆ Channel maintenance,
- ◆ And information regarding issues and events.

The River Resources Forum, or RRF, is an interagency partnership for addressing resource issues concerning the Upper Mississippi River on the U.S. Army Corps of Engineers-St. Paul District. The St. Paul District includes the Upper Mississippi River from the headwaters to Guttenberg, Iowa.

Participating agencies include: the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Coast Guard, U.S. Environmental Protection Agency, Natural Resources Conservation Service, National Park Service, Minnesota Pollution Control Agency and the departments of natural resources and transportation from Minnesota, Wisconsin and Iowa.

There are several multi agency work groups under the RRF umbrella that explore issues, develop plans and report back to the RRF for approval including: fish and wildlife, recreation, navigation, and the water level management task force. The reports from these work groups will be the foundation for this newsletter.

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*Aerial view of Lawrence Lake and the Main Channel - Upper Mississippi River Pool 8. Photo by John Nelson, Wisconsin DNR*

# HABITAT RESTORATION

## Lower Pool 8 Project Nears Completion

by Ruth Nissen, Wisconsin DNR- Mississippi River Team

Island construction in lower Pool 8 came to an end on September 25, one week earlier than planned, because the river was nearing flood stage as a result of heavy rains on September 22. Consequently, construction crews scrambled to button up the island project for the winter.

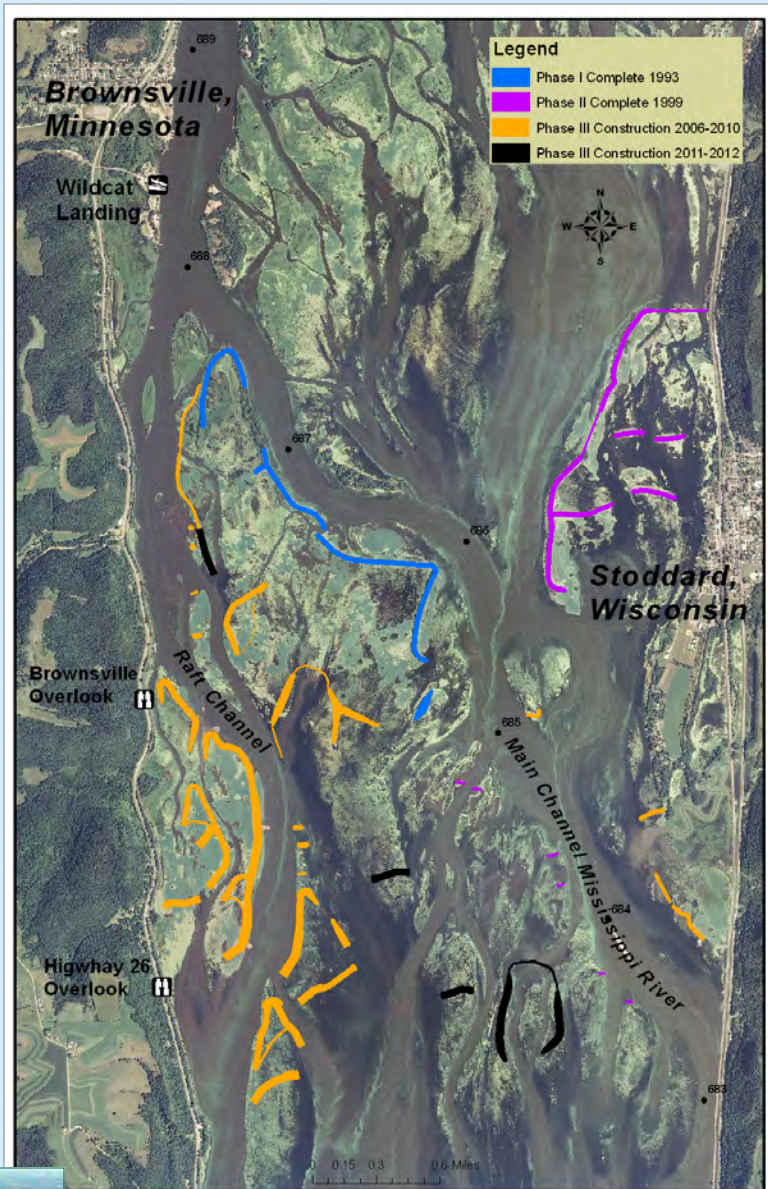
This meant rock protection had to be placed, a fresh sand base on one island had to be covered with topsoil, and equipment being used to pump fine material (silt) out of a slough had to be removed, quickly! With the flooding this spring and fall many of the new islands have been under water twice but have survived intact.

These islands are part of an Environmental Management Program (EMP) habitat project, the Pool 8 Islands Phase III, which is located in a 3,000 acre backwater just downstream from Brownsville, MN and Stoddard, WI. The site lies within the Upper Mississippi River National Wildlife and Fish Refuge.

EMP is the premier habitat restoration and monitoring program for the Upper Mississippi River. It has fostered a planning process for habitat restoration, preservation, and enhancement previously unknown on any other large river system in the United States.

Multiple agencies and the public are an integral part of the planning process. For instance, the Pool

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### The Pool 8 Islands Project (above)

The first two phases of the lower Pool 8 project were completed in 1991, Phase I just below Brownsville, MN, and Phase II in 1997 near Stoddard, WI. Phase III construction, which began in 2006, is nearing completion as the final three islands are underway. USFWS Map

Left photo. Prior to construction of Phase I (circled islands) almost all of the islands in lower Pool 8 had eroded away. Material carried by the river and soil washed from the nearby eroding islands had filled in the channels and deep holes. Aquatic plant beds had all but disappeared. Only a wide open expanse of shallow water above Lock and Dam 8 was left which provided little in the way of fish and wildlife habitat. WI DNR photo



USFWS photo

8 Phase III planning and design has been a cooperative effort between the St. Paul District of the U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service; U.S. Geological Survey; the Wisconsin, Iowa, and Minnesota Departments of Natural Resources; the Minnesota Pollution Control Agency, and the public.

When finished, the Pool 8 Phase III project will include 22 islands and three breakwaters. The islands were built with sand from a placement site, near Brownsville, MN and dredge cuts along the main channel, which was a way to "marry" the island building with a channel maintenance project. Top soil for the islands came from fine material (silt) dredged from Schnick's Bay, Stoddard Bay, and Middle Slough which enhanced channel habitat for fish.

The islands were designed to break up wind fetch to help protect plant beds and provide protection from the wind for waterfowl during crucial early spring and late fall periods of migration. The islands also create areas of quiet water for overwintering fish, and maintain and enhance existing channels in the area, with the long term goal of creating new channels over time.

The channel and backwater restoration will provide habitat for walleye, smallmouth and largemouth bass, bluegill, perch and many other fish species. Jeff Janvrin, Wisconsin DNR Habitat Specialist, offers this note of caution "The fisheries are still developing and it may take 7-10 years for the populations to become established similar to what was observed in Stoddard (Phase II) and other habitat projects."

Both anglers and swan watchers are already enjoying the benefits of the lower Pool 8 Phase III habitat restoration project.

During the weekends of October and November the number of visitors ranged from 100 to 300 per day at the Hwy 26 Overlook, which offers a spectacular view of the thousands of swans and other migratory birds, such as eagles, using the Pool 8 Phase III area.

The new islands will help to maintain aquatic plant beds that the swans and other birds depend on for food, as well as provide the swans with important protection from the cold winds of November and March. The new islands are also located within the Wisconsin Islands Closed Area which helps to limit disturbance to the birds from hunters and boaters.



USFWS photo

# SMALL BACKWATER DREDGING PROJECTS

A Little Sediment Removed Here and Placed There can Quickly Improve Habitat.

by Scot Johnson, Minnesota DNR - Mississippi River Hydrologist



A small scale dredging project is currently underway in Weaver Bottoms, Pool 5. Last summer, a small hydraulic dredge moved fine-grained material (silt) from a shallow bay into holding cells constructed on a nearby island containing historic dredge material sand. The silt will continue to de-water over the winter and be used as topsoil on the sand in the spring. Native trees will be planted to restore the flood-plain forest on the islands while the dredge cut will provide improved overwintering fish habitat. If equipment and funds are available next summer, a similar project will be completed on the Wisconsin side of the channel near Weaver Bottoms.

This project is only the first of many small scale dredging projects scheduled for the future. For many years, members of the Fish and Wildlife Work Group (FWWG) recognized that not all habitat restoration work on the Upper Mississippi River had to entail multi-million dollar projects to realize benefits. A little sediment removed here and a little placed there can quickly improve habitat conditions in a localized area.

To identify opportunities and the potential distribution of small projects, a “subgroup” was formed to report back to the FWWG. The subgroup has identified over 500 locations within Pools 1 -10 that could benefit from small scale dredging and/ or upland placement of sediments.

Currently the subgroup is focusing on methods to reduce future project costs including:

- Research alternative dredging/placement methods that could reduce costs.

## Pool 5 - Weaver Bottoms Small Scale Dredging Project

The silt dredged from the small bay (above) will be dried and spread on top of a nearby island (below) to improve growing conditions for trees and turtle nesting.

The dredging will also improve fish habitat. MN DNR photo



The sand on the island was pushed up to contain the fines (silt) until dry enough to spread. Native trees will then be planted to restore the forest on the islands. USFWS photo

- Organize the 500+ projects according to location and description in order to prioritize and combine projects to be optimally efficient.
- Analyze rules, regulations and environmental review requirements to design projects that streamline the permitting and authorization process while effectively restoring habitat.

The subgroup is also exploring alternate sources of funding.

# POOL 6 DRAWDOWN

## The Fifth Time was the Charm

*by Mary Stefanski, Upper Mississippi River National Wildlife and Fish Refuge - Winona District Manager*

Rain, and lots of it, made the Pool 6 drawdown a reality this past summer after four years of cancellations. On June 18, the pool regulation orders were delivered to Lock and Dam 6 to “let the drawdown begin!” However, excessive rain, dredging schedules and the need to draw the pool down slowly, put off execution of the full one-foot drawdown until July 1. The continuous high summer flows also meant that only the lower portion of the pool (below Winona, MN) saw the effects of the drawdown.

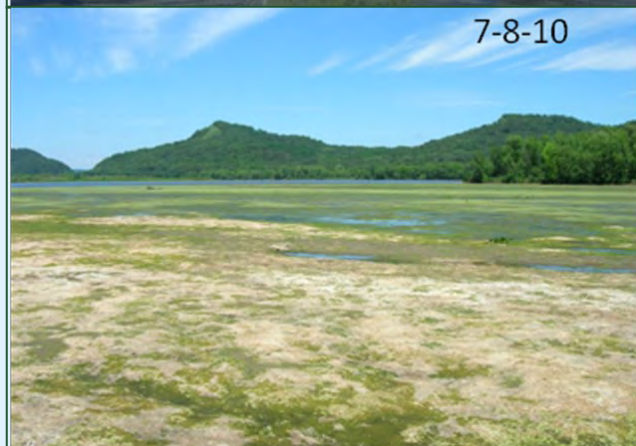
Water Level Management Task Force team members focused on resolving access challenges from two marinas located in the heart of the drawdown zone. The issues appeared to have been alleviated with no alteration to the planned water level reduction until mid-August when the submersed aquatic plants in Pools 4-10 were uprooted due to a substantial rise in the water levels due to heavy rains.

The plants moved downstream in the current and accumulated in the lower end of the pools. This effect was system wide and unrelated to the drawdown in Pool 6.

While the problems due to this event were resolved at one marina in Pool 6, the other, located in the SE corner of Pool 6 attracted the plants and floating debris like a magnet. Unlike other pools there was no way for the large quantity of plant debris to be washed out in the current. Due to this situation combined with the onset of decreased flow on Aug 25 the drawdown was ended and the pool was at normal levels on September 3.

Implementation of the Pool 6 drawdown opened the door for two mussel studies. This was the second year of a study to track the movement of mussels in the drawdown zone. The other study was designed to document mussel mortality.

In mid-August, sampling began on exposed mudflats to look at vegetation production. Preliminary observations report good plant growth on exposed sites. For more information go to Water Level Management Newsletter at [www.mvp.usace.army.mil/environment/default.asp?pageid=122](http://www.mvp.usace.army.mil/environment/default.asp?pageid=122).



### **Pool 6 Drawdown, Photo Station #15.**

Good plant growth on the exposed soil was observed at many photo sites. Plants that will provide critical food and cover for both fish and wildlife. Minnesota DNR photos

# BEACH PLANS

*by Lisa Reid, Upper Mississippi River National Wildlife and Fish Refuge—  
Winona District Biologist*



Intern Mike Rosecrans interviews a beach user who is enjoying a day on the river. USFWS photo

This past summer two Winona State University students, who were interning at the Upper Mississippi River National Wildlife and Fish Refuge – Winona District, surveyed beach use, three times a week, on main channel beaches between Wabasha and Winona.

Mike Rosecrans and Zach Sowman kept track of how many boats and which types they were seeing on the water and beached on shore. Every eleventh beached boat involved a face to face survey. The interns collected information about beach visitors including zip code, type of boat, number of people in a boat, and activities they are engaged in while on the river. The beach goers were encouraged to provide any comments about their experience.

The information was invaluable to members of the Recreation Work Group that conducted site visits in Pools 4, 5, 5a, and 6 this summer as part of their work to develop beach plans for these pools.

Beach management plans are being developed or updated for Pools 2-10 by the Recreation Work Group that recommend management strategies and tools that aid in maintaining specific beach sites along the navigation channel. The Recreation Work Group develops the plans with input from many private and public entities.

The next step for pools 4-6 is to compile the information, evaluations and recommendations for review. This stage has been completed for Pools 9 and 10.

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