

## **FACT SHEET**

### **LOWER POOL 10 ISLAND AND BACKWATER COMPLEX HABITAT PROJECT POOL 10, UPPER MISSISSIPPI RIVER, IOWA ENVIRONMENTAL MANAGEMENT PROGRAM**

#### **LOCATION**

The project is located between River miles 615 and 619 in the southernmost portion of pool 10 of the Upper Mississippi River near Guttenberg, Iowa. The area is bounded by Cassville Slough on the east and north, the main channel or eastern shore of Abel Island on the west, and Lock & Dam 10 on the south. The project area is located in Iowa waters.

#### **EXISTING RESOURCES**

The prominent landscape features include a complex of relatively slender, linear and horseshoe-shaped islands within the broad open water expanse typical of the lower portion of most navigation pools. The physiography of lower pool 10 is notable in that more islands are remaining in the lower reach of the pool when compared to the lower reaches of other pools in the Upper Mississippi River. However, the remaining islands have been and continue to be subject to excessive erosion because of river currents and wind-induced wave action. Current and wave action and the resultant sediment transport cause the area to have excessive water turbidity and sedimentation. These factors adversely affect emergent and submerged vegetation in the area.

#### **PROBLEM IDENTIFICATION**

Erosion of islands will continue where island stabilization has not been completed. Backwater fisheries habitat will continue to decline due to increased flows and sedimentation of presently protected areas. Waterfowl habitat will deteriorate over time as island loss continues and more of the project area is subjected to higher current velocities and wave action that will negatively affect plant species composition and coverage. Impoundment of the pool and permanently higher water tables have affected the health of floodplain habitat on islands and adjacent floodplain areas. These higher water tables are adversely affecting floodplain forest composition and regeneration.

#### **PROJECT GOALS**

Project goals are derived from the Environmental Pool Plans (EPPs), Pools 1 through 10. As described in the EPPs, island stabilization and restoration are the main features required for maintaining habitat quality in lower pool 10. Restoration of aquatic habitat quality through increased depth diversity is also needed. The project goals are as follow:

**Maintain/enhance/create quality habitat for all native and desirable plant, animal and fish species.**

- Maintain existing aquatic habitat complexes for fish and wildlife
- Increase the number and acreage of centrarchid over-wintering habitat areas
- Maintain/increase mussel habitat at various locations
- Increase the acreage, age class diversity and species diversity of the bottomland forest
- Restore isolated wetlands in several locations
- Improve waterfowl habitat by increasing the coverage of aquatic vegetation
- Provide nesting habitat for turtles
- Enhance secondary and main channel border habitat for riverine species

**Maintain/enhance/restore/emulate a sustainable ecosystem (natural water levels, sediment transport and deposition regime, and distribution of water flows across the Mississippi River floodplain).**

- Restore the distribution of flows throughout the complex
- Restore sediment transport and deposition throughout the complex to a more "natural" condition
- Reduce average wind fetch in open water areas (e.g., backwaters and impounded areas) to less than 1,000 feet (maximum not to exceed 4,000 feet)
- Manage pool water elevations to emulate more natural seasonal water elevations
- Minimize adverse effects of elevated water table on soil moisture conditions

**PROPOSED PROJECT**

The desired future for lower pool 10 is to protect and restore island complexes. This would improve and maintain waterfowl habitat by providing cover and maintaining aquatic vegetation in the area. Island restoration would also improve backwater fisheries habitat in the area by increasing depths at various locations used as borrow material for island construction and decreasing velocities due to island construction. The desired future also includes improved habitat conditions for mussels, turtles, and forest resources. Island stabilization and construction are the main features identified for maintaining habitat quality in the lower pool 10 area. Some areas have also been identified as having the potential for restoring aquatic habitat quality to historic conditions through increased water depth diversity. Additional features to restore isolated wetlands, sand and mudflat habitat, shorebird habitat, turtle habitat, raising the elevation of floodplain habitat, etc. are proposed for the area. Proposed project features are shown in Figure 1. A pool 10 water level management drawdown could be a tool to enhance aquatic vegetation in the area, but project benefits and outputs would be calculated without implementation of such a pool drawdown.

The authority for this study and potential project construction is provided by Section 1103 of the Water Resources Development Act of 1986 (Public Law 99-662), as amended.

**PROJECT OUTPUTS**

The proposed project would result in the protection and restoration of about 1000 acres of backwater habitat. Dredging for island fill material would provide additional deepwater

habitat for fishery benefits. Project construction in lower pool 10 would improve habitat conditions through restoration of more beneficial flow distribution and sediment transport and deposition.

### **IMPLEMENTATION CONSIDERATIONS**

An opportunity exists to beneficially use channel maintenance dredged material for some of the island construction.

The presence of the Higgins eye pearlymussel (*Lampsilis higginsii*) at various locations in pool 10 could constrain or limit some actions proposed in this area. Also, any project features within closed areas must be in conformity with the purpose of the closed area, and construction activities would be restricted during the waterfowl hunting season.

Planning and sequencing of project features in the area would require consideration of future potential actions proposed in the lower sections of the nearby French Island and Duck Lake areas.

### **FINANCIAL DATA**

The project features would be located entirely on the Upper Mississippi River National Wildlife and Fish Refuge. Therefore, in accordance with Section 906(e) of the Water Resources Development Act of 1986, the total estimated project cost of \$15,000,000 would be 100% Federal. The U.S. Fish and Wildlife Service manages the lands and would be responsible for operation, maintenance, and rehabilitation of project features, in accordance with Section 107(b) of the Water Resources Development Act of 1992. The OM&R costs are estimated to be about \$20,000 annually.

### **STATUS OF PROJECT**

The Fish & Wildlife Workgroup, the River Resources Forum, and the System Ecological Team (SET) have endorsed this project. Some island stabilization in the project area along the main navigation channel has been completed as part of normal channel maintenance activities.

### **POINTS OF CONTACT**

Jeff DeZellar, Corps of Engineers, St. Paul District, Project Manager, 651-290-5433  
Tim Yager, U.S. Fish and Wildlife Service, McGregor District Manager, 563-873-3423  
Sharonne Baylor, U.S. Fish and Wildlife Service, EMP Coordinator, 507-494-6207  
Jeff Janvrin, Wisconsin Department of Natural Resources, Mississippi River Habitat Specialist, 608-785-9000  
Mike Griffin, Iowa Department of Natural Resources, Mississippi River Wildlife Biologist, 563-872-5700

