

Big Timber Habitat Rehabilitation and Enhancement Project, Pool 17

Rock Island District

Resource Problem - This backwater area was experiencing advanced sedimentation and a resultant decline in fisheries and waterfowl habitat value. Receding flood events tended to either strand or concentrate fish in the unconnected, permanent waters. Severe summer and winter fish kills attributable to low dissolved oxygen levels and freeze-outs, respectively, had been reported. Deep water fish habitat and areas of emergent aquatic vegetation were disappearing. Wetlands were being converted to terrestrial habitat.



Project Features - Hydraulically dredge a channel 5,070 feet long, 50 feet wide, and 8 feet deep; Mechanically dredge a channel 327 feet long, 35 feet wide, and 8 feet deep through Timber Chute; Mechanically dredge a channel 9,400 feet long, 40-50 feet wide, and 3.5 feet deep of which 3,900 feet is located adjacent to the hydraulically dredged channel; Create 10 potholes in areas of willow thickets; Place barriers to prevent boat access to Little Denny; Plant mast trees on the placement sites; and Construct check dams using dredged material.

Project Outputs - The addition of deep and shallow water habitat to this area has minimized the potential for summer and winter fish kills in this backwater. Sediment delivery by overland flows from the Mississippi River into the project area has been reduced by the construction of check dams. Pothole habitat is providing resting and feeding opportunities for waterfowl, and has seen great response from invertebrates, amphibians, and small fish. Revegetation of the dredged material placement site has added to the diversity of the area's lowland forest habitat.

Financial Data - General planning and design costs are estimated at \$198,000 while construction costs are estimated at \$653,000. Annual costs for operation, maintenance, and repair are estimated at \$7,500 and will be the responsibility of the U.S. Fish and Wildlife Service. The non-Federal sponsor is the Iowa Department of Natural Resources. **Status -** Project construction was completed in January 1993. The project has been turned over to the U.S. Fish and Wildlife Service for operation and maintenance.

Performance monitoring is continuing. An initial performance evaluation report (PER) was completed in February 1996. Supplemental PERs were completed in August 1998 and June 2001.