



Environmental Management Program

The Upper Mississippi River System consists of 1,300 miles of the Upper Mississippi and Illinois rivers and several major tributaries. Prior to 1866, the Upper Mississippi River was largely natural, twisting and turning across the wide river valley with numerous islands, side channels and backwaters. In 1866, the 4-foot channel project was the first of several projects to improve conditions for navigation. The locks and dams were built in the 1930s to maintain a 9-foot shipping channel. For many years, the navigation pools created by the locks and dams supported a wealth of fish, wildlife and aquatic habitat. However, the value of this habitat gradually declined due to erosion and sedimentation. Aquatic plant beds diminished in size, and habitat diversity declined.

In 1986, through the efforts of concerned citizens and elected officials, Congress formally recognized the uniqueness of the system and the need to balance commercial navigation with ecosystem objectives by establishing the Environmental Management Program, or EMP. The EMP is a partnership of the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the U.S. Geological Survey and the Minnesota, Wisconsin, Iowa, Missouri and Illinois natural resource agencies. It is designed to restore and protect the natural resources of the Upper Mississippi River and to guide future management of the river ecosystem. The EMP uses two major components to address these goals: habitat rehabilitation and enhancement projects and long-term resource monitoring.

Habitat Rehabilitation and Enhancement Projects

Habitat rehabilitation and enhancement projects are designed to benefit fish and wildlife by restoring lost habitat or protecting existing habitat features. Planned and engineered by the Corps, in partnership with other government agencies, non-governmental organizations and the public, typical habitat projects include restoring islands, constructing flow control structures or shoreline stabilization features and dredging backwater areas. Since 1986, more than 25 projects have been completed, affecting more than 40,000 acres of river and floodplain habitat within the St. Paul District. Examples of EMP projects include the restoration of islands in Pools 5, 7 and 8 of the Mississippi River and the construction of a water level management facility for the Trempealeau National Wildlife Refuge near Trempealeau, Wis. More projects are being planned, designed and constructed. The EMP has become the most significant effort to restore and protect the natural resource values of the Upper Mississippi River.

Long-term Resource Monitoring

The Upper Midwest Environmental Sciences Center of the U.S. Geological Survey, in partnership with other federal agencies and the five Upper Mississippi River states, implements the Long Term Resource Monitoring component of the EMP. To better understand river processes and conditions, personnel at six field stations collect data on water quality, vegetation, fish, sediment, land use and aquatic insects. The results are analyzed and used to assess the health of the river and forecast future trends. Research studies answer questions about the river's ecology and future trends. Bathymetric mapping of the river corridor provides useful information for identifying such things as erosion, sediment deposition and transport, and vegetation beds. The Long Term Resource Monitoring provides a repository for all data collected on the river.