



It is U.S. Army Corps of Engineers' policy to apply principles of good environmental stewardship to the natural and cultural resources occurring on Corps-administered and/or managed lands and waters. In the St. Paul District, the environmental section office in La Crescent, Minn., manages these public resources on more than 220,000 acres of land and water within the Upper Mississippi River 9-Foot Navigation Channel Project from Minneapolis to Guttenberg, Iowa. Key products and services include:

- *Water quality preserved through stewardship of the land-water corridor*
- *Shorelines protected from erosion*
- *Food and habitat for fish and wildlife*
- *Open space and aesthetic surroundings*
- *Shoreline management permits*
- *Volunteer opportunities*
- *Interpretation and Outreach*

Environmental stewardship responsibilities are carried out through a wide variety of activities. All work is coordinated with other federal, state and local agencies having fish and wildlife management responsibilities and with assistance from technical and administrative staff at the Corps' St. Paul, Minn., headquarters.

Forest Management

Natural resource inventories have been conducted on more than 23,500 acres of bottomland forest. Management prescriptions are developed to improve and sustain this resource as habitat for wildlife. These prescriptions include reforestation, timber stand improvement, timber harvest, monitoring or treatment for forest insects and diseases and control of invasive forest plant species.

Vegetation Projects

Channel maintenance management sites are locations along the main channel of the Mississippi River where sand from Corps dredging operations are placed. Over the years, the Corps has significantly reduced the number of placement sites and currently strives to maximize beneficial use of the material for other purposes. Many historic placement sites are no longer used for channel maintenance work. These non-active sites are often

sparsely vegetated and have little value for wildlife. Establishing vegetation at these sites is designed to improve habitat by enhancing soils and restoring trees, shrubs, grasses and/or forbs.

Shoreline Stabilization

The Mississippi River floodplain contains a wealth of cultural resources and nationally significant habitats for fish and wildlife. Corps staff undertakes protection of these resources in areas where they are threatened by erosion. Various rock riprap and bioengineering designs are used.

Public Use Regulation

Public use activities on Corps lands and waters, such as operation of vessels, removal or alteration of vegetative growth and building shoreline structures, are regulated to protect and enhance the natural and cultural resources.

Grassland Management

Native grasslands and prairies are protected and developed where possible on Corps lands to provide diverse habitats for nesting waterfowl, songbirds, turtles and other wildlife.

Fisheries Management

Projects are designed and implemented to manage water flow, improve water quality and protect and restore fish, mussels and their habitats. Recent activity includes a relocation plan for the endangered Higgins' eye pearly mussel on the Mississippi River.

Wetland Management

Wetlands on Corps land are protected, conserved and maintained with the goal being "no net loss" of wetlands at any one water resource project area. In some cases, new wetlands may be developed or degraded wetlands may be enhanced in support of mitigation plans.

Pesticide Program

Pesticide use is managed to provide control of vegetation on critical engineering structures, to reduce habitat degradation caused by exotic and invasive species and to promote regeneration of forest species.

Water Level Management

Water level management is a tool for restoring river habitat. River levels in selected backwater lakes or entire Mississippi River navigation pools have been successfully drawn down during the summer growing season to promote germination and growth of aquatic plants and improve fish and wildlife habitat. More "drawdowns" are being

planned for the future in coordination with the public, commercial navigation and recreational boating interests.

Shoreline Management

On project lands in Pools 3 through 10, there are approximately 460 shoreline-use permits for docks, lifts and floating boathouses and 250 special-use licenses for stairways, sheds and other land based facilities. Environmental staff administer this program, which includes inspections of facilities, maintaining records, initiating renewals, facilitating transfers and collecting fees.

Boundaries

Environmental section staff determine where new property boundary surveys and/or maps are needed and administer survey contracts when necessary. They also assure project boundaries are adequately marked and signed and respond to frequent requests by individual property owners abutting the project, for boundary identification.

Interpretation and Outreach

Environmental section staff develop and present interpretive programs at Corps facilities or off-site locations to educate the public about the Corps' missions.