



## 4 Economic Benefits of Wetlands

*Wetlands contribute to the national economy by producing resources and commodities and providing other benefits. Because of the diversity of wetland types and locations, measuring all their benefits is difficult, even for a specific type of wetland. This fact sheet discusses some site-specific studies, but remember that each study measures only one or a few of the benefits.*

### Wetlands Yield Fish for the Nation

Wetlands are important spawning and nursery areas and provide plant food for commercial and recreational fish and shellfish industries.

In 1991, the dockside value of fish landed in the United States was \$3.3 billion, which served as the basis of a \$26.8 billion fishery processing and sales industry, which in turn employs hundreds of thousands of people. An estimated 71% of this value is derived from fish species that during their life cycles depend directly or indirectly on coastal wetlands. For example, Louisiana's marshes alone produce an annual commercial fish and shellfish harvest of 1.2 billion pounds worth \$244 million in 1991.

### Wetlands Provide Recreational Opportunities

More than half of all U.S. adults (98 million people) hunt, fish, birdwatch, or photograph wildlife. These activities, which rely on healthy wetlands, added an estimated \$59.5 million to the national economy in 1991. Individual States likewise gain economic benefits from recreational opportunities in wetlands that attract visitors from other States.

Source: U.S. Congress, Office of Technology Assessment. 1993. *Preparing for an Uncertain Climate*. Vol. II, OTA-O-568, U.S. Government Printing Office, Washington, DC.

### Wetlands Improve Water Quality

Wetlands help stop pollutants from entering receiving waters. For example, the wetlands of the Congaree Bottomland Hardwood Swamp in South Carolina remove sediment and toxic substances and remove or filter excess nutrients. The least cost substitute for these wetlands benefits would be a water treatment plant costing \$5 million (in 1991 dollars) to construct, and additional money would be needed to operate and maintain the plant.

### Wetlands Help Control Floods

The Minnesota Department of Natural Resources has computed a cost of \$300 to replace, on average, each acre-foot of flood water storage. In other words, if development eliminates a one-acre wetland that naturally holds 12 inches of water during a storm, the replacement cost would be \$300. The cost to replace the 5,000 acres of wetlands lost annually in Minnesota would be \$1.5 million (in 1991 dollars).

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# Value of Michigan Wetlands

A study of Michigan's coastal and forested wetlands valued them as shown in the chart, in addition to their other values, such as storm and flood protection

Source: Hickman, C.A. 1977.

"Forested Wetland Trends in the United States: An Economic Perspective." *Forest Ecology and Management* 33(34), June 1. Also see Jaworski, E. 1978. *Fish, wildlife, and recreation value of Michigan's coastal wetlands*. USFWS, Minneapolis, MN.

## Economic Value of Wetlands in Michigan

