



# WETLANDS FACT SHEET # 2

## Values and Functions of Wetlands

*In their natural condition, wetlands often provide many benefits, including food and habitat for fish and wildlife, flood protection, shoreline erosion control, natural products for human use, water quality improvement, and opportunities for recreation, education and research.*

### Products

Altogether, wetlands are among the most biologically productive natural ecosystems in the world, comparable to tropical rain forests and coral reefs in the number and diversity of species that they support. Wetlands produce great volumes of food as leaves and stems break down in the water to form detritus. This enriched material is the principal food for many aquatic invertebrates (including shellfish) and forage fish that are food for larger commercial and recreational fish species such as bluefish and striped bass.

*Wetlands are critical habitat to the survival of numerous threatened and endangered species*

Wetlands are critical to the survival of a wide variety of animals and plants, including numerous threatened and endangered species like the wood stork, Florida panther, whooping crane, and bald eagle. For many species such as the wood duck, muskrat and swamp rose, wetlands are primary habitats. For others, wetlands provide important seasonal habitats where food, water and cover are plentiful.

Wetlands produce a wealth of natural products, including fish and shellfish, wildlife, timber, wild rice, and furs. Much of the Nation's fishing and shellfishing industry harvests wetlands-dependent species. For example, in the Southeast, 96 percent of the commercial catch and over 50 percent of the recreational harvest are fish and shellfish that depend on the estuary-coastal wetlands system. Waterfowl hunters spend over \$300 million annually in pursuit of wetlands-dependent birds.

### Services

Wetlands often function like natural tubs, storing either floodwater that overflows riverbanks or surface water that collects in isolated depressions. By doing so, wetlands help protect adjacent and downstream property from flood damage. Trees and other wetland vegetation help slow the speed of floodwaters. This action, combined with water storage, can lower flood heights and reduce the water's erosive potential. In agricultural areas, wetlands can help reduce the likelihood of flood damage to crops. Wetlands within and upstream of urban areas are especially valuable for flood protection, since urban development increases the rate and volume of surface water runoff, thereby increasing the risk of flood damage. Some wetlands also help recharge ground water supplies and help maintain base stream flows during times of drought.

Often located between rivers and high ground, wetlands buffer shorelines against erosion. These wetlands bind soil, dampen wave action, and reduce current velocity through friction.

Wetlands can help maintain and improve water quality by intercepting surface water runoff before it reaches open water, removing or retaining nutrients, processing organic wastes, and reducing sediment loads to receiving waters. Such runoff represents the most prevalent cause of degradation of our nation's surface waters today (1990 Water Quality Inventory).

Wetlands provide endless opportunities for popular recreational activities such as hiking, bird watching, fishing and boating. An estimated 50 million people spend nearly \$10 billion each year observing and photographing wetlands-dependent birds.

**For more information, contact the EPA Wetlands Hotline at 1-800-832-7828 \***

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