

## WETLAND FUNCTIONS and VALUES

Adapted from National Science Foundation, 1995, and Mitch, William J., 1993

FUNCTION	EFFECT	SOCIAL VALUE
<b>Hydrologic</b>		
Short-term surface water storage	Reduced downstream flood peaks	Reduced property and crop damage from floodwaters
Long-term surface water storage	Maintenance of stream flows, seasonal stream flow moderation	Maintenance of fish habitat during dry periods
Maintenance of high water tables	Maintenance of hydrophytic plants, ground water for tree and crop growth	Maintenance of biodiversity, increased timber and crop production
<b>Biogeochemical</b>		
Transformation and cycling of elements	Maintenance of nutrient stocks within wetland, production of dissolved and partially decayed organic matter	Timber production, food for fish and shellfish downstream, support of recreational and commercial fishing
Retention, removal of dissolved substances	Reduced transport of nutrients and pesticides downstream	Maintenance of water quality. Safer drinking water
Accumulation of peat	Retention of nutrients, carbon, metals, other substances	Maintenance of water quality, reduction of global warming
Accumulation/retention of inorganic sediment	Retention of sediment and attached pesticides, phosphate and other nutrients	Maintenance of water quality, clear water, high quality fish populations in streams
<b>Habitat and Food Web Support</b>		
Maintenance of characteristic plant communities	Food and escape and nesting cover for wildlife; spawning and nursery habitat for fish and shellfish; food for humans	Support for waterfowl and other wild game, furbearers, uncommon and rare and endangered species, fish, and shellfish. Recreational and commercial hunting, fishing and bird watching.
Maintenance of characteristic energy flow	Support for populations of vertebrates and invertebrates	Maintenance of biodiversity, bird watching, aesthetics

**NOTE:** Wetlands are especially valued by many members of society because of their location on the landscape, the wide variety of functions they perform and uniqueness of their plant and animal communities. Individual landowners and members of the general public also value many wetlands for their open space and aesthetic qualities, as sites for educational research, as locations of important historic and archaeological sites, and as locations for conveying floodwaters.