

Wetland Functions Fact Sheet

Introduction

Wetlands are some of the most productive and dynamic habitats in the world. The physical, chemical, and biological interactions within wetlands are often referred to as wetland functions. These functions include surface and subsurface water storage, nutrient cycling, particulate removal, maintenance of plant and animal communities, water filtration or purification, and groundwater recharge. Similarly, the characteristics of wetlands that are beneficial to society are called wetland values. Perhaps these can best be thought of as the importance of a wetland function to an individual or group. Some examples of wetland values include reduced damage from flooding, water quality improvement, and fish and wildlife habitat enhancement.

It is important to maintain and restore wetland functions and values because wetlands contribute to the overall health of the environment.

Some basic wetland functions and their associated values are listed below.

Surface water storage

This function helps prevent flooding by temporarily storing water, allowing it to soak into the ground or evaporate. This temporary storage can help reduce peak water flows after a storm by slowing the movement of water into tributary streams which allows potential floodwaters to reach mainstream rivers over a longer period of time. Water quality is also improved by removing nutrients, pesticides, and bacteria from surface waters as they are absorbed or broken down by plants, animals, and chemical processes within the wetland.

Subsurface water storage

Wetlands are reservoirs for rainwater and runoff. As this water is released into the ground, it recharges water tables and aquifers, and extends the period of stream flows in many parts of the United States.

Nutrient cycling

Wetlands enhance the decomposition of organic matter, incorporating nutrients back into the food chain.

Retention of particles

By filtering out sediments and particles suspended in runoff water, wetlands help prevent lakes, reservoirs, and other resources from being affected by downstream sediment loading. This improves water quality and extends the life of water bodies by reducing sedimentation rates.

Maintenance of plant and animal communities

Both coastal and inland wetlands provide breeding, nesting, and feeding habitat for millions of waterfowl, birds, fish, and other wildlife. Wetlands in the United States support about 5,000 plant species, 190 species of amphibians, and a third of all native bird species. Coastal wetlands are an integral part of the life cycle for many marine organisms; they are the nursery and spawning grounds for 60 to 90 percent of U.S. commercial fish catches. Fresh-water wetland vegetation can provide valuable forage for livestock, particularly during drought years in many of the Plains States. Forested wetlands are also an important source of timber from such valuable trees as white cedar, bald cypress, and tupelo.

Values to Society

There are a number of other values society receives from wetlands. Some of these values are providing sites for hunting, fishing, trapping, photography, outdoor classrooms or environmental education, and the enjoyment of open spaces. The ecological diversity and high productivity of wetlands make them one of the most scenic features on any landscape.

For More Information

NRCS, [Farm Service Agency](#), [Cooperative Extension Service](#), or your local [conservation district](#) can provide more information. Your USDA Service Center is listed in the telephone book under U.S. Department of Agriculture. Information is also available here on [NRCS's World Wide Web site](#).

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