



Based on the following EPA reports:
 EPA 843-F-01-002b September 2001
 EPA 843-F-01-002c March 2002
 EPA 843-F-04-011a December 2004

What Is a Wetland?

Although wetlands are often wet, a wetland might not be wet year-round. In fact, some of the most important wetlands are only seasonally wet. Wetlands are the link between the land and the water. They are transition zones where the flow of water, the cycling of nutrients, and the energy of the sun meet to produce a unique ecosystem.

Wetlands found in the United States fall into four general categories—marshes, swamps, bogs, and fens.

Marshes

Marshes are periodically saturated, or flooded with water and characterized by non-woody vegetation adapted to wet soil conditions. Marshes can be tidal and non-tidal marshes.

Tidal (coastal) marshes occur along coastlines and are influenced by tides and often by freshwater from runoff, rivers, or ground water. Salt marshes are the most common types of tidal marshes and are characterized by salt-tolerant plants such as smooth cordgrass and saltgrass. Salt marshes are very productive because of the inflow of nutrients from surface water and tidal water. Tides influence water levels, but the water is fresh. The lack of salt stress allows a greater diversity of plants to thrive. Cattail, wild rice, pickerelweed, and arrowhead are common and help support a large and diverse range of bird and fish species, among other wildlife.

Nontidal (inland) marshes are dominated by non-woody plants and frequently occur in poorly drained low areas along the edges of lakes and rivers. Major regions of the United States that support inland marshes include the Great Lakes and the Florida Everglades.

Swamps

Swamps are fed primarily by surface water and are dominated by trees and shrubs. They have very wet soils during the growing season and standing water during certain times of the year. Well-known swamps include Georgia's Okefenokee Swamp and Virginia's Great Dismal Swamp. There are three types of swamps: forested, shrub, or mangrove.

Forested swamps receive floodwater from nearby rivers and streams. Common trees found in these areas include bald cypress, swamp white oak, and red maple.

Shrub swamps are similar to forested swamps except that shrubby species like buttonbush and swamp rose dominate.

Mangrove swamps are coastal wetlands characterized by salt-tolerant trees, shrubs, and other plants growing in salty tidal waters.

Bogs

Bogs are freshwater wetlands characterized by spongy deposits, a growth of evergreen trees and shrubs, and a floor covered by a thick carpet of moss. These systems, whose only water source is rainwater, are usually found in former glacial areas of the northern United States.

Fens

Fens are groundwater-fed wetlands covered by grasses, reeds, and wildflowers. Willow and birch are also common. Fens, like bogs, tend to occur in glaciated areas of the northern United States.

Wetlands impact

Often called “nurseries of life,” wetlands provide habitat for thousands of species of plants and animals. Although wetlands are best known for being home to water lilies, turtles, frogs, snakes, alligators, and crocodiles, they also provide important habitat for water birds, fish, and mammals. Migrating birds use wetlands to rest and feed during their cross-continental journeys and as nesting sites when they are at home. Up to one half of North American bird species nest or feed in wetlands. Wetlands only represent about 5 percent of the land surface of the continental United States but they are home to 31 percent of our plant species. As a result, wetland loss has a serious impact on these species. Habitat destruction since the 1970s has been a leading cause of species extinction.

Wetlands do more than provide habitat for plants and animals in the watershed. When rivers overflow, wetlands help to absorb and slow floodwaters. An acre of wetland can store roughly 1 to 1.5 million gallons of water. This ability to control floods can reduce property damage and loss and can even save lives.

Wetlands also absorb excess nutrients, sediment, and other pollutants before they reach rivers, lakes, and other waterbodies. After being slowed by a wetland, water moves around plants, allowing the suspended sediment to drop out and settle to the wetland floor. Nutrients from fertilizer, manure, leaking septic tanks, and sewage that are dissolved in the water are often absorbed by plant roots and microorganisms in the soil. Other pollutants stick to soil particles. In many cases, this filtration process removes much of the water’s nutrient and pollutant load by the time it leaves a wetland.

They are great spots for fishing, canoeing, hiking, and bird-watching that add tens of billions of dollars to the national economy.

Despite all the benefits provided by wetlands, the United States loses about 60,000 acres of wetlands each year. The very runoff that wetlands help to clean can overload and contaminate these fragile ecosystems. In addition, non-native species of plants and animals and global climate change contribute to wetland loss and degradation.

QUESTIONS

On a separate piece of paper, use what you have learned in this handout to answer the following questions:

- 1) How do the types of wetlands differ from each other?
- 2) What type of wetlands do you think would be found in the New York City area? Why?
- 3) How do wetlands benefit a location? Do you think they would benefit New York City?