

# Wetlands: Our "Common Wealth"

Wetlands are part of our "common wealth". They contribute to public health and safety, not only for you and your family, but for your community as well. Wetlands protect drinking water, prevent storm damage, and provide fish, shellfish, and wildlife habitats. Wetlands also support commercial fishing, tourism, recreation, and educational opportunities. These valuable resource areas are found in every community across Massachusetts and are an important part of a river's watershed. Although most wetlands are found on private property - maybe even yours - their benefits are important to everyone. Landowners have an important role in protecting wetlands.

## What Are Wetlands?

Coastal wetlands are directly adjacent to the ocean and include beaches, salt marshes, dunes, coastal banks, rocky intertidal shores, and barrier beaches. Inland wetlands are areas where water is at or just below the surface of the ground. Although these wetlands can appear dry during some seasons, they contain enough water to support certain plants and soils. Inland wetlands include marshes, wet meadows, bogs, and swamps. Wetlands that border on ponds, lakes, rivers, and streams are called bordering vegetated wetlands.

## Wetlands Are Not Wastelands

In the past, wetlands were mistakenly regarded as "wastelands" of mud and mosquitoes or simply as obstacles to economic development. However, scientific studies have shown that wetlands protect our health, safety, and property, as well as provide habitat for a variety of wildlife.

## Drinking Water Protection

Wetlands are natural water filters. Wetland plants and soils remove pollutants and toxic substances from water. Some pollutants are held for years in the roots of plants such as arrowhead, cattails, and reed canary grass. Some wetland soils have beneficial bacteria that capture other pollutants like nitrates. Wetland plants also filter sediments and recycle important nutrients.

Some wetlands contribute to the drinking water supply by collecting and releasing water to groundwater systems and surface water

reservoirs. The degradation and loss of wetlands can impact water supplies, in some cases, resulting in water shortages that require water-use restrictions.

## Flood Control

Wetlands temporarily store flood waters. Like sponges, wetlands hold excess water within their boundaries and then slowly release the water back to rivers and ponds. Wetland plants also slow the flow of water. This delaying action prevents flood waters from rising rapidly and threatening lives and property. In contrast, paved areas cannot absorb water and sometimes can increase storm damage by providing a smooth, impervious surface for water to flow over, which increases the speed of flood waters. Coastal wetlands buffer uplands from storm damage. They absorb wave energy and reduce the height of storm waves. Wetland plants bind the soil and help slow shoreline erosion. These resource areas are so effective in controlling erosion and flooding that some coastal communities plant wetland plants and build artificial dunes to protect property.

## Fish and Shellfish Habitat

Wetlands are important sources of food and shelter for fish and shellfish. They are spawning and nursery areas for a variety of saltwater and freshwater fish, including herring, flounder, sunfish, and bass. Shellfish like crabs, clams, and bay scallops depend on wetlands such as tidal flats and eelgrass beds for their survival. The fish and shellfish that were spawned in wetlands support the commercial fishing industry and provide food and income for many people. The degradation and loss of wetlands can harm fish and shellfish resources, which, in turn, can impact the fishing industry.

Many birds, reptiles, amphibians, mammals, insects, and plants depend on wetlands for their survival. Migratory birds like the red-winged blackbird find food and shelter in wetlands during their seasonal migrations. Shorebirds like the sandpiper use wetlands for food and shelter. Even bald eagles depend on wetlands. In addition, wetlands provide breeding areas for birds such as the wood duck.

Mammals depend on wetland habitats, too. Black bear, deer, and other large mammals often feed on wetland plants. Beavers and muskrats make their homes in ponds and streams, while weasels and otters find their food in marshes.

Wetlands provide habitat for many rare and endangered species such as the wood turtle, piping plover, blue-spotted salamander, and the Plymouth gentian flower.

#### **Natural Beauty & Recreation**

In addition to health and safety benefits, wetlands offer natural beauty and recreational opportunities. These resource areas are available to everyone who enjoys the outdoors, such as hikers, hunters, sport fishermen, artists, and bird watchers. Wetlands also contribute to tourism and offer educational opportunities for adults and children. For many landowners and communities, wetlands represent open space - a valuable resource in urban and suburban landscapes.

#### **Worth Every Dollar**

Since Colonial times, Massachusetts has lost nearly one third of its wetlands. The loss of wetlands means the loss of the important benefits they provide. Where wetlands once stored stormwater, homes downstream are now more vulnerable to flooding. Where wetlands once provided a critical line of defense from coastal storms, private and public property are now exposed to the full force of the ocean. Where wetlands once provided spawning grounds for fish and shellfish, shellfish beds are now closed and fisheries are diminished.

In economic terms, the cost of preserving wetlands in their natural state is far lower than the cost of repairing property that has been damaged or building structures or facilities to replace wetland functions.

#### **Wetlands Protection**

Concerned about the historic loss of wetlands, the Massachusetts Legislature adopted the

nation's first wetlands protection laws in the early 1960s. Today, wetlands are protected by state, federal, and sometimes local laws.

The Wetlands Protection Act (Massachusetts General Laws Chapter 131, Section 40) is a state law that prohibits the removal, dredging, filling, or altering of wetlands without a permit. This law is administered in each city or town by a local volunteer board called a conservation commission. The Department of Environmental Protection (MassDEP) oversees administration of the law by developing regulations, providing training to commissions, and hearing appeals of local commission decisions. The law protects not only wetlands, but other resource areas, such as land subject to flooding (100-year floodplains), the riverfront area, and land under water bodies, waterways, salt ponds, and the ocean.

Under Section 401 of the federal Clean Water Act, any discharge of dredged or fill material into waters or wetlands requires a state Water Quality Certification. MassDEP must certify that projects requiring federal permits do not violate the state's water quality standards, which include protection for wetlands.

In addition, some communities have their own wetlands protection bylaws. Contact the conservation commission at your city or town hall for more information about the state's Wetlands Protection Act and local wetlands bylaws.

#### **How You Can Help**

By recognizing wetlands and understanding their benefits, landowners can make informed decisions that protect these valuable natural resources. You can help protect wetlands by:

- Learning more about wetlands and sharing that knowledge with others
- Joining or helping your local conservation commission or local watershed association
- Obeying wetlands protection laws

*For more information about wetlands protection, or to determine whether you have wetlands on your property, contact the Ashland Conservation Commission at 508-881-0100 x656 or [conservation@ashlandmass.com](mailto:conservation@ashlandmass.com).*