

Conservation Connection

September 2016

Why do we care about wetlands?

By Roberta Pearle Lamb, Weston Conservation Commission Member

Maligned since Colonial times and once considered dirty breeding grounds for pests and mosquito-borne infectious disease such as malaria, wetlands have come to be recognized as crucial environmental resources. Various types of wetlands including swamps, marshes, and bogs, then seen as impediments to economic development, were systematically drained and filled for agricultural use, the construction of roads and highways, as well as for urban and suburban development. In fact, we have lost more than 50% of the country's wetlands since the earliest European settlers arrived in the fifteenth century. We continue to lose thousands of acres of wetlands per year, but in the last fifty years, environmentalists prevailed on the government to begin a reversal of the wetland destruction, with the goal of protecting and even restoring the natural resources that lie literally in our own back yards.

Weston's lush landscapes can be attributed in part to our newly valued wetlands, which account for approximately one sixth of the land in our town. Consider that approximately 25% of the land on the Town of Weston is under jurisdiction of the Conservation Commission by virtue of its designation as wetland, pond, buffer zone, flood zone or riverfront area.

Wetlands are not always wet, and in some conditions, like during the drought of 2016, they may appear bone dry. Scientists define wetlands as transitional areas between land and water; these areas are saturated with water or covered by shallow water for at least part of each year, or part of most years. These wet conditions determine the types of soil and plants found there. When determining whether an area is a wetland or not, wetland specialists look for the presence of soils associated with wet conditions (hydric soils) and for plants that can tolerate saturated soil (hydrophytes). Trying to identify wetlands in our backyards can present challenges, so homeowners are encouraged to enlist the support of town officials, in particular, the Conservation Commission.

Why protect wetlands? Beyond providing us the obvious beauty of green spaces, ponds and streams in our neighborhoods, wetlands are now credited with supporting our health, preventing storm damage to our properties, and protecting the habitats and sustainability of our local wildlife. Since the implementation of programs to improve the health of our aquatic systems we have been rewarded with increases in the population of great blue heron, osprey, and hooded mergansers in our ponds, marshes and wetlands. Even if we care less about the local wildlife habitats, we remain vulnerable to the effects of flooding, storm damage and water pollution sooner or later.

The basic mechanics of wetlands are simple. Acting as a natural sponge, wetlands slow water flow and create natural pools, which provide storage capacity against drought and flooding. The slow flow created by a functioning wetland filters sediments including chemical contaminants such as phosphates and nitrates (some of these are present in fertilizers). Healthy wetlands result in cleaner ponds, rivers, and even drinking water.



The Charles River forms the boundary between Weston and Newton for over 2 miles. It is enjoyed by boaters and fishermen and provides significant wildlife habitat.

photo by Michele Grzenda

Massachusetts took the lead to become the first state to adopt wetland protection in 1963. In the 1970s, federal environmental laws were passed in support the recognition that rivers and waterways needed protection. By

1972, Massachusetts established the Wetlands Protection Act [Massachusetts General Laws (MGL) Chapter 131, Section 40] and entrusted local conservation commissions to administer proposed work that may alter wetlands. The Department of Environmental Protection (DEP) oversees the administration of the law and develops policies, regulations and guidance to commissioners to apply the standards of the law. The more we appreciate how the wetlands support our environment, the more we can work with our town officials to protect them.

The law directs us to focus on eight interests: the protection of public and private water supply, the protection of ground water supply, flood control, storm damage prevention, prevention of pollution, the protection of land containing shellfish, the protection of fisheries, and the protection of wildlife habitat.

Although we may not realize how intimately the waterways are connected, the health of local wetlands has a vital role to play in protecting coastal and other inland habitats. By protecting the biodiversity in our local wetlands we have the opportunity to strengthen other habitats resulting in a positive effect on the state of our ecology.

What can you do to protect these invaluable resources? Educate yourself on wetland science, enjoy a walk in our local wetlands, and learn what steps you need to take if you want to build onto your home, remove trees, or even add a small lawn area near wetlands.

From a practical viewpoint, we can begin to appreciate how the atmospheric, surface and groundwater interact in a cycle that manages to keep our water cleaner, our landscapes lovelier, our roads safer, our trails traversable, our basements drier, our birds, fish and wildlife healthier, and maybe...our spirits lighter and our minds a wee bit calmer. That might just be something we can all get behind.



Thanks to the Wetlands Protection Act, projects that alter wetlands must create new wetlands as mitigation. Walkers at Norumbega Reservoir may spot this new wetland which was required mitigation as part of MWRA's water supply improvement project. (Photo by Michele Grzenda)

Conservation Connection is a monthly article published by the Weston Conservation Commission members and staff. It will feature news and items of interest about Weston trails, open space, and natural resources. To receive up-to-date news from the Conservation Commission, please subscribe to the Conservation Commission's e-newsletter at www.weston.org/list.aspx (click on "Conservation Connection" under "Notify Me")