

Wetlands: Negative reputation belies all these areas do for communities

BY EMILY SVENSON • FOR THE POUGHKEEPSIE JOURNAL • JULY 19, 2009

Wetlands have a bad reputation. Snake-filled swamps or buggy bogs, wetlands have taken root in our imaginations as horror movie settings. For years, builders and farmers saw swamps as an inconvenience, best drained to provide land they could use. Now, scientists, planners, engineers and legislators recognize wetlands are actually brimming with services that provide value to our communities.

Wetlands absorb floodwater - Flooding is a serious problem for many local streams. Contrary to popular belief, most flooding does not result from a blockage downstream but rather because of excess water from upstream. When land is paved for streets and parking lots, rain water runs more quickly into streams, causing them to overflow their banks.

Scattered across the landscape, wetlands provide essential flood storage in watersheds. When snow melts and spring rains fall, wetlands retain water that would otherwise flow straight into creeks. Streamside wetlands provide overflow areas when streams naturally run high. Like giant sponges, these wetlands hold water and release it gradually.

Wetlands support biodiversity - Wetlands are not simply mud puddles; they are the nurseries and cafeterias of the forest. In Dutchess County, a variety of wetland types provide food, water, shelter and breeding area to a diverse array of wildlife. Scientists are learning many animals, such as the rare Blanding's and bog turtles, travel among different wetlands in the course of their life cycle. And bigger isn't always better. Complexes of small wetlands work together to provide essential connections for birds, mammals, amphibian and reptiles.



Young naturalists explore a local wetland.
(Photo courtesy of Van Svenson)

The Dutchess County Wetlands Complex has been named a Significant Biodiversity Area by the Hudson River Estuary Program, placing it in such famous company as the Palisades and the Shawangunk Ridge. While perhaps not as visually stunning, or even visible (since many are hidden on private lands), our collection of wetlands is equally special.

Temporary wetlands are valuable - Common sense might suggest a wetland that isn't wet all year can't be all that valuable, but actually the opposite is true. Isolated, seasonal wetlands, also known as vernal pools, provide an irreplaceable habitat for amphibian. Because these wetlands dry up at times, they don't support fish. This makes them an ideal breeding area for salamanders and frogs, whose eggs and larvae can grow without fear of fish predators.

Buffers are part of a wetland system - Even when the value of a wetland is recognized, many think protection can stop at its boundaries. In fact, the adjacent upland is a critical part of the wetland system. Upland buffers protect water quality by filtering runoff and provide essential wildlife habitat. Clearing, mowing or paving a buffer can result in dirtier water and severely compromised habitat. A vernal pool without a buffer can become a "ghost pool" - the water is there, but the animals are not.

Not all wetlands are protected by existing laws - If wetlands are important, the government protects them, right? Well, sort of. New York state regulates building and certain activities in wetlands 12.4 acres or larger, as well as a 100-foot buffer. The federal government regulates wetlands of any size connected to navigable waters. But wetlands smaller than 12.4 acres that are not connected to streams are not protected under state or federal law. A recent Cornell University study showed more than half of the wetlands in Dutchess fall into this category.

New York is a "home rule" state, meaning municipalities hold much power to make land use decisions. Many towns in Dutchess have adopted local laws to protect those wetlands that slip through the cracks of federal and state laws, and other towns are in the process of considering similar legislation.

Precaution is key - In many local neighborhoods, frequent flooding damages roads and homes and leads to chronic mold and asthma. Many of these subdivisions were built when the prevailing view was to drain wetlands and move the water downstream. Decades later, residents cope with the resulting lesson: If you displace water from one area, it has to go somewhere else - possibly your road, yard or basement.

We would do well to remember the Precautionary Principle, which suggests we err on the side of caution when actions could potentially cause irreversible damage to human health or the environment. From the Mississippi levees to widespread spraying of DDT, our attempts to modify a system without a thorough understanding can often come back to haunt us. Preserving natural systems such as wetlands with minimal disturbance respects their intricate order and the fact we are part of nature and rely on it to support us.

You can help - If you have a wetland on your property, it's simple to take good care of it. Don't put anything in and don't take anything out. Don't mow up to the edge - let a natural buffer grow. Observe your wetland - notice how the water level changes with the seasons and watch the animals that visit. Let your kids chase frogs and carefully look under logs for salamanders. Appreciate the services wetlands provide and the complexity of these amazing systems we're only beginning to understand.

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