Gardiner's Water Resources

Gardiner has a generous supply of water. We drink it, swim in it, nourish our gardens with it, and try to keep it out of our basements when it rains. Gardiner's water resources not only provide us with drinkable water, they also reduce the flooding caused by storms. It is vital that we protect these water resources so that we continue to enjoy clean, abundant water and natural flood control, and ensure that future generations will be able to enjoy these benefits as well.

Passing local laws is the best method to protect water resources. In New York, we are fortunate to have the ability to draft and pass local water laws that fit our own community and environment. The drafters of Gardiner's Zoning Law included a Water Resource Protection section to safeguard the town's wetlands, lakes, ponds, and watercourses. As this section of the zoning law is developed, and public comments and questions are collected during the meetings that are part of that process, responses to additional questions about the content of the law will be added to the following list.

Frequently Asked Questions about Water Resources

1. **What is a water resource?** Water resources include watercourses, lakes, ponds, wetlands and their buffers.

2. **What are watercourses?** Watercourses are rivers and streams, including those with flows that are permanent, seasonal or intermittent. A watercourse contains a channel, bed, and banks and normally flows by gravity in a particular direction.

3. **What is a watershed?** A watershed is natural water drainage area. It is an area of land where all of the water that is under it or that drains off the surface flows into the same place. Every lake, pond, wetland or stream has its own watershed.

4. **What are wetlands?** Wetlands are areas that are wet long enough during the year to support plants that are adapted to life in wet conditions. Gardiner has many types of wetlands, including forested swamps, marshes, wet meadows, and vernal pools. Wetlands are important to watersheds; they are part of the natural system that provides clean water, stores and slows down floodwaters, and protects shorelines from erosion and property damage. Wetlands store and gradually release flood flows within watersheds, reducing stream flows during periods of high water. By slowly channeling and releasing water, wetlands prevent streams from drying up during periods of drought.

   Wetlands improve water quality. During rain storms or snowmelt, water flows across our neighborhoods, picking up nitrogen, phosphorus, sediment, and other pollutants from roads, lawns, industrial facilities and construction sites. Acting as settling ponds and giant sponges, wetlands trap and filter storm water runoff. Organisms living in wetlands break down pollutants, and wetlands "recharge" clean water into our aquifers. Gardiner depends entirely on these aquifers for drinking water.

Wetlands provide food, breeding grounds and important habitat for a variety of plants and animals, including many rare species. The Hudson Valley is one of the most biologically diverse places in the country, and preservation of wetland habitat is critical to the survival of many species.

Gardiner's wetlands also preserve our open space and rural character and provide us with natural beauty, recreational and educational opportunities that enrich our lives.

The services provided by wetland systems have economic value. For example, research estimates that the Mississippi Delta's wetlands provided services valued at approximately $3200- $12,500 per acre depending on wetland type and services evaluated. Often it is less expensive to protect these systems (and the services they provide) than to restore or replace them once they have been degraded or destroyed.

5. **What are buffers?** A buffer is land that is adjacent to a water resource. Because water resources do not exist in isolation— they are connected to and affected by the land that surrounds them—enjoying the maximum benefits from water resources depends on protecting and maintaining adjacent land. Buffers protect water resources from the negative impacts of certain land-use activities. The effectiveness of a buffer depends on its size, slope, soil characteristics, and vegetation. Intact, vegetated buffers provide benefits similar to those of wetlands. They also stabilize stream banks and shorelines, provide shade, maintain cool, well-oxygenated water during dry or warm periods, and provide visual and noise barriers.

6. **With state and federal regulations in place, why do we need local regulations?** Gaps in state and federal laws leave many water resources unprotected. The New York State Freshwater Wetlands Act (Article 24 of the Environmental Conservation Law) only protects wetlands that are larger than 12.4 acres and that also appear on the official state wetland maps. But these maps show approximate wetland locations and boundaries, and do not include all wetlands of 12.4 acres or more. The State does regulate a 100-foot buffer around its jurisdictional wetlands. New York is the <u>only</u> northeastern state with such a large minimum acreage for wetland protection—most have <u>no lower limit</u> on wetland size. New York State Law does provide protection for wetlands of any size if they meet special criteria for "unusual local importance," but this designation is rarely granted.

   Federal regulations apply only to wetlands that meet specific criteria in their connection to 'navigable waters' as defined by the Clean Water Act. There is no map of wetlands regulated by the federal government; the U.S. Fish and Wildlife Service has produced wetland habitat maps (National Wetland Inventory) but these are not the same as federally regulated wetlands. No buffers are regulated under federal law.

   Thus, wetlands that are less than 12.4 acres and do not have a "hydrological" connection to navigable waters remain unregulated by either State or Federal governments. This leaves an estimated 40-60% of wetlands in the Hudson Valley unprotected. However, New York State authorizes and encourages local governments to establish their own laws. In the Hudson Valley about 30% of towns have adopted local laws to protect wetlands and watercourses. In Putnam and Westchester counties about 80% of all towns have passed such laws.