Are Wetlands Important for Clean Drinking Water?

When it rains, or when snow melts, some water is absorbed into the ground, but much of it flows over roofs, parking lots, roadways, lawns, and fields, collecting pesticides, fertilizer, manure, salt, acids, metals, oil, gas, grease, chemicals, loose soil, plant litter, and substances leaking from septic tanks and sewage systems. When this water flows directly into streams, rivers, and lakes, it pollutes them, and these pollutants can make their way into our drinking water.

However, if the rainwater or snowmelt flows into wetlands, most of the excess nutrients and pollutants are filtered and absorbed by the wetland. If the wetland has a large area of vegetation around it, the filtering process begins, before the water ever reaches the wetland. This vegetative buffer protects the wetland soil and plants from the shock of the runoff. The dense vegetation helps to slow the flow of water and begins to remove pollutants. It's like hitting the brakes on the flow of water and pollutants into the wetland.

Once the rainwater flows into the wetland, it slows down even more, so particles in the water drop to the bottom. Plant roots and microorganisms in the wetland absorb excess nutrients coming from fertilizer, manure, septic tanks, dead plants, and leaf litter. (If these nutrients aren't removed from the water, they can cause algae and bacteria growth, which can contaminate groundwater and well water.) Gradually, the filtered water is released into surface water (streams, rivers, or lakes) or seeps into the soil and becomes groundwater.

Are wetlands important for clean drinking water? Yes!

By Deb McNelly, with contributions made by Michael Unger.

For more information on wetlands and water quality visit the Conservation Commission Website and see Wetlands and Water Quality Presentation