

“A Conversation with Greenable Woodbridge”... Ground water contamination

So far all the water pollution we have talked about has been primarily concerned with surface water and stormwater run off. However, ground water is an important consideration as well. Ground water is the rain water after it finally infiltrates into the ground and becomes part of an aquifer. There is a popular images of aquifers being flowing streams or rivers that just happen to be underground. This is incorrect. While groundwater in an aquifer does move, it does so slowly by seeping through porous soil.

Ground water contamination can happen in a number of ways. A significant factor is land use on the surface such as contaminants rainwater might pick up as run off before it enters the ground. We've already discussed that sort of pollution, and how we can change it by reducing the amount of runoff going through our urban environment. But there is another way ground water can become contaminated. As the water seeps through the soil, it is possible that contaminants already present in the soil could be picked up by the water and travel through the aquifer. When pollution moves through an aquifer, this is called a plume, which can often be tracked to determine the direction and speed of the contamination.

A key way to prevent groundwater contamination from occurring in this way is to conduct Brownfield remediation and redevelopment projects. A Brownfield is defined by NJ State Law as "any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant."

We'll leave off here for now, because starting next week the new monthly theme is Brownfield redevelopment.