

## **5/24/2012 – BECOME WELL GROUNDED FOR GROUND WATER PROTECTION**

I've written a lot about stormwater runoff and ways to protect it. Today I'm thinking about the water underneath the ground and how the two are connected.

Groundwater is an important resource for many reasons. In the Northwest Indiana communities outside of the Lake Michigan basin, such as Valparaiso, Cedar Lake, Lowell, LaPorte, Hebron, Kouts, Wanatah, and other points south, and in unincorporated areas, 97 percent of the population uses groundwater as their drinking water source.

Even in the areas that we don't directly drink this groundwater, it can contribute significant percentages of the dry weather flow into local wetlands, streams and lakes.

How can groundwater get polluted when it is safely tucked beneath the ground? Well, water does soak into the ground. While soil is very good at filtering out many pollutants, there are a few that dissolve so readily, I water, it can't really catch.

"Aha!" you might say. "In previous columns you told me to let water soak into the ground instead of running off and into drains with pollution. Now you don't it to soak in, either." Well, while I do want you to encourage water to soak in, you still have to be careful of the chemicals that might get into it.

Chemicals in common household and landscaping products that groundwater are particularly vulnerable to include salts from deicers and nitrates from fertilizers. They are highly soluble, can't be filtered out, and are almost impossible to remove from water once they enter they system. High levels of salt can render drinking water undrinkable. High nitrates can lead to birth defects. This is why it is so important for each of us to minimize the amount of these materials that we put into the environment.

Public water supply systems are required to have wellhead protection plans and programs in place to identify potential significant sources of contamination to their well fields and provide education about how to protect groundwater.

While all groundwater needs to be protected, areas with sandy, well-drained soils are particularly vulnerable. Even when the soils aren't so vulnerable, some common drainage solutions such as French drains can help stormwater move quickly into the water table. In Northwest Indiana, these areas include communities in and around the dunes as well as much of much of the prime farmland in the Kankakee River basin in rural Porter and LaPorte counties.

Most of the things you can do to protect groundwater should sound familiar to regular readers of this column. Use chemicals with care; they don't belong out there! Use chemicals and potentially hazardous materials safely and in minimal amounts. Follow all label instructions, do not dump them in drains or on the ground, dispose of them safely at local household hazardous waste collections, do not dump them in drains or on the ground.

Go to [www.nirpc.org](http://www.nirpc.org) for a schedule of Lake Michigan Districts Household Hazardous Waste collections. You can also dig deeper into groundwater and well head protection in our Water Resources Protection Tool Kit at [www.nirpc.org/environment/water](http://www.nirpc.org/environment/water)