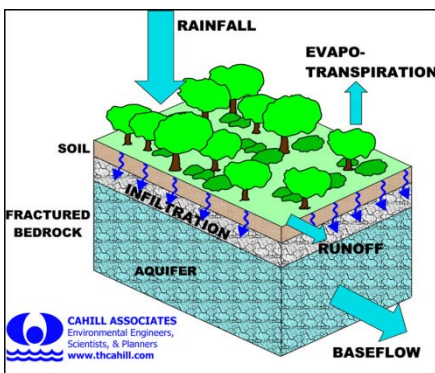




Stormwater—How You Can Help Protect Ponds and Streams

Stormwater is rain or snow melt that does not soak into the ground. Even from small rain events, stormwater is a danger to our streams and lakes, often leading to localized flooding and erosion as well as water quality degradation from added pollutants. Harmful debris sitting along the edge of water bodies is carried into streams and ponds by fast moving stormwater. In fact, it is the first half inch of runoff that carries the vast majority of pollutants.



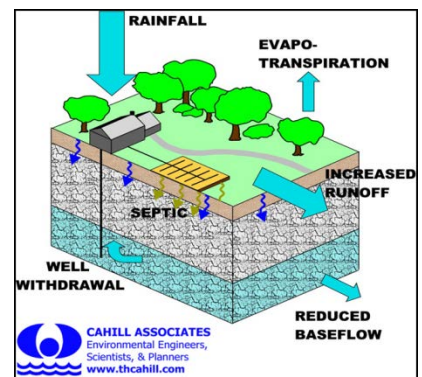
In a natural environment with trees, shrubs and tall grasses, most stormwater does soak in and is used by vegetation or slowly enters streams as groundwater. This natural process filters the water and removes pollutants. Even in these undisturbed areas, a certain amount of overland flow occurs. However, by changing the natural landscape from forest and meadow to lawn and driveway, we create impervious surfaces that increase the amount of overland flow. This increase in stormwater is a problem for two reasons. First, rapid runoff causes localized flooding and erodes and destabilizes stream channels. Second, it carries pollutants to the streams such as phosphorus, bacteria, hydrocarbons and more. The best way to address these problems is to reduce runoff at the source.

The goal today with stormwater is to: Slow it down, spread it out, soak it in. Every landowner can help do this.

For decades, the goal of stormwater management was to collect runoff as quickly as possible, route it into a drainage system (ditches or pipes) and route it to a stream, lake or pond. We also regarded stormwater runoff as an urban problem. However, stormwater management is just as important in village centers, suburban and rural areas where cumulative changes to the natural hydrology can lead to localized flooding, poor water quality, and impacts to downstream properties.

Large lawn areas on top of compacted soil, long gravel driveways, sizeable rooftops, development on steep slopes, and networks of backroads all generate stormwater runoff. This runoff is often connected and collected by roadside ditches that transport water, sediments, and pollutants directly to nearby headwater streams. In addition to negative impacts on streams, this runoff contributes to road maintenance costs by eroding road surfaces and damaging culverts. During extreme storm events, these small streams can quickly overflow their banks and drastically change course. In some cases, the impact isn't felt until far downstream.

Village, suburban and rural landowners have many opportunities to control stormwater runoff from their properties. Controlling stormwater will benefit you and your neighbors. It can save the town and its residents money, since reduced runoff from private property to roadways means less road maintenance and lower costs. It will help protect the natural waters, keeping them clean and healthy environments for wildlife and recreation.



Interested in learning more? Visit www.winooskiriver.org/stormwater