



"Green" Yards Protect Streams

All across the Watershed communities are expanding, new developments are appearing, and the amount of land laid with green grass carpet is growing. At the same time floodwaters are rising, streambanks are eroding, drinking wells are running dry and water quality is on the decline. There is a direct connection between what happens in our back yards and what happens in our local streams.

When vegetated with native trees and shrubs, when covered in a blanket of decaying leaves, needles and wood, the land acts as a sponge. Rainwater can percolate into the soil and filter down to the water table below to re-supply the aquifers that provide our drinking water. Rainwater also provides base flow to our streams, creeks and rivers. The landscape, in this natural state, is alive with life – birds sing in the trees, squirrels dance across the ground, bugs revel in the earth. Our lives are richer and our water flows free and clean.



Nyssa sylvatica

Lands vegetated only with grass cannot perform the functions of the natural landscape. Lawns don't act as sponges. They more closely resemble sidewalks and roadways – limiting groundwater infiltration and causing rainwater to run off the site, carrying with it any excess or improperly applied fertilizers and pesticides. This runoff is then channeled, usually by roads, to a nearby storm drain, which is likely receiving runoff from other roadways, lawns and communities. Stormwater runoff travels through storm sewers to a local creek where it combines with the runoff from all other upstream communities. More and more frequently Riverkeeper is hearing from downstream communities suffering from the effects of the upstream loss of open space and vegetation; they are suffering from the loss of the land's natural sponge. Downstream communities are getting flooded out as the result of the increased stormwater flows. Moreover, without the slow filtration of rainwater through the ground to the water table and aquifers below, drinking wells can run dry and the base flow of streams is compromised because there is less fresh water to flow into the stream.



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Stormwater picks up energy as it moves through storm sewers. As a result, it is often discharged with greater velocity and, when infiltration is reduced, in greater quantities than the local stream can handle. Rainwater once held on the land and released slowly now flushes into the receiving stream from a pipe, with every additional storm drain increasing the impacts. The influx of fast-moving stormwater scours and undermines streambanks – many of which are vulnerable to erosion due to clearing and mowing of streamside vegetation. The scoured sediments turn the stream a chocolate brown, depriving fish and plants of light. When the sediments do settle, they smother streambeds where fish lay their eggs and which also serve as home for aquatic macroinvertebrates, important components of many food chains.

Stormwater detention basins, as they are presently constructed, do little to alleviate problems associated with runoff – in fact they can contribute to them. Detention basins, which send runoff directly to local streams, do not reduce the amount of runoff and they may not reduce the velocity with which it enters the local creek. Detention basins serve only to reduce peak flows of stormwater runoff, which ultimately can prolong the harmful impacts of the storm event on neighboring and downstream communities.

Most of us enjoy a grassy area in our yards – a place to play, sunbathe or read. We can continue to enjoy our spot in the sun while reducing the total amount of lawn we must maintain. By re-vegetating little used grassy areas and adding a perimeter of native trees, shrubs and plants we can greatly enhance the quality of our lives. Through these simple landscaping practices we can improve local water quality, offer flood relief to downstream communities, provide habitat for birds and wildlife, bring privacy and peace to our own back yards while still allowing for the lawns many people so love to mow.