



Why We Need Streamside Forest Buffers

The science is in. Forested stream buffers do wonders.

Consider:

- ⇒ **Buffers increase property values.** Forested stream corridors increase the market value of nearby homes.
- ⇒ **Buffers protect drinking water.** By filtering pollutants out of runoff. Every dollar invested in protecting the sources of our drinking water saves \$27 in drinking water treatment costs.
- ⇒ **Buffers reduce flood damage.** Forested buffers reduce flooding impacts by increasing storage and infiltration of floodwaters and slowing flood velocities.
- ⇒ **Buffers decrease costs of stormwater management.** Use of forested buffers in new land development design can reduce or eliminate the need for large and expensive stormwater infrastructure, such as storm sewers and detention basins.
- ⇒ **Buffers improve in-stream pollution removal.** Streams protected by forested buffers can break down and remove more pollutants, particularly nitrogen and pesticides.

A healthy buffer is filled with native trees, shrubs, and ground covering plants and is wide enough to filter pollution, hold and absorb flood waters, and create healthy habitat.

- ⇒ **Buffers filter pollutants.** Forested buffers filter significant amounts of pollutants, including sediment, nutrients, toxics, and other contaminants. Pollution removal is maximized when forested buffer widths are 100 feet or greater.
- ⇒ **Buffers reduce stream bank erosion.** Root systems of forested buffers help stabilize stream banks and slow down runoff to prevent erosion.



- ⇒ **Buffers cool waters.** The shade of forested buffers can cool streams by 4-9 degrees F. Shaded and cooler water means healthier streams, particularly for temperature-sensitive fish such as trout.
- ⇒ **Buffers enhance stream habitat for fish and other aquatic life.** Leaves, sticks and other debris from forested buffers provide food, shelter and habitat, increasing biological productivity from the base of the food chain on up.

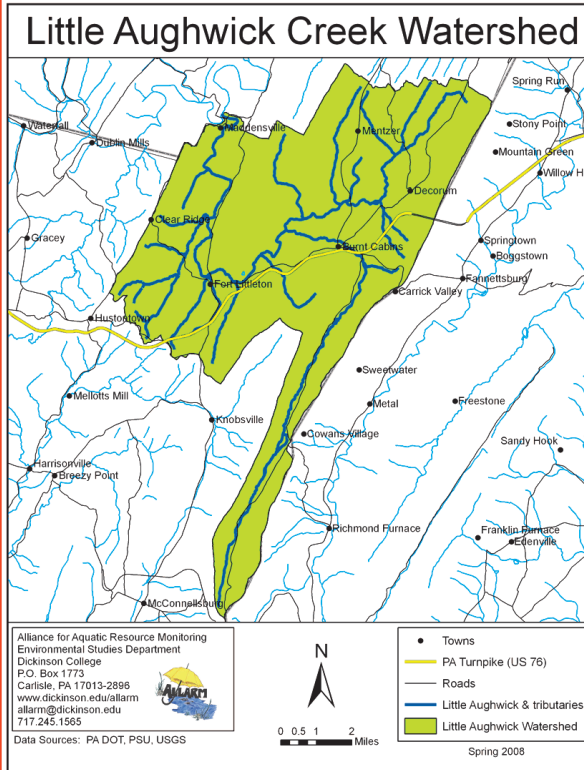
IS SEDIMENT REALLY A POLLUTANT?

A certain amount of erosion and sediment occurs naturally. Because it is a natural process, nature is able to assimilate naturally occurring sediments without permanent adverse effects. Adverse effects most often result from accelerated erosion due to earth disturbance activities such as landscaping, agricultural plowing and tilling, construction and timber harvesting operations.

WHY IS SEDIMENT POLLUTION HARMFUL?

- Fish have gills, which extract oxygen from the water. These gills can become clogged when the water transports excessive amounts of sediment.
- Sediment can cover fish eggs and the gravel nests they rest in.
- Sediment can destroy the food supply for many species of fish by covering aquatic insect habitat on the stream bottom.
- Sediment clouds the water and deprives plants of light needed for photosynthesis. This is thought to be the primary cause of the widespread die-off of aquatic vegetation in the Chesapeake Bay.
- Sediment may carry other pollutants such as heavy metals, pesticides and excess nutrients that are spread by water action and cause problems not only at the source, but also downstream.
- Sediment loads in our waterways often result in eroded and unstable streambanks.
- Excess sediment deposits in streams and ponds may necessitate dredging.

The South & North Branch's of the Little Aughwick Creek are designated by PA DEP as a High Quality-Coldwater Fishery (HQ-CWF) and the South branch above Cowan's Gap Lake as Exceptional Value (EV). These designations warrant special regulatory protection under Chapter 93 of the Pennsylvania Code.



What You Can Do

- Stop mowing all the way down to the creek
- Maintain a healthy stand of native trees and shrubs along waterways
- Avoid use of pesticides and fertilizers near waterways and ditches
- Keep cattle and four-wheelers out of waterways
- Plant areas where bare soil is exposed
- Control erosion when disturbing the soil

Remember to check with your local government and Conservation District to see if you need any plans and/or permits before moving ANY dirt.

To get stormwater, building & sewage permits and land development plans:

Dublin Township (Fulton County) Supervisors
Ph: (717) 987-9512

Dublin Township (Huntingdon County) Supervisors
Ph: (814) 259-3774

Todd Township Supervisors Ph: (717) 987-3812

To get soil erosion plans & conservation help:

Fulton County Conservation District
Ph: (717) 485-3547

Huntingdon County Conservation District
Ph: (814) 627-1627

Latest information on how to plan for, design, establish and maintain streamside forest buffers.

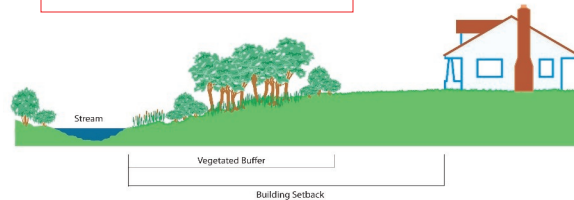
PA DEP'S Forest Buffer Tool Kit, Factsheets, and more. <http://www.dep.state.pa.us/dep/deputate/watermgt/wc/subjects/StreamReLeaf/default.htm>

StormwaterPA provides the tools to transform stormwater runoff problems from unwanted nuisance into beneficial resource.

<http://www.stormwaterpa.org/riparian-buffer.html>

Chesapeake Bay Foundation buffer handbook & other buffer info. <http://www.cbf.org/Page.aspx?pid=812>

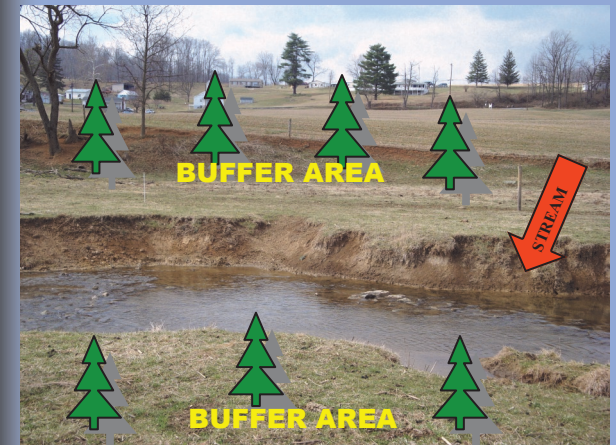
Friends of the Little Aughwick Creek
3092 Plum Hollow Road
Fort Littleton, PA 17223
Phone: (717) 987-0111
E-mail: info@friendsofittleaughwick.org
Website: www.friendsofittleaughwick.org



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Friends of Little Aughwick Creek

Question: What is missing from this picture?



Answer: A Streamside Forest Buffer!

Streamside forest buffers are strips of trees and other vegetation along creeks that are **critical to the health of our streams**, rivers, lakes, reservoirs, and estuaries.

Stream buffers slow down and filter pollutants like nitrogen, phosphorous, oils and pesticides and help reduce erosion, which helps keep our water **clean** and **safe** for family activities.

Buffers are most effective at improving water quality when they include a **native grass** or herbaceous filter strip along with **deep rooted trees** and **shrubs** along the stream. Wider buffers tend to filter more pollutants and provide more wildlife habitat.