

Forest Riparian Buffer

What is a Forest Riparian Buffer?



A forest riparian buffer is an area of undisturbed vegetation between the stream and active land areas.

What are the Benefits of Forest Riparian Buffers?

- **Stabilize eroding streambanks,**
- **Support food and habitat for aquatic life,**
- **Provide shade, creating cool water which native brook trout and other species require,**
- **Filter out pollutants such as fertilizers, chemicals, and sediment,**
- **Offer natural flood control to protect downstream neighbors,**
- **Preserve natural corridors for wildlife,**
- **Increase recreational potential for fishing, canoeing and hiking.**

Creating Riparian Buffers

Use a diversity of native plants to provide habitat diversity. Include a mixture of trees, shrubs and grasses within the buffer. Think about what would have historically grown on the site in its natural state, or look at what is growing on adjacent lands and plant similar vegetation.

100 feet is the average minimum forest riparian buffer width that the Pennsylvania Department of Environmental Protection (DEP) recommends for regulatory, voluntary, and grant activities. This width applies to perennial or intermittent streams, rivers (minimum 100 feet on both sides of the stream or river), lakes, ponds, and reservoirs. The average width should be extended to a minimum of 150 feet along perennial or intermittent streams and rivers (minimum 150 feet on both sides of the stream or river), lakes, ponds, and reservoirs designated as Exceptional Value or High Quality waters. Forest riparian buffers that are 100 feet or more in width sustain long-term protection of aquatic resources because they contain a “critical mass” or sustainable width that is essential for long term sediment and nutrient reductions. (PA DEP, Riparian Forest Buffer Guidance)

Benefits to the Local Community

Forest riparian buffers protect rivers and streams from pollution. The plants within the buffer act as natural filters by absorbing pollutants such as excess nutrients, sediments, chemicals and bacteria. The result is a dramatic improvement in water quality, making streams safer for fishing, swimming and drinking water supplies.

Trees are especially important components because they have deep root systems that hold the soil and resist erosion. They act like shock absorbers that diffuse the energy of floodwaters to

reduce damage downstream. As a result, flood frequency and severity decreases, as does associated damage to life, property and infrastructure. Groundwater recharge increases. Bank erosion and corresponding sedimentation is reduced, protecting property and reducing maintenance issues. All of these benefits can result in major economic savings to local communities.

Resources

Riparian Forest Buffer Guidance. Pennsylvania Department of Environmental Protection. http://www.depweb.state.pa.us/portal/server.pt/community/dep_home/5968

Stroud Water Research Center, Avondale, PA. <http://www.stroudcenter.org/research/riparianbuffer.htm>

Riparian Forest Buffers. United States Department of Agriculture, Forest Service. http://na.fs.fed.us/spfo/pubs/n_resource/buffer/cover.htm

Chesapeake Bay Riparian Handbook: A Guide for Establishing and Maintaining Riparian Forest Buffers. http://www.chesapeakebay.net/content/publications/cbp_13019.pdf

www.dcnr.state.pa.us



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