

Riparian Forest Buffer

Nutrients from runoff are stored in wood. Water and oxygen are released into the atmosphere.

Shade helps to moderate water temperature

Vegetation helps slow and filter surface runoff, encouraging deposition and infiltration

Roots help to bind soil together.

Stems and branches reduce the energy of flowing water while also providing food and habitat structure.

What is a Riparian Buffer?

The term riparian buffer is used to describe lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of green containing native grasses, flowers, shrubs and trees that line the stream banks. They are also called vegetated buffer zones. A healthy riparian area is evidence of wise land use management.

Loss of Riparian Areas:

Degraded riparian buffers reduce water quality values; reduce wildlife and fish populations, cause serious property damage (bank erosion) and loss of valuable agricultural lands. Removal of riparian vegetation results in increased water temperatures and decreased dissolved oxygen. The loss of shade exposes soils to drying out by the wind and sunlight and reduces the water storage capacity of the riparian area. Loss of riparian vegetation also causes streambank erosion which contributes to sedimentation and leads to a wide shallow stream with little habitat value. These factors result in significant reductions in aquatic stream life.

Restoring and Managing Riparian Buffers:

Rehabilitating riparian buffers is essential to restoring natural stream functions and aquatic habitats. There are many economic benefits derived from increased riparian habitat, channel stabilization, improved water quality, improved wildlife and fish populations, improved aesthetics, and other associated values.

Recommended Riparian Management Practices:

Protect or establish native shrubs, trees, or other vegetation along streams to help prevent bank erosion, trap sediment and filter other pollutants.

Manage livestock grazing by fencing them out of the riparian areas.

Plan developments, forestry activities and other land disturbing activities to protect riparian areas.

Sponsored by Putnam County Parks and Putnam County Soil & Water Conservation District

What are their Values?

Riparian buffers are established and managed to reduce the impact of adjacent land use. The design of a buffer serves several important functions: it preserves the stream's natural characteristics, protects water quality, and improves habitat for plants and animals on land and in the water.

Overhanging riparian vegetation provides shade that keeps streams cool and moderates temperature fluctuation, increasing the water's ability to hold oxygen and support life. The stream flow slows around fallen trees and branches in the stream or riverbed, creating favorable areas for fish.

Riparian buffers provide valuable habitat for wildlife. In addition to providing food, cover, and nesting sites they are an important corridor or travel way for a variety of wildlife for movement between areas.

Riparian vegetation slows floodwaters, thereby helping to maintain stable stream banks and protect downstream property. By slowing down stormwater runoff, the riparian vegetation root systems keep the soil porous which allows water to soak into the ground and recharge groundwater and traps sediment that builds stream banks and would otherwise degrade our streams and rivers.

Practices to Avoid:

Straightening sections of streams.

Removing streamside shrubs, trees, and other vegetation.

Farming up to the edge of a stream.

Allowing livestock access to the riparian area.

Operating heavy equipment in the riparian area.

The William T. Hornaday Awards are for distinguished service in natural resources conservation.

The William T. Hornaday Award candidate, Mathew Reed, Eagle Scout, is being presented with this award by the program that was created to recognize those that have made significant contributions to conservation. It was begun in 1914 by Dr. William T. Hornaday, director of the New York Zoological Park and founder of the National Zoo in Washington, D.C. Dr. Hornaday was an active and outspoken champion of natural resource conservation and a leader in saving the American bison from extinction. He named the award the Wildlife Protection Medal. Its purpose was to challenge Americans to work constructively for wildlife conservation and habitat protection. After his death in 1937, the award was renamed in Dr. Hornaday's honor and became a Boy Scouts of America award.