

# Riparian Buffers



## What is a riparian buffer?

- Riparian buffers are vegetated or forested transitional zones between land and streams, rivers, lakes, ponds, or wetlands
- Buffers play an integral role in regulating the health of water systems and help lessen the impacts of adjacent land uses.
- The type, width, and effectiveness of riparian buffers vary according to stewardship goals and land use practices.
- Generally, forested buffers are the most effective since they slow and filter runoff while providing habitat for wildlife, as well as cover and a food source for aquatic life.

## Why are riparian buffers important?

- Water flowing through a riparian forest is slowed and absorbed by the vegetation, leaf litter, and porous soils found there, therefore reducing soil erosion and sedimentation.
- Any sediment or runoff from your property eventually makes its way to the Chesapeake Bay, the largest estuary in the nation and a significant regional economic resource. Buffers help restore the quality of the Bay and the ecosystems we depend on for successful fisheries.
- Chemical and biological processes of the forest remove nutrients, such as phosphorous and nitrogen, and store them in the soil or as plant tissue. Pesticides are also converted to nontoxic compounds by various chemical and microbial activities within the forest.
- A forested canopy created by the tops of trees provides shade and cools water temperatures, which is essential for healthy fish populations and the food sources on which they depend.
- Habitat loss from landscape fragmentation has reduced many wildlife populations. Forested riparian buffers provide food and shelter for many wildlife species and serve as corridors for movement between habitats.
- Riparian forest buffers offer recreation to fishermen, birders, hikers, canoeists, and picnickers.

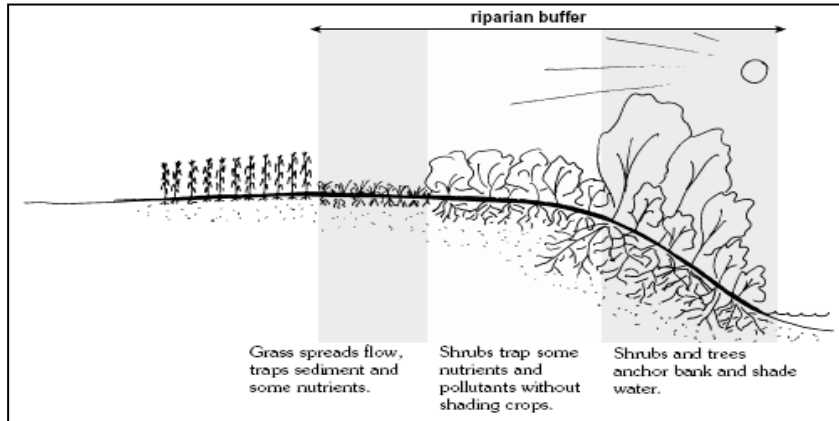
## Buffer benefits to landowners:

- Buffers serve as flood right-of-way and reduces potential for structural damage.
- Buffers provide erosion and sediment control and prevent land from washing away.
- Buffers enhance the quality of water used by humans for drinking and can result in economic savings to the community due to reduced costs of water treatment.
- Buffers enhance privacy and aesthetic value of a property.
- Buffers can reduce the amount of mowing necessary.
- Buffers decrease herd injuries associated with cattle climbing steep and unstable stream banks and reduce health risks associated with contaminated water.
- Protected stream crossings can result in improved stability for equipment crossing.

## The Better Buffer:

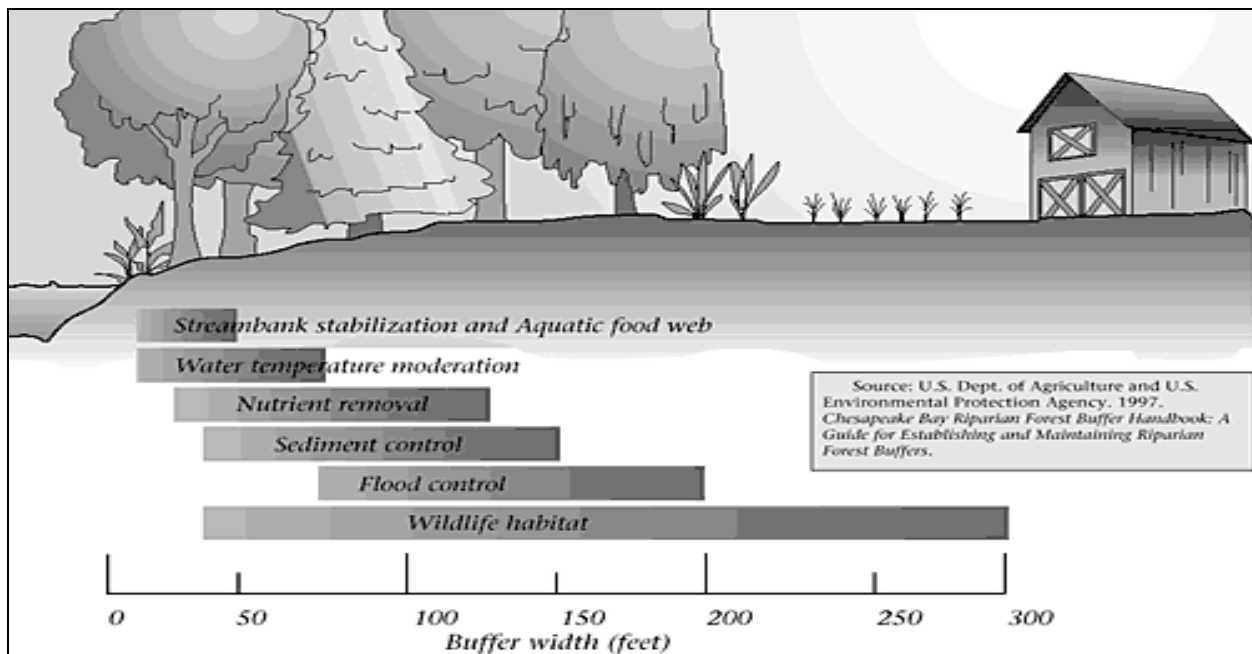
Buffers vary according to slope, use of adjacent land, size of the stream, and soil type.

- The most effective buffers have 3 zones:
  - Streamside - undisturbed mature forest stabilizes the stream bank; at least 25 ft.
  - Middle zone - trees & shrubs slow runoff and catch sediment, 50-100 ft.
  - Outer zone - vegetated or wooded; serves as the margin between the rest of the buffer and land actively used, typically 25 ft.



From the Connecticut River Joint Commissions Inc. River Banks & Buffers No. 5. September 2000.

- Bigger buffers ARE better. Depending on site-specific conditions, a buffer 100 feet generally can filter 60% or more of pollutants. However, landowners are usually only required to have a 35 ft minimum buffer. Buffers of less than 35 feet cannot sustain long-term protection of aquatic resources.



Federal, state, and local cost-share programs (cut sometimes) are available to help landowners with costs to establish riparian buffers and other best management practices. For more information about available cost-share programs in your area and information on your local Soil and Water Conservation District, visit

[www.pecva.org/conservationfunding](http://www.pecva.org/conservationfunding)