

STREAM BUFFERS

A Tool for Watershed Protection



Department of
Environmental
Conservation

Stream buffers, also known as riparian buffers, are vegetated areas on either side of a stream or river. When functioning properly, buffers protect the waterbody from the impacts of human activity. Buffers can differ greatly, ranging from flat floodplains to steep gorges.

What are the benefits of stream buffers?

A healthy buffer improves stream health and water quality by slowing runoff, filtering pollution, preventing soil erosion, contributing essential nutrients to the food chain through leaf litter, providing woody debris for in-stream habitat, and shading the stream to keep waters cool. Buffers also absorb and slow flood waters, which protects property and human safety.

What are healthy buffers vs unhealthy buffers?

A healthy buffer has many different species of native trees, shrubs and grasses and has minimal human disturbance. Stream buffers create space between the water and upland land uses. The wider the buffer, the more effectively it processes nutrients and slows sediments in runoff before they enter the stream. Recent studies recommend 100 feet as the minimum buffer width to improve wildlife habitat, water quality and storm resiliency.

Characteristics of an unhealthy buffer include: lack of vegetation or vegetation with shallow root systems; presence of invasive plant species, such as Japanese knotweed; presence of grazing animals; hardened shorelines; impervious surfaces, such as pavement; or inadequate buffer width.

Protecting Healthy Buffers

Property owners can protect streams by allowing native trees, shrubs and vegetation to grow. The roots will hold stream banks and absorb flood waters. You can give your buffer a chance to revegetate and become healthy by reducing lawn areas and pavement, and removing grazing animals and invasive species from streamside areas.

Municipalities can enact local buffer ordinances to protect stream buffers from development. Conservation groups can purchase conservation easements to legally protect streams in perpetuity.



Healthy stream buffers have trees, shrubs and grasses.



Unhealthy buffers include hardened shorelines and lack tree and shrub cover.

Creating Healthy Buffers

Landowners can create, or restore, healthy streams by planting native trees and shrubs.

DEC's Trees for Tribs (tributaries) Program works to replant stream buffers across New York State. The program offers participants low- or no-cost native trees and shrubs to plant along their streams or rivers to restore buffers. Materials for plant protection, as well as guidance on maintaining the plants for ensured establishment, are also offered free through the program. Tree planting projects take place in spring and fall.

Replanting New York's streams. Trees for Tribs has planted more than 90,000 plants since the program began in 2007. The program is available across New York State and relies on partnerships with various organizations to identify tree planting projects and coordinate volunteers for tree planting.

If you are interested in restoring your stream buffer by planting native trees and shrubs, please visit our website to learn more about how to get involved: www.dec.ny.gov/animals/77710.html.

Trees for Tribs is a program of the State Tree Nursery in Saratoga Springs. The State Tree Nursery provides New York seed-sourced native trees and shrubs for the program. Anyone can purchase trees and shrubs for conservation plantings on private and public lands during the nursery's annual seedling sale.

To learn more about the nursery and the seedling sale, visit the website: www.dec.ny.gov/animals/7127.html.

Other Restoration Opportunities

There are a variety of state and federal programs that provide financial and technical assistance to private landowners, municipalities and conservation organizations that are interested in planting riparian buffers to improve water quality and wildlife habitat.

You can learn more about these additional resources on DEC's Riparian Buffer web page: www.dec.ny.gov/chemical/106345.html.



Trees for Tribs engages more than 1,000 volunteers each year to assist in tree planting activities.

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