

Riparian Buffer - Land Next to the Stream

A riparian buffer is simply vegetation along streams and waterbodies. While many riparian buffers exist naturally, the planting of riparian buffer vegetation along waterways is a commonly used stormwater BMP to help stabilize streambanks and minimize streambank erosion. The riparian buffer vegetation also filters out pollutants in the stormwater runoff.

Riparian buffer plantings can include trees, shrubs, grasses, wildflowers and other vegetation that are suited for riparian habitats. When riparian buffers are installed as stormwater BMPs, native plants are often used since the native vegetation is accustomed to the local conditions. Another advantage of using native vegetation is that it provides habitat for native wildlife.

Operations and Maintenance Plans for a riparian buffer installed for stormwater management purposes should show the boundary of the riparian buffer area. Riparian buffers are typically at least 35 feet wide on both sides of the stream to maximize the streambank stabilization. If unsure about the area of your riparian buffer, contact your local municipality or professional consultant for assistance.



Riparian Buffer Maintenance

What to Look For

Invasive plants

Erosion

Survival rate of planted vegetation

If plants are dying, try to determine why:

- Invasive plants out-competing planted vegetation?
- Deer eating the leaves and / or are rodents feeding on the roots?
- Tree shelters and stakes not properly maintained in an upright position; etc?

Typical Maintenance Indicators	Typical Maintenance Actions
Invasive weeds / plants	Mow or trim as appropriate and remove invasive plants. Selective herbicides can be used if in accordance with local, state, and federal laws. Refer to invasive weeds/plants section of the guide for pictures.
Erosion, poor vegetation establishment	Re-seed, re-establish vegetation.
Planted trees and shrubs are not upright	Stabilize trees and shrubs with stakes and shelters (if applicable); Ensure that tree shelters are properly secured to the tree stake and in the ground.
Dead or dying vegetation	Replant vegetation as needed.
Accumulation of litter or debris	Remove and properly dispose of accumulated trash or debris as these materials can damage the planted vegetation.

Common Riparian Buffer Issues That Should Be Addressed:

Invasive Weeds / Plants

- Many invasive plant species are transported by water and are therefore, quickly able to establish along stream-banks. Invasive plant species are aggressive and can outcompete and grow over riparian buffer plantings. Many invasive plant species can kill-off other vegetation and completely overtake streambanks. Invasive species are often less effective at streambank stabilization and erosion control than the variety of native vegetation planted for a riparian buffer stormwater BMP.

- The preferred invasive plant removal technique is mechanical (i.e. remove by hand). Selective herbicides can also be effective but should be implemented only by a professional consultant specializing in invasive plant control in aquatic areas.
- Refer to the invasive weed section of this guide for pictures of common weeds. If these weeds are encountered, they should be removed.

Erosion



Invasive Mile-A-Minute taking over native vegetation



Photo: Go Native Long Island

Tree may die if not upright



Photo:Whitescarver Natural Management, LLC