

## ENVIRONMENTAL CONSULTING, INC. Providing Environmental Solutions





## 302-684-5201

#### envirotechecinc.com

## info@envirotechecinc.com

# **Riparian Buffers**

Riparian Buffers create a Natural Habitat. A major benefit of a riparian buffer is the habitat provided to unique animals and plants due to the proximity of water and general high moisture levels. Riparian buffers provide additional habitats to the aquatic system by supplying food sources, creating cover and areas for hiding and reproduction and maintaining dissolved oxygen levels. Riparian locations are important to the waterfowl, amphibians, reptiles, and a large variety of aquatic and semiaquatic plant species. A buffer system for ponds, lakes or streams is extremely beneficial to the water chemistry, biology, and ecology of the area. It provides short term and longterm benefits such as erosion and eutrophication prevention as well as providing habitat to the beautiful local flora and fauna.



What Are the Economic Benefits of Buffers? If managed correctly a riparian buffer provides natural heritage with trails and observation points, increases property value if marked correctly, and reduces operating costs- large buffers mean less mowing.

A riparian area is a plot of land located immediately adjacent to a water source such as a lake, pond, stream, or total tributary. Riparian areas differ from other areas as they have an extremely high moisture level and are inhabited by a unique variety of plants and animals. A riparian buffer is composed of a variety of plants, shrubs, trees, and grasses used to shield and separate one area from another. The riparian buffer starts at the water's edge and extends out for a distinct distance upslope from the aquatic environment. The larger the buffer zone, the greater its effects and benefits to the water system, including maintaining the integrity bank structures, enhancing water quality, and establishing habitat for terrestrial and aquatic plants and animals.

The riparian buffer's importance is significant when discussing the prevention of embankment erosion. Grasses, shrubs, and trees slow the movement of surface and shallow ground water which has the potential to destabilize soils. Without this soil stabilization, water channels and gullies form decreasing both the beneficial function of the buffer and dramatically changing the water quality over time.

Riparian buffers act as a major filter to the water resource it surrounds by trapping sediments and nutrients. Sedimentation of the water can be detrimental to aquatic environs because it decreases light penetration into the water column, reduces the number and variety of fish and other aquatic animals, and fills up water depressions over time. Nitrogen, phosphorous, toxins and heavy metals can be filtered out with high success by a riparian buffer. Nutrients at low natural levels can be good for water systems. However, if unchecked, amounts of nutrients can enter the water system, whether from lawn fertilizers, crop fields, or wastewater, major changes occur to the chemistry and biology of the water system.

If you have any questions or concerns, please contact EECI's professional office at 302.684.5201 or via email at info@envirotechecinc.com!

## f in D Like us on Facebook and visit us on LinkedIn & YouTube! Copyright 2023 Envirotech Environmental Consulting Inc. 17605 Nassau Commons Blvd Unit D, Lewes, DE 19958