



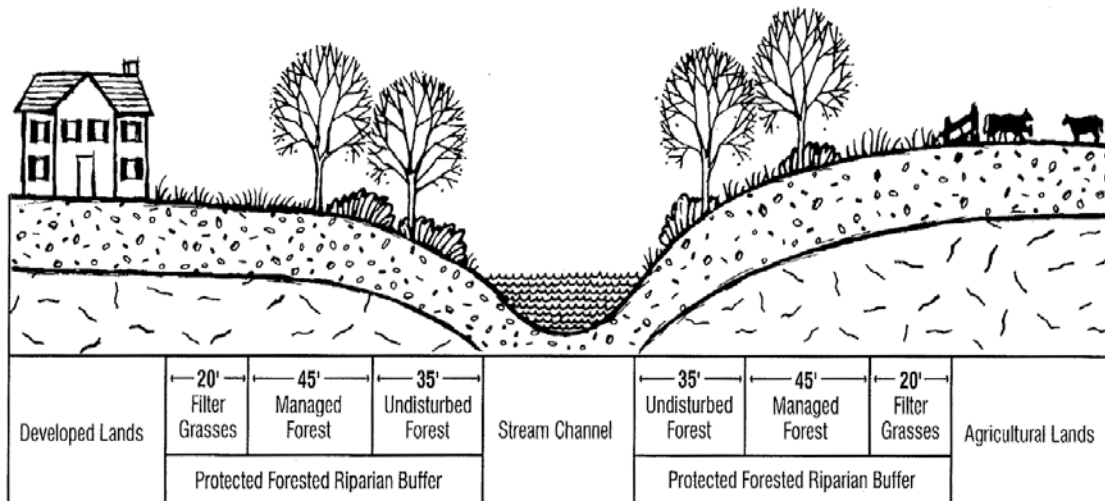
What are Riparian Buffers?

Forested riparian (meaning “along the water”) buffers are as essential to a watershed as ground water and rainfall. An inter-connected network of forested riparian buffer is essential for a healthy and thriving stream ecosystem. The benefits of a vegetated buffer cannot be mimicked by any other management practice. Forested buffers along stream banks protect stream waters from direct sunlight and resulting high temperatures, provide detritus in the stream that serves as food and shelter for aquatic species, and stabilize stream banks, stream channels and floodplains from the erosion and scour of high velocity flood flows. These buffers also serve as the link between terrestrial wildlife and their source of water, food and cover. The roots of the riparian vegetation absorb and “take up” nutrients and other pollutants from ground water as it migrates through the root zone. Riparian vegetation also serves to filter sediment and pollutants from overland runoff and stormwater.

To be most effective, riparian buffers should include three zones. The streamside zone should include natural, undisturbed trees and bushes that provide shade and detritus to the stream, and root masses that stabilize stream banks and channels. The second zone is a managed forest zone with trees and shrubs that provide pollutant filtering and uptake through the roots of the plants, as well as infiltration. The third or upland zone includes grasses and features to slow and disperse the runoff as it enters the buffer and filters sediments and pollutants.

Figure 2-6 presents a cross-section view of a forested riparian buffer. Included in the plan view are recommended buffer widths and set backs for development adjacent to riparian areas. While buffer areas should remain clear of impervious cover, it is certainly possible to permit building lot area within the buffer (provided structures and potential sources of pollutants remain outside of the identified buffer).

**Figure 2-6:
Forested Riparian Stream Buffer**



Source: Chester County, Pennsylvania Water Resources Compendium (CCWRA 2001)