

26 Attachment 11

Township of East Rockhill

Appendix B

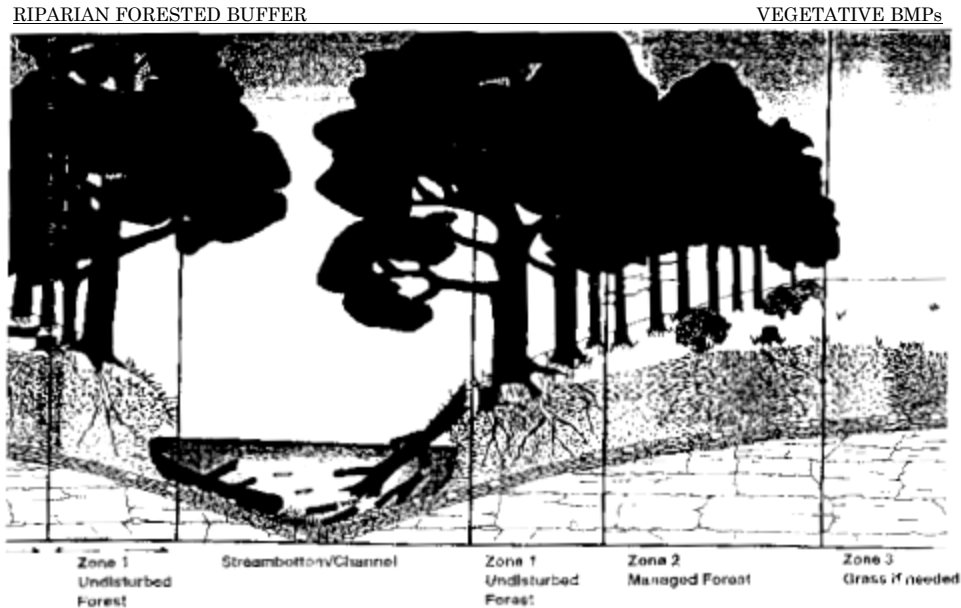


Figure 2. 3-Zone buffer for riparian forest buffer.

An accepted standard for riparian forest buffers is called the 3-zone buffer is illustrated in Figure 2 (USDA, NA-PR-07-90). The width of each of the zones may vary depending upon the size of the stream and its topographic setting. However, 85 feet is sufficient in most small and medium-sized streams to incorporate the functions of the three zones.

3-Zone Buffer

Zone 1 starts from the top of stream bank and typically is 15 feet wide, or wider. Vegetation in Zone 1 generally consists of trees and woody shrubs. Vegetation in the zone provides shade and detrital nutrients for aquatic organisms and stabilizes banks. Stabilization also may require additional techniques described in the STREAM BANK STABILIZATION BMP. Minimal disturbance is recommended for this area; however, vegetation structure must be maintained.

Zone 2 typically is 60 feet wide. The function of Zone 2 is to provide necessary contact time and material for buffering and filtering processes. Zone 2 cannot mitigate concentrated flow, therefore, for the buffer to be effective, only sheet or subsurface flow may reach this area. Vegetation in Zone 2 consists of trees and shrubs. Suitable nutrient filtering species are listed in Appendix H, Plant Lists for Wetland Management. The Pennsylvania State University's The Agronomy Guide should be consulted before establishing riparian forested buffers.

Zone 3 typically is 20 feet wide. The function of Zone 3 is to filter sediment, take up nutrients, and convert concentrated flow to sheet flow. Specifications for designing buffers in Zone 3 are discussed in the FILTER STRIP BMP.

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Reference: Pennsylvania Handbook of Best Management Practices for Development Areas