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## Vegetated Buffer

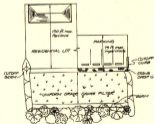


### DESCRIPTION/GOALS

Vegetated buffers are an effective stream protection measure for erosion and sediment loss. They protect streams by limiting erosion in the areas immediately adjacent to the streams and filtering sediment. They also have long-term environmental and social values, such as: reserving space for trails and greenways, reducing impervious area, preserving wildlife habitat and corridors for wildlife migration and preventing stream warming by shading the stream (Schueler, 1995).

### TECHNIQUES

Buffers should be sufficiently wide to filter pollutants and sediment. According to Woodard (1989), buffers of at least 75 feet are the most effective at filtering sediment from construction site runoff. Gravel or concrete lips at the top of a buffer can act as a level spreader. These devices cause runoff to flow as a sheet instead of concentrating, thereby offering a greater opportunity for pollutant removal. Concentrated flow can cause erosion or "short circuit" the buffer system.



Source: Design of Stormwater Filtering System  
Center for Watershed Protection

APPROXIMATE  
COST: No additional  
construction cost

	EFFECTIVENESS		
	Low	Med	High
Erosion/ Sediment Control		✓	
Long-Term Pollutant Reduction		✓	
Utilities/ Stream Protection			✓

Ease of Application  
Difficult Average Easy

Installation		✓	
Maintenance			✓

### Limitations

- Steep slopes or slopes with rills limit filtering capacity
- Sites with limited space

The most important technique to successfully implementing a buffer system is to mark the buffer clearly on the plan and on the site. Often, silt fences (See Fact Sheet 11) or snow fences are used to mark the edge of buffers, ensuring that equipment operators do not mistakenly clear that portion of the site. Signs posted near a buffer can also serve this purpose.

Finally, buffers should be implemented in the context of the overall watershed plan for the water resource in consideration. Some jurisdictions may have expanded buffer requirements for specific streams or other water resources.

#### LIMITATIONS/CHALLENGES

The primary limitation to using buffers is the available space. When specific legislation does not require the use of a buffer, developers may be reluctant to sacrifice this space.

Schueler, T.R. 1995. *Site Planning for Urban Stream Protection*. Center for Watershed Protection. Metropolitan Washington Council of Governments, Silver Spring, MD. 222 pp.

Woodward, S.E. 1989. *The Effectiveness of Buffer Strips to Protect Water Quality*. Master's Thesis. University of Maine. Orono, ME. 76 pp.



Source: *Design of Streamside Filtering Systems*  
Center for Watershed Protection