

Vegetative Buffer Strips

Maintenance-

Less is best!

Buffer strips should be left unmowed or undisturbed to function better for:

- Filters of sediment or pollutants
- wildlife habitat
- flood control
- bank stabilization

Dumping of grass clippings in buffers can add phosphorus causing excess algae growth.

Dumping of garbage can interfere with the function of buffers and allied waters.



LEARN MORE!

www.shorelandmanagement.org/overview/index.html

Credits

Photos: Coon Creek Watershed District staff

Information: Coon Creek staff
www.metrocouncil.org
www.pca.state.mn.us

WATER IQ #8

® 2008



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Mission

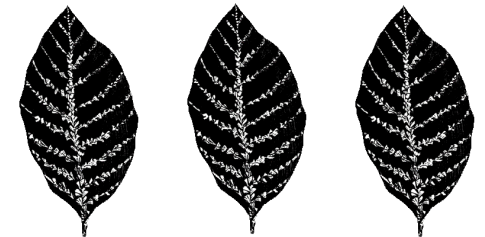
Managing groundwater and surface water drainage systems to prevent property damage, maintain hydrologic balance, and to protect water quality for the safety and enjoyment of citizens and the preservation and enhancement of wildlife habitat.

Coon Creek Watershed District

Water IQ #8



Vegetative Buffer Strips



Eighth in a Water Information Quest (IQ)
Series of items by
Coon Creek Watershed District

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Vegetative Buffer Strips

Vegetative buffer strips are widths of vegetation that provide a transition between different land uses. Buffer strips are becoming more & more common in suburban areas. Here in Coon Creek Watershed District they are often located surrounding ponds & wetlands, or along both sides of ditches, creeks, or streams.

Widths vary depending on the function and topography of the buffer. Generally, the steeper the slope, the wider the buffer strip.

They can be as narrow as 4 feet across in highly maintained areas, or as large as 300' (football field length) in larger areas. Usually, they are 6-25 feet depending on the function needed.

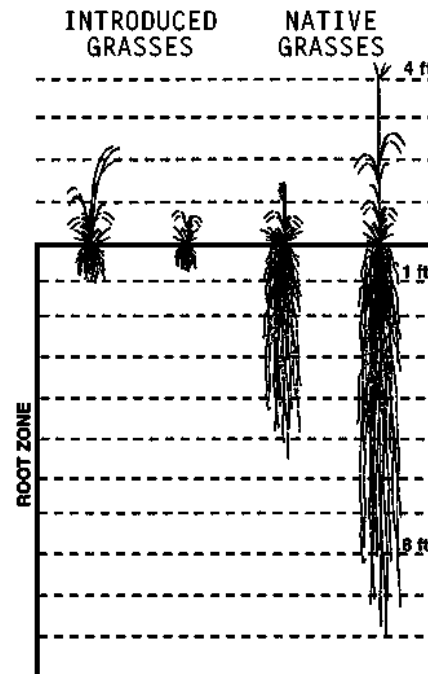
Vegetative buffers often work better than rock (riprap). Why? Because the plant roots thread into the ground, filtering pollutants & helping hold the soil in place. The deeper the roots, the better the capacity of the soil. Plants are also better wildlife habitat.

Sometimes vegetation is planted into riprap for severely eroded areas.

Benefits

Vegetative buffer strips can:

- Remove pollutants from stormwater
- Reduce erosion & sediment from entering waterbodies
- Stabilize streambanks
- Provide infiltration of stormwater runoff
- Maintain base flows of streams
- Contribute food & energy to aquatic systems
- Provide wildlife habitat
- Provide shade to streams for desirable wildlife
- Scenic value



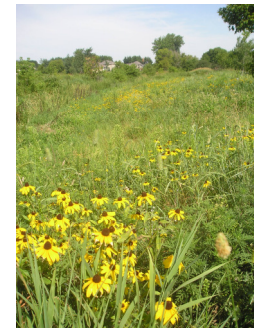
Modified from MPCA 2000.

Effectiveness

If designed as filter strips (on small slopes, for example), buffer strips help remove sediment, nitrogen and phosphorous, all of which can degrade water quality. Studies done in agricultural areas, where buffers were originally used, have shown:

- A 15-foot wide buffer can achieve a 50% removal rate of nitrogen (N), phosphorus (P), and sediment
- A 100-foot wide strip can achieve a 70% removal rate of N, P, and sediment

In urban areas, studies suggest a minimum removal rate of 35% sediment & 40% nutrients (nitrogen and phosphorous).



Have questions about Buffer Strips or riprap? Contact your watershed district, city, or SWCD.

If you live in Andover, Blaine, Coon Rapids, Ham Lake, or western Columbus, contact:

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