

Capitol Region Watershed District

"Our mission is to protect, manage and improve the water resources of the Capitol Region Watershed District"

Erosion Control for the Home Owner

Fact Sheet # 5
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Soil Erosion: it's a costly problem!

It is important to prevent soil erosion. Soil erosion and its by-product, sediment, is the largest source of pollution to our lakes, rivers, and wetlands. Sediment in storm sewers can also cause flooding. No matter how small the area, land that is not stabilized, (covered by either buildings, streets, or vegetation), is very susceptible to erosion by both water and wind.

Soil erosion is a costly problem in the Capitol Region Watershed District. In 2001, the District spent \$80,000 to remove 1,788 cubic yards (100 dump-trucks) of sediment from Como Lake.



Back hoe, removing sediment out of Como Lake, 2001

The City of St. Paul Public Works Dept. spends \$500,000 annually to clean sediment from its storm sewer pipes and storm water ponds.

Sediment is also a major source of phosphorus to our lakes and streams. Excess phosphorus is the leading cause of algae blooms, (smelly pea green water). Sediment can also destroy fish spawning areas. Prevention is easier and cheaper than restoration. **It pays to prevent soil erosion!**



Residential Soil Erosion

How to prevent soil erosion.

The only way to prevent soil erosion is to cover exposed soil.

Depending on site conditions, like how big your project is or how long it will last, the following soil conservation practices should be used:

Cover your soil stockpiles

Soil stockpiles, (soil being stored) when not in use, should be covered. Covering the pile with properly weighted plastic sheeting or tarps is the most effective method to prevent soil erosion from stockpiles.



Tarp Covering Soil Stockpile

Plant a temporary vegetative cover.

Seed a temporary vegetative cover, like annual rye grass at the rate of 1 pound per 500 square feet. This temporary vegetation should be used when exposed soil areas will remain undisturbed for a period of one month or more. **Do not fertilize the soil and water only under low rainfall conditions.**

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Preventing Soil Erosion, continued

Use temporary mulch

All exposed soil areas greater than 150 sq. ft., that flow directly to a “hard-surface” (sidewalks, driveways and streets) should be stabilized by either mulch or by a combination of mulch and temporary vegetation. Mulching products include: straw, straw netting blankets, wood fiber blankets, and sawdust/cellulose blankets. Many garden supply and home improvement stores carry these products.

Types and use of temporary mulch:

Straw - apply straw to cover bare soil (about 70% coverage). One bale will cover 600 sq. ft. “Punch” straw into soil with a flat spade to prevent it from blowing away.

Mulch blankets - rolls of straw mat or wood fiber held together with biodegradable plastic netting. Prepare soil and roll into place, tap lightly and water as necessary.



Example of wood fiber mulch blanket

Permanent Seeding or sodding

When your home landscaping project is completed, it is important to stabilize soil permanently. Sod and/or seed are required. Remember, state law prohibits lawn fertilizer with phosphorous unless a soil test indicates that your soil is low in this nutrient.

Other ways to keep sediment out of lakes and rivers

Temporary Silt Fencing

A silt fence is a temporary sediment trapping device that is used to keep sediment from flowing onto hard surfaces and then into storm sewers. Silt fences should be installed when landscaping activities will disturb greater than 1,000 square feet and there is a slope. Home improvement stores sell this product. Typical costs are \$30.00 for 100 feet. Silt fence must be trenched into the soil and properly maintained to be effective.



Silt Fence with Seeding

Keep soil off of sidewalks, driveways and streets

Soil that accumulates on sidewalks, driveways and streets will be washed into storm sewers the next time it rains. **Always sweep up excess soil from your sidewalk, driveway or street prior to rain fall. Do not wash soil from these surfaces because it will eventually flow to the Mississippi River.**

Use Native Vegetation

To improve water quality and urban wildlife habitat, consider **native vegetation** as a permanent source of land cover. The Ramsey Soil and Water Conservation District (651-488-1476) has a Native Vegetation Landscape Restoration Program that offers free technical assistance for restoration projects and up to 50% of eligible materials cost (maximum of \$600.00).

This Fact Sheet was developed by the Capitol Region Watershed District’s Citizen’s Advisory Committee and The Ramsey Soil and Water Conservation District. The Ramsey Soil and Water Conservation District (651-488-1476) provides free technical assistance for all Ramsey County residents.