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Soil eroded off the land, called sediment once it washes into water, is the primary cause of water pollution in our surface waters – not just in Wisconsin, but worldwide. Rainfall, snowmelt and the resulting runoff, pick up soil and organic matter, which carries with it pollutants such as pesticides, fertilizers, animal wastes, oil and heavy metals. This runoff travels downhill through the watershed, right to the nearest lake, stream or creek.

The eroded soil (sediment) that is deposited into lakes and streams is a huge problem all by itself. Sediment, suspended in the water column limits light penetration, which hinders healthy plant growth and impedes the ability of fish to hunt for food. Sediment can also cover spawning beds and clog fish gills. In addition to these problems, sediment carries many contaminants with it. Phosphorous, one of the major pollutants, often increases aquatic plant and algae growth to nuisance levels. Both sediment and the associated contaminants contribute to a reduction in overall water quality, which often leads to a decline in recreational enjoyment and property values.

Stream banks, lakeshores and construction sites are all commonly thought of as erosion sites, but in fact, erosion can occur anywhere there is soil. Some signs of erosion are easy to see, such as gullies and rills, others may not be as obvious. Muddy or cloudy water standing after a rain event, bare spots in the lawn, exposed tree roots or small stones appearing where none were before are all indications of a possible erosion problem. Steep slopes or long, uninterrupted slopes are more prone to erosion, as are certain soils, such as silt and sand. Bare soils or sparsely vegetated areas are especially susceptible to erosion. Some erosion problems may require an expert but there are erosion control practices that will be useful on all properties.

- Bare soil is a primary source of erosion. Make sure that vegetation is full and healthy.
- Mulch areas that can not be vegetated
- Reduce the amount of impervious surface on your property (Ex. Porous pavers).
- Some run-off is inevitable, rooftops, sidewalks and other hard (impervious) surfaces that do not allow infiltration, will create run-off. To minimize runoff, consider the following:
  - Redirect downspouts so that water moves to an area where it can soak in
  - Rain Barrels will collect rain and store it for watering gardens later
  - Rain gardens are a great way to create an area of infiltration
- Shorelines, both lake and stream, are not only exposed to runoff, they are also vulnerable to wave and ice energy.
  - Shorelines need to be well vegetated with deep-rooted plants. Some native grasses, wildflowers, shrubs and trees produce deep root systems.
  - Depending on the amount of wave action and site conditions, some shorelines may require additional stabilization methods.
- Erosion from construction sites are a leading cause of water quality problems. Make sure to plan and follow erosion control practices. For a step – by - step guide see this publication **Erosion Control for Home Builders** (<http://cecommerce.uwex.edu/showcat.asp?id=109>)

**Before starting any work below the ordinary high water mark (OHWM) see the WI DNR website, <http://www.dnr.state.wi.us/org/water/fhp/waterway/> for information about required waterway permits.**

**Before starting any stabilization or vegetation alteration projects above OHWM, contact a zoning officer at Walworth County Land Use and Resource Management at 262-741-4972 for information about required permits.**

**Resources available from Walworth County Land Use & Resource Management Department:**

- **Homeowners Guide to Native Shoreline Gardens – includes info on WI Native Plants**
- **Conservation Plan Assistance Packets – required for vegetation removal/alteration**
- **2006 Landscaper Services Resource List**
- **Walworth County Shoreland Zoning Summary**

**Please contact Audrey Greene, Lake Specialist, Walworth County at (262) 741-7902 for any of these resources.**