

Respect Our Waters

Construction Sediment + Erosion Control Fact Sheet

According to a joint publication of Wisconsin DNR + UW Extension, for every acre under construction, about a dump truck and a half of soil will erode into a local lake or stream in the absence of erosion controls.

Sediment pollution can create a slew of problems if control devices and management practices are not put in place and maintained. Stormwater, or water from precipitation, can carry soils and sediments disturbed by construction activities into local lakes, rivers, and streams, potentially causing the following problems:

- Clogged storm drains and storm sewer systems, which can lead to localized flooding
- Changed stream morphology (size and shape)
- Increased water temperature from sediment particles retaining heat from sunlight
- Increased nutrient leaching, especially phosphorus, from sediment particles
- Decreased native aquatic vegetation from lack of sunlight
- Fish kills that result from lack of food sources, sediment clogging gills and covering eggs, and changes in water chemistry

Many of these problems lead to a larger issue of excessive algae growth and decay, which also depletes the amount of oxygen in the water. This leads to a set of public health problems:

Environmental Health: Waterbodies once home to fish and native vegetation are suffocated by invasive weeds and toxic algal blooms.

Human Health: Higher concentrations of pollutants and suspended sediment lead to longer and more expensive treatment processes. This can also taint the taste of the water, giving it an odd odor.

Community Health: Flooded streets and lost recreational activities, like swimming and fishing, can cause a decline in community confidence and overall health.

Sediment and erosion control protects our shared water resources and safeguards public health. Wisconsin Department of Natural Resources defines the following points as the basic principles of erosion and sediment control:

- **Planning + Preservation:** Minimize open area by phasing or sequencing construction and preserving existing vegetation where possible.
- **Diversions:** Divert stormwater away from disturbed or exposed areas when possible.
- **Installation:** Install BMPs to control erosion and sediment and manage stormwater.
- **Inspection + Maintenance:** Inspect the site regularly and properly maintain BMPs, especially after rainstorms.
- **Evaluate:** Revise the plan as site conditions change during construction and improve the plans if BMPs are not effectively controlling erosion and sediment.
- **Housekeeping:** Keep the construction site clean by putting trash in trash cans, keeping storage bins covered, and preventing or removing excess sediment on roads and other impervious surfaces.

The proper use and management of sediment and erosion control devices and techniques significantly reduces the risk of stormwater contamination. Visit www.RespectOurWaters.org/erosion-control to learn more about the impacts of sediment pollution and to find a list of resources to learn more about implementing and maintaining specific erosion and sediment control best management practices.

This Fact Sheet is brought to you by Respect Our Waters. Last Updated March 2022.

Sources: "GWQ001 Erosion Control for Home Builders." *Cooperative Extension Publications*, Madison. & "Erosion Control and Storm Water Management Plans", Wisconsin DNR. (https://dnr.wisconsin.gov/topic/Stormwater/construction/erosion_control.html). Last accessed Mar 3, 2022.