

Construction Sites and Stormwater



A starter guide for building with water in mind.

What's the issue?

Loose and disturbed soil create a high risk for erosion, which pollutes and degrades nearby lakes, streams, and wetlands.

The US EPA estimates that 20 to 150 tons of soil per acre are lost every year to stormwater runoff from construction sites. Sediment and other pollutants in the runoff damage habitat, degrade water quality, clog important infrastructure and drainage routes, and increase the burden of maintenance downstream or downhill.

Construction Best Management Practices (BMPs) help reduce pollution and prevent costly, avoidable cleanup when the project is done. A construction site uses a mixture of BMPs as needed.



Tools in the toolbox: What to plan and watch for

Silt fences and curtains



Most often outlining the perimeter of a property and leading up to a waterbody.



Silt curtains act as a back-up but aren't a replacement for upland BMPs.

Bio rolls/bio logs



Placed along slopes to reduce velocity and catch sediment.

Rock entrances



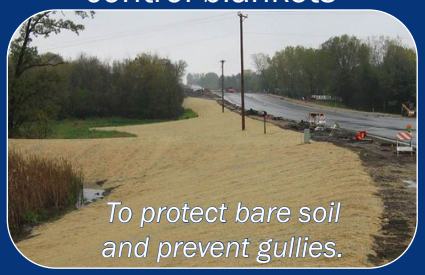
To prevent vehicles from tracking soil into the street.

Inlet protection



Stormdrains drain directly to a waterbody without treatment.

Erosion control blankets



To protect bare soil and prevent gullies.

Other construction site BMPs include:

- Berms, stockpiles, and removing stockpiles at finish
- Mulch, hydro (sprayed), or straw mulch
- Temporary seeding of groundcover grasses (i.e. oats)
- Rip-rap for velocity reduction and erosion control
- Pavement sweeping
- Retention basins and rock check dams
- Concrete waste containment

Communication is key:

Construction sites include a Stormwater Pollution Prevention Plan (SWPPP) as part of the local MS4 permit. These plans outline the strategies in place for a given site and provide a venue for inspectors and contractors to communicate and resolve possible issues or surprises.

Help create good habits for lakes and wetlands

Plan on the front end:

- Use the pre-construction time for planning, asking questions, and conveying expectations with contractors. Check stormwater language in contracts, ask for certifications, or hire selectively.
- Be sure that construction BMPs are built into the site plan and that time will be dedicated to installing and maintaining them.

Think like a detective:

- Visualize where rain falls, the path it will take down slopes, and where it will end up. Are there vulnerable or exposed soils along the route? If it rained recently, observe how water moved and where sediment deposits are.
- Stay curious: Do the stormwater controls appear to be undersized, have weak or damaged spots, are buried in sediment, or need fixing?
- Be aware of the weather and think ahead.

Learn the ropes:

- Find if your community has an MS4 (Municipal Separate Storm Sewer System) permit and who manages it. All cities, townships, and counties in the VLAWMO watershed have an MS4 permit.
- When in doubt, consult with your local MS4 permit holder. The MS4 permit contains guidelines and instructions for proper construction site management, and permit holders are audited by the Minnesota Pollution Control Agency (MPCA).



Think big picture:

- Consider that the time it takes to install a BMP and prevent a problem is much less time and money than fixing a problem.
- Responsibility is shared. Every development and construction project has the potential to impact shared water resources, public spaces, and other private properties.
- Construction-related pollution can happen quickly but causes a long-term impact on aquatic life, wetland function, and drainage system maintenance.



Reporting an illicit discharge

Improper or failed pollution prevention can lead to unlawful illicit discharge into waterbodies.

1. **Photograph.** Document the substance contaminating a ditch, pond, lake, wetland, or water conveyance system with a photo. If a photo isn't possible, note the substance or what you expect the substance to be.
2. **Think like a detective.** Document the specific location with a street, cross street, or cardinal directions. Note the day and time.
3. **Call** your city, township, or county engineering or public works department to report the pollution. If you're not sure if it's illicit discharge but suspect it, staff will investigate to determine the nature of the problem. Staff will pursue remediation or clean up as necessary.
4. **Celebrate your success!** Clean water is everyone's business and responsibility. Reporting may seem difficult or intimidating, but can be anonymous. When stormwater runoff travels beyond a construction site, being alert and asking questions is a responsible community service.