2025 Stormwater Theme: Keep Dirt Where it Belongs

2025 marks the final year of our current five-year National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit term. We'll submit our 2024 accomplishments in our Ohio Environmental Protection Agency (OEPA) annual report and apply for the 2026-2030 NPDES MS4 permit. With a new year comes a fresh start for our six Minimum Control Measures (MCMs) giving us the opportunity to tackle them all over again!

2025 also brings a new MS4 theme: Keep Dirt Where It Belongs. While this may seem like a simple concept, achieving it on an active construction site can be quite challenging. Erosion is a natural process, but construction activities can accelerate it. Although erosion cannot be entirely stopped, we can take steps to minimize its impacts and prevent man-made soil disturbance. One effective way to minimize erosion is by simply covering exposed soil. Planting native plants is ideal for erosion control as their deep roots anchor soil in place. Kentucky bluegrass is also commonly used in Ohio to stabilize a site after construction activities.

When colder months make seeding difficult, temporary stabilization techniques are crucial. The most common winter stabilization technique is mulching. Mulch not only covers bare soil, but it also promotes the germination of seeds in the growing season by holding moisture. This is why you often see straw thrown over grass seed! In Richland County, idle soil is to be temporarily or permanently stabilized after 14 days. Refer to the photo below for seasonal recommendations to stabilize soil effectively. For more details see Chapter 7 of the Rainwater and Land Development Manual. By implementing stabilization strategies, we can preserve soil integrity and support sustainable construction practices. Let's keep dirt where it belongs!

While some erosion is natural, we want to reduce man-made erosion caused by construction activities and other earth disturbances. Once erosion starts, the topsoil is the first to go – and it takes *several hundred years* to form just one inch of it. Losing that nutrient rich layer not only reduces the soil's ability to retain moisture (which can lead to flooding), but also negatively impacts crop yields. According to the World Wildlife Fund "half of the topsoil on the planet has been lost in the last 150 years". For many Ohio farmers, losing more topsoil is not an option and best management practices to prevent further erosion become essential.

When soil is washed away through erosion, it is often washed into the nearest waterbody during rain events. As water travels over land as runoff, it picks up whatever is in its path - including soil. The soil in the stormwater runoff can bind with chemicals and other materials, transporting them to local streams. Once soil enters a stream, the water can become discolored and murky, harming the aquatic organisms that rely on clean, clear water. It also makes it harder for animals to hunt, find shelter and breathe as turbidity (cloudiness of the water) blocks sunlight and reduces oxygen levels.

While erosion might not seem like a pressing issue, it has far reaching consequences for both humans and wildlife. Even a small amount of displaced dirt can harm the health of our waterways. It's our responsibility to stabilize bare soil and prevent pollution – after all, we don't want to see another dust bowl!

Learn more about loss of topsoil: https://www.worldwildlife.org/threats/soil-erosion-and-degradation Learn more about turbid water: https://www.usgs.gov/special-topics/water-science-school/science/turbidity-and-water

This spring gave us plenty of reminders why this year's MS4 message matters. During stormwater inspections, Sam and I noticed a significant amount of erosion. So much so that we spent a good part of the spring fielding phone calls about seeding, stabilization and erosion control methods. Rainfall can cause soil to move in several different ways. Understanding the different types of erosion can help us take the proper steps to protect our landscapes. Below are the four types of erosion we commonly observe: Splash, sheet, rill and gully.

- Splash: Soil displaced by the impact of a falling raindrop. According to National Geographic the impact of a falling raindrop can scatter soil particles as far as 2 feet.
- Sheet: Displacement of soil in thin layers by the forces of rain and stream flow. Erosion caused by runoff.
- Rill: Displacement of soil by water running through little streamlets or headcuts.
- Gully: Displacement of soil along drainage lines (large channels) by surface water runoff. Usually begin as rills.

All four types of erosion can quickly get out of hand if sites aren't stabilized in a timely manner. The best way to prevent erosion is to seed and mulch bare soil as soon as possible. Early stabilization not only keeps you in compliance with the Stormwater and Sediment Control Regulations of Richland County but also protects our waterways. Thank you for doing your part to keep dirt in its place!

Learn more about the MS4 program in Richland County by contacting the MS4 Technician.

We sell rain barrels and have them in stock. You may purchase one online or let us know and we will make arrangements with you to pick one up.