

## Muddy Water!

### How can something as natural as soil be harmful to our water quality?

You may think that muddy water in a stream is a natural process after a rain. But actually, most of it is soil that has been eroded from the land that drains into the stream. Soil erosion is one of our nation's largest sources of water pollution, yet *how often have you driven past a stream that has muddy water flowing in it?* What you are really seeing is water pollution at work! Some things in the soil can become problems for our drinking water if they are released from the soil by erosion. But as long as they stay trapped in the soil, they are not likely to impact our water.

While agriculture and construction activities are the major contributors of soil erosion, residential sources of erosion can also play a role. The amount of developed land, such as neighborhoods, is vast and can have many small sources of erosion, the accumulated total of erosion coming from developed land can add up to a lot of muddy water.



**Overkill**



**Killing Vegetation in Waterways**



**Chronic Bare Spots**

**Removal of vegetation is what starts soil erosion, exposing the soil to rain & wind.** Residential soil erosion comes from things like over application of weedkiller, killing/removal of vegetation in waterways, uncovered stock piles of soil on your property and difficult areas to grow grass. *Remember, that if you remove the roots then off goes your soil!*

### So, what are the problems?

1. **Nutrient Pollution**— Soil contains nutrients (naturally occurring and man-made). Erosion allows stormwater to transport these nutrients to a lake or stream where they will fertilize and super-size things like algae in the water which ultimately sucks oxygen out of the water, blocks sunlight and increases water temperature. This makes it impossible for aquatic life to survive, and can possibly produce toxins that can contaminate our drinking water and harm pets.
2. **Unearth Legacy Contaminants** – Erosion can expose and release legacy contaminants that were banned decades ago such as DDT and PCBs that have been trapped in the soil. These contaminants have been found in some drinking water sources and in wildlife tissue as well. Legacy contaminants can also harm the mussels and clams who filter and clean our water for free.
3. **Damage Aquatic Ecosystems** – Muddy water is like air pollution to fish and suffocates them. It also destroys streambed habitat of aquatic organisms like dragonfly larvae, who are the natural predator of mosquitos!
4. **Groundwater Contamination** – Both legacy contaminants and nutrient pollution have also been found in groundwater.



Hardscape or create a garden in erosion problem areas. Mulch or use dried grass to cover bare soil in gardens.



Keep streambanks and ditches green. Trees are the best for streambanks!

### What you can About it!

*Standing water is only a problem if it takes longer than 48 hours to drain.*

For easy ditch mowing, install an under drain and cover with grass.

