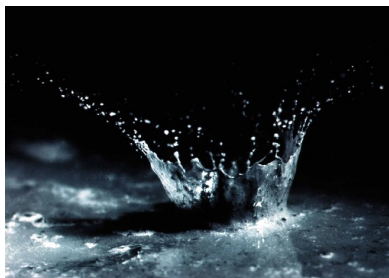




## *Sediment and Erosion Control*



### *It's all around us.*

If you've ever seen tree roots dangling from a cliff or a stream the color of chocolate milk, then you've seen the ecological effects of erosion. Erosion, in and of itself, is not a bad thing. Like anything though, too much of it can be devastating. For millions of years natural erosion has been scouring, channeling, flattening, and dividing landforms. Natural erosion has created the soil that lines our beaches and anchors the roots of our agricultural livelihood.

### *We've contributed to the problem.*

Unfortunately, accelerated erosion induced by humans has rendered the natural landscape in need of repair. We have indirectly detached soil by the ton from urban areas and agricultural areas alike. According to University of Michigan Professor Bruce Wilkinson, accelerated erosion by humans is responsible for moving ten times more sediment than all natural forces combined. In other words, we are stripping the soil faster than nature can replace it.



*How do we do this exactly?* In urban areas, construction sites with inadequate erosion control practices are responsible for significant amounts of soil entering local streams. Silt fences are designed to intercept sediment from runoff *before it leaves* a construction site. Silt fences, like the one shown here, should not be placed in the direct flow of water. Such placement defeats the purpose of preventing sediment from reaching the stream in the first place. A more effective placement would have been around the perimeter of the stream to prevent

sediment from entering the stream. Water quality is degraded when a significant amount of sediment enters a stream. As a result, aquatic plants are starved of sunlight and unable to photosynthesize, causing organisms that depend on the plants for food to die out.

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In agricultural areas, runoff carries with it valuable topsoil. In addition to biological impacts, sedimentation of streams also impacts human health and private property. Sediment entering waterways eventually settles and causes stream beds to rise. In large rain events (and with more runoff entering shallower streams) flooding of nearby homes and businesses is the unfortunate result. Flood waters carry with them waterborne illnesses. When the waters recede, mold is prone to grow in damp areas.

***How can you help curb this problem?***

According to the Maryland Department of the Environment (MDE), the most effective way to minimize sediment pollution is to minimize the potential of erosion to occur. If areas on your property have evidence of erosion, applying mulch or a vegetative groundcover will greatly reduce the scattering impact rain has on soil. Keeping an eye out in your area for construction sites with sediment control problems helps to keep development in check. Off Center, you may contact MDE via the link below; on Center please contact the Safety and Environmental Division at x6-0509.



*For additional information, please visit the following sites:*

<http://www.mde.state.md.us/Programs/WaterPrograms/SedimentandStormwater/erosions/sedimentcontrol/index.asp>

<http://www.epa.gov/owow/NPS/education/runoff.html>

<http://www.sciencedaily.com/releases/2004/11/041103234736.htm>

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