

WHY YOU SHOULD BE CONCERNED ABOUT SOIL EROSION

We are all affected by soil erosion. The impact of erosion on natural resources, and on the aesthetic, recreational and economic value of those resources, is a problem that everyone should take very seriously.

Soil erosion is, by volume, the greatest pollution problem in the world! Although under some circumstances soil movement is a natural occurrence, alteration of the land by human activity (residential and commercial/urban development, agriculture, logging, and road construction) dramatically accelerates erosion processes.

Many other pollutants, like the nutrient phosphorus, and some pesticides, become attached to soil particles, and travel with the soil to cause damage to downstream water resources.

Very fine soil particles (silts) are easily suspended in water. These particles can travel great distances in runoff from developed areas via swales and road ditches that terminate in streams, rivers, lakes and coastal waters.

Eroded soil particles, and the pollutants that travel with them, can cause serious damage to water resources in the following ways:

- **Lakes:** Nutrient enrichment, resulting in an increase in algae growth, loss of clarity, loss of coldwater fishery habitat due to oxygen reduction, reduced recreational appeal, increased drinking water costs, and declining shoreline property values. Increased rooted plant growth along shoreline areas. Habitat alteration for warm water fish, amphibians, and aquatic insects.
- **Streams:** Critical habitat disturbance or elimination for aquatic insects and fish, disruption of stream energy cycles and food chains. May result in mortality of insects and fish and other aquatic species due to oxygen depletion or clogging of gills.
- **Wetlands:** Alteration, reduction, or elimination of habitat for fish, amphibians, mammals, and beneficial plants. Reduced hydrologic benefits, such as runoff detention capacity for flood protection, reduced groundwater and stream recharge, and pollutant attenuation capacity.
- **Estuaries/coastal areas:** Contamination of shellfish areas by substances and organisms associated with soil erosion (bacteria/viruses, gas and oil residues, pesticides). Suffocation of filter feeding organisms (clams/oysters) from fine sediment particles. Alteration of habitat.

The impact of these disturbances to water resources from soil erosion is extremely high. Clean water is fundamental to our physical and economic well-being!