

## Stop that Dirt!-Basic Information



Soil in the street from a construction site

Stormwater runoff is one of the leading causes of pollution and degradation of water quality in Indiana's waterways. And sediment is the #1 pollutant by volume in stormwater runoff in the United States.

Stormwater is water from rain or melting snow. It flows from rooftops, over paved streets, sidewalks and parking lots, across bare soil and through lawns and storm drains. As it flows, the runoff collects and transports soil as sediment, pet waste, salt, pesticides, fertilizer, oil and grease, litter and other pollutants. This water drains directly into nearby creeks, streams and rivers without receiving treatment at sewage plants.

Sediment is the loose sand, clay, silt and other soil particles that are carried from a site by water runoff that eventually settles at the bottom of streams, rivers, lakes and ponds. Sediment comes from soil erosion.

### Facts about sediment

- Sediment is the most common pollutant in our waterways
- While natural soil erosion produces about 30% of waterway sedimentation, accelerated erosion from human modifications of the land accounts for the remaining 70%

- The most concentrated sediment releases come from construction activities which can often exceed 100 times that from agricultural use of the land
- Sediment pollution causes \$16 billion in environmental damage each year in the U.S.

What's the problem?

Sediment entering stormwater can cause severe water quality degradation of our waterways that we depend on for our drinking water, that provide fish and wildlife habitat and that provide us with recreation in the form of bird watching, swimming, fishing and boating. Excess sediment can also cause flooding, excessive streambank erosion and undesirable physical and chemical changes to our lakes and ponds. Here are the problems:

- Sediment entering water bodies impairs the water quality for the majority of us who obtain our drinking water from surface water sources. It increases the cost of treating the water and it can affect the odor and taste.
- Sediment fills up storm drains, catch basins, roadside ditches and streams creating costly drainage, flooding and associated problems.
- Water polluted by sediment becomes cloudy, preventing animals from seeing food. It also disrupts the natural food chain by destroying the habitat of the smallest stream organisms and causing massive declines in fish populations.
- Sediment can clog fish gills which reduces resistance to disease, lowers growth rates, and affects fish egg and larvae development.
- Murky water prevents natural vegetation from growing in water.
- Nutrients transported by sediment can activate blue-green algae that release toxins which make swimmers sick.
- Sediment deposits in rivers can alter the flow of water and reduce water depth, making navigation and recreational use more difficult.



Sediment laden waters