Impacts of Sediment Pollution



Ellen Enslin, CPESC Senior Resource Conservationist Pike County Conservation District

Soil Benefits

- Supports forests
- Grows food
- Purifies water
- Controls flooding







Sediment

Soil in the wrong place causes problems within streams, lakes, wetlands

Goals:

Keep healthy soil in place

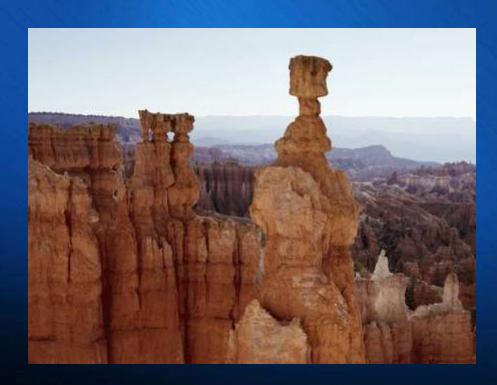
Control runoff of soil from earth disturbance

sites



Erosion and Sedimentation

- EPA lists sediment as the most common pollutant in rivers, streams, lakes and reservoirs
- Natural erosion produces nearly 30% of the total sediment in the United States





Erosion and Sedimentation

- Accelerated erosion from human uses of land produces the remaining 70% of total sediment
- Increasing earth disturbance, from land development activities, can result in stormwater runoff carrying excess levels of soil sediment into surface waters.





Impacts of Sediment Pollution

- Increased frequency and intensity of flooding as sediment clogs waterways
- Water polluted with sediment becomes cloudy, preventing animals from seeing food and vegetation from growing in the water



Impacts of Sediment Pollution

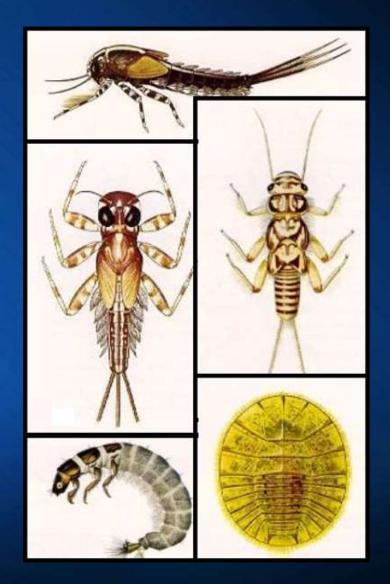
- Food Chain disruption: Streambeds are smothered
- Pollutants "hitch hike" on soil particles
- Increase in aquatic plant growth due to excess nutrients
- Contamination of public water supplies & increased filtration costs



Aquatic Life of Pike County Streams

- Insects
- Salamanders
- Mussels
- Mammals
- Birds
- Fish



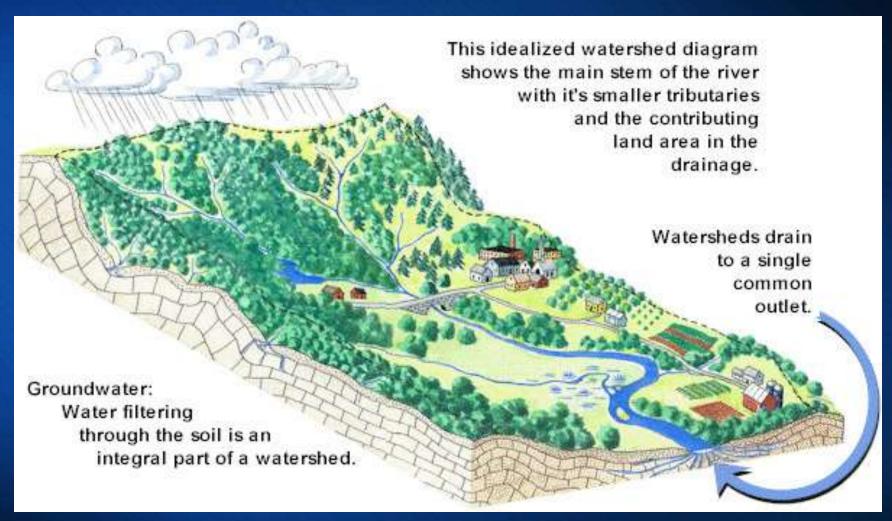


High Diversity = Healthy Streams

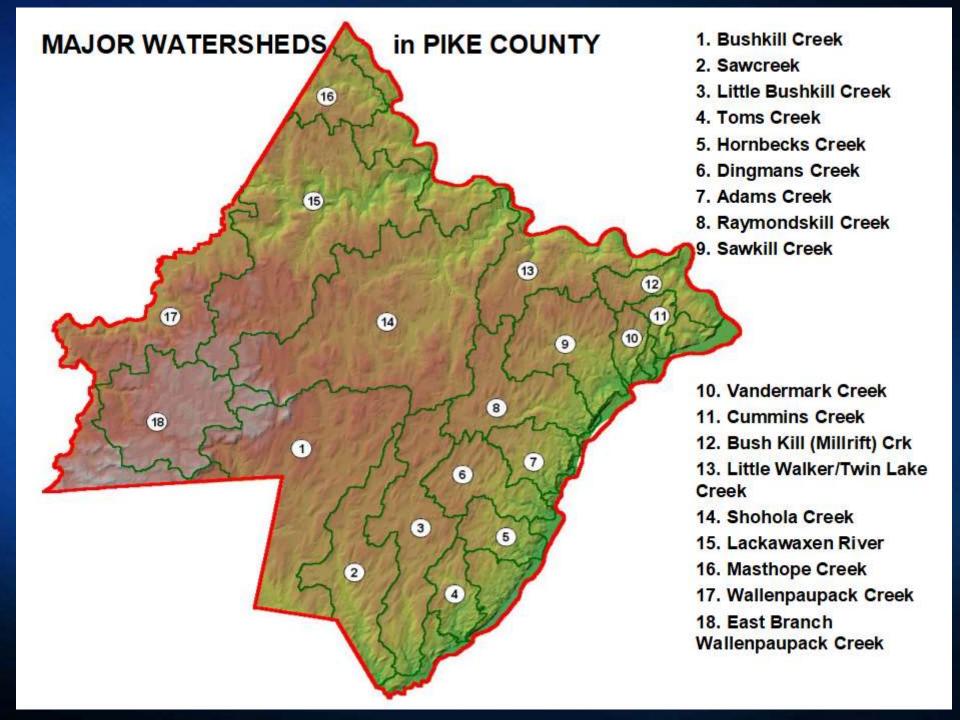




What is a Watershed?



Artwork by: Katherine Dodge



Stream Classifications

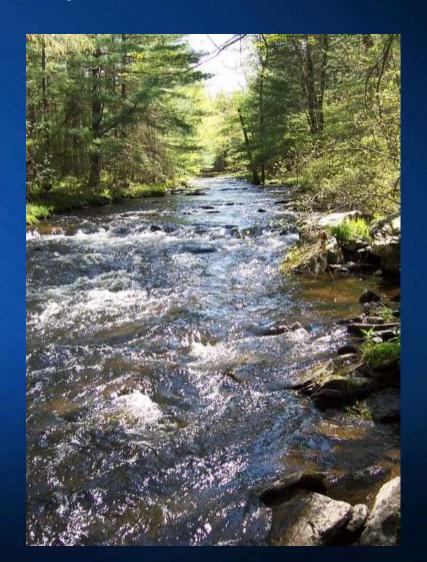
Classification based on the aquatic life in a stream and/or PFBC stream classification

Exceptional Value (EV) – high quality streams that are wilderness trout streams, flow through state natural areas or federally protected wilderness areas, or meet other standards.

High Quality (HQ) – streams that meet biological, chemical, or class A trout stream standards.

Trout Stocked Fishery (TSF) – includes all streams capable of supporting a stocked trout fishery.

Cold Water Fishery (CWF) – Maintenance or propagation, or both, of fish species including the family Salmonidae (Trout) and additional flora and fauna which are indigenous to a cold water habitat.



Controlling Soil Sediment

- Site Planning
- Erosion and Sediment (E&S) Control Plans
- Best Management Practices (BMPs)
- Stabilization







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