

**Stormwater: Slow it down, Spread it out, Soak it in!**

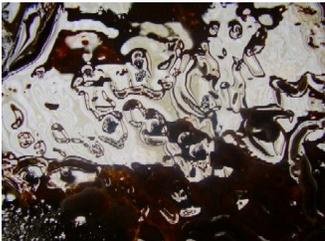
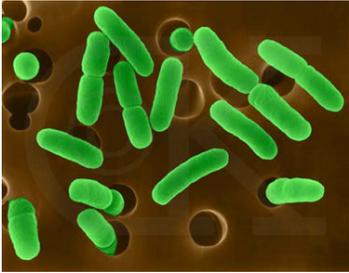


# Stormwater Pollutants

## How does stormwater affect the environment and water quality?

Rushing **stormwater** picks up litter, chemicals, dirt, and other pollutants as it flows into a storm drainage system or directly to a lake, stream, river or wetland. **Stormwater is not clean water** and, unlike drinking water and wastewater, **stormwater receives no treatment** to remove any of these pollutants. Instead they are carried into Knox County's waterways where they **may harm fish and wildlife, and ultimately pollute the places you enjoy for fishing, swimming, and other recreational activities**. Because Knox County uses surface water as a drinking water source, these contaminants can **add to the cost of treating drinking water** to make it safe.

The table below shows how polluted stormwater can adversely affect plants, fish, animals, and people. Since these pollutants run off of a wide area and cannot be traced to a single source, they are called **nonpoint source pollution**.

Contaminant/Pollutant	Impact on Waterways
<p><b>Silt/Sediment</b></p> 	<p>Soil particles washed off construction sites or farm fields make the water cloudy or turbid. When the soil settles out of the water, it gradually fills in the stream or lake bed. This makes it difficult or impossible for aquatic plants to grow, aquatic insects to thrive and other life forms to function properly</p>
<p><b>Trash/Debris</b></p> 	<p>Trash washed into waterbodies can choke, suffocate, or disable aquatic life. It can also block storm drains, which can lead to flooding that damages private and public property</p>
<p><b>Chemicals</b></p> 	<p>Household Hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life.</p> <p>A common element in fertilizers phosphorous, which fuels the growth of algae and aquatic plants. Rapid/excessive growth of algae/plants can degrade water quality and interfere with swimming, boating and fishing</p> <p>Land animals and people can become sick from eating diseased fish/shellfish or from ingesting polluted water.</p>
<p><b>Animal Waste</b></p> 	<p>Animal waste can be a major source of bacteria and excess nutrients in local waters. Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.</p> <p>Additionally, bacteria, viruses and other disease-causing organisms can make waterways unsafe for swimming and other types of recreation. Some of these organisms, notably Cryptosporidium, are difficult to remove through water treatment and may endanger people who depend on surface drinking water. These pathogens can also wash into swimming areas and create health hazards.</p>