

Mercury

How does Mercury enter into rivers and streams?

Mercury is commonly found in soil, trees, natural gas, diesel, heating oil, fossil fuels, coal, fluorescent lights, thermometers, automobile switches, dental amalgam (dental fillings) and LCD screens just to name a few. When fossil fuel is burned, mercury is released into the atmosphere, it is then deposited directly onto land and into rivers. Rainfall washes the mercury that fell on land into rivers and streams via storm drains and other runoff mechanisms. Improper disposal of fuel, fluorescent lights, thermometers, automobile switches, dental fillings, and LCD screens can also seep into water ways via similar mechanisms. Soil erosion also contributes to increased levels of mercury in waterways.

How does Mercury harm the environment?

Mercury is a potent toxin that can cause serious damage to the brain and nervous system. Mercury does not breakdown, but instead it stays in aquatic systems. Therefore, when fish are exposed to mercury, the toxin accumulates in their tissues. When humans consume fish with increased levels of mercury contamination, it can cause serious and potentially fatal health risks.

How can mercury contamination be prevented?

Dispose of mercury containing household items properly. For more information and locations call the City of Aurora (503)678-1035. Limit the amount of driving and fossil fuel use by grouping trips and errands together. Avoid soil erosion by keeping native plants near streams and rivers.

Pesticides

How does pesticides enter into rivers and streams?

Pesticides can be washed into rivers and streams via storm drains and naturally occurring water runoffs. It can also enter rivers and streams via improper waste disposal (i.e. pesticides being dumped down household drains or flushed down the toilet). Accidental contamination of rivers can occur when wind/air currents carry pesticide spray to local waterways

How does pesticides harm the environment?

Many pesticides, including DDT are lipid soluble. This means that they are able to accumulate in the fatty tissue of animals and humans. The type of pesticide used can harm the environment and

humans in a variety of ways. Some harmful effects include chronic illness, cancers, tumors, reproductive inhibition or failure, suppression of immune system, cellular and DNA damage, thinning of eggshells, and possible death.

How can pesticide contamination be prevented?

Dispose of pesticides and hazardous material properly, do not dump it down the drain. Limit pesticide and fertilizer use by planting native grass and shrubs around your home. Contact the City of Aurora for disposal requirements and locations.

Metals

How do metals enter into rivers and streams?

Iron, manganese, and arsenic are all naturally occurring heavy metals. They can be found in volcanic rocks and soil. Soil erosion caused by human interference can lead to an increased amount of metals into streams and rivers. Municipal wastewater treatment plants, manufacturing industries, mining, and rural agricultural cultivation and fertilization all contribute to the metal contamination of rivers. To a lesser degree, many medications contain metals. If these medications are flushed down the toilet contamination of waterways is possible.

How do metals harm the environment?

Toxic levels of heavy metals can cause a wide array of hazardous health issues to aquatic life and humans. Such metals can bioaccumulate in fish and wildlife, thereby cause potential health illness.

How can metal contamination be prevented?

Be proactive in erosion control. Consider silt fences, mulching, and natural seeding options. Do not flush medication or vitamins down the toilet. Dispose of medications properly.