



Nonpoint Source Pollution

Office of Water Quality

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Introduction:

- When it rains or when snow melts, water runs off streets, parking lots, lawns, and agricultural fields and carries with it pollutants such as road salt, motor oil, sediment, fertilizer, bacteria and pesticides. These pollutants are then carried, untreated, to the nearest stream or lake through surface water runoff or storm sewers; or they infiltrate into groundwater.
- Nonpoint source pollution is so named because the pollutants do not originate at single point sources, such as industrial or municipal wastewater discharge pipes, but come from many diverse sources in the environment.
- While some nonpoint source pollution is naturally occurring, most of it is a result of human activities.

Environmental Impact:

- Sediment - ordinary soil - is the number one pollutant of our nation's waterbodies. When soil enters a waterbody as a result of erosion, it prevents sunlight from reaching aquatic plants, clogs fish gills, chokes other organisms, smothers macroinvertebrates and interferes with fish spawning. Water also becomes murky and unpleasant for swimming or fishing.
- Chemical fertilizers contain nitrogen and phosphorous - nutrients that help plants grow. Using excessive amounts of fertilizer or applying it close to a shoreline allows the nutrients to run off. Once in the waterbody, the nutrients feed algae, causing it to grow rapidly and turn the water green or cause algal blooms. Large amounts of algae reduce oxygen levels in the water and compromise overall water quality – sometimes causing a fish kill.
- Bacteria (including *E. coli*) in surface waters are a threat to human health. Pathogens (agents that cause disease) are the top cause of stream impairments in Indiana.

IDEM's Role:

- The Indiana Department of Environmental Management (IDEM) is responsible for protecting human health and the environment while providing for safe industrial, agricultural, commercial and governmental operations vital to a prosperous economy.
- IDEM's Office of Water Quality, Watershed Assessment and Planning Branch administers the Clean Water Act Section 319 and 205 Grant Programs which provide federal funding annually for activities that reduce nonpoint source pollution. Activities include watershed planning, water quality management planning, implementation of best management practices (BMPs), education, assessment, and activities that build capacity and help strengthen the effectiveness of groups working throughout the state to achieve water quality goals and show measurable results.

Ways to Help Reduce Nonpoint Source Pollution:

- Make sure your car is working properly. A car that leaks oil onto the pavement is contributing to water pollution. A drop of oil spilled far from a body of water will eventually find its way into a river or lake or the groundwater.
- If you must fertilize, use phosphorus-free lawn fertilizer and follow the directions. Avoid getting fertilizer on driveways, sidewalks, storm drains or nearby waterbodies.
- Don't dump anything down a storm drain. It goes straight to a waterbody.
- Wash your car on a grassy area, use soap (preferably non-phosphate) sparingly, or better yet – take your car to a car wash.
- Pick up after your pet. Bacteria and phosphorus can run off from lawns and sidewalks to storm drains.
- Make sure there is adequate vegetation growing in erosion prone areas - especially embankments along rivers, pond and lakes. Don't leave soil bare and vulnerable to erosion.
- Use porous materials such as wooden planks or bricks for walkways and patios. Porous surfaces allow substances to soak into the ground where they are filtered by the soil.

- Maintain your septic system so it is functioning properly. A failing or improperly functioning septic system contributes bacteria and nutrients to groundwater or nearby ditches and rivers.
- Get involved with watershed planning and implementation efforts in your watershed!

More Information:

- For more information on nonpoint source pollution and the Section 319 and 205 Grant Programs, please visit IDEM's website at www.in.gov/ide/nps/.
- For questions and concerns, please call IDEM's Office of Water Quality at (317) 308-3173.