

FACT SHEET: Nutrient Pollution – Why is it a Concern?

Mandated by the U.S. Environmental Protection Agency (EPA) to improve local water quality, municipalities with current MS4 permits and municipalities required to obtain MS4 Permits in 2018 must reduce nutrient pollution to local water bodies over the next five-year permit term (March 2018 through March 2023). Nutrients of concern are phosphorus and nitrogen.

▶ What is Nutrient Pollution?

Phosphorus and nitrogen provide the nutrients plants and animals need to survive, but there is such a thing as too much of a good thing. Too much nitrogen and phosphorus in streams, creeks, and rivers can harm aquatic life, local ecosystems, and even humans. These nutrients are commonly found in fertilizers, sewage, and waste materials, and stormwater runoff can carry them to surface waters.

▶ Why is Nutrient Pollution Harmful to the Environment?

- Excessive nitrogen and phosphorus in water bodies leads to the growth of algae. Large areas of algae growth are called algae blooms.
- Algae emits toxins that can kill aquatic life.
- Aquatic plants and animals need sunlight to thrive. Large algae blooms can block sunlight from reaching underwater areas.
- When large algae blooms use up available nutrients, they begin to die. This slow process of decaying consumes large amounts of oxygen in the water. Eventually, there is no oxygen left, and the area becomes a "dead zone" where no aquatic life can exist.
- Algae can be toxic to humans, harming their digestive, respiratory, or neurological systems. Algae can also cause skin rashes.
- Drinking water supplies with high levels of nitrogen, specifically from wells, can be dangerous for infants. The excessive nitrate in the bloodstream can hamper the blood's ability to carry oxygen, which can result in blue baby syndrome.
- High levels of nitrogen or phosphorus can make treating water for human use far more expensive.

▶ What Can You Do?

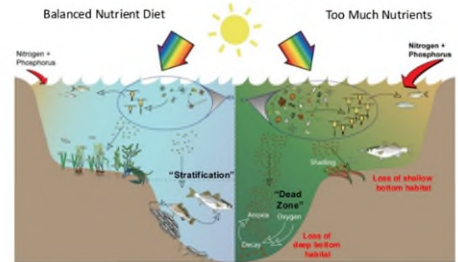
We should do everything possible to protect and preserve our water quality. We can all make a difference by adopting the following best practices:

- Fertilize your lawn and landscape only when necessary. Test your soil to identify how much fertilizer you need.
- Use a mulching lawn mower that leaves shredded grass clippings on the lawn. These clippings act as a natural mulch and provide nutrients back into your lawn.
- If you do not use a mulching mower, consider composting grass clippings. Do not dump grass clippings in a stormwater drain, drainage swale, or other stormwater management facility.
- Plant more native trees, shrubs, and perennials in your yard. They use more stormwater, which reduces stormwater runoff.
- Pick up pet waste and properly dispose of it in a trash can.
- Use phosphate-free cleaning materials.
- If you have an on-lot sanitary sewage system, regularly have it inspected and pumped out.
- Wash your car at a commercial car wash or on your lawn, so sudsy wash water does not drain into the stormwater system.

Excessive nutrients fuel the growth of large algae blooms, which are toxic to aquatic life.



How Too Much Nutrient Pollution Impacts the Chesapeake Bay Ecosystem



DID YOU KNOW?

- ▶ EPA declared excessive amounts of nitrogen and phosphorus have polluted 100,000 miles of streams and rivers and 2.5 million acres of lake water.
- ▶ A 2010 EPA study found approximately 64 percent of the water located in shallow monitoring wells is unsafe for human consumption because of high amounts of nitrates.
- ▶ Every summer significant dead zones occur in the Chesapeake Bay and in the Gulf of Mexico because of excessive nutrient pollution.

WE CAN HELP!

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