



Overview

Nutrient pollution is when an overabundance of nutrients, like nitrogen and phosphorous, enter the water system. These nutrients are natural, but in high quantities they can lead to an overgrowth of algae--known as "blooms"--and decrease oxygen that fish and other aquatic life need to survive.

The primary sources of excess nutrients are runoff from fertilizers and animal manure, discharges from domestic and municipal sewage systems, and stormwater runoff. Nutrient pollution is detrimental to human health and the economy, with U.S. tourism losing close to \$1 billion each year from impacts to fishing and recreation. Excessive nitrogen is also a common drinking water contaminant and particularly harmful for infants.

Legislation

Nutrient monitoring, trading, and reduction legislation:

- Wisconsin Phosphorus [Water Quality Standards](#) and Arkansas [HB 1067](#) (2015) provide authority for water quality trading programs.
- Ohio [Senate Bill 1](#) (2015) limits the application of fertilizer and manure in certain conditions.
- Minnesota [SF 297](#) (2017) creates water testing for certain contaminants and establishes best practices.

Buffer zone legislation:

- Minnesota Statutes 2016, [Section 103F.48](#), amended by [SF 844](#) (2017), establishes set buffer zones for all designated public waters.
- Maine Mandatory [Shoreland Zoning Act](#) requires specific land use controls for certain water bodies.

KEY POINTS

- Nutrient pollution [threatens drinking water and the ecological stability of rivers and lakes](#) through algal blooms and hypoxic zones.
- Improving river health requires [cross-state collaboration](#) and a watershed approach to management of issues like water quality, infrastructure, and flooding.
- In the Mississippi River, [39 percent of streams have high levels of nitrogen](#) and 32 percent of streams have high levels of phosphorus, above the national average.
- Economic activity connected to the Mississippi River generates [\\$497 billion annually](#) and supports [1.5 million jobs](#), all of which depend on a healthy river.

Other Resources

- EPA [reports and research](#) on nutrient pollution
- Mississippi River Collaborative "Decades of Delay" [report](#)
- Illinois Nutrient Loss Reduction Strategy [report](#)
- Mississippi River Basin Conservation Network [fact sheets](#) by state and issue area

