Reduce Nonpoint Source Pollution

in Louisiana Waters

Nutrient Impairments

When many Louisiana residents think of pollution, they think of toxic chemicals emitted from industrial plants or chemicals used along roadways or farms to control weeds and pests.

These materials may have the potential to pollute surface and groundwater if application or discharges violate laws or exceed scientifically set standards. A significant portion of our water pollution, however, comes to our waters in the form of nonpoint source pollution. This type of pollution does not emanate from industrial sources but from the various day-to-day uses of our landscape.

Limits on the amount of certain potential pollutants that can enter waterways have been set in many Louisiana watersheds, and work is ongoing to complete this process in all of the basins in our state. This program, more commonly known as the Total Maximum Daily Load (TMDL) program, strives to set reasonable amounts of pollutants that can be discharged into Louisiana water bodies while assuring that those water bodies meet their designated uses.

Many bayous, lakes and streams in the state do not meet minimum standards set by the Environmental Protection Agency (EPA) for one or more of their designated uses, such as fishing, swimming or drinking water. The Louisiana Department of Environmental Quality (LDEQ) has the responsibility of developing and implementing the TMDL program as a mechanism to improve water quality in Louisiana's impaired water bodies. Both point source and nonpoint source contributors may be required to reduce their impact on surface waters.

Nutrients are often referred to as an impairment or pollutant; however, nutrients are essential elements for all life on earth. How can something essential for growth and reproduction sometime be referred to as a pollutant of concern in our waterways? The answer is nutrients in the proper amounts are necessary, but when too much of these good things are loaded onto landscapes and then released into some water bodies, serious problems may occur.

Excessive algae blooms can be stimulated by an overabundance of nutrients. Nutrient overenrichment or hypoxia is a major concern in many water bodies of Louisiana, specifically the Gulf of Mexico. Nutrients such as nitrogen and phosphorous can become pollutants. Both are essential for all plant growth and therefore essential for the proper function of ecosystems. Excessive nitrogen and phosphorous concentrations in water, however, can accelerate algae and plant growth in streams and lakes, resulting in oxygen depletion or low dissolved oxygen. When excess nutrients enter a waterway through unnecessary or improper fertilization of lawns, gardens and farms, effluents from sewage treatment plants, and even manure from wildlife and livestock, the potential for overenrichment or hypoxia can occur and result in low dissolved oxygen.

We can all play a role in reducing unnecessary and expensive nutrients in our water bodies by insuring that fertilizers and other sources or nutrients are not overused. Methods to reduce overuse include assessing nutrient needs using soil test results provided by the local extension office that indicate available nutrient levels and the amount of additional elements required for a given crop or garden. Following these recommendations will reduce the amount of unnecessary nutrients, save money and prevent excessive levels from being released into Louisiana waterways. Additionally, homeowners who live in areas that require proper installation and maintenance of an individual sewage treatment system based on manufacturer's recommendations can have a significant role in addressing water quality concerns. To learn more about ways you and others can help prevent excessive nutrients from entering our waterways go to www.lsuagcenter.com and read about Best Management Practices for agricultural commodities and homeowners.

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