

This article was originally published in *The Lake Connection*, the quarterly newsletter of the Wisconsin Association of Lakes:

Lawns green, lakes clean

Statewide ban on phosphorus lawn fertilizer would benefit lakes

Polluted runoff is Wisconsin's number one water quality problem, degrading or threatening an estimated 90% of inland lakes. Phosphorus is the main nutrient that drives eutrophication in most lakes. Using phosphorus-free lawn fertilizer is one easy way everyone can contribute to better water quality—regardless of where they live. The Wisconsin Association of Lakes passed a resolution in May of 2006 supporting a statewide ban of phosphorus in lawn fertilizer, modeled after Dane County's existing ordinance.

Adding phosphorus lawn fertilizer to soil that already has sufficient phosphorus to maintain a healthy lawn contributes to chronic nutrient loading problems. Excess phosphorus is stored in watershed soils, where it slowly works its way towards surface waters. Although not all phosphorus stored in watershed soils will reach lakes, only a small amount is needed to maintain or "tip" a lake into a nutrient rich (eutrophic) state. This sensitivity of lakes and rivers to phosphorus means even small sources of phosphorus in runoff—that by themselves may seem inconsequential—can result in water quality problems as phosphorus from lawns, streets, farm fields, and other sources in the watershed wash into lakes.

Changing land use patterns throughout a watershed can also increase the volume and rate of flow of runoff into lakes. In an undisturbed watershed, vegetation slows down runoff and water soaks into the soil. Development pressure frequently replaces lands that were once wooded or open space with lawns and hard surfaces (such as roads, buildings, and compacted soils). Water cannot penetrate these hard surfaces and runs off rather than soaking into the ground. Studies have indicated that lawns also significantly reduce infiltration of water, and increase both the amount of runoff and nutrients making its way to the lake.

Converting a natural shoreline into a lawn and unnecessarily applying phosphorus fertilizer are some of the many watershed changes that exacerbate the impacts polluted runoff has on lakes.

Statewide policy needed

Using phosphorus free lawn fertilizer—unless a soil test confirms the nutrient is needed—is a common sense, simple, and cost effective way to reduce the amount of nutrients entering our waterways. Many lake groups, local governments, counties and citizens are calling for a statewide phosphorus lawn fertilizer ban modeled after Dane County's existing ordinance. A statewide policy would save local governments the duplicative costs of developing independent ordinances and ensure consistency for consumers, retailers, and suppliers.

Dane County was uniquely able to pass a county-wide phosphorus fertilizer ordinance because the legislature gave the Dane County Lakes and Watershed Commission the authority to regulate fertilizers. No other Wisconsin county has this authority to create a county-wide ordinance to regulate fertilizer. Several counties have passed resolutions supporting a statewide ban on the sale and use of phosphorus lawn fertilizer, modeled after Dane County's existing ordinance.

Dane County model a fit for Wisconsin

Dane County passed its county-wide phosphorus lawn fertilizer ordinance in 2004. Like Minnesota's statewide law, the ordinance allows people to use phosphorus lawn fertilizer if a soil test demonstrates the nutrient is needed. A simple, inexpensive soil test tells property owners if their lawn already has enough phosphorus. Phosphorus free fertilizers are available at a comparable cost to phosphorus fertilizers.

The ordinance also allows phosphorus fertilizer to be used on newly established turf and lawns during their first growing season and exempts fertilizer intended for flower and vegetable gardening, indoor plants, and agricultural trees and shrubs. Yard waste, compost, and biosolids intended primarily as soil amendments are also exempt from the ordinance.

Dane County's ordinance ensures the default fertilizer choice for consumers is phosphorus free by prohibiting retail display of phosphorus fertilizer. This provision ensures the system is self regulating. Retailers do not have to monitor their customer's purchases as customers have to specifically ask for phosphorus fertilizer products. Because of Minnesota's statewide law, regional supplies of phosphorus free lawn fertilizer are readily available.

Activity in other states

In 2002 Minnesota became the first state in the nation to regulate phosphorus fertilizer use on lawns and turf. Other states are considering similar legislation to better protect the water quality of their lakes.

Maine has introduced a bill that would prohibit the sale or use of fertilizer containing phosphorus for nonagricultural lawn or turf unless a soil test indicates that additional phosphate is needed or the fertilizer will be used in the establishment of a new lawn. Several local units of government in Michigan have passed ordinances to restrict or ban use of fertilizers containing phosphorus. Muskegon County in southwest Michigan recently passed the state's first countywide ban.

The City of Ann Arbor's ordinance, developed with the Huron River Watershed Council, went into effect on January 1, 2007. Runoff from the use of fertilizers is a significant source of phosphorus to the Huron River, and researched showed that the City of Ann Arbor was contributing 67% of the total phosphorus load to the river. According to the Malletts Creek Restoration Study, estimates of full compliance in a phosphorus free fertilizer program would result in a 22% reduction in phosphorus loading to the Huron

River, helping the city comply with a federal mandate to reduce phosphorus loading to the Huron River.