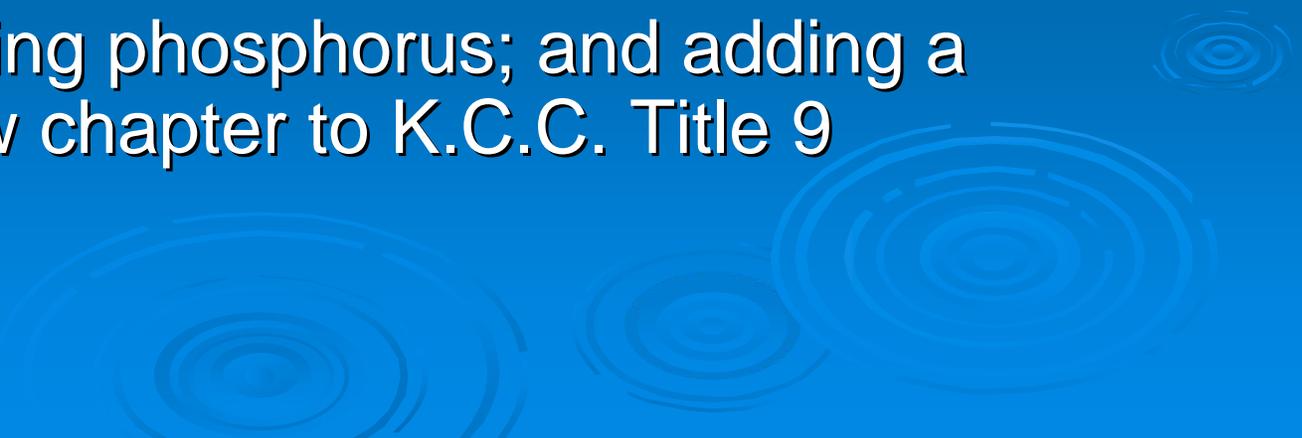


King County Phosphorus Fertilizer Ordinance

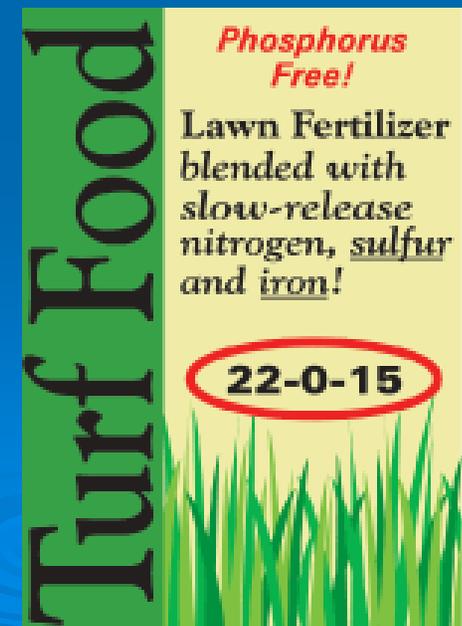
KC Ordinance #16392

AN ORDINANCE related to fertilizers
containing phosphorus; and adding a
new chapter to K.C.C. Title 9



What does this ordinance do?

- Bans the application of phosphorus fertilizer in unincorporated King County on residential lawns
- Allows for phosphorus fertilizer application when a soil test states it is appropriate
- Does not affect golf courses, agriculture, vegetable beds or flower beds
- Requires KCTV to produce informational tv spots
- Makes it illegal to apply phosphorus on impervious surfaces
- Builds partnerships with other agencies and non-profits to support consumer education and outreach efforts





How did we get here?
(or why all the fuss about
phosphorus and algae)





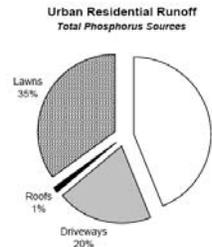
Effects of Lawn Fertilizer on Nutrient Concentration in Runoff from Lakeshore Lawns, Lauderdale Lakes, Wisconsin

Evidence for Reduced River Phosphorus Following Implementation of a Lawn Fertilizer Ordinance (revision 1.2)

JOHN T. LEHMAN, DOUGLAS W. BELL, and KAHLI E. McDONALD
Ecology and Evolutionary Biology
Natural Science Building
University of Michigan, Ann Arbor 48109-1048 USA

GREEN LAWNS - GREEN LAKES THE PHOSPHORUS CONNECTION

Homeowners in the Twin Cities Metropolitan Area apply over six million pounds of phosphorus fertilizer to lawns each year. The fertilizer helps to keep lawns nice and green. Unfortunately, the phosphorus also helps to make lakes nice and green during the summer, which diminishes swimming, boating and fishing for many people. Recent studies have shown that 50 percent of the phosphorus in runoff from residential areas comes from lawns. Most of the rest comes from sources such as leaves, grass clippings and sediment on hard surfaces. It takes only one pound of phosphorus to grow 500 pounds of algae.



Soil Phosphorus Fertility Rating

JOURNAL OF SOIL AND WATER CONSERVATION
The science and art of natural resource management for sustainability
HOME | CURRENT ISSUE | ARCHIVE | FEEDBACK | SUBSCRIPTIONS | ALERTS

Determining environmentally sound soil phosphorus levels

Andrew Sharpley, T.C. Daniel, J.T. Sims, and D.H. Pote

Stormwater

November 3rd, 2008 9:17am PST



River Phosphorus Drops Following P-free Fertilizer Ordinance

Posted By John T. Lehman 1 Comment

REVIEW OF PHOSPHORUS SOURCES IN THE UNITED STATES AND THEIR EFFECTS ON WATER QUALITY

SSSAJ Soil Science Society of America Journal

By Educators...

QUICK SEARCH: [advanced]
 Author: Keyword(s):
 Go

Published in Soil Sci Soc Am J 49:1010-1015 (1985)
© 1985 Soil Science Society of America
677 S. Segoe Rd., Madison, WI 53711 USA

Depth of Surface Soil-runoff Interaction as Affected by Rainfall, Soil Slope, and Management¹

A. N. Sharpley²



Evaluating the Effects of Nearshore Development on Wisconsin Lakes

What did the science tell us?

- P levels in soils measured in parts per MILLION
- P levels in lakes measured in parts per BILLION
- 25 ppm soil P – healthy turf (estimated by national studies)
- 25 ppb lake P – excess algae growth
- Excess phosphorus can (and does) runoff into surface water from excess fertilizer use
- We are facing a worldwide phosphorus shortage and it's time to save it for appropriate applications (agriculture) and get it out of products where it's unnecessary



CHAPTER 65
H.P. 454 - L.D. 587

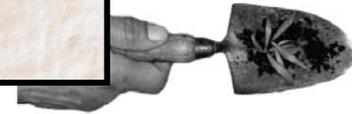
An Act To Protect and Improve Lake Water Quality by Reducing Phosphorus in Lawn Care Fertilizer

Be it enacted by the People of the State of Maine as follows:

LIBERTY LAKE SEWER AND WATER DISTRICT

PHOSPHORUS LAWN FERTILIZER
NO USE POLICY

RESOLUTION # 46-05



Get The Phosphorus Out

Cutting the Link from Green Lawns to Green Water

Many New Jersey residents will soon be required to use phosphorus-free fertilizer. Over 100 municipalities will be required to adopt ordinances that ban the use of fertilizer containing phosphorus.

Phosphorus has been identified as a significant pollutant in many watersheds in the state and phosphorus from fertilizer has been identified as a pollution source. Since most soils have plenty of phosphorus for grass and other plant growth, requiring the use of phosphorus-free fertilizer is one way to control phosphorus pollution that makes environmental and economic sense.

algae and aquatic plants. Too much phosphorus can cause algae blooms, reducing water quality and clarity. Also, when the algae bloom is over, and the bacteria start decomposing the algae, it can lead to foul odors and fish kills due to lack of oxygen. These conditions can eventually prevent recreational use for fishing and swimming.

What is Phosphorus?

Phosphorus is an essential nutrient for plant growth and is contained in many fertilizers. Phosphorus is an element found naturally in the soil, rocks and organic materials. There are many natural sources of phosphorus such as decomposing plant matter, phosphate rock, and fecal matter. But human activity is the most abundant source, either from household wastewater or fertilizers.

As a result, many New Jersey watersheds are considered impaired because the levels of phosphorus in the water exceed the surface water quality standard.

From TMDLs and Fertilizer Ordinances

As the DEP Division of Watershed Management develops Total Maximum Daily Loads (TMDLs), they are submitted to the US Environmental Protection Agency for approval. Once approved, the TMDL is adopted by DEP as a water quality management plan amendment and the adoption notice is published in the NJ Register.

The Department is in the process of adopting each of the phosphorus TMDLs to the appropriate water quality

Why isn't more better?

Statewide soil test results indicate that most soils have plenty of phosphorus for plant growth. When phosphorus fertilizer is applied unnecessarily, stormwater washes away the excess



Protect Your Drinking Water

Phosphorus

is a naturally occurring nutrient found in water, soil, and air. It helps stimulate plant growth and is essential for animal and plant life. You may recognize it as a common ingredient in fertilizers.

Where Does Phosphorus Come From?

Sources of phosphorus from our neighborhoods and homes include:

- Lawn fertilizers
- Leaves and grass clippings
- Pesticides
- Exposed soil from construction and landscaping
- Pet and wildlife droppings
- Failing septic systems
- Automobile exhaust and car washing
- Phosphorus-based soaps, detergents, and chemicals

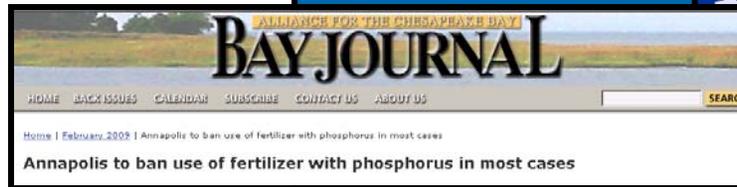


It's the law

No person shall apply any commercial fertilizer to residential lawns or public properties within the Lake Whatcom Watershed, either liquid or granular.

Too Much of a Good Thing

CITY OF ANN ARBOR JANUARY 2006
Manufactured Fertilizer Reduction Ordinance



Phosphorus

Minnesota's
New Phosphorus
Lawn Fertilizer Law

Jerry Spetzman

Water Quality Advisor

Minnesota Department of Agriculture

WRN NEWS

Phosphorus ban passes (Wisconsin) Senate

Tuesday, March 24, 2009, 3:54 PM

By Bob Hague

A ban on phosphorus on our lawns is headed to the governor's desk. Legislation which w Governor Jim Doyle's signature, with passage in the state Senate.

History

- Lots of phosphorus legislation in WA state – laundry detergent, dish soap, and now dishwasher detergent
- Limiting phosphorus fertilizer application on lawns started as a state wide bill through WALPA in 2007
- Councilmember Julia Patterson, an Angle Lake resident, heard about WALPA's efforts and contacted WLRD to help design a King County ordinance similar to the state bill
- Fertilizer ordinance was unanimously supported by the King County Council and signed by the Executive on March 31 2009
- Ordinance is effective in 2011



Gains made through the ordinance

- ✓ It's education and outreach based
- ✓ It will sunset upon a state wide phosphorus legislation being adopted – *sets precedence*
- ✓ Allows for organics/biosolids
- ✓ Cannot apply to impervious surfaces
- ✓ Allows for phosphorus fertilizer application when a soil test states it is appropriate
- ✓ Only affects lawns
- ✓ Asks for inter-agency, non-profit and community partnerships for implementation

Conundrums of the ordinance

- It's education and outreach based
- No regulatory teeth
- Does not ban sale
- Only in unincorporated
King County
- Allows biosolids and organics
- How to fund it (*got money? Let's talk*)



What do you need to know as a KC employee



F.Y.I.

- 25 ppm is the cutoff for phosphorus west of the Cascades (10 ppm on the east side)
- Recommend a soil test – if lower than 25 ppm you can apply phosphorus. If higher don't apply - look for phosphorus free fertilizer
- If going to apply manure/biosolids, fertilizer containing phosphorus- no more than 1 lb per 1,000 sq ft per year (½ lb Memorial Day ½ lb Labor Day)