

Appendix C

Phosphorus Regulations Pertaining to Fertilizer and Detergent Use

A common approach to control phosphorus in stormwater is to impose phosphorus use restrictions, usually in household fertilizers and detergents. In 2012, Miller summarized regulations restricting the use of phosphorus containing fertilizers on household lawns. She found at least 11 states that restricted phosphorus fertilizer use or sale: Illinois, Maine, Maryland, Michigan, Minnesota, New Jersey, New York, Vermont, Virginia, Washington, and Wisconsin. Table C-1 summarizes the primary elements of each state's ban (<https://www.cga.ct.gov/2012/rpt/2012-R-0076.htm>). In general, these states prohibit phosphorus fertilizer application unless it is for (1) curing a lack of necessary phosphorus, (2) establishing new turf, or (3) repairing turf. Many states exempt agricultural lands and production, commercial or sod farms, gardening, or golf courses from the ban. Many also prohibit applying fertilizer (not only phosphorus fertilizer) on impervious, frozen, or saturated surfaces, or within a certain distance of a water body. Inadvertent application on impervious surfaces must be removed or cleaned up. Some states, including New York, also have phosphorus fertilizer sale restrictions, such as separately displaying phosphorus fertilizer and posting cautionary information.

Several studies have shown that fertilizer bans (especially during the summer growing season) have resulted in improved water quality of the receiving waters. For example, in 2015 Sarasota County, FL, after 8 years of restrictions (specifically to target nitrogen), "Sarasota Bay ecosystem is responding better than imagined."

(http://www.mysuncoast.com/news/local/suncoast-fertilizer-ban-inconvenient-but-effective/article_61816e3e-0651-11e5-94f7-8fffb13bb602.html) Another example is reported by Lehman, *et al.* in 2009 who wrote "that phosphorus levels in the Huron River dropped an average of 28 percent after Ann Arbor adopted an ordinance in 2006 that curtailed the use of phosphorus on lawns."

(<http://www.oceanriver.org/documents/Reducedriverphosphorusfollowingimplementationofalawnfertilizerordinance.pdf>)

New York's dishwasher detergent and lawn fertilizer restriction law went into effect on January 1, 2012 (<http://www.dec.ny.gov/chemical/74956.html>). This regulation prohibits the application of fertilizers to lawns or non-agricultural turf between December 1 and April 1. The regulation also prohibits the application of fertilizer to impervious surfaces, such as driveways and sidewalks, or within 20 feet of any surface water, with a few exceptions. Excluding compost, fertilizer applied to lawns or non-agricultural turf in New York should not contain phosphorus in amounts greater than 0.67 percent by weight. The two instances where phosphorus containing fertilizer can be applied are: 1) to establish a new lawn; or 2) to address a phosphorus deficiency, when confirmed by a soil test.

Table C-1. Summary of State Regulations Restricting Fertilizer Applications to Protect Water Quality (Miller 2012)

	Illinois (415 ILCS 65)	Maine (38 MRSA § 419)	Maryland (Md Laws § 6-201 et seq. and § 8-801 et seq.)	Michigan (MLCA § 324.8501 et seq.)	Minnesota (MSA statute § 18C.60 et seq.)	New Jersey (NJSA 58:10A-61 et seq.; 4:9-15.13a)	New York (ECL § 17-2101 et seq.)	Vermont (10 VSA § 1266b)	Virginia (VA Code § 3.2-3600 et seq. and § 10.1-104.5 et seq.)	Washington (RCWA 15.54.500)	Wisconsin (WSA 94.643)
Year passed/effective dates:	2010/2010	2007/2008	2011/2011-2013	2010/2012	2002/2004	2010/2011, 2013	2010/2012	2011/2011, 2012	2011/2013	2011/2013	2009/2010
Applicators affected:	"Applicator for hire" (licensed commercial, certified applicators, and others)	All persons	Everyone	All persons	All persons	All persons	All persons	All persons	All persons	All persons	All persons
Exempt applicators and allowed Phosphorus fertilizer use:	Golf courses; Commercial and Sod farms; Agricultural lands and production; Right-of-ways; Phosphorus deficiency; Establish new turf; Lawn repair	Agriculture; Phosphorus deficiency; Establish new turf; Sod farms; Turf repair; Gardening	Agricultural purposes; Commercial and Sod farms; Phosphorus deficiency; Establish new turf; Turf repair	Golf courses; Commercial farm land; Phosphorus deficiency; Establish new turf	Golf courses; Sod farms; Agricultural lands and production; Phosphorus deficiency; Establish new turf	Golf courses; Commercial Farms; Phosphorus deficiency; Establish new turf; Turf repair	Gardens; Agricultural lands and production; Sod farms; Phosphorus deficiency; Establish new turf	Golf courses; Sod farms; Agricultural lands and production; Phosphorus deficiency; Establish new turf	Phosphorus deficiency; Establish new turf; Turf repair; Agricultural use; Gardening; Golf courses management plan	Establish new turf; Turf repair; Phosphorus deficiency; Gardens; Sod farms; Agricultural land or production	Sod farms; Agricultural land and production; Phosphorus deficiency; Establish new turf
Application to paved or impervious surfaces:	Prohibited, must clean up if inadvertent	No restrictions	Prohibited	Must clean up if applied	Prohibited, must clean up if applied	Prohibited, must clean up if inadvertent	Prohibited, must clean up if applied	Prohibited, must clean up if applied	Package label prohibits certain uses	Prohibited	Prohibited, must clean up if inadvertent

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(continued)**

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Setbacks from water (buffer):	3 ft to 15 ft setback	None	10 ft to 15 ft setback	3 ft to 15 ft setback	None	10 ft to 15 ft setback	3 ft to 20 ft setback	25 ft setback	None	None	None
Application on frozen and saturated soils:	Prohibited	No restrictions	Prohibited from Nov. 16 to Feb. 29 or on frozen ground	Prohibited	No restrictions	Prohibited during heavy rain or when predicted, on saturated or frozen ground, or from Nov. 16 - Feb. 29 (Dec. 2 - Feb. 29 for professionals)	Prohibited between Dec. 1 and Apr. 1	Prohibited from Oct. 16 to Mar. 31 or on frozen ground	Package label prohibits certain uses	Prohibited on frozen ground	Prohibited on frozen ground
Restrictions on Phosphorus lawn fertilizer sales:	No restrictions	Post signs about fertilizer use at point of sale	Must sell low Phosphorus fertilizer for lawns unless organic and sold to professional	No restrictions	No restrictions	Sale prohibited to consumers unless for deficiency, new turf, or turf repair	Display Phosphorus fertilizer separately; Post educational signs	Display Phosphorus fertilizer separately; Post educational signs	Sale of lawn maintenance fertilizer prohibited; Can sell existing stock	Sale prohibited unless for an allowed use and properly labeled; Can sell existing stock	No display but may post sign; Must sell only for specific purposes