

Managing Fertilizer for Lawn Use

Guidance for Local Governments in Watersheds
where Nutrient Loading is an Issue



Katherine A. Sheehan
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I. Introduction

Lakes, rivers, streams and coastlines in the United States are prized by people for various reasons. They provide significant economic benefits, a variety of recreational activities, and simple aesthetic pleasure, to name a few. In addition, these water resources can also serve as essential habitats for a number of species, particularly birds and fish. Unfortunately, such water bodies have been victims of degradation in the U.S. One of the major causes of this decline in water quality is pollution from human activities.

In recent years, states and local governments have become acutely aware of the need to restore and conserve lakes, rivers, streams and coastlines. As populations grow and water demand increases, communities must ensure that an adequate supply of clean water will be available for human use and environmental processes. Accordingly, the necessity of making sustainable water management choices has become a top priority of many states and municipalities. Georgia is no exception, as the state is currently reviewing and finalizing a statewide water management plan designed to protect and restore its water resources.

The biggest cause of water quality degradation in the United States (and indeed, the world) is nonpoint source (NPS) pollution.¹ Unlike point source pollution, which comes from a discrete source such as an industrial plant or sewage pipe, NPS pollution comes from many sources. NPS pollutants include such urban runoff as oil and toxic chemicals; sediment from construction sites, agriculture, and eroding streambanks; bacteria and nutrients from livestock, pet waste, and faulty septic systems; and excess fertilizers, insecticides, and herbicides from agricultural lands and residential areas.² They are carried by rainfall or snowmelt and are eventually deposited into rivers, lakes, wetlands,



Lake Lanier, Georgia

coastal waters, and groundwater. Nutrient-rich lawn fertilizer has been identified as a possibly significant source of NPS pollution in some water bodies. This theory has garnered much attention in recent years.

Many states and local governments have begun to address the problem of NPS pollution from nutrient-rich fertilizer. A growing number have begun to enact laws designed to limit their sale or use. These

laws have most often been implemented in areas where lakes have been degraded by an overabundance of nutrients coming from such fertilizers.

Georgia is currently experiencing the effects of excess nutrients in several of its most popular lakes. In 2006, Lake Lanier, Lake Walter F. George, Carter's Lake, and additional sections of Lake Allatoona were listed by the Georgia Department of Natural Resources (DNR) for exceeding acceptable limits of chlorophyll a.³ The presence of this much chlorophyll a is indicative of the presence of a surplus of nutrients. This can have harmful effects on these lakes' water quality and as such could affect property values along the lakes and tourism revenue for Georgia and its local governments. Because of the large number of residential properties along these lakes' shores, nutrients from lawn fertilizers could be a likely culprit in the decline of water quality.

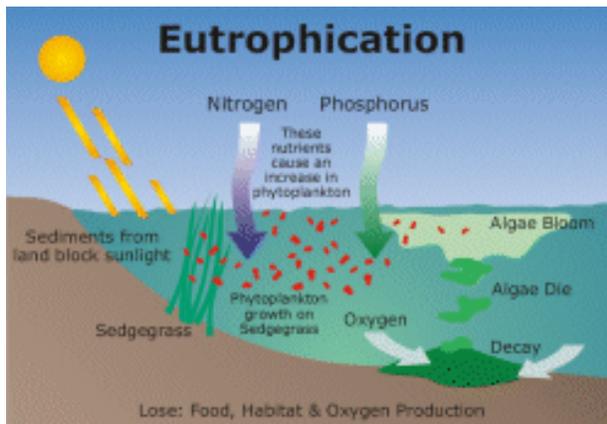
The state of Georgia is currently in the process of establishing a statewide water management plan which will address many complex issues, including NPS pollution. One of the goals of the draft Georgia Statewide Water Management Plan is to provide local governments in the state with information and guidance regarding the regulation of residential fertilizers.⁴ This memo serves to provide assistance in meeting that goal.

II. Nutrient Loading: Nitrogen & Phosphorus

Residential fertilizer runoff is considered a possible threat to water quality in freshwater bodies and coastal areas because these fertilizers generally contain high levels of two particular nutrients: nitrogen and phosphorus. These nutrients, although naturally present and necessary in aquatic ecosystems, can contribute to water quality degradation if present at excessive levels. Called “nutrient loading,” this phenomenon can have negative consequences for aquatic ecosystems and local economies.

A. Effects of Nitrogen & Phosphorus in Water Bodies

Excess nutrient content, or “nutrient loading,” in freshwater bodies and coastal waters of the United States has become a topic of great concern in recent years. The nutrients that pose the greatest problems for water quality are nitrogen and phosphorus. Nitrogen loading is an issue in saltwater and estuarine aquatic environments, and phosphorus loading is a problem in freshwater. Although both nitrogen and phosphorus are essential limiting nutrients in aquatic environments, restricting the growth rate of many other organisms, they can upset the balance of such ecosystems if present in excessive levels. This can lead to dire consequences for aquatic organisms, including “dead zones” and even the extinction of species in certain water bodies.



Excessive levels of nitrogen and phosphorus are behind the most common cause of impairment of surface waters in the U.S.: eutrophication.⁵ Eutrophication is a process whereby water bodies receive a large influx of nutrients (most often nitrogen and phosphorus) that stimulate excessive plant growth.⁶ This increased plant growth is called an algal bloom.⁷ These blooms are often unsightly, and can cause unpleasant odors. When the plant material dies

and begins to decompose, bacterial growth increases. Since bacterial metabolism consumes oxygen, dissolved oxygen levels in the water then decrease. This can cause other aquatic organisms, such as fish, to die, sometimes in large numbers.

Although phosphorus and nitrogen are naturally occurring and necessary in aquatic ecosystems, human activities have led to inordinately high levels in many water bodies. Soluble nitrogen, which travels to ground and surface water in runoff from land that has been treated with artificial fertilizers, is delivered to oceans at river mouths. Phosphorus particles attach to soil, also finding their way into water bodies in runoff during precipitation events. The great majority of nutrients from fertilizer have historically been credited to agricultural activities. However, in recent years the rapid residential development of waterfront property and increased use of fertilizers on all kinds of residential property has led to concerns that urban runoff may be a bigger culprit in the

eutrophication process than was previously thought.⁸ Even property that is not adjacent or even close to a water body may affect it, as urban stormwater systems are generally designed to carry runoff from residential areas into water bodies such as lakes, rivers, streams, and coastal areas.

B. Sources of Nitrogen & Phosphorus

1. Factors Affecting Levels of Phosphorus Entering Water Bodies

The two most important factors affecting the amount of phosphorus that reaches water bodies via runoff are (1) the amount/concentrations of phosphorus found in the runoff; and (2) the actual amount of runoff that the surface generates.⁹ These factors can be stated simply as runoff concentration and runoff volume.¹⁰ It is important to note that these factors are oftentimes interrelated and/or interdependent.

Phosphorus concentration in runoff is dependent on a number of variables. First, the concentrations of phosphorus present in soil are a major component of the amounts that will be present in runoff. Because runoff often contains a lot of soil and other sediment, the more concentrated the phosphorus levels are in the soil (i.e., the more phosphorus particles there are attached to soil) the greater the amount of phosphorus there will be in the runoff.¹¹ Soil erosion also affects phosphorus levels in runoff. As more soil is eroded, more soil, and the phosphorus attached, is carried to water bodies during precipitation events.¹² Increased erosion can in turn be caused by a number of factors, including poor turf health and soil left with no vegetative cover because of construction, tillage, or other activities.¹³ Soil erosion is also related to runoff volume, the second major factor affecting phosphorus entering waterbodies via runoff.



Stormwater runoff from construction area to sewer catch basin in southeastern Georgia.

Runoff volume, like runoff phosphorus concentration, is a product of a multitude of variables. Vegetative cover of the land is one of these factors. Vegetation reduces erosion and generally improves infiltration of water into the soil, thereby reducing the amount of water that runs off of the land into waterbodies.¹⁴ The slope of land also affects runoff volume. By and large, increasing slope increases runoff. Because the runoff is moving swiftly down the gradient, the amount of time it has to be absorbed into the ground before reaching a waterbody is lessened, and more runoff reaches the waterbody. Slope also generally increases erosion, and therefore runoff phosphorus concentration, as the power of fast-moving runoff captures soil and sediment with it as it flows downhill.

A final common factor influencing runoff volume is the amount and intensity of precipitation.¹⁵ During hard rains, more runoff and erosion will occur because there is less time for infiltration of the soil.¹⁶

2. Factors Affecting Levels of Nitrogen Entering Water Bodies

Because nitrogen is very soluble in water, it is readily carried to plants' roots when crops or lawns are watered.¹⁷ The nitrogen not used by plants is free to move throughout the soil and may eventually reach groundwater if water percolates beyond root depth.¹⁸ When that water containing soluble nitrogen reaches groundwater, the nitrogen may then work its way from the groundwater into other such water bodies as streams and rivers and through them eventually reach coastal waters.

Additionally, nitrogen may enter water bodies via surface or subsurface drainage (leaching).¹⁹ Much nitrogen may be lost this way if a heavy rain occurs after the application of fertilizer on moist soil, especially if the land the fertilizer is applied on has a considerable slope.²⁰ It may then travel with other runoff into water bodies and, as above, eventually make its way to coastal areas.

C. Consequences of Nutrient Loading

The consequences of nutrient loading in freshwater bodies and coastal waters can often be serious. Algal blooms stemming from eutrophication can have detrimental effects on the natural environment, which can in turn lead to recreational, economic, and human health predicaments.



Algal blooms are often quite unattractive, covering water in an unsightly scum.

Algal blooms can cause once-pristine water bodies to become aesthetically unappealing. They are often unsightly. What was once clean-appearing water can be covered in a thick scum of algae, sometimes as thick as paint. Blooms in lakes are often green in color, making the water appear sickly and stagnant. Algal blooms can also be accompanied by a foul odor. At times, these smells can be so noxious as to become nauseating.



Unsightly algae can create a thick, scum-like substance on surface water.

As noted above, algal blooms can sometimes lead to fish kills. While such events are often minor incidents, at times these kills can be massive.

For example, the Neuse River in North Carolina has experienced immense fish kill events since 1991, when over a billion fish died.²¹ Since then, the Neuse has had frequent fish kill incidents, some killing millions of fish in a matter of hours.²² Nutrient loading from hog farms, wastewater treatment plants, lawns, golf courses, and city streets is considered a likely cause of these kills.²³

These adverse effects of algal blooms can in turn have negative consequences on recreation, economics, and in some instances human health. The effects on recreation



Massive fish kill on the Neuse River in 2003.

are somewhat obvious for unsightly blooms producing a foul odor: people do not want to fish, swim, or boat in water bodies which are covered in stinking scum. Therefore, communities relying on tourism revenue from visitors to their water bodies can experience economic predicaments if algal blooms become common or serious enough to keep these visitors away. For example, studies of the negative economic impacts of harmful algal blooms (HABs) on coastal businesses in Fort Walton Beach and Destin, Florida, from 1995 through 1999 revealed that these areas suffered a 29 to 35% decline in average monthly revenues for the restaurant and lodging sectors during months with an HAB incidence.²⁴

The negative economic consequences of algal blooms extend beyond a decrease in tourism revenue. Waterfront property values are also affected by these events. Numerous studies show a distinct connection between water quality and waterfront property values.²⁵ Often, water clarity is found to be the aspect of water quality which most affects value. For example, a study examining the connection between water quality and property values on Lake Erie found that when water clarity increased to two meters, waterfront property values increased by between four and five percent.²⁶ Since frequent or severe algal blooms decrease water quality and clarity, they can also decrease property values on and near the waterfront.

There are also possible adverse human health effects related to some algal blooms. *Pfiesteria piscicida*, a type of microscopic algae that lives in estuaries along the Atlantic and Gulf coasts, has been implicated as a potential cause of negative effects on human health.²⁷ It has been found in blooms associated with fish kills, and there have been many anecdotal reports of symptoms such as headaches, confusion, and eye irritation occurring in laboratory workers exposed to water containing high levels of *pfiesteria piscicida*.²⁸ There have been similar reports from people living near waters containing high levels of the algae. The Centers for Disease Control is currently supporting research evaluating the potential health effects of exposure to this type of algae.²⁹

Although massive kills like those found on the Neuse River are something of a rarity, even smaller kills can have negative effects on economies, recreation, and health. As with negative effects on recreation from scum and odor, those associated with fish kills are also obvious. Fishing becomes a much less enjoyable experience if it must be conducted in a water body in which the carcasses of dead fish float. Residents who once enjoyed spending time fishing on a nearby water body may be deprived of this experience. This is particularly serious in the South, where recreational fishing has been a time-honored tradition for generations. Tourism revenue may also be affected. If people are aware that a particular water body has experienced fish kills, particularly in the case of frequent or extreme incidents, they will be less likely to plan a fishing excursion to that water body. Additionally, depending on the number of fish killed and the rate of recurrence of kills, fish populations in a water body may be compromised or even decimated. For example, Bass Lake, Wisconsin experienced a decimation of its sport fish population after the lake experienced fish kills from high levels of phosphorus and low dissolved oxygen.³⁰ Thus, even after the dead fish have been removed from the water body, recreation and tourism may not be able to recover because there are little or no fish left to catch.

III. Making the Decision to Regulate

A. Regulating in Georgia – Overcoming Current Law

Local regulation of fertilizer is currently prohibited by Georgia law.³¹ The statute that prohibits such regulation, O.C.G.A. § 2-12-21 (2007), states:

(a) No county, municipal corporation, consolidated government, or other political subdivision of this state shall adopt or continue in effect any ordinance, rule, regulation, or resolution regulating the registration, labeling, packaging, sale, storage, transportation, distribution, use, or application of fertilizer.

(b) This Code section shall in no way prohibit or impair the legal right of any county, municipal corporation, consolidated government, or other political subdivision of this state to issue business licenses or to make zoning decisions.

Thus, under current Georgia law a local government would be barred from attempting to regulate fertilizer in most ways. However, it should be noted that the statute does not curtail the passage of ordinances mandating the dissemination of information regarding fertilizer use. While the statute could arguably keep a local government from requiring businesses to display fertilizer informational materials as a condition of the sale of fertilizer, if that was seen as a “rule... regulating the ... sale ... of fertilizer,” it still does not prohibit requiring the local government itself to educate the public. As such, it would seem that a statute such as Vermont’s educational ordinance, discussed in section IV(A)(1) below, would be valid under current Georgia law.

It should also be noted that nothing in O.C.G.A. § 2-12-21 prohibits the state itself from regulating fertilizer. Therefore, theoretically the Georgia State Legislature could adopt statutes regulating fertilizer in watersheds, water bodies, and coastal areas where nutrient loading is an issue without running afoul of the current law.

O.C.G.A. § 2-12-21 will have to be repealed or amended for local governments in Georgia to be able to legally regulate fertilizer in any way they deem prudent. However, repealing the statute may be quite difficult, as it became law just two years ago, in 2005.³²

B. Determining a Need for Regulation

Before the state of Georgia or any of its local governments decides to regulate fertilizer to reduce nutrient loading in water bodies and/or coastal areas, it will have to thoroughly assess the need for such regulation. This step is necessary not only to ensure that a probable reduction in nutrient loading results from the law, but also to provide Georgia residents and legislators with evidence that such a law is truly needed. Without such proof, it is likely that any attempt to pass such legislation would face substantial opposition.

The most basic, but hardly simple, step that the state or local government would need to take would be to assess where nutrients entering water bodies are originating. Nutrients can come from many sources, including urban runoff, agriculture and livestock runoff, sewage, and even air pollution (in the case of nitrogen entering marine waters). Therefore, to simply assume that nutrient loading in Georgia water bodies is caused primarily by residential fertilizers would be a mistake. Instead, site-specific studies should be conducted to determine the source of nutrients. Some such studies are now underway. For example, the Georgia Environmental Protection Division is currently conducting a total maximum daily load (TMDL) study on the causes and effects of chlorophyll a in Lake Lanier.³³ Such studies are not effortless, but will be indispensable in ascertaining which kinds of regulations would be most beneficial in dealing with nutrient loading. For example, if studies were to show that Lake Lanier's nutrient problems are caused mainly by a combination of sewage leaks from outdated septic systems and livestock runoff from chicken farms, a regulatory system addressing only residential fertilizers would do little to alleviate nutrient loading in the lake.

Studies might also include soil testing of properties adjacent to water bodies. Soil tests to determine the levels of nutrients already present in soil could show whether or not additional nutrients from fertilizers are even needed to assist in turf growth. In Minnesota, where there is a statewide ban on nutrient-laden fertilizer, soil is naturally nutrient-rich. Therefore, the state legislature was able to pass the fertilizer ban without fear of affecting the quality of lawns, and was able to show Minnesota residents concrete evidence of the ban's reasonableness. In Georgia, however, there is not a statewide abundance of nutrient-rich soil. Some localized areas may have this trait, but it is not a naturally occurring characteristic of a majority of Georgia's soils.

Soil testing is also important because it may show a lack of nutrients. This kind of determination could actually point in favor of not regulating fertilizers. As discussed above, one major factor in how much nutrients reach a water body via runoff is the level of sediment that reaches the water because of erosion. Lawns with thick, healthy turf generally experience less erosion than unhealthy, thin, lawns with poor turf growth. If soil nutrient levels are low, it is more difficult to generate a healthy lawn. Therefore, a ban on nutrient-rich fertilizer in areas where soil is naturally poor in nutrients may end up leading to poorer quality lawns, which could in turn lead to greater erosion and more nutrient-filled sediment making its way to water bodies.

C. Regulation as Part of a Comprehensive Nutrient Management Plan

Because nutrients in water bodies come from many sources, a regulatory scheme that seeks to address nutrient loading only by fertilizer bans or other ordinances would likely not fully address the problem. Additionally, there are still uncertainties regarding the effectiveness of fertilizer laws.³⁴ However, these unknowns should not deter a state or local government from considering fertilizer regulation. Instead, such laws may be better implemented, and there may be more success in the battle against nutrient loading, if they are part of a comprehensive nutrient management plan which includes a number of methods of controlling nutrient runoff from a variety of sources.

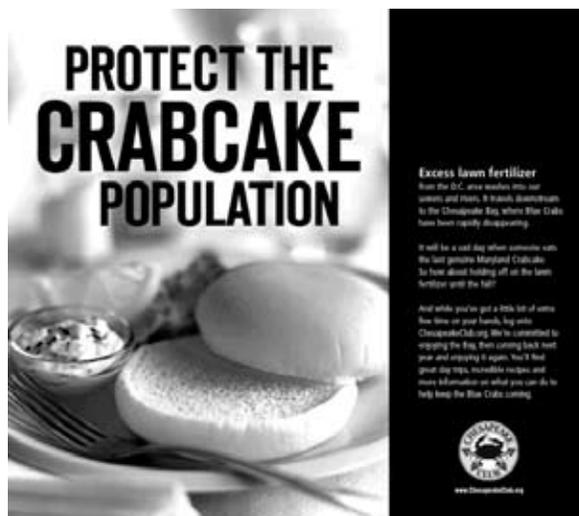
D. Alternatives to Regulation

Alternatives to fertilizer regulation should also be contemplated before taking the step toward such regulation. People are often hesitant when faced with the idea of having their actions regulated, especially when it concerns their private property. Therefore, alternatives should first be seriously considered.

1. Encouraging Voluntary Actions through Education

Many experts believe that education of residential fertilizer consumers is the most effective step that can be taken toward limiting nutrient runoff from residential turf.

There is much evidence to suggest that a significant amount of nutrients that reach water bodies from lawns do so because of improper application.³⁵ In fact, some suggest that accidental or negligent application to impervious surfaces (i.e., driveways, sidewalks, or other surfaces through which water is not absorbed) is a greater source of nutrient runoff than lawns themselves.³⁶ Therefore, it may be that educating consumers as to proper application methods and the negative consequences of improper application may be a major step towards reducing nutrient runoff from fertilizers. Education could occur through advertising campaigns including various media (posters, mailings, television ads, radio ads, etc.) or with point-of-sale literature or posters informing consumers



A clever poster used in an educational campaign in the Chesapeake Bay region notes the harm that improper fertilizer use can cause to wild crab populations.

of the proper means of using the fertilizer they are about to purchase. Such education or information dissemination could be conducted voluntarily by state or local government, or it could be mandated by state or local laws. For example, the Vermont law discussed below requires certain educational initiatives to be undertaken. It is also possible that such educational plans could be funded, in whole or in part, by EPA § 319 grants.

2. Best Management Practices

Best management practices (BMPs) are a common method of dealing with nutrient runoff. Described as “effective, practical, structural or nonstructural methods which prevent or reduce the movement of sediment, nutrients, pesticides and other pollutants from the land to surface or ground water, or which otherwise protect water quality from potential adverse effects of [human activities],³⁷” BMPs are the primary approach to combating nonpoint source pollution such as excess nutrients. As the description of BMPs suggests, these practices are wide-ranging and include such tactics as alternative farming methods and the construction of actual physical barriers to prevent runoff from entering water bodies. BMPs are most often employed to deal with the two main factors affecting the levels of nutrients that reach water bodies: runoff concentration and runoff volume. BMPs established to cope with nutrient runoff generally seek to



Vegetative buffers around lakes or other water bodies are a common BMP.



Silt fences and straw mulch distributed over disturbed soils reduce erosion.

lessen concentration and volume through structural barriers such as buffers and retention ponds or non-structural measures such as ceasing to spray liquid fertilizer derived from livestock onto land.

Georgia law currently mandates minimum BMP requirements for all “land-disturbing activities.”³⁸ The law mandates minimum buffer requirements, among other limited BMPs. However, these are only minimum, statewide requirements, and local governments may impose stricter BMPs in their jurisdiction. Therefore, localities which have experienced nutrient loading problems in their water bodies may want to consider requiring and enforcing more stringent BMPs. Additionally, the educational model could be an asset here—educating private landowners as to the best ways they can manage their lands in order to prevent nutrient runoff could encourage voluntary actions.

3. Laws Establishing Research Funds

Another option to consider in lieu of regulating residential fertilizer use is to establish a research fund aimed at providing support for nutrient-management and other water quality-related studies. Those that exist in the U.S. are generally conducted at a statewide level and obtain the necessary funds through fees or taxes on fertilizer and fertilizer-related activities. The research and studies they support can help the fiscal and environmental interests of agricultural groups that are often the target of taxing measures.

a. Wisconsin Fertilizer Tax

The origins of Wisconsin’s fertilizer tax statute date back to the mid-1970s, when public support of agricultural research had waned. The University of Wisconsin began seeking new sources of funding to support research benefiting Wisconsin farmers, including that focusing on soil management and soil fertility. In 1978, with the cooperation of fertilizer dealers, manufacturers, farmers, and the Wisconsin legislature, a law was passed creating the Wisconsin Fertilizer Research Fund.³⁹ Since 1978, the Fund has been expanded to include a focus on environmental issues such as research designed to provide guidance for nutrient management policy in Wisconsin.⁴⁰

The law operates by assessing a 10 cent research fee on every ton of fertilizer sold in the state.⁴¹ Other programs are also funded by separate surcharges mandated by the statute, including programs regarding seed inspection. The Department of Agriculture, Trade and Consumer Protection collects the monies, and, as required by the law, forwards them to the University of Wisconsin system at the end of the fiscal year. Since the Fund's creation, it has garnered, on average, more than \$100,000 from the fertilizer industry per year, with a grand total of over \$3,000,000 collected in all.⁴²

The money raised by this fertilizer tax is used to fund small-budgeted (usually around \$10,000) research projects within the University of Wisconsin system.⁴³ Funding of projects is decided on by a seven-member voting council comprised of fertilizer distributors, state environmental agency officials, and farmers.⁴⁴ Current funded research includes a project on the development of a rapid technique for determining nitrate-nitrogen and ammonium-nitrogen in soil, and a survey of the availability of phosphorus from various manures and manipulated manures when applied to Wisconsin soils.⁴⁵ Wisconsin farmers directly benefit from these projects through educational activities. They attend area meetings, field days, and industry conferences. Wisconsin residents in general also benefit through increased environmental protection derived from these projects. For example, research in a prior funding cycle helped growers avoid damaging the environment by continuing the practice of fall nitrogen applications to promote residue decomposition.⁴⁶ This research also helped growers protect their fiscal interests.⁴⁷

b. Florida Research Fund

The state of Florida has created a funding system similar to Wisconsin's. It is found in Fla. Stat. § 576.045. In addition to other fees mandated by Fla. Stat. §§ 576.021 and 576.041, fertilizer licensees must pay \$100 for each license to distribute fertilizer, \$100 for each of the first five specialty fertilizer registrations and \$25 for each one after, and \$.50 per ton for all fertilizer containing nitrogen or phosphorus that is sold in the state.⁴⁸

Here, instead of being given to a University research system, monies garnered are appropriated annually to the Department of Agriculture and are "allocated according to a memorandum of understanding between the Department of Agriculture and the Department of Environmental Protection" (DEP).⁴⁹ Funds must be used for "research, development, demonstration, and implementation of suitable interim measures, best-management practices, or other measures used to achieve state water quality standards for nitrogen and phosphorus criteria."⁵⁰ These measures may include "cost-sharing grants, technical assistance, implementation tracking, and conservation leases or other agreements for water quality improvement."⁵¹ The funds must also be used for "approving, adopting, publishing, and distributing interim measures, best-management practices, or other measures."⁵² When developing, approving, and adopting these measures and BMPs, the Department of Agriculture must consult with the DEP, the Department of Health, water management districts, environmental groups, the fertilizer industry, and representatives from affected farming groups.⁵³ Funds must also be used to reimburse DEP for costs incurred that are associated with these measures and BMPs.⁵⁴ It should be noted that all of the provisions regarding this fund for research expire on December 31, 2012.

IV. Regulatory Models

A. Educational Regulations

1. Vermont

The regulatory approach that Vermont has taken to deal with possible phosphorus loading from fertilizer focuses on public education. The State has an ordinance in place which mandates consultation “with the University of Vermont extension service, fertilizer industry representatives, lake groups, and other interested or affected parties” to produce information regarding phosphorus loading in Vermont for distribution to the general public.⁵⁵ The information must concern water quality problems in Vermont associated with the discharge of phosphorus, an explanation of the extent to which phosphorus occurs naturally in Vermont soil, voluntary BMPs for fertilizers containing phosphorus on nonagricultural turf, and BMPs for sources of phosphorus that are residential in nature.⁵⁶

Once the secretary has developed the information above, s/he must make it available to the general public “in the manner deemed most effective.”⁵⁷ This may include conspicuous point of sale postings, public service announcements, or other methods.⁵⁸ The ordinance also mandates public meetings to determine the effectiveness of this program.⁵⁹

2. The City of Sanibel, Florida

Sanibel’s fertilizer ordinance, discussed more thoroughly in section D below, also contains a point-of-sale education requirement. Section 9 of the ordinance mandates that all retail businesses in Sanibel that sell fertilizer must post notices, produced and distributed by the city at the city’s expense, detailing the restrictions on the use of fertilizers containing certain percentages of phosphorus and/or nitrogen.⁶⁰ In addition, such retail businesses must provide customers with a brochure on city-approved surface and groundwater protection.⁶¹ This brochure is also produced and distributed at the city’s expense.

B. Sales Regulations

1. Plymouth City, Minnesota

Plymouth City places regulations on the sale of fertilizer within its limits. No person or business may sell fertilizer containing phosphorus or other compounds containing phosphorus unless four criteria are met. The person or business must also make phosphorus-free fertilizer available for sale; phosphorus-free fertilizer and fertilizer containing phosphorus must be separately displayed, with each display clearly marked as to whether or not the fertilizer contains phosphorus; displays of phosphorus-free fertilizer must be of equal or greater size and prominence than those for fertilizer containing phosphorus; and signs or brochures must be on prominent display next to any fertilizer display explaining the city’s regulations regarding the use of fertilizer containing phosphorus.⁶²

C. Use Regulations

1. Minnesota Ban

So far, the only statewide use regulation is found in Minnesota. As of 2002, Minnesotans have been banned from using fertilizer containing phosphorus on turf.⁶³ The Minnesota legislature was able to justify such an all-encompassing ban on phosphorus fertilizer because the state's soil is, generally, naturally quite rich in this nutrient. Thus, the phosphorus that Minnesota residents had been adding to their soil was deemed largely superfluous. By emphasizing this fact during the statute's proposition, the legislature was able to avoid much public discontent regarding the effects of the regulation.

Although the regulation applies to all turf, there are exceptions to the ban. The State has listed three in the statute. A person may apply fertilizer containing phosphorus to turf if a soil test shows that the phosphorus levels in that particular soil are inadequate to support healthy turf growth, the turf is being newly established by seed or sod (here the phosphorus fertilizer can only be used during the first growing season), or the fertilizer is used on a golf course "under the direction of a person licensed, certified, or approved by an organization with an ongoing training program approved by the commissioner."⁶⁴

The Minnesota statute does not restrict sales of fertilizer in the State. However, retail establishments have responded to the ban by supplying more phosphorus free fertilizers than in the past. Although phosphorus-free fertilizer was initially more expensive than other varieties, the prices have since leveled out. Consumers in Minnesota can now expect to pay about as much for phosphorus free fertilizer as they would for that containing the nutrient.⁶⁵

Minnesota's statute also mandated research to analyze the effectiveness of the fertilizer ban on turf and urban stormwater quality.⁶⁶ The commissioner of the Department of Agriculture was to prepare a report based on this research in cooperation with the University of Minnesota and the University of Minnesota Extension Service after consulting with representatives of the fertilizer industry, lake groups, and other interested or affected parties.⁶⁷ This report was presented to the Minnesota legislature on March 15, 2007, five years after the ban was initiated. It lists ten major findings. They are:

1. Phosphorus-free lawn fertilizer is widely available in stores statewide.
2. Phosphorus-free lawn fertilizer comprised 82% of lawn fertilizer used in 2006 by weight.
3. Amount of phosphorus applied through lawn fertilizers decreased 48% between 2003 and 2006.
4. The law created a "teachable moment" for extensive yard care and water quality education.
5. In a comparison of similar products in two neighboring states, cost of phosphorus-free lawn fertilizer was the same as products that contain maintenance levels of phosphorus.
6. There have been no reports of the law being enforced by local government.
7. Companies are successfully manufacturing and marketing phosphorus-free

- lawn fertilizer.
8. Changes in water quality resulting from the law have not been documented at this time.
 9. Additional research is needed to quantify benefits of the law for water quality planners and to avoid unintended consequences of phosphorus-free lawn fertilizer use on turfgrass health and water quality.
 10. Minnesota is currently the only state regulating phosphorus lawn fertilizer use.⁶⁸

The report notes that it is not surprising that there were no documented changes in water quality. It states that a major reason behind this lack of documented change is the relatively short amount of time that has passed since the law's enactment. Because of the number of complex factors affecting phosphorus levels, including climatic conditions, the numerous sources of the nutrient, and the fact that phosphorus is chemically bound to lake sediment and can be released slowly over time, it is difficult to obtain statistically valid trends in water quality without many years of watershed monitoring.⁶⁹

The "teachable moment" that the report mentions was created by a widespread array of media coverage and outreach.⁷⁰ Information was provided to the media by Minnesota Department of Agriculture, the University of Minnesota Extension Service, and collaborative outreaches of local governments. Additionally, articles regarding the law were published in newsletters and websites of cities, lake and watershed organizations, fertilizer distributors, and nursery and garden retail stores. Media outreach by collaborations of local governments included public service announcements, distribution of brochures and posters, training sessions, radio ads, and distributed presentations.⁷¹ Because of this onslaught of public education, "The Second Minnesota Report Card on Environmental Literacy" reported that more than half of all Minnesota citizens understand the issues which surround and prompted the fertilizer law.⁷²

The report also calls for future research into the law's impacts and further outreach education. Future research that the report calls for includes quantifying the law's impact on water quality and its impact on turf management. Education measures that the report recommends include general public education, education for turfgrass professionals and retail business staff, and soil testing education.

2. Plymouth City, Minnesota

Although the State of Minnesota already bans the use of fertilizer containing phosphorus, with certain exceptions, some local governments have adopted further regulations. Plymouth City has a comprehensive "Lawn Fertilizer Application Control" statute which places additional restrictions on both its residents and commercial applicators operating within the city.

Some of the additional regulations in place in Plymouth City concern fertilizer use. These regulations are in place to afford additional protection against nutrient runoff when fertilizer containing phosphorus is used under one of the exceptions in the **ordinance**.

The additional use regulations in the Plymouth City ordinance determine under what weather conditions and where fertilizer can be applied.⁷³ Fertilizer application is banned

during winter months when the ground is frozen and “when conditions exist which will promote or create runoffs.”⁷⁴ People in Plymouth City are also forbidden from applying fertilizer to “impervious surfaces, areas within drainage ditches, or waterways.”⁷⁵ Finally, no fertilizer or pesticide may be applied to any “established natural buffer zones” outlined in a City Wetlands Ordinance, below the “Ordinary High Water lines as established by the Minnesota Department of Natural Resources, or within ten feet of any wetland or water resource.”⁷⁶

3. The City of Sanibel, Florida

Sanibel’s use restrictions, found in Ord. No. 07-003, §§ 2 – 11, are quite detailed. The city passed this ordinance quite recently, on March 6, 2007. The regulations focus on both phosphorus and nitrogen, as Sanibel is a coastal city with both fresh and saltwater resources. The impetus for these ordinances was negative effects on the city’s “lakes, canals, estuaries, interior freshwater wetlands, Sanibel River, and nearshore waters of the Gulf of Mexico.”⁷⁷ There is specific reference to recent red tide blooms in the area.⁷⁸



The regulations apply to anyone who applies fertilizer, unless they are specifically exempted by the code.⁷⁹ To begin, no one may apply fertilizer during the rainy season, which is defined as between the dates of July 1 and September 30.⁸⁰ The reasoning behind this timing regulation seems to be that heavy Florida rains during these months cause much more intense runoff events, which in turn increases the amount of nutrients reaching water bodies. Prohibiting the application of fertilizer containing these potentially harmful nutrients during this time means that less will be washed into Sanibel’s vital water resources.

In addition to the timing regulations, no one may ever apply fertilizer that contains over 2% phosphorus.⁸¹ The ordinance notes that Florida soil contains enough phosphorus so that fertilizer containing more than that is unnecessary.⁸² Use of nitrogen in fertilizers is also limited. Applying fertilizer which contains more than 20% nitrogen is prohibited, and at least 70% of any nitrogen in fertilizer must be “slow-release.”⁸³

Application amounts and rates are also governed by the ordinance. Fertilizer must not be applied at a rate greater than one pound of nitrogen per 1,000 square feet per application, and no more than four pounds of nitrogen may be applied per 1,000 square feet in any calendar year.⁸⁴ Also, fertilizer must not be applied more than six times per year to any given area.⁸⁵

Fertilizer must not be applied or spilled in Sanibel on any impervious surface and, if it is, must be immediately removed.⁸⁶ It also must not be applied within 25 feet of any “pond, stream, water course, lake or canal, retention area, drain or drainage ditch, or in any designated wetland or within 25 feet of any wetland as defined by the Florida [DEP].”⁸⁷ Spreader deflector shields are required when fertilizing by use of any broadcast spreaders.⁸⁸

There are six specific exemptions to the ordinance’s provisions. The provisions do not

apply to:

- (1) Newly established turf and/or landscape plants for the first 60 days during and/or after installation or planting, provided documentation for newly established turf and/or landscape plants is maintained to support this exemption;
- (2) Damaged turf and/or landscape plants for a period of 60 days and only on the damaged areas, provided documentation for damaged turf and/or landscape plants is maintained to support this exemption;
- (3) Areas where soil tests confirm, and such tests are confirmed and approved by the natural resources director or designee, that phosphorus levels are below ten parts per million. This is equivalent to a “very low” designation for phosphorus set forth in UF/IFAS Extension Soil Testing Laboratory Analytical Procedures Training Manual (Circular 1248, September 2002).
- (4) Vegetable gardens, provided they are not within 25 feet of any waterbody and/or wetland;
- (5) Yard waste compost, mulches, or other similar materials that are primarily organic in nature and are applied to improve the physical condition of the soil; and/or
- (6) Reclaimed water used for irrigation (which may contain substantial amounts of nitrogen and phosphorus), provided it is not used within 25 feet of any waterbody and/or wetland.⁸⁹

Additionally, golf courses must follow the guidance contained in the Florida DEP’s “Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses” document.⁹⁰

Violations of this ordinance are misdemeanors of the second degree and are punishable by a fine not to exceed \$500.00 or by imprisonment not to exceed 60 days in jail, or both.⁹¹ Each noncompliance, and each day of noncompliance, is a separate violation.⁹² The city may still seek injunctive relief against any offender and may also seek damages.⁹³

The City of Sanibel has created a public education video entitled “BE WISE – If You Fertilize,” designed to help residents adhere to the new fertilizer ordinance. It can be accessed at <http://www.mysanibel.com/NaturalResources/>.

D. Commercial Applicator Licenses

Some states and local governments require all commercial fertilizer applicators to obtain a special license or certificate before they can engage in fertilizer application. These regulations are a kind of “use” law, as they place conditions on who can use residential fertilizers commercially.

1. Plymouth City, Minnesota

Plymouth City's fertilizer ordinance includes a **subdivision** requiring licenses for commercial applicators.⁹⁴ The apparent purpose of these licenses is to ensure that these commercial applicators are not using fertilizer that contains phosphorus. Anyone who engages in the business of applying fertilizer for hire is considered a commercial applicator.⁹⁵ Commercial applicators must submit an application to either the City Manager or a designee that includes, among other things, a description of the fertilizer formula the applicator plans to use on lawns within the city, a time schedule for the application of such fertilizer and identification of weather conditions acceptable for application, and a "product material safety data sheet."⁹⁶ As part of the conditions for licensing, the applicator must allow the City to randomly sample its fertilizer for phosphorus content.⁹⁷

2. The City of Sanibel, Florida

Sanibel's fertilizer regulations, detailed above in sections A and C, also contain a requirement that commercial fertilizer applicators obtain a "vegetation certificate of competency" from the city which has a "commercial fertilizer applicator" endorsement.⁹⁸ The endorsement is given once the commercial applicator scores 90% or higher on the "Fertilizer Ordinance" section of the city's "Vegetation Contractor Certification Exam," and pays a fee.⁹⁹ As conditions of the endorsement, the applicator and his/her agents must adhere to the provisions of the fertilizer ordinance, maintain records regarding the amounts of nitrogen applied to areas of land by the applicator, maintain records regarding soil tests if the applicator is operating under the exemption for soil with low nutrient levels, permit the city to sample any fertilizer s/he uses, provide customers with a brochure on surface and groundwater protection (prepared and paid for by the city), and finally, must have a certificate holder with a commercial fertilizer applicator endorsement on site any time fertilizer is being applied.¹⁰⁰ Failure to adhere to these conditions could result in suspension of the vegetation certificate of competency or denial of renewal of such certificate of commercial applicator endorsement.¹⁰¹

V. Conclusion

Nutrient loading has proven to be a serious issue for many states and local governments when it leads to the eutrophication of water bodies and coastal areas. The consequences of eutrophication can be difficult to cope with. Aesthetic, recreation, economic, and possibly even human health implications can all stem from serious or frequent eutrophication events. These effects can be particularly difficult to bear when eutrophication damages a water body that communities depend on for revenue. And even if water bodies are solely a source of recreational or aesthetic enjoyment, the negative consequences of their degradation are still damaging to the people that depend on them for such diversions.

Georgia's recent experience with nutrient loading in some of its most popular lakes may indicate a threat to aesthetics, recreation, and economics. It certainly deserves attention from either the state or local governments. Regulation of fertilizer for residential uses is one of a number of methods for dealing with this issue that should be considered. Although the effectiveness of such regulations is still being studied, they should not be overlooked. There is much scientific data to suggest that residential fertilizers play at least some part in nutrient loading in water bodies. The potentially severe consequences of nutrient loading could be quite detrimental to local Georgia governments and the state as a whole. Therefore, regulation of residential fertilizers needs to be seriously considered as part of local or statewide water management plans. At the very least, the public should be informed about nutrient loading in the state, and educated as to the proper methods of residential fertilizer use for optimum turf growth.

VI. Endnotes

- 1 See U.S. Environmental Protection Agency (U.S. EPA). 1996. Environmental indicators of water quality in the United States. EPA 841-R-96-002. USEPA, Office of Water (4503F), U.S. Government Printing Office, Washington, D.C., USA.
- 2 U.S. EPA, Office of Water, What is Nonpoint Source (NPS) Pollution? Questions and Answers. Available at <http://www.epa.gov/owow/nps/qa.html>
- 3 See Georgia Environmental Protection Division (GA EPA). 2006. Georgia 2006 305(b)/303(d) List Documents: 2006 Lakes/Reservoirs Not Fully Supporting Designated Uses. Available at http://www.gaepd.org/Files_PDF/305b/Y2006_303d/Y2006_Lakes.pdf; Press Release from Noel Holcomb, Commissioner, Georgia Department of Natural Resources (GA DNR), and Carol A. Couch, Director, GA DNR EPD. March 29, 2006. Four Major Lakes Proposed To Be Added To State's Water Quality List, available at [http://www.gaepd.org/Files_PDF/news/EPD_News_Release_303\(d\)_Lake_Listings.pdf](http://www.gaepd.org/Files_PDF/news/EPD_News_Release_303(d)_Lake_Listings.pdf).
- 4 See Georgia's Water Resources: A Blueprint for the Future, Draft Comprehensive Statewide Water Management Plan. June 28, 2007 Draft. (Rule Document, p. 20 stating that "EPD will develop guidance for local government programs to manage fertilizer for lawn use in watersheds where phosphorus loading is an issue") available at <http://www.georgiawatercouncil.org/Documents/plan.html>.
- 5 U.S. EPA. 1990. Office of Water, National water quality inventory, 1988 Report to Congress, U.S. Gov. Printing Office. Impairment is measured as the area of surface water not suitable for designated uses such as drinking, irrigation, industry, recreation, or fishing.
- 6 See Ellie Whitney, et al. 2004. Priceless Florida: Natural Ecosystems and Native Species. Pineapple Press.
- 7 See note 6.
- 8 See C.J. Rosen and B.P. Horgan. 2007. Preventing Pollution Problems from Lawn and Garden Fertilizers. Regents of the University of Minnesota. Available at <http://www.extension.umn.edu/distribution/horticulture/DG2923.html>.
- 9 See Dane County Lakes and Watershed Commission, Expert Input Regarding Dane County Phosphorus in Lawn Fertilizer Ordinance: Complete Responses to Questions (November 13, 2003). Available at http://www.danewaters.com/pdf/20031124_phosphorus_expert_responses.pdf.
- 10 See note 9.
- 11 See note 9.
- 12 See note 9.
- 13 See note 9.
- 14 See note 9.
- 15 See note 9.
- 16 See note 9.
- 17 Dale Weston, Bruce Seelig. 1994. North Dakota State University Extension Bulletin No. 64, Managing Nitrogen Fertilizer to Prevent Groundwater Contamination (April 1994). Available at <http://www.ag.ndsu.edu/pubs/plantsci/soilfert/eb64w.htm>.
- 18 See note 17.
- 19 See Jack V. Baird. 1990. North Carolina Cooperative Extension Service, Nitrogen Management and Water Quality (Aug. 1990). Available at <http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-02/>.

- 20 See note 19.
- 21 See Rick Dove. Fish Kills, Fishermen and Pfiesteria on North Carolina's Neuse River. Available at <http://switchstudio.com/waterkeeper/issues/Spring%2007/neuse.html>.
- 22 See North Carolina Riverkeepers and Waterkeeper Alliance: Fish Kills of the Neuse, <http://www.riverlaw.us/fishkills.html> (noting that in September of 2003, more than 2 million fish perished between the hours of 8:30 and 10:00 PM) (last visited December 5, 2007); Testimony of Richard J. Dove, Waterkeeper Alliance, Senate Committee on Government Affairs, March 13, 2002. Available at <http://www.riverlaw.us/consequences.html> (last visited December 5, 2007).
- 23 See note 22.
- 24 Sherry L. Larkin, Charles M. Adams. 2007. Harmful Algal Blooms and Coastal Business: Economic Consequences in Florida. *Society & Natural Resources* 20 Issue 9: 849-859.
- 25 See Charles Krysel, Elizaebeth M. Boyer, Charles Parson, Patrick Welle. 2003. Lakeshore Property Values and Water Quality: Evidence from Property Sales in the Mississippi Headwaters Region, Submitted by Mississippi Headwaters Board and Bemidji State University (May 2003). Available at http://www.co.cass.mn.us/esd/intralake/bsu_study.pdf. Maine DEP Lake Assessment Program, More on Dollars and Sense: The Economic Impact of Lake Use and Water Quality. Available at <http://www.maine.gov/dep/blwq/doclake/econlong.pd>. D.M. Dornbusch, S.M. Barrager. 1973. Benefit of Water Pollution Controls on Property Values (funded by U.S. EPA).
- 26 See Jill Jentes Banicki. 2006. Hot Commodity: Cleaner Water Increases Lake Erie Waterfront Property Values (Ohio Sea Grant Communications, Summer/Fall 2006). Available at http://ohioseagrant.osu.edu/_documents/publications/FS/FSTL-009%20Hot%20commodity.pdf.
- 27 See Centers for Disease Control and Prevention, Environmental Hazards and Health Effects, Harmful Algal Blooms: About Pfiesteria. Available at <http://www.cdc.gov/hab/pfiesteria/about.htm>.
- 28 See note 27.
- 29 See note 27.
- 30 See U.S. EPA, Section 319 Success Stories, Wisconsin: Bass Lake, Phosphorus Reductions in Lake Restore Fishery. Available at http://www.epa.gov/nps/success/state/wi_bass.htm.
- 31 See O.C.G.A. § 2-12-21 (2007).
- 32 O.C.G.A. § 2-12-21 became effective July 1, 2005. It was originally enacted by the Georgia Legislature as O.C.G.A. § 2-12-22, and was redesignated as O.C.G.A. § 2-12-21 pursuant to O.C.G.A. § 28-9-5. See Ga. L. 2005, p. 1030, § 1/SB 88.
- 33 See GA EPD, Lake Lanier Chlorophyll a TMDL Study. Available at http://www.gaepd.org/Documents/LakeLanier_TMDLStudy.html.
- 34 See Minnesota Department of Agriculture, Pesticide and Fertilizer Management Division. 2007. Report to the Minnesota Legislature: Effectiveness of the Minnesota Phosphorus Lawn Fertilizer Law (March 15, 2007) (noting that, as of 2007, there are no discernable changes in water quality trends since the state's phosphorus fertilizer ban was enacted in 2002, but also giving reasons for this lack of data). Available at <http://www.mda.state.mn.us/news/publications/protecting/waterprotection/07phoslawreport.pdf>.
- 35 See Dane County Lakes and Watershed Commission, Expert Input Regarding

Dane County Phosphorus in Lawn Fertilizer Ordinance: Complete Responses to Questions (November 13, 2003). Available at http://www.danewaters.com/pdf/20031124_phosphorus_expert_responses.pdf.

36 See note 35.

37 See Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife Watershed Protection and Management Program, Best Management Practices. Available at <http://www.state.hi.us/dlnr/dofaw/wmp/bmps.htm>.

38 O.C.G.A. § 12-7-6 (2007).

39 Wis. Stat. § 94.64 (2006), amended by 2007 Wis. Act 20. This law also regulates fertilizer labeling, manufacture and distribution licensing, nutrient content for agricultural fertilizer, tonnage sale and distribution reports, records, inspection and sampling, enforcement, and penalties.

40 Information on the Wisconsin Fertilizer Research Council can be found at <http://www.soils.wisc.edu/frc/>.

41 Wis. Stat. § 94.64(4)(a)(2) (2006), amended by 2007 Wis. Act 20.

42 Wisconsin Fertilizer Research Fund: History of the Program, <http://www.soils.wisc.edu/frc/history.php> (last visited November 26, 2007).

43 See note 42.

44 See Wisconsin Fertilizer Research Fund: Current Fertilizer Research Council Members, <http://www.soils.wisc.edu/frc/members.php> (last visited November 26, 2007).

45 Wisconsin Fertilizer Research Fund: Research Projects – 2007 Funded Research, <http://www.soils.wisc.edu/frc/projects/07.php> (last visited November 26, 2007).

46 Wisconsin Fertilizer Research Fund: History of the Program, <http://www.soils.wisc.edu/frc/history.php> (last visited November 26, 2007).

47 See note 46.

48 Fla. Stat. § 576.045(2)(a) (2007).

49 See note 48 at (2)(c).

50 See note 48 at (3)(a).

51 See note 48.

52 See note 48 at (3)(b).

53 See note 48.

54 See note 48 at (3)(c).

55 6 V.S.A. § 370(b) (2007).

56 See note 55.

57 See note 55.

58 See note 55. Public service announcements developed by the Vermont Agency of Agriculture can be viewed at <http://lawntolake.org>.

59 See note 58.

60 City of Sanibel, Ord. No. 07-003, § 9 (2007).

61 See note 60.

62 Plymouth City Code § 1170.07 (2002). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.

63 The statute defines “turf” as “noncrop land planted in closely mowed, managed grasses including, but not limited to, residential and commercial residential property, private golf courses, and property owned by federal, state, or local units of government, including parks, recreation areas, and public golf courses. Turf does not mean pasture,

- hayland, hay, turf grown on turf farms, or any other form of agricultural production.”
Minn. Stat. § 18C.60(1) (2006).
- 64 Minn. Stat. § 18C.60(2)(b) (2006).
- 65 See Minnesota Department of Agriculture, Pesticide and Fertilizer Management Division. 2007. Report to the Minnesota Legislature: Effectiveness of the Minnesota Phosphorus Lawn Fertilizer Law (March 15, 2007). Available at <http://www.mda.state.mn.us/news/publications/protecting/waterprotection/07phoslawreport.pdf>.
- 66 Minn. Stat. § 18C.60(4) (2006).
- 67 See note 66.
- 68 Minnesota Department of Agriculture, Pesticide and Fertilizer Management Division, Report to the Minnesota Legislature: Effectiveness of the Minnesota Phosphorus Lawn Fertilizer Law (March 15, 2007). Available at <http://www.mda.state.mn.us/news/publications/protecting/waterprotection/07phoslawreport.pdf>.
- 69 See note 68 at 15.
- 70 See note 68 at 17-20. See also Carl Rosen and Brian Horgan. 2005. Regulation of Phosphorus Fertilizer Application to Turf in Minnesota: Historical Perspective and Opportunities for Research and Education. University of Minnesota Turfgrass Society Research Journal. Volume 10 (2005).
- 71 See note 70 at 18-20.
- 72 See note 70 at 17.
- 73 Plymouth City Code § 1170.04(1), (4), (5) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 74 Plymouth City Code § 1170.04(1) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 75 Plymouth City Code § 1170.04(4) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 76 Plymouth City Code § 1170.04(5) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 77 City of Sanibel, Ord. No. 07-003, § 2 (2007).
- 78 See note 77.
- 79 See note 77 at § 4.
- 80 See note 77 at § 5.
- 81 See note 77.
- 82 See note 77..
- 83 See note 77.
- 84 See note 77.
- 85 See note 77.
- 86 See note 77.
- 87 See note 77.
- 88 See note 77.
- 89 See note 77 at § 6.
- 90 See note 77.
- 91 See note 77 at § 11.
- 92 See note 77.

- 93 See note 77.
- 94 Plymouth City Code § 1170.03(1) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 95 Plymouth City Code § 1170.02 (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 96 Plymouth City Code § 1170.03(2) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 97 Plymouth City Code § 1170.03(3) (1999). Available at http://www2.ci.plymouth.mn.us/pls/cop/docs/FOLDER/CITY_GOV/CG_CODE/CODE_REF/SECTION_1170.HTM.
- 98 The City of Sanibel, Ord. No. 07-003, § 8 (2007).
- 99 See note 98.
- 100 See note 98.
- 101 See note 98.

Appendix: Applicable State and Local Statutes and Ordinances

OFFICIAL CODE OF GEORGIA ANNOTATED § 2-12-21 (2007)

**TITLE 2. AGRICULTURE
CHAPTER 12. FERTILIZERS, LIMING MATERIALS, AND SOIL
AMENDMENTS
ARTICLE 1. FERTILIZERS**

Go to the Georgia Code Archive Directory

O.C.G.A. § 2-12-21 (2007)

§ 2-12-21. Local regulation prohibited

(a) No county, municipal corporation, consolidated government, or other political subdivision of this state shall adopt or continue in effect any ordinance, rule, regulation, or resolution regulating the registration, labeling, packaging, sale, storage, transportation, distribution, use, or application of fertilizer.

(b) This Code section shall in no way prohibit or impair the legal right of any county, municipal corporation, consolidated government, or other political subdivision of this state to issue business licenses or to make zoning decisions.

HISTORY: Code 1981, § 2-12-22, enacted by Ga. L. 2005, p. 1030, § 1/SB 88.

FLORIDA STATUTE § 576.045 (2007)

TITLE 35. AGRICULTURE, HORTICULTURE, AND ANIMAL INDUSTRY (Chs. 570-604) CHAPTER 576. AGRICULTURAL FERTILIZERS

Go To Florida Statutes Archive Directory

Fla. Stat. § 576.045 (2007)

§ 576.045. Nitrogen and phosphorus; findings and intent; fees; purpose; best-management practices; waiver of liability; compliance; rules; exclusions; expiration

(1) *FINDINGS AND INTENT.*

(a) (Expires December 31, 2012.) The Legislature finds that nitrogen and phosphorus residues have been found in groundwater, surface water, and drinking water in various areas throughout the state at levels in excess of established water quality standards. The Legislature further finds that some fertilization-management practices could be a source of such contamination.

(b) (Expires December 31, 2012.) It is the intent of the Legislature to improve fertilization-management practices as soon as practicable in a way that protects the state's water resources and preserves a viable agricultural industry. This goal is to be accomplished through research concerning best-management practices and education and incentives for the agricultural industry and other major users of fertilizer.

(2) *FEES.*

(a) (Expires December 31, 2012.) In addition to the fees imposed under ss. 576.021 and 576.041, the following supplemental fees shall be collected and paid by licensees for the sole purpose of implementing this section:

1. (Expires December 31, 2012.) One hundred dollars for each license to distribute fertilizer.
2. (Expires December 31, 2012.) One hundred dollars for each of the first five specialty fertilizer registrations and \$ 25 for each registration after the first five.
3. (Expires December 31, 2012.) Fifty cents per ton for all fertilizer that contains nitrogen or phosphorus and that is sold in this state.

(b) (Expires December 31, 2012.) All fees paid to the department under this section are due and payable at the same time and in the same manner as the fees specified in ss. 576.021 and 576.041 and are subject to all provisions contained in those sections.

(c) (Expires December 31, 2012.) All fees paid under this section must be deposited into the General Inspection Trust Fund and are exempt from the provisions of s. 215.20. These funds are to be appropriated annually to the department and allocated according to a memorandum of understanding between the department and the Department of Environmental Protection. The allocation of indirect costs to these funds by any state agency is specifically prohibited.

(3) *PURPOSE.* --(Expires December 31, 2012.) The funds collected pursuant to subsection (2) must be used by the department for:

(a) (Expires December 31, 2012.) Research, development, demonstration, and implementation of suitable interim measures, best-management practices, or other measures used to achieve state water quality standards for nitrogen and phosphorus criteria. Implementation of interim measures, best-management practices, and other measures may include cost-sharing grants, technical assistance, implementation tracking, and conservation leases or other agreements for water quality improvement.

(b) (Expires December 31, 2012.) Approving, adopting, publishing, and distributing interim measures, best-management practices, or other measures. In the process of developing, approving, and adopting interim measures, best-management practices, or other measures, the department shall consult with the Department of Environmental Protection, the Department of Health, the water management districts, environmental groups, the fertilizer industry, and representatives from the affected farming groups.

(c) (Expires December 31, 2012.) Reimbursing the Department of Environmental Protection for costs incurred which are associated with:

1. (Expires December 31, 2012.) Monitoring and verifying the effectiveness of the interim measures, best-management practices, or other measures approved and adopted under subsection (6) at representative sites. The Department of Environmental Protection shall use its best professional judgment in making the initial determination of the effectiveness of the interim measures, best-management practices, or other measures.

2. (Expires December 31, 2012.) Sampling, analysis, and restoration of potable water supplies, pursuant to s. 376.307, found to contain levels of nitrate in excess of state water quality standards, which excess is determined to be the result of the application of fertilizers or other soil-applied nutritional materials containing nitrogen.

(Expires December 31, 2012.) This subsection must be implemented through a memorandum of understanding between the department and the Department of Environmental Protection.

(4) *WAIVER OF LIABILITY.* --(Expires December 31, 2012.) Notwithstanding any provision of law, the Department of Environmental Protection is not authorized to institute proceedings against any person or the Federal Government under the provisions of s. 376.307(5) to recover any costs or damages associated

with nitrogen or phosphorus contamination of groundwater or surface water, or the evaluation, assessment, or remediation of such contamination of groundwater or surface water, including sampling, analysis, and restoration of potable water supplies, where the contamination of groundwater or surface water is determined to be the result of the application of fertilizers or other soil-applied nutritional materials containing nitrogen or phosphorus, provided the property owner or leaseholder:

(a) 1. (Expires December 31, 2012.) Provides the department with a notice of intent to implement applicable interim measures, best-management practices, or other measures adopted by the department which practices or measures have been verified by the Department of Environmental Protection to be effective; and

2. (Expires December 31, 2012.) Implements applicable interim measures, best-management practices, or other measures as soon as practicable according to rules adopted by the department or no longer applies fertilizers or other soil-applied nutritional materials containing nitrogen or phosphorus; or

(b) (Expires December 31, 2012.) No longer applies fertilizers or other soil-applied nutritional materials containing nitrogen or phosphorus as of the effective date of this section.

(5) *COMPLIANCE.* --(Expires December 31, 2017.) If the property owner or leaseholder implements interim measures, best-management practices, or other measures adopted by the department which practices or measures have been verified by the Department of Environmental Protection to be effective and complies with the following, there is a presumption of compliance with state water quality standards for such criteria with respect to the application of fertilizers or other soil-applied nutritional materials containing nitrogen or phosphorus:

(a) 1. (Expires December 31, 2017.) Provides the department with a notice of intent to implement applicable interim measures, best-management practices, or other measures adopted by the department; and

2. (Expires December 31, 2017.) Implements applicable interim measures, best-management practices, or other measures as soon as practicable according to rules adopted by the department or no longer applies fertilizers or other soil-applied nutritional materials containing nitrogen or phosphorus; or

(b) (Expires December 31, 2017.) No longer applies fertilizers or other soil-applied nutritional materials containing nitrogen or phosphorus as of the effective date of this section.

(6) *RULEMAKING.* --(Expires December 31, 2012.) The department, in consultation with the Department of Environmental Protection, the Department of Health, the water management districts, environmental groups, the fertilizer industry, and representatives from the affected farming groups, shall adopt rules to:

(a) (Expires December 31, 2012.) Specify the requirements of interim measures, best-management practices, or other measures to be implemented

by property owners and leaseholders.

(b) (Expires December 31, 2012.) Establish procedures for property owners and leaseholders to submit the notice of intent to implement and comply with interim measures, best-management practices, or other measures.

(c) (Expires December 31, 2012.) Establish schedules for implementation of interim measures, best-management practices, or other measures.

(d) (Expires December 31, 2012.) Establish a system to assure the implementation of best-management practices, including recordkeeping requirements.

(7) *OTHER PROVISIONS.*

(a) (Expires December 31, 2017.) This section does not limit the authority of the Department of Environmental Protection to regulate discharges associated with the commercial feeding of livestock and poultry defined in chapter 585, including that of dairy farm and egg production operations, or the disposal of sludge, residuals, or septage. This paragraph does not grant additional authority to regulate these discharges.

(b) (Expires December 31, 2017.) This section does not limit federally delegated regulatory authority.

(c) (Expires December 31, 2017.) The Department of Environmental Protection may adopt rules to establish criteria for dairy farms which provide reasonable assurance that state nitrate groundwater quality standards will not be violated and which, provided such criteria are met, shall prohibit the Department of Environmental Protection from instituting proceedings against any dairy farmer under the provisions of s. 376.307(5) and shall provide a presumption of compliance with safe nitrate groundwater quality standards.

(d) (Expires December 31, 2017.) This section, except for subsection (2), does not apply to the manufacture, mixing, or blending of fertilizer, including fertilizer containing sludge, residuals, or septage.

(8) *EXPIRATION OF PROVISIONS.* --Subsections (1), (2), (3), (4), and (6) expire on December 31, 2012. Subsections (5) and (7) expire on December 31, 2017.

HISTORY: s. 8, ch. 94-311; s. 255, ch. 99-8; s. 77, ch. 2000-158; s. 36, ch. 2001-63; s. 1, ch. 2003-147.

MINNESOTA STATUTE § 18C.60 (2006)

AGRICULTURE CHAPTER 18C FERTILIZER, SOIL AMENDMENT, AND PLANT AMENDMENT LAW FERTILIZER ON TURF OR IMPERVIOUS SURFACES

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Minn. Stat. § 18C.60 (2006)

18C.60 PHOSPHOROUS TURF FERTILIZER USE RESTRICTIONS

Subdivision 1. Definition.

For the purpose of this section, “turf” means noncrop land planted in closely mowed, managed grasses including, but not limited to, residential and commercial residential property, private golf courses, and property owned by federal, state, or local units of government, including parks, recreation areas, and public golf courses. Turf does not mean pasture, hayland, hay, turf grown on turf farms, or any other form of agricultural production.

Subd. 2. Phosphorus use restrictions.

(a) A person may not apply a fertilizer containing the plant nutrient phosphorus to turf statewide, except under conditions listed in paragraph (b).

(b) Paragraph (a) does not apply when:

(1) a tissue, soil, or other test by a laboratory or method approved by the commissioner and performed within the last three years indicates that the level of available phosphorus in the soil is insufficient to support healthy turf growth;

(2) the property owner or an agent of the property owner is first establishing turf via seed or sod procedures, and only during the first growing season; or

(3) the fertilizer containing the plant food phosphorus is used on a golf course under the direction of a person licensed, certified, or approved by an organization with an ongoing training program approved by the commissioner.

(c) Applications of phosphorous fertilizer authorized under paragraph (b) must not exceed rates recommended by the University of Minnesota and approved by the commissioner.

Subd. 3. Consumer information.

The commissioner, in consultation with the University of Minnesota Extension Service, fertilizer industry representatives, lakes groups, and other interested

or affected parties, must produce consumer information on use restrictions and recommended best practices for lawn fertilizer containing phosphorus, and on best management practices for other residential sources of phosphorus in the urban landscape. The information must be in a format and of a content suitable for posting and distribution at retail points of sale of fertilizer that contains phosphorus and is for use on turf.

Subd. 4. Research evaluation; report.

The commissioner, in cooperation with the University of Minnesota and the University of Minnesota Extension Service, and, after consultation with representatives of the fertilizer industry, lakes groups, and other interested or affected parties, shall evaluate research needs and encourage targeted research opportunities to investigate the effects of phosphorous fertilization of turf on urban stormwater quality. The commissioner must evaluate the effectiveness of the restrictions on phosphorous fertilizers under this section and report to the legislature by January 15, 2007.

HISTORY: 2002 c 345 s 4; 2004 c 179 s 1; 2005 c 10 art 1 s 12

CITY OF SANIBEL ORDINANCE NO. 07-003, §§ 2 - 11

ARTICLE VI. USE OF FERTILIZERS*

Sec. 2. Purpose and intent.

The purpose and intent of this article is to provide for the regulation of fertilizers containing nitrogen and/or phosphorus and to provide specific management guidelines for fertilization in order to minimize the negative environmental effects said fertilizers have in and on Sanibel's lakes, canals, estuaries, interior freshwater wetlands, the Sanibel River and nearshore waters of the Gulf of Mexico. Collectively these waterbodies are a natural asset, which are critical to the environmental, recreational, cultural and economic well being of Sanibel and the surrounding areas and contribute to the general health and welfare of the public. Recent red tide blooms, accumulation of red drift algae on local beaches, and freshwater releases from the Caloosahatchee River and Lake Okeechobee have heightened community concerns about water quality and eutrophication of surrounding waters. Regulation of nutrients, including both phosphorus and nitrogen contained in fertilizer, entering the waterbodies in and around Sanibel is a crucial step towards improving and maintaining water and habitat quality.
(Ord. No. 07-003, § 2, 3-6-2007)

Sec. 3. Definitions.

The following words, terms, and phrases when used in this article shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Applicator means any person who applies, in any manner, fertilizer to turf and/or landscape plants as defined in this article within the City of Sanibel.

Commercial fertilizer applicator means any person who applies fertilizer on turf and/or landscape plants in the City of Sanibel in exchange for money, goods, services or other valuable consideration.

Fertilize, fertilizing, or fertilization means the act of applying fertilizer to a lawn (turf), specialized turf, or landscape plant.

Fertilizer means any substance that contains one or more recognized plant nutrients and promotes plant growth, or controls soil acidity or alkalinity, or provides other soil enrichment, or provides other corrective measures to the soil.

Institutional applicator means any person, other than a non-commercial or commercial applicator (unless such definitions also apply under the circumstances), that applies fertilizer for the purpose of maintaining turf and/or landscape plants. Institutional applicators shall include, but shall not be limited to, owners and managers of public lands, schools, parks, religious institutions, utilities, industrial or business sites and any residential properties maintained in condominium and/or common ownership.

Landscape plant means any native or exotic tree, palm, shrub, or groundcover (excluding turf).

Non-commercial fertilizer applicator means any person other than a commercial fertilizer applicator or institutional applicator who applies fertilizer on turf and/or landscape plants in the City of Sanibel, such as an individual owner of a single-family residential unit.

Person means any natural person and shall also mean any business, corporation, association, club, organization, and/or any group of people acting as an organized entity.

Slow release, controlled release, timed release, slowly available, or water insoluble nitrogen means nitrogen in a form which delays its availability for plant uptake and use after application, or which extends its availability to the plant longer than a reference “rapid release nitrogen” product. Forms of slow release, controlled release, slowly available, or water insoluble nitrogen include:

- (1) Isobutylidene diurea (IBDU)
- (2) Resin, polymer, or sulphur [sulphur] coated urea
- (3) Biosolids or residuals from domestic wastewater treatment
- (4) Ureaformaldehyde
- (5) Composted animal manure
- (6) Others as may be designated in writing by the city manager

Specialized turf manager means a person responsible for fertilizing or directing the fertilization of a golf course or publicly-owned ball field.

Turf means a piece of grass-covered soil held together by the roots of the grass; sod; lawn.

(Ord. No. 07-003, § 3, 3-6-2007)

Sec. 4. Applicability.

This article shall be applicable to and shall regulate any and all applicators of fertilizer within the City of Sanibel, unless such applicator is specifically exempted or excepted by the terms of this article from the regulatory provisions of this article.

(Ord. No. 07-003, § 4, 3-6-2007)

Sec. 5. Timing of fertilizer application; content and application rate; impervious surfaces; buffer zones.

(a) *Timing of application.* No applicator shall apply fertilizers containing nitrogen and/or phosphorus to turf and/or landscape plants during the “rainy season” (defined as July 1 through September 30 of each calendar year).

(b) *Fertilizer content and application rate.*

- (1) No fertilizer shall be applied to turf and/or landscape plants within the City of Sanibel that contains more than two percent phosphorous or other compounds containing phosphorous, such as phosphate, per guaranteed analysis label (as guaranteed analysis and label are defined by F.S. ch. 576, such definition incorporated herein). The use of no phosphorus fertilizer is

strongly encouraged, as Florida soils typically contain sufficient phosphorus for a healthy native or man made landscape.

(2) Fertilizer applied to turf and/or landscape plants within the City of Sanibel must contain no more than 20 percent total nitrogen, with at least 70 percent of the total nitrogen as slow release nitrogen per guaranteed analysis label (as guaranteed analysis and label are defined by F.S. ch. 576, such definition incorporated herein).

(3) Fertilizers should be applied to turf and/or landscape plants at the lowest rate necessary without exceeding the maximum weight per application. Fertilizer shall not be applied at a rate greater than one pound of nitrogen per 1,000 square feet per application. No more than four pounds of nitrogen per 1,000 square feet shall be applied to any turf/landscape area in any calendar year.

The above provisions are also applicable to and regulate the application of pesticide/fertilizer mixtures, including, but not limited to, “weed and feed” products.

(c) *Total yearly applications.* While single fertilizer applications in the fall and spring will often suffice, fertilizers shall not be applied more than six times during any one calendar year to a single area.

(d) *Impervious surface.* Fertilizer shall not be applied, spilled, or otherwise deposited on any impervious surfaces. Any fertilizer applied, spilled, or deposited, either intentionally or accidentally, on any impervious surface shall be immediately and completely removed. Fertilizer released on an impervious surface must be immediately contained and either legally applied to turf or any other legal site, or returned to the original or other appropriate container.

(e) *Buffer zones.* No fertilizer shall be applied within 25 feet of any pond, stream, water course, lake or canal, retention area, drain or drainage ditch, or in any designated wetland or within 25 feet of any wetland as defined by the Florida Department of Environmental Protection (Chapter 62-340, F.A.C. defines Florida Wetland as “Those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils”).

(f) *Mechanical application.* Spreader deflector shields are required when fertilizing by use of any broadcast spreaders. Deflectors must be positioned such that fertilizer granules are deflected away from all impervious surfaces and waterbodies, including wetlands.

(Ord. No. 07-003, § 5, 3-6-2007)

Sec. 6. Exemptions.

(a) The timing of applications, fertilizer content, application rate provisions and

other provisions set forth above in subsections 30-144(a)--(c) of this article shall not apply to:

(1) Newly established turf and/or landscape plants for the first 60 days during and/or after installation or planting, provided documentation for newly established turf and/or landscape plants is maintained to support this exemption;

(2) Damaged turf and/or landscape plants for a period of 60 days and only on the damaged areas, provided documentation for damaged turf and/or landscape plants is maintained to support this exemption;

(3) Areas where soil tests confirm, and such tests are confirmed and approved by the natural resources director or designee, that phosphorous levels are below ten parts per million. This is equivalent to a “very low” designation for phosphorus set forth in UF/IFAS Extension Soil Testing Laboratory Analytical Procedures Training Manual (Circular 1248, September 2002).

(4) Vegetable gardens, provided they are not within 25 feet of any waterbody and/or wetland;

(5) Yard waste compost, mulches, or other similar materials that are primarily organic in nature and are applied to improve the physical condition of the soil; and/or

(6) Reclaimed water used for irrigation (which may contain substantial amounts of nitrogen and phosphorus), provided it is not used within 25 feet of any waterbody and/or wetland.

(b) For all golf courses, the provisions of the Florida Department of Environmental Protection document, “Best Management Practices for the Enhancement of Environmental Quality on Florida Golf Courses,” (January 2007), as updated, shall be followed when applying fertilizer to golf course practice and play areas. This document can be accessed on-line on the Florida Department of Environmental Protection website at <http://www.dep.state.fl.us>. All other specialized turf managers shall use their best professional judgment to apply the concepts and principles embodied in the “Florida Green Industries Best Management Practices for Protection of Water Resources in Florida, June 2002” while maintaining the health and function of their specialized turf areas.
(Ord. No. 07-003, § 6, 3-6-2007)

Sec. 7. Soil tests information.

Soil tests may be obtained from the UF/IFAS Extension Soil Testing Laboratory or other qualified or recognized authority in the area of soil analysis pre-approved by the City of Sanibel. The UF/IFAS Extension Soil Testing Laboratory in Gainesville offers a variety of tests for mineral soils, container media and irrigation water. The “Landscape and Vegetable Garden Producer Test” is recommended for both private and commercial clients fertilizing plants in the landscape, primarily home horticulture. A soil sampling

bag, one bag for each soil sample, and a shipping box in which to send samples to the UF/IFAS Extension Soil Testing Laboratory can be obtained free of charge from the Lee County Cooperative Extension Service Office, 3406 Palm Beach Blvd., Fort Myers, FL, 33916 (239-461-7500). As of January 2007, the cost for the Soil Fertility Test (Test B) is \$7.00 per sample. A PDF version of the Landscape and Vegetable Garden Test Submission Form can be obtained at <http://soilslab.ifas.ufl.edu/pdf%20files/SS18700.pdf> or from the city's department of natural resources. (Ord. No. 07-003, § 7, 3-6-2007)

Sec. 8. Licensing of commercial and institutional applicators.

(a) In addition to any current or future training or education requirements mandated by the State of Florida and/or Lee County, no commercial fertilizer applicator or institutional applicator shall apply fertilizer without first obtaining a vegetation certificate of competency (hereinafter "certificate holder") from the City of Sanibel as defined by the Sanibel Land Development Code Section[s] 14-146, 14-147 with a "commercial fertilizer applicator" endorsement. In accordance with section 14-147 of the Sanibel Code, "persons working as employees and under the direct supervision of vegetation contractors who hold a current vegetation certificate of competency shall be exempt", provided that such vegetation contractor is a certificate holder with a valid commercial fertilizer endorsement. Any person desiring the commercial fertilizer applicator endorsement must possess a current City of Sanibel Vegetation Certificate of Competency, or be exempt as set forth above, and:

(1) Shall score 90 percent or higher on the Sanibel "Fertilizer Ordinance" section of the Vegetation Contractor Certification Exam.

(b) Upon compliance with the requirements set forth above in this section, and payment of any application fee established by the city, the applicant shall be issued a commercial fertilizer applicator endorsement. Thereafter, as continuing conditions and requirements of such commercial fertilizer applicator endorsement, such person, as the certificate holder, and all persons working or providing services under the authority granted to such certificate holder:

(1) Shall apply fertilizer to turf and/or landscape plants in accordance with all provisions of this article.

(2) Shall be responsible for maintaining a record of the pounds of nitrogen, expressed as pounds per 1,000 square feet of land, applied to each site by the certificate holder during the year. If applying fertilizer in accordance with subsection 30-145(a)(1) and/or (2), the certificate holder shall also maintain documentation to support said exemption(s). If applying fertilizer in accordance with subsection 30-145(a)(3), the certificate holder shall also possess a record of the soil test indicating the amount of phosphorus present and a copy of the approved administrative variance (section 30-149). Said records shall be kept in the certificate holder's possession or vehicle(s) and available for inspection by city staff during all business hours or while the certificate holder is at a customer's site.

(3) Shall permit the City of Sanibel to obtain a sample of any fertilizer applied or to be applied within the city. If the sample analysis shows that nitrogen and/or phosphorus content does not comply with the levels permitted by this article, enforcement action may be taken in accordance with section 30-150 of this article, and the cost of analyzing fertilizer samples taken from commercial fertilizer applicators or institutional applicators shall be reimbursed by said applicator to the city within 30 days after invoicing.

(4) Shall provide an “approved” Surface and groundwater protection brochure to all of certificate holder’s customers within the city at the time of their first treatment after October 1 each year. Such brochures shall be developed, produced at the city’s cost and issued to certificate holders by city department of natural resources staff.

(5) A certificate holder with a commercial fertilizer applicator endorsement shall be on-site at all times when fertilizers are being applied.

After the initial commercial fertilizer applicator endorsement is received, renewal of the commercial fertilizer applicator endorsement will coincide with the renewal schedule for the vegetation certificate of competency. (Section 14-147, Sanibel Code). Failure of a certificate holder to comply with the provisions of this article shall constitute grounds to suspend a vegetation certificate of competency, or to deny renewal of such certificate or a commercial fertilizer endorsement.

Within 90 days after the effective date of this article, the City of Sanibel Department of Natural Resources Staff or one or more members of the city’s vegetation committee will offer bi-weekly “Fertilizer Ordinance Only” courses to all current vegetation competency certificate holders wishing to obtain the commercial fertilizer applicator endorsement. Vegetation competency certificate holders who do not participate in one of the “Fertilizer Ordinance Only” classes within 180 days after the effective date of this article (i.e., prior to such separate classes terminating) may obtain the commercial fertilizer applicator endorsement only by completing the entire vegetation certificate of competency course, which shall thereafter incorporate such fertilizer classes within the vegetation certificate of competency course.

(Ord. No. 07-003, § 8, 3-6-2007)

Sec. 9. Sale of fertilizer.

(a) Retail businesses within the City of Sanibel selling fertilizer shall post a notice in a conspicuous location near the fertilizer notifying customers of the limitation on the use of Fertilizer containing greater than two ordinance phosphorus, and/or greater than 20 percent total nitrogen with at least 70 percent minimum slow release nitrogen requirement in the City of Sanibel. Such notices shall be developed, produced at the city’s cost, and issued by the city to such retail businesses for posting.

(b) Retail businesses within the city shall provide a city-approved surface and groundwater protection brochure to all customers purchasing fertilizer products.

Such brochures shall be developed and produced at the city's cost, and issued by the city to such retail businesses for distribution.
(Ord. No. 07-003, § 9, 3-6-2007)

Sec. 10. Administrative relief.

(a) Any applicator of fertilizer regulated by the provisions of this article shall be authorized to apply for an administrative variance from the director, or designee, of the department of natural resources upon a written showing, found by the director, or designee, to be factually supported, that:

(1) As a result of soil content at the point of the proposed application or for other geographical, environmental or geological reasons or other circumstances, such person should not be required to adhere to the strict provisions of this article; and/or

(2) Such person is able and willing to use a less strict application method or alternative materials or methods as required by the director, or designee;

(b) Such administrative relief deemed appropriate shall be granted in writing specifically setting forth the party entitled to the administrative relief, the location or locations to which the relief applies, the length of time granted for such relief and any specific conditions of the director, or designee, applicable to such relief.

(c) In the event that administrative relief is denied in whole or in part to an applicant for such relief, an appeal may be taken to the Sanibel City Manager, or designee, who shall provide basic due process to the applicant and the director, or designee, which shall include the acceptance and review of supporting documentation of all arguments, a right to a hearing at which evidence and testimony may be presented, with at least ten days prior notice provided in writing as to the date, time and location of such hearing, and a written order providing the decision of the city manager, or designee, and the basis therefore which shall be provided to the applicant and the director, or designee.

(Ord. No. 07-003, § 10, 3-6-2007)

Sec. 11. Enforcement and penalty.

(a) Any person, firm, company, corporation or other entity who refuses to comply with or violates any section of this article, shall be guilty of a misdemeanor of the second degree, and upon conviction for such offense, shall be punished by a fine not to exceed \$500.00 or by imprisonment not to exceed 60 days in jail, or both. Each non-compliance or violation, and each day thereof, shall constitute a separate offense.

(b) Nothing contained herein shall prevent the City of Sanibel from taking such other lawful action in any court of competent jurisdiction as is necessary to prevent or remedy any refusal to comply with, or violation of, this article. Such other lawful action shall include but shall not be limited to, an equitable action for injunctive relief or an action at law for damages. Further, nothing contained herein shall prevent the city from instituting and pursuing Code Enforcement proceedings pursuant to applicable City Code provisions and F.S. ch. 162.

(c) Any person, firm, company, corporation or other entity that violates this article shall be responsible for the city's costs of prosecution of any violation of this article, including any city costs to remedy or clean up any environmental condition caused by an act which constitutes a violation of this article. In the event any such costs are incurred by the city, such person, firm, company, corporation or other entity shall reimburse the city for all such costs within 30 days of the city's invoice for such costs.

(Ord. No. 07-003, § 11, 3-6-2007)

Available at <http://www.municode.com/resources/gateway.asp?pid=10937&sid=9>.

6 VERMONT STATUTES ANNOTATED § 370 (2007)

**TITLE SIX. AGRICULTURE
PART 2. PRODUCT GRADES, STANDARDS AND LABELING
CHAPTER 28. FERTILIZER AND LIME**

Go to the Vermont Code Archive Directory

6 V.S.A. § 370 (2007)

§ 370. Publication; consumer information regarding fertilizer use on nonagricultural turf

(a) The secretary shall publish on an annual basis:

- (1) information concerning the distribution of fertilizers and limes;
- (2) results of analyses based on official samples of fertilizers and lime distributed within the state as compared with guaranteed analyses required pursuant to the terms of this chapter.

(b) (1) The secretary, in consultation with the University of Vermont extension service, fertilizer industry representatives, lake groups, and other interested or affected parties, shall produce information for distribution to the general public with respect to the following:

- (A) problems faced by the waters of the state because of discharges of phosphorus;
- (B) an explanation of the extent to which phosphorus exists naturally in the soil;
- (C) voluntary best management practices for the use of fertilizers containing phosphorus on nonagricultural turf; and
- (D) best management practices for residential sources of phosphorus.

(2) The secretary shall develop the information required under this subsection and make it available to the general public in the manner deemed most effective, which may include:

- (A) conspicuous posting at the point of retail sale of fertilizer containing phosphorus, according to recommendations for how that conspicuous posting may best take place;
- (B) public service announcements by means of electronic media;
- (C) other methods deemed by the secretary to be likely to be effective.

(3) The secretary shall develop proposed criteria for evaluating the effectiveness of the information program and shall present them to legislative committees on natural resources and energy and on agriculture by no later than January 1, 2007. By no later than July 1, 2007, the secretary shall hold one or more public

information meetings to obtain the input of the public on a draft assessment of the effectiveness of this section in increasing the use of best management practices in the use of fertilizers on nonagricultural turf. By no later than December 1, 2008, the secretary shall provide those legislative committees with a final assessment of the effectiveness of this subsection, which shall include an analysis of the extent to which the information developed under this subsection has been effectively provided to and relied upon by retail customers who purchase fertilizers containing phosphorus and shall include any recommendations for making the program more effective.

HISTORY: Added 1985, No. 126 (Adj. Sess.), § 1; amended 2003, No. 42, § 2, eff. May 27, 2003; 2005, No. 215 (Adj. Sess.), § 77d.

WISCONSIN STATUTE § 94.64 (2007)

AGRICULTURE; FOODS AND DRUGS; MARKETS CHAPTER 94. PLANT INDUSTRY

Go to the Wisconsin Code Archive Directory

Wis. Stat. § 94.64 (2006)

Legislative Alert: LEXSEE 2007 Wis. ALS 20 -- See sections 2595N and 2595P.

94.64. Fertilizer.

(1) DEFINITIONS.

As used in this section:

- (a) “Brand or product name” means a name term, design or trademark used in connection with one or more grades of fertilizer and which identifies the product as fertilizer.
- (b) “Bulk fertilizer” means fertilizer distributed in a nonpackaged form.
- (c) “Custom mixed fertilizer” means a mixed fertilizer formulated according to individual specifications furnished by the consumer prior to mixing.
- (d) “Distribute” means to import, consign, sell, offer for sale, solicit orders for sale, or otherwise supply fertilizer for sale or use in this state.
- (e) “Fertilizer” means any substance, containing one or more plant nutrients, which is used for its plant nutrient content and which is designed for use or claimed to have value in promoting plant growth, except unmanipulated animal or vegetable manures, marl, liming material, sewage sludge other than finished sewage sludge products, and wood ashes. “Fertilizer” includes fertilizer materials, mixed fertilizers, custom mixed fertilizers, nonagricultural fertilizers and all other fertilizers or mixtures of fertilizers, regardless of type or form.
- (f) “Fertilizer material” means an element or chemical compound, or a substance manufactured by chemical reaction, which:
 - 1. Contains one or more plant nutrients; and
 - 2. Constitutes a component of fertilizer or is used to compound fertilizer.
- (fm) “Finished sewage sludge product” means a product consisting in whole or in part of sewage sludge that is distributed to the public and that is disinfected by means of composting, pasteurization, wet air oxidation, heat treatment or other means.

- (g) “Grade” means the percentage guarantee of total nitrogen, available phosphorus or available phosphate, and soluble potassium or soluble potash stated in the same order as listed in this paragraph.
- (h) “Guaranteed analysis” means the percentage of each plant nutrient guaranteed or claimed to be present.
- (i) “Label” means any written, printed or graphic matter on or attached to packaged fertilizer or which is used to identify fertilizer distributed in bulk or held in bulk storage.
- (j) “Labeling” means all labels and other written, printed or graphic matter upon or accompanying fertilizer at any time, and includes advertising or sales literature.
- (k) “Manufacture” means to process, granulate, compound, produce, mix, blend or alter the composition of fertilizer or fertilizer materials.
- (L) “Mixed fertilizer” means a fertilizer containing any combination or mixture of fertilizer materials, or a fertilizer material and any other substance. A fertilizer material that contains impurities incident to the normal manufacturing or processing operations of that fertilizer material is not a mixed fertilizer as a result of the presence of such impurities unless the impurities are claimed as plant nutrients or fertilizer materials.
- (Lm) “Nonagricultural fertilizer” means any fertilizer distributed for nonfarm use, such as for home gardens, lawns, shrubbery, flowers, golf courses, parks, cemeteries, greenhouses or nurseries or for research or experimental purposes.
- (m) “Official sample” means a sample of fertilizer taken by a representative of the department in accordance with methods prescribed by department rules.
- (n) “Packaged fertilizer” means any type of fertilizer sold in closed containers.
- (o) “Percent” and “percentage” mean the percentage by weight.
- (p) “Plant nutrient” means boron, calcium, chlorine, copper, iron, magnesium, manganese, molybdenum, nitrogen, phosphorus or available phosphate, potassium or potash, sodium, sulfur, zinc or any other chemical element recognized as a plant nutrient by department rule.
- (pm) “Sewage sludge” means the residue material resulting from the treatment of sewage. In this paragraph, “sewage” has the meaning specified in s. 281.01 (13)
- (q) “Special-use fertilizer” means fertilizer designed and labeled for use in remedying nutrient deficiencies which are unique to certain crops or certain local areas.
- (r) “Ton” means a net ton of 2,000 pounds avoirdupois.
- (t) “Unmanipulated animal or vegetable manure” means animal or vegetable manure which has not been treated by mechanical drying, grinding or pelletizing, by adding a substance or by any other means.

(2) LABELING.

(a) Any packaged fertilizer, including packaged custom mixed fertilizer, distributed in this state shall have placed on or affixed to the package a label setting forth in clearly legible and conspicuous form the following information:

1. Name and address of the licensed manufacturer or distributor.
2. Brand or product name.
3. Grade.
4. Guaranteed analysis.
5. Net weight.

(b) Any fertilizer distributed in this state in bulk shall be accompanied by a written or printed invoice or statement to be furnished to purchaser at time of delivery containing in clearly legible and conspicuous form the following information:

1. Name and address of the licensed manufacturer or distributor.
2. Name and address of the purchaser.
3. Date of sale.
4. Brand or product name.
5. Grade.
6. Guaranteed analysis.
7. Net weight.

(c) In lieu of grade and guaranteed analysis, custom mixed fertilizer sold in bulk may be labeled to show the weight and grade of each material in the mixture and total weight of the mixture. Grade shall be indicated if a grade is specified by the purchaser.

(d) All fertilizer in bulk storage shall be identified with a label attached to the storage bin or container giving the name or grade of the product.

(e)

1. Guaranteed analysis for the primary nutrients of nitrogen, phosphorus and potassium shall be expressed on the label in the following order and form: CellRowCellTotal Nitrogen (N) %RowCellAvailable Phosphate (P₂O₅) %RowCellSoluble Potash (K₂O) %
2. If elemental guarantees are required by department rule under sub. (9) (a), the guaranteed analysis shall be expressed in terms of percentage of available phosphorus and potassium.
3. Additional plant nutrients, besides nitrogen, phosphorus and potassium, claimed to be present in any form or manner shall be guaranteed on the elemental basis. Other beneficial substances or compounds, determinable by laboratory methods, may be guaranteed if approved by the department.

(3) FERTILIZER LICENSE.

(a)

1. Except as provided in subd. 2., no person may manufacture or distribute fertilizer in this state without an annual license from the department. A separate license is required for each business location and each mobile unit at which the person manufactures fertilizer. A license shall expire on August 14 annually and is not transferable between persons or locations.

2. Notwithstanding subd. 1., a person who distributes only any of the following is not required to obtain a license under subd. 1.:

a. Fertilizer materials to manufacturers for further manufacturing.

b. Packaged fertilizer that is in its original container as packaged and labeled by the manufacturer or distributor.

c. Bulk fertilizer that the person obtains for resale purposes from a licensed manufacturer or distributor and that is labeled as required under sub. (2) (b) 1., 4., 5. and 6., with label information furnished by the licensed manufacturer or distributor.

(b) An applicant for a license under par. (a) shall submit an application on a form provided by the department. The application shall include information reasonably required by the department for licensing purposes. As part of the application, the applicant shall identify each business location or mobile unit that the applicant uses to manufacture fertilizer in this state. The application shall be accompanied by all applicable fees under sub. (3r)

(3m) NPK PERCENTAGE REQUIREMENT; EXEMPTION PERMITS.

(a) No person may distribute mixed fertilizer in which the sum of the guarantees for nitrogen, available phosphate and soluble potash totals less than 24% unless:

1. The mixed fertilizer is exempted from this requirement by department rule; or

2. The mixed fertilizer is a nonagricultural or special-use fertilizer and the person obtains a permit from the department authorizing its distribution as a nonagricultural or special-use fertilizer.

(b) An application for a permit under par. (a) 2. shall be on a form prescribed by the department and shall be accompanied by a proposed product label and a nonrefundable fee of 25. The department may require that the applicant substantiate, by scientific evidence:

1. The efficacy and usefulness of the nonagricultural or special-use fertilizer if applied under conditions existing in this state at the amount and frequency recommended by the applicant.

2. The truth of any statement made in the proposed product label or in the permit application.

(c)

1. If the department finds that the applicant has fulfilled the requirements of par. (b), the department shall issue the permit.
2. If the department finds that the applicant has failed to meet the requirements of par. (b), the department shall issue a notice of denial of the permit.

(d) Any person who wishes to change the active ingredient contents or the recommended amount or frequency of application of a nonagricultural or special-use fertilizer for which the person has received a permit under par. (c), shall apply to the department for an amended permit. Paragraphs (b) and (c) apply to the issuance of amended permits.

(e) No person who has been issued a permit or amended permit under this subsection may:

1. Transfer the permit or amended permit to another person.
2. Distribute or promote the distribution of the nonagricultural or special-use fertilizer using any performance, use or efficacy claim which exceeds that allowed by the permit or amended permit or which is inconsistent with the approved product label.

(f) Issuance of a permit or amended permit under this subsection is neither an endorsement nor a warranty by the department.

(3r) LICENSE FEES AND SURCHARGES.

(a) A person applying for a license under sub. (3) shall pay the following annual license fees:

1. For each business location and each mobile unit that the applicant uses to manufacture fertilizer in this state, 30.
2. If the applicant distributes, but does not manufacture, fertilizer in this state, 30.

(b) Beginning with the license year that begins on August 15, 2000, a person applying for a license under sub. (3) shall pay the following agricultural chemical cleanup surcharges, unless the department establishes lower surcharges under s. 94.73 (15):

1. For each business location and each mobile unit that the applicant uses to manufacture fertilizer in this state, other than a business location or mobile unit that is also licensed under s. 94.685 or 94.703, 20.
2. If the applicant distributes, but does not manufacture, fertilizer in this state, 20.

(c) The department shall deposit the license fees collected under par. (a) in the agrichemical management fund. The department shall deposit the surcharges collected under par. (b) in the agricultural chemical cleanup fund.

(4) TONNAGE FEES AND SURCHARGES.

(a) Requirement. Except as provided in par. (b), a person who is required to be licensed under sub. (3) and who sells or distributes fertilizer in this state shall pay to the department the following fees and surcharges on all fertilizer that the person sells or distributes in this state:

1. A basic fee of 23 cents per ton for fertilizer sold or distributed beginning on October 29, 1999, and ending on June 30, 2001, and 30 cents per ton for fertilizer sold or distributed after June 30, 2001, with a minimum fee of 25.
2. A research fee of 10 cents per ton, with a minimum fee of 1.
3. An additional research fee of 10 cents per ton, with a minimum fee of 1.
4. A groundwater fee of 10 cents per ton, with a minimum fee of 1.
5. An agricultural chemical cleanup surcharge of 63 cents per ton on all fertilizer that the person sells or distributes in this state after June 30, 2005, unless the department establishes a lower surcharge under *s. 94.73 (15)*
6. Beginning on October 29, 1999, a weights and measures inspection fee of 2 cents per ton, with a minimum fee of 1.

(b) Exemptions. Paragraph (a) does not apply to any of the following:

1. Fertilizer sold or distributed to a manufacturer for use in the further manufacture or processing of fertilizer.
2. Fertilizer sold or distributed to a person licensed under sub. (3) (a), for resale by that person.

(c) Use of fees and surcharges.

1. The department shall deposit the fee under par. (a) 1. in the agrichemical management fund.
2. The department shall credit the fee under par. (a) 2. to the appropriation account under *s. 20.115 (7) (h)*
3. The department shall credit the fee under par. (a) 3. to the appropriation account under *s. 20.285 (1) (hm)*
4. The department shall deposit the fee under par. (a) 4. in the environmental fund for environmental management.
5. The department shall deposit the surcharge under par. (a) 5. in the agricultural chemical cleanup fund.
6. The department shall credit the fee under par. (a) 6. to the appropriation account under *s. 20.115 (1) (j)*

(5) TONNAGE REPORT AND FEE PAYMENT.

(a) Requirement. A person who is required to pay fees or surcharges under sub. (4) shall do all of the following by August 14 annually:

1. File with the department a report that states the number of tons of each grade of fertilizer sold or distributed in this state during the 12 months ending

on June 30 of that year on which the person is required to pay those fees or surcharges.

2. Pay the fees and surcharges under sub. (4) on the tonnage reported under subd. 1.

(b) Extended deadline. The department may extend the filing deadline under par. (a) for up to 30 days for cause, in response to a request filed before August 14.

(c) Late payment. If a person fails to pay a fee or surcharge when due under this section, the amount of the fee or surcharge is increased by 10 or 10% of the amount that the fee or surcharge would have been if paid when due, whichever is greater.

(d) Tonnage equivalents. A tonnage report under par. (a) 1. shall report liquid fertilizer tonnage in terms of dry fertilizer tonnage equivalents, as prescribed by the department.

(e) Audit. The department may audit a tonnage report under par. (a) 1., including the records on which the tonnage report is based.

(6) RECORDS.

A person who manufactures, sells or distributes fertilizer in this state shall keep records showing the grades and quantities of fertilizer manufactured, sold or distributed in this state. The person shall keep the records relating to the 12 months covered by a report under sub. (5) (a) 1. for at least 24 months following the date of filing the report. The person shall make the records available to the department for inspection and copying upon request.

(6m) RECORDS CONFIDENTIAL.

The department may not disclose information obtained under sub. (5) or (6) that reveals the grades or amounts of fertilizer sold or distributed by any person. This subsection does not prohibit the department from preparing and distributing aggregate information that does not reveal the grades or amounts of fertilizer sold or distributed by individual sellers or distributors.

(6p) SUMMARY LICENSE SUSPENSION.

(a) The department may by written notice, without prior hearing, summarily suspend the license of any person who fails to file a report or pay a fee or surcharge as required under sub. (5)

(b) A summary license suspension under par. (a) takes effect on the date specified in the notice, which may be no sooner than 10 days after the date on which the notice is received by the recipient.

(c) A person whose license is suspended under par. (a) may request a meeting concerning the suspension. The department shall hold an informal meeting with the requester as soon as reasonably possible and not more than 10 days after the requester makes the request in writing, unless the requester agrees to a later date. If the matter is not resolved at the informal meeting, the requester may request a formal contested case hearing under ch. 227 A request for a hearing does not stay a summary suspension under par. (a)

(d) A person who is required to pay a fee or surcharge under sub. (5) remains obligated to pay the fee or surcharge regardless of whether the person continues to be licensed under this section.

(7) PROHIBITIONS.

It is unlawful for any person:

(a) To distribute any fertilizer in violation of this section or rules promulgated under this section.

(b) To make any false, deceptive or misleading guarantee, claim or representation in connection with the distribution of fertilizer.

(c) To manufacture or distribute any fertilizer without a license required by sub. (3)

(d) To make any false or misleading statement in an application for a license or in any inspection fee or statistical report, or in any other statement or report filed with the department.

(8) INSPECTION, SAMPLING AND ANALYSIS.

(a) The department shall inspect, sample and analyze fertilizer distributed within the state at such time and place and to such extent as is necessary to determine compliance with this section.

(b) The department may enter, at all reasonable times, any building, conveyance or premises used in the manufacture and distribution of fertilizer in this state to determine compliance with this section and to stop any conveyance transporting fertilizer for the purpose of inspecting and sampling the fertilizer and examining its labeling.

(c) Manufacturers or distributors of fertilizer shall submit to the department, on request, fertilizer samples, copies of labeling or any other data or information which the department requests concerning composition and claims and representations made for fertilizer manufactured or distributed by them in this state.

(8m) FERTILIZER RESEARCH FUNDS.

(a) Use of funds. At the end of each fiscal year, the moneys collected under sub. (4) (a) 2. and s. 94.65 (6) (a) 3. shall be forwarded to the University of Wisconsin System to be used for research on soil management, soil fertility, plant nutrition problems and for research on surface water and groundwater problems which may be related to fertilizer usage; for dissemination of the results of the research; and for other designated activities tending to promote the correct usage of fertilizer materials.

(b) Fertilizer research council. The fertilizer research council shall recommend projects to be financed by fertilizer research funds. Members of the council shall meet at least annually to select projects to recommend for funding. The recommendations shall be made by majority vote of the council. If the University of Wisconsin System is unable to carry on the projected research, the council may recommend other appropriate nonprofit research institutions or agencies for

receipt of funds.

(9) RULES.

The department may promulgate rules:

- (a) Requiring that the guaranteed analysis of phosphorus and potassium be expressed in the elemental form. If adopted, such rule shall not take effect prior to July 1, 1972, and shall provide for an additional period of at least 5 years during which both the oxide and the elemental guarantees for phosphorus and potassium may be given on the same label.
- (b) Regulating the sale and labeling of fertilizer, including warning or caution statements or directions for use in connection with the labeling of fertilizer.
- (c) Governing methods of sampling, testing, examining and analyzing fertilizer.
- (d) Prescribing tolerances for deficiencies found in percentages of plant nutrient guaranteed to be present.
- (e) Prescribing the manner in which grade and guaranteed analysis shall be declared on the label.
- (f) Establishing standards of identity and purity for fertilizer materials.
- (g) Prescribing standards for the exemption of mixed fertilizers from the requirement under sub. (3m) (a)
- (h) Establishing standards and procedures to review an application for a permit or an amended permit for the distribution of a nonagricultural or special-use fertilizer under sub. (3m) (b)

(10) PUBLICATION.

The department shall publish, at least annually, and in such form as it deems proper, information concerning the sales of fertilizers, together with other data on their production and use as it considers advisable, and a report of the results of the analyses based on official samples of fertilizers sold within the state compared with the analyses guaranteed on the product label. Information concerning the production and use of fertilizers shall be shown separately for the periods July 1 to December 31 and January 1 to June 30 of each year. No disclosure shall be made of the operations of any person.

(11) ENFORCEMENT.

- (a) Stop sale orders. The department may issue and enforce a written or printed stop sale order to the owner or custodian of any lot or container of fertilizer distributed in violation of this section or of rules promulgated under this section. The order shall prohibit the sale or removal of the fertilizer, except as authorized by the department, until it has been brought into compliance with the law or until a plan for disposition is agreed upon with the department in writing. The stop sale order shall have the effect of a special order under s. 93.18 and shall be subject to judicial review if, within 10 days after service of the order, a request for a hearing is made to the department.
- (b) Temporary holding orders. A temporary holding order may be issued whenever

the department has reason to believe any lot or container of fertilizer may not be in compliance with the law pending further evaluation or laboratory examination and analysis. A temporary holding order shall be effective for no more than 15 days but may be extended for an additional 15-day period as may reasonably be necessary to complete sampling, analysis and evaluation of the fertilizer and its labeling. The fertilizer shall be released prior to the expiration of such temporary period if found to be in compliance with the law. If found to be in violation of the law, the temporary holding order shall be extended by notice, in writing, to the owner or custodian and a stop sale order issued prohibiting the further movement or disposition of the fertilizer without consent of the department, subject to the right of hearing before the department if requested within 10 days after service of such notice and stop sale order.

(c) Seizure, condemnation and sale. Fertilizer not in compliance with this section shall be subject to seizure on complaint of the department to a court having jurisdiction. If the court finds that the fertilizer is in violation of this section and orders the seizure thereof, it shall be disposed of as the court directs. Disposition shall not be ordered by the court without first granting the owner or custodian, at his or her request, reasonable opportunity to reprocess or relabel the fertilizer under supervision of the department to bring it into compliance with this section.

(d) Injunction. Upon petition of the department any court having equity jurisdiction may grant a temporary or permanent injunction restraining any person from violating or continuing to violate this section or any rules thereunder notwithstanding the existence of other remedies at law.

(12) PENALTIES.

(a) Any person who violates this section or any rule issued thereunder shall forfeit 50 for the first violation and not less than 200 nor more than 500 for any subsequent violation. Any willful violation shall constitute a misdemeanor and any person convicted thereof shall be fined not less than 250 nor more than 5,000 or imprisoned in the county jail not more than one year or both.

(b) It is the duty of each district attorney to whom any violation is reported to cause appropriate actions or proceedings to be instituted for the collection of forfeitures or enforcement of other remedies. In any enforcement action the court may, in addition to other penalties provided in this subsection, order restitution to any party injured by the purchase of fertilizer sold in violation of the law. If the violator is convicted of a crime, restitution shall be in accordance with s. 973.20

HISTORY: History: 1977 c. 418; 1981 c. 57; 1983 a. 189 ss. 121, 329 (20); 1983 a. 410; 1985 a. 147; 1987 a. 398; 1989 a. 31; 1991 a. 39, 112; 1993 a. 16, 417, 492; 1995 a. 4, 176, 227; 1997 a. 27; 1999 a. 9, 32; 2003 a. 33; 2005 a. 25. Cross Reference: See also ch. ATCP 40, Wis. adm. code.

PLYMOUTH CITY, MINNESOTA ORDINANCE § 1170

Section 1170 - Lawn Fertilizer Application Control

1170.01. *Purpose.* The City has conducted studies and has reviewed existing data to determine the current and projected water quality of various lakes within its community. The data indicates that lake water quality may be maintained and improved if the City is able to regulate the amount of lawn fertilizer and other chemicals entering the lakes as a result of storm water runoff or other causes. The purpose of this ordinance is to define regulations which will aid the City in managing and protecting its water resources which are enjoyed by its residents and other users.

1170.02. *Definitions.* For the purpose of this section, certain terms and words are defined as follows:

“Commercial Applicator” is a person who is engaged in the business of applying fertilizer for hire.

“Fertilizer” means a substance containing one or more recognized plant nutrients that is used for its plant nutrient content and designed for use or claimed to have value in promoting plant growth. Fertilizer does not include animal and vegetable manures that are not manipulated, marl, lime, limestone, and other products exempted by Rule by the Minnesota Commissioner of Agriculture.

“Noncommercial Applicator” is a person who applies fertilizer during the course of employment, but who is not a commercial lawn Fertilizer applicator.

“Pesticide” means a substance or mixture of substances intended to prevent, destroy, repel, or mitigate a pest, and a substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

1170.03. *Regulations for Commercial Lawn Fertilizer Applicators.*

Subdivision 1. *License Required.* No person, firm, corporation or franchise shall engage in the business of commercial lawn fertilizer applicator within the City unless a license has been obtained from the City Manager or a designee as provided herein.

Subd. 2. *License Application Procedure.* Applicants for a commercial lawn fertilizer applicator license shall be submitted to the City Manager or a designee. The application shall consist of the following:

(a) *Application Form.* Application forms shall be provided by the City and shall include the following instructions:

(1) Name, address and telephone number of applicant and any individuals authorized to represent the applicant.

(2) Description of lawn fertilizer formula proposed to be applied on lawns within the City.

(3) A time schedule for application of lawn fertilizer and identification of weather conditions acceptable for lawn fertilizer application.

(b) *Product Material Safety Data Sheet.* A copy of Material Safety Data Sheet, including product chemical analysis of the intended lawn fertilizer, shall be submitted to the City along with the initial application for a license, and, thereafter, at least seven days before fertilizer composition changes are implemented.

(c) *Minnesota State Licenses.* A copy of all licenses required of the applicant by the State of Minnesota regarding the application of pesticides and fertilizers.

(d) *License Fee.* The license fee as established in Chapter 10 of the Plymouth City Code. The license shall expire on the 31st day of December. The license fee shall not be prorated.

Subd. 3. *Conditions of License.* Commercial lawn fertilizer applicator licenses shall be issued subject to the following conditions which shall be specified on the license form:

(a) *Random Sampling.* Commercial lawn fertilizer applicators shall permit the City to sample any commercial lawn fertilizer applications to be applied within the City at any time after issuance of the initial license.

(b) *Possession of License.* The commercial lawn fertilizer license, or a copy thereof, shall be in the possession of any party employed by the commercial lawn fertilizer applicator when making lawn fertilizer applications within the City.

(c) *Possession of Product Material Safety Data Sheet.* A copy of product Material Data Safety Sheet of the lawn fertilizer used shall be in the possession of any party employed by the commercial lawn fertilizer applicator when making lawn fertilizer applications within the City.

(d) *State Regulations.* Licensee shall comply with the provisions of the Minnesota Fertilizer and Soil Conditioner Law as contained in Minnesota Statutes Sections 17.711 through and including 17.729 and amendments thereto. The licensee shall also comply with the provisions of the Pesticide Control as contained in the Minnesota Statutes Chapter 18B.

1170.04. *General Regulations.*

Subdivision 1. *Time of Application.* Neither commercial applicators or noncommercial applicators may apply lawn fertilizer when the ground is frozen or

when conditions exist which will promote or create runoffs.

Subd. 2. *Sample Analysis Cost.* The cost of analyzing fertilizer samples taken from commercial applicators shall be paid by the commercial applicators if the sample analysis indicates that phosphorus content exceeds the levels authorized herein.

Subd. 3. *Fertilizer Content.* No person, firm, corporation, franchise, or commercial or noncommercial applicator, including homeowners or renters, shall apply any law fertilizer, liquid or granular, within the City of Plymouth which contains any amount of phosphorous or other compound containing phosphorous, such as phosphate, except:

- (a) the naturally occurring phosphorous in unadulterated natural or organic fertilizing products such as yard waste compost;
- (b) or as otherwise provided in Section 1170.05.
(Ord. 99-10; 04/20/99)

Subd. 4. *Impervious Surfaces and Drainage Ways.* No person shall apply fertilizer to impervious surfaces, areas within drainage ditches, or waterways.

Subd. 5. *Buffer Zone.* Fertilizers and pesticides shall not be applied:

- (a) to any established natural buffer zones as outlined in City Wetland Ordinance No. 95-2;
- (b) below the Ordinary High Water lines as established by the Minnesota Department of Natural Resources; or
- (c) within ten (10) feet of any wetland or water resource.

Subd. 6. *Warning Signs for Pesticide Application.* All commercial or noncommercial lawn fertilizer applicators who apply pesticides to turf areas must post or affix warning signs on the property where the pesticides are applied. The warning signs shall comply with the following criteria and contain the following information:

- (a) The warning signs must project at least eighteen (18) inches above the top of the grass line. The warning signs must be of a material that is rain resistant for at least a forty-eight (48) hour period and must remain in place up to forty-eight (48) hours from the time of initial application.
- (b) The following information must be printed on the warning signs in contrasting colors and capitalized letters measuring at least one-half inch (1/2”), or in another format approved by the Minnesota Commissioner of Agriculture. The signs must provide the following information:

(1) The name of the business, entity, or person applying the pesticide; and

(2) The following language: “This area chemically treated. Keep children and pets off until (date of safe entry)” or a universally accepted symbol and text approved by the Minnesota Commissioner of Agriculture as recognized as having the same meaning or intent as specified in this subparagraph. The warning signs may include the name of the pesticide used.

(c) The warning sign must be posted on a lawn or yard between two (2) feet and five (5) feet from the sidewalk or street. For parks, golf courses, athletic fields, playgrounds, or other similar recreational property, the warning signs must be posted immediately adjacent to areas within the property where pesticides have been applied and at or near the entrance to the property.

1170.05. *Exemption to Phosphorous Requirement.* The prohibition against use of fertilizer containing any quantity of phosphorous under Section 1170.04 shall not apply to:

(a) newly established or developed turf and lawn areas during first growing season; or

(b) turf and lawn areas which soil tests confirm are below phosphorous levels established by the University of Minnesota Extension Services. The lawn fertilizer application shall not contain an amount of phosphorous exceeding the amount of phosphorous and the appropriate application rate recommended in the soil test evaluation.

Phosphorus applied as lawn fertilizer pursuant to the aforementioned exemptions shall be watered into the soil where it is immobilized and generally protected from loss by runoff.

Any person, firm corporation, franchise, or commercial or noncommercial applicator, including a homeowner or renter, shall notify the City at least 24 hours prior to applying lawn fertilizer containing phosphorous of the reason for using fertilizer containing phosphorous and the amount of phosphorous contained in the lawn fertilizer to be applied.

(Ord. 99-10; 04/20/99)

1170.06. *Penalty.* Any person violating this Chapter shall be guilty of a petty misdemeanor. The City may revoke a commercial applicator’s license for repeat violations of this Chapter.

(Ord. 95-46, 09/05/95)

1170.07. *Sale and Display of Lawn Fertilizer.* No person, firm, corporation, franchise, or commercial establishment shall sell or display for sale any lawn fertilizer, liquid or

granular, within the City of Plymouth that contains any amount of phosphorous or other compound containing phosphorous, such as phosphate, unless:

- (a) Phosphorous-free fertilizer is also available for sale.
- (b) Phosphorous-free fertilizer and fertilizer with phosphorous are separately displayed with each display being clearly marked as to whether or not the fertilizer contains phosphorous.
- (c) Displays of phosphorous-free fertilizer are of equal or greater size and prominence.
- (d) A sign or brochure is on prominent display next to any fertilizer display explaining the City of Plymouth's regulations concerning the use of fertilizer with phosphorous.

(Ord. 2002-26, 07/07/2002)

