## **Municipal Pesticide Regulation:**

## **Guidance for New Jersey Municipalities**

[DRAFT 20 June 2008]



Prepared by Stony Brook-Millstone Watershed Association June 2008\*

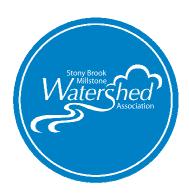
<sup>\*</sup> This document is provided for informational purposes only and is not intended to substitute for formal legal advice. Municipalities considering adopting any of the regulatory practices or ordinances discussed herein should seek competent legal and technical counsel.

## The Stony Brook-Millstone Watershed Association

Since 1949, our member-supported organization has worked on behalf of local residents to protect, preserve and enhance our local environment. We are dedicated to caring for the integrity of the natural ecosystems of the 265-square miles of central New Jersey drained by the Stony Brook and the Millstone River. We focus on environmental education, watershed stewardship and water resource advocacy – helping present and future generations understand the wonders and workings of the natural world we are helping to preserve on their behalf.

We are headquartered on an 860-acre nature reserve in Hopewell Township (Mercer County) that includes a community supported organic farm, nature center, and a 14-mile trail system that leads visitors through our woodlands, wetlands, and fields.

Many activities within our watershed affect the quality of streams, air, wetlands, groundwater, meadows and forests. By changing how we carry out these activities, we can improve our environment and our quality of life. So whether at home, work or play, we can all make a difference.



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## Introduction and background

Pesticides<sup>1</sup> are ubiquitous contaminants of the nation's streams. In a ten-year study conducted under the National Water Quality Assessment (NAWQS), the US Geological Survey found:

Pesticides or their degradates were detected in one or more water samples from every stream sampled. One or more pesticides or degradates were detected in water more than 90 percent of the time during the year in agricultural streams, urban streams, and mixed-land-use streams.... Undeveloped streams had one or more detectable pesticides or degradates 65 percent of the time." ("Pesticides in the Nation's Streams and Ground Water, 1992–2001," circ. 1291 (USGS 2006)) <sup>2</sup>

Even pesticides that are no longer used persist in the environment. The USGS study found that "Organochlorine pesticides (such as DDT) and their degradates and byproducts were found in fish or bed-sediment samples from most streams in agricultural, urban, and mixed-land-use settings—and in more than half the fish samples from streams draining undeveloped watersheds."

Pesticides are also found frequently in groundwater. According to the study, "more than half of the shallow wells sampled in agricultural and urban areas, and 33 percent of the deeper wells that tap major aquifers... contained one or more pesticides or degradates."

The presence of pesticides in waterways impairs their biological function. Pesticides found in the USGS study frequently occur at concentrations that exceed benchmarks for both aquatic-life and fish-eating wildlife. Additionally, pesticides can occur (though less frequently) in drinking water sources at concentrations that exceed human health benchmarks.

Pesticides can have significant negative effects on biodiversity as the lethal direct effects of the chemicals on target or nontarget organisms have indirect consequences on other organisms within the community.<sup>3</sup>

Although pesticides are applied directly to water bodies (e.g. mosquito spraying) most pesticides that end up in the streams have been applied to land surfaces and carried to streams by stormwater runoff and groundwater percolation. (The lesser presence of pesticides in groundwater found in the USGS study suggests that runoff is the predominant mode of transport.) Agricultural, lawn and garden pesticides are typically applied at a rate sufficient to cover a specified land area.

<sup>&</sup>lt;sup>1</sup> Although "pesticides" is sometimes defined as agents that are used to kill animal pests (especially insects and rodents), the term as employed in regulations (and as it is understood commonly) includes herbicides, algicides and fungicides (plant-, algae- and fungus – killers). Within this document it is used with the more inclusive definition.

<sup>&</sup>lt;sup>2</sup> This study is the source for additional statements quoted in the first three paragraphs. Summarized, with full report pdf linked, at http://pubs.usgs.gov/fs/2006/3028/.

<sup>&</sup>lt;sup>3</sup> E.g., Relyea, R.A. (2005) The impact of insecticides and herbicides on the biodiversity and productivity of aquatic communities. Ecol. Appl. 15:618-627

This guidance document focuses on protecting water quality from degradation by pesticide contamination. Water quality is essential not only for protection of biodiversity but also for human health and welfare. Indeed access to clean and safe water is recognized as a basic human right.<sup>4</sup> The well-being of the human species is inextricably bound up with that of a sustainable, diverse aquatic and terrestrial biota – a diversity which has already been substantially impaired by human activity, threatening the future of life as we know it. <sup>5</sup>

## Regulatory regime

Federal regulation

Pesticides are regulated by federal, state and (optionally) local authorities. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the US Environmental Protection Agency (EPA) registers pesticides for use in the US.<sup>6</sup> However, "The fact that a pesticide is registered by the EPA does not mean that it is safe; it simply means that standards have been established to minimize the risks associated with its use."

## State and County regulation

After EPA registers a pesticide, states can register pesticides under their own laws, which may be more stringent than FIFRA.

In New Jersey, pesticide registration is conducted by the New Jersey Department of Environmental Protection (DEP) under the Pesticide Control Code, N.J.A.C. 7:30. The Pesticide Control Act of 1971 (NJSA 13:F-1ff) states that "pesticides have been of value in preventing the outbreak of diseases and insuring bountiful production of agricultural crops, however, indiscriminate use of pesticides in this State would constitute a serious threat to the environment; and that this threat can be eliminated only by the adoption and enforcement of regulations governing the sale, use and application of all pesticides." (NJSA13:F-2). The statute charges the DEP with "prohibiting, conditioning and controlling the sale, purchase, transportation, labeling, use and application, or any

http://www.who.int/water\_sanitation\_health/rtwrev.pdf; http://www.righttowater.org.uk/code/General-Comment-15.pdf . However the international community has not yet affirmed this right. See *Water as a Human Right?* IUCN- Environmental Law and Policy paper No. 51;

http://www.iucn.org/themes/law/pdfdocuments/EPLP51EN.pdf and see Amnesty International, "Public Statement on Human Right to Water,"

http://www.amnesty.org/fr/library/asset/IOR10/002/2003/en/dom-IOR100022003en.html.

<sup>&</sup>lt;sup>4</sup> The World Health Organization and the UN Committee on Economic, Social and Cultural Rights are several organizations that have recognized the human right to water.

<sup>&</sup>lt;sup>5</sup> See generally *Ecosystems and Human Well-Being: Synthesis*, Millennium Ecosystem Assessment (2005), http://www.millenniumassessment.org/documents/document.356.aspx.pdf

<sup>&</sup>lt;sup>6</sup> Other federal laws that address pesticide use include the Federal Food, Drug, and Cosmetic Act (FFDCA), which authorizes EPA to set levels for pesticides used in or on foods or animal feed, and the Endangered Species Act, which prohibits any action that can adversely affect an endangered or threatened species or its habitat. FIFRA and FFDCA were amended significantly by the Food Quality Protection Act of 1996, which toughened safety standards.

<sup>&</sup>lt;sup>7</sup> Citizens' Guide to Pesticide Notification Laws in New York State, November 2000, http://www.oag.state.ny.us/environment/pesticide\_guide.html

thereof, of pesticides which cause or may tend to cause adverse effects on man or the environment" (NJSA 13:F-4).

In addition to registering pesticides for use in the state the DEP issues licenses for the sale or application of pesticides. The department also requires permits for aquatic pesticide application to any "waters of the State" or on aquatic sites. Additionally, mosquito control pesticide application requires a specific DEP permit as well as a County Mosquito Control Agency inspection. Commercial, but not private, applications of turf pesticides at residences, industrial and commercial buildings, golf courses, schools and parks trigger extensive notification requirements. Other DEP regulations address pesticide worker safety, pesticide storage and disposal, and other issues. School pesticide application is treated specially under a mandatory Integrated Pest Management (IPM) program.

The DEP has been gathering information on certain pesticide uses since 1985. Commercial applicators, and private applicators using pesticides on agricultural products, are required to retain records and to report usage to the state upon request. The DEP regularly compiles data on the amount and type of pesticides and makes this data available in summary form to the public, broken down by county and (for agricultural and aquatic pesticides) watershed management area.

## Municipal authority to regulate

New Jersey municipalities are not expressly authorized by state law to regulate the use and application of pesticides. However, authority may be found, in the first instance, in the general police power, in order to protect the public health and welfare. <sup>8</sup> Municipalities may also enact regulations concerning the use of municipal-owned land such as parks. Municipal authority to regulate pesticide use and application to protect and improve water quality through land use regulation may also be found in the Municipal Land Use Law<sup>10</sup>.

Pre-emption of municipal authority to regulate

## No federal pre-emption

Despite the extensive federal, state and county-level regulation of pesticides, municipalities in New Jersey retain their authority to regulate pesticides. The US

<sup>8</sup> "Any municipality may make, amend, repeal and enforce such other ordinances, regulations, rules and bylaws not contrary to the laws of this state or of the United States, as it may deem necessary and proper for the good government, order and protection of persons and property, and for the preservation of the public health, safety and welfare of the municipality and its inhabitants, and as may be necessary to carry into

effect the powers and duties conferred and imposed by this subtitle, or by any law. "NJSA 40:48-2 <sup>9</sup> "The governing body of every municipality may make, amend, repeal and enforce ordinances to:.. Manage, regulate and control the finances and property, real and personal, of the municipality." NJSA 40:48-1

<sup>&</sup>lt;sup>10</sup> The MLUL permits a zoning ordinance to "regulate the nature and extent of the use of land for trade, industry, residence, open space or other purposes" (N.J.S.A. 40:55D-65(a)) and to "[d]esignate and regulate areas subject to flooding" (N.J.S.A. 40-55D-65(e).

Supreme Court held in 1991 that FIFRA does not pre-empt local governments from regulating pesticide use, but held open the authority of states to restrict local authority. <sup>11</sup>

## No state pre-emption in New Jersey

New Jersey law specifically rejects both pre-emption and supercession of local authority. But any local ordinances must be approved by the DEP:

"No ordinances of any governing body of a municipality or county or board of health more stringent than this act [Pesticide Control Act of 1971] or any rules or regulations promulgated pursuant thereto shall be superseded by this act. Nothing in this act or in any rules or regulations promulgated thereto shall preclude the right of any governing body of a municipality or county or board of health, subject to the approval of the department, to adopt ordinances or regulations more stringent than this act or any rules or regulations promulgated pursuant thereto." (NJSA 13:1F-13)

## Constraints on municipal regulation

## **DEP** approval

The DEP interprets the no-pre-emption provisions, NJSA 13:1F-13, to require than any ordinance to be approved by the DEP *must* be *more stringent* than the state law, rules or regulations, *and* that it must be *consistent* with a "statewide scheme for regulating pesticides."

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Wisconsin Public Intervenor v Ralph Mortier, 501 U.S. 597 (1991). The Court noted, "As we have made plain, the statute does not expressly or impliedly preclude regulatory action by political subdivisions with regard to local use. To the contrary, FIFRA implies a regulatory partnership between federal, state, and local governments." The Court, however also stated that "Indeed, the more plausible reading of FIFRA's authorization to the States leaves the allocation of regulatory authority to the 'absolute discretion" of the States themselves, including the option of leaving local regulation of pesticides in the hands of local authorities." In response to pesticide industry campaigns, a number of states adopted laws restricting local regulatory authority to regulate pesticides. See factsheet at www.beyondpesticides.org/states/. (The factsheet states that New Jersey is a pre-emption state because of the requirement for DEP approval but this is manifestly not true as detailed in the text following.)

<sup>&</sup>lt;sup>12</sup> The second criterion, which is declared DEP policy of interpreting the statute (letter to SBMWA Oct. 2006), does not appear in the statute itself, but presumably refers to the principle of pre-emption doctrine that a local law may not conflict with state law. Under New Jersey statutory law, "Notwithstanding any other provision of law, the local governmental units of this State may neither enact nor enforce any ordinance or other local law or regulation conflicting with, or preempted by, any provision of this code or with any policy of this State expressed by this code, whether that policy be expressed by inclusion of a provision in the code or by exclusion of that subject from the code." N.J.S.A. 2C:1-5(d). As stated by the New Jersey Supreme Court, "State legislation preempts a municipal zoning ordinance when the ordinance "expressly forbids something which is expressly authorized by statute or permits something which a statute expressly proscribes." "Bubis v. Kassan, 184 N.J. 612 (2005) quoting Tumino v. Long Beach Tp., 319 N.J. Super. 514, 520 (App. Div. 1999). Municipal action is preempted where it conflicts with state law or stands "as an obstacle to the accomplishment" of a legislative objective, where state law is intended to be exclusive, where the subject matter requires uniformity, or where a pervasive scheme of state regulation precludes local regulation of the subject. Jordan v. Harvey, (381 N.J. Super. 112 (App. Div 2005), citing Overlook Terrace Mgmt. Corp. v. Rent Control Bd. of W. New York, 71 N.J. 451, 461-62 (1976) (quoting Hines v. Davidowitz, 312 U.S. 52, 67-68, 61 S. Ct. 399, 404, 85 L. Ed. 581, 587 (1941)).)]

In the decades since the adoption of the state law, municipalities have been relatively shy about enacting pesticide regulation. Only 12 have received approval from the DEP, the first in 1983 and the last in 1986.

## Right to Farm Act

Although the Pesticide Control Act does not pre-empt or supersede local authority, specific state laws may affect the scope of regulation. In particular the Right to Farm Act may limit the *application* of municipal laws to commercial farmers. The Right to Farm Act is intended to protect commercial farmers from nuisance action, including municipal ordinances that regulate nuisances. Section 4:1C-9 states:

"Notwithstanding the provisions of any municipal or county ordinance, resolution, or regulation to the contrary, the owner or operator of a commercial farm, located in an area in which, as of December 31, 1997 or thereafter, agriculture is a permitted use under the municipal zoning ordinance and is consistent with the municipal master plan, or which commercial farm is in operation as of the effective date of P.L.1998, c.48 (C.4:1C-10.1 et al.), and the operation of which conforms to agricultural management practices recommended by the committee ... or whose specific operation or practice has been determined by the appropriate county board, or in a county where no county board exists, the [State] committee, to constitute a generally accepted agricultural operation or practice, and all relevant federal or State statutes or rules and regulations adopted pursuant thereto, and which does not pose a direct threat to public health and safety may:

A municipality is not precluded from adopting more stringent law in a field that the legislature occupies if the legislature has not intended to occupy the field fully, so long as the local law does not conflict with the state law's primary purpose (e.g., ""Absent a showing of an intent to totally pre-empt, a municipality pursuant to its delegated powers can deal with specific local problems by expanding control in that area so long as there is no conflict with the legislative proscription." Coast Cigarette Sales et. al. v. City of Long Branch, et. al. 121 N.J.Super. 439, 446 (Law Div. 1972)). State law may prescribe minimum standards that local jurisdictions are free to exceed. "In Township of Chester v. Panicucci, 62 N.J. 94, 299 A.2d 385 (1973), we held that a state law prohibiting hunters from possessing or discharging firearms within 300 feet of certain dwellings merely expressed "a declaration of statewide policy of minimum regulation," and hence, did not preempt a more stringent municipal gun control ordinance. Although the statute and ordinance overlapped, we found no preemption because we concluded that the Legislature did not intend to prohibit complementary local legislation." State v Crawley, 90 NJ 241 (1982), at 249.

The declared intent of the Pesticide Control Act is to "eliminate" the "serious threat to the environment" that would be caused by "the indiscriminate use of pesticides" by the "adoption and enforcement of regulations governing the sale, use and application of all pesticides." (N.J.S.A. 13:1F-2). So it would appear that local laws governing the sale use or application of pesticides in order to decrease threats to the environment address the same objective as the State.

Note, also that New Jersey is one of the few states that specifically authorize local laws; most do the opposite.

.... e. Control pests, predators and diseases of plants and animals;" [emphasis added]

The statute thus vests in the County Agricultural Boards and State Agricultural Development Committee the authority "to make the appropriate decisions in respect of whether the operation of a commercial farm implicates agricultural management practices, and, if so, whether those practices affect or threaten public health and safety." Township of Franklin v. David den Hollander et als., 172 N.J. 147, 796 A.2d 874 (2002) (http://lawlibrary.rutgers.edu/decisions/supreme/a-12-01.opn.html). Thus when a municipal regulation impinges on a commercial farmer's activities, the regulation may be validly applied if the affected activity is not an "agricultural management practice" as defined by the CAB/SADC, or, even if it is, if the practice affects or threatens public health or safety which the regulation addresses. (Note also the requirement that the practice must be in conformity with federal and state law and regulation.)

While regulation of pesticides has not been addressed by the SADC, other regulations affecting public health or safety such as noise, have been <sup>13</sup>. In the decision quoted above the New Jersey Supreme Court noted that "a fact-sensitive inquiry will be essential in virtually every case." For example the SADC upheld the application of a township's noise control ordinance to a sawmill where "the manner in which [the farmer] operates the sawmill poses a direct threat to the public health and safety of his neighbors"; the SADC recommended the adoption of performance standards that the operation must comply with to obtain Right to Farm protection. <sup>14</sup>

To avoid any potential conflict a municipality might choose to exempt commercial farming from the scope of a pesticide ordinance, but the fact-based dispute resolution regime makes that approach unnecessary. (The ordinance's application, not its validity, would be at issue.)

## Options for municipal regulation<sup>15</sup>

## *Notification requirements*

One of the most commonly enacted is a requirement of advance notification of the application of a pesticide to persons in the vicinity of the site. Such notification could be required in circumstances not covered by the state law (such as where non-agricultural pesticide is not being applied by a commercial applicator), or it could add notifications in circumstances already covered. The type of notification can vary from newspaper ads, to signage, to personal (mail/phone) notice. Notification may be triggered by any application or by certain types (e.g. aerial application).

<sup>&</sup>lt;sup>13</sup> see http://www.nj.gov/agriculture/sadc/rtfprogram/conflictres/formal/decisions.html

<sup>14 .</sup>http://www.nj.gov/agriculture/sadc/rtfprogram/conflictres/formal/rtfdecamorosi.pdf

<sup>&</sup>lt;sup>15</sup> In New Jersey it is a prerequisite for the legitimacy of any local land use ordinance that it must effectuate the municipality's master plan, so a municipality should ensure that the goals in the master plan include those which the ordinance is intended to achieve. For example if the ordinance's objectives include improving water quality by reducing pesticides, the Master Plan should include a related goal.

For example the Township of Old Bridge (Middlesex County) adopted an ordinance in 1985 that requires notification by newspaper ad, where a pesticide will be applied a community-wide or area-wide basis (greater than three acres under the control of one person or under a governmental program). The ad must state the brand of pesticide and its active ingredients, among other things. Similar ordinances based on the same model have been adopted in the townships of West Milford (Passaic), Vernon (Sussex), Hanover (Morris), and the boroughs of Bernardsville, Cresskill and Tenafly.

Evesham Township (Burlington) requires registration of aerial spraying, as does Cresskill.

Cresskill's ordinance further provides that any individual may request to be personally notified of any pesticide application. (Ord. No. 89-6-1009) (note: not officially approved by DEP.)

In addition to requiring personal notification in the same manner as Cresskill, the Borough of Medford Lakes requires homeowners or tenants to personally notify owners of property adjacent to the site.

Municipalities may wish to consider broader notification laws. One such option would be to require individual property owners to provide notification of pesticide use. For example, the state of New York authorizes local (county) laws that not only require commercial applicators to provide written notice to occupants of dwellings within 150 feet of the application site, but also require persons applying pesticides on their own property (if greater than 100 square feet) to post lawn signs.

Notification laws could also require the person to provide information to the municipality of the amount and type of pesticide applied. Tracking the use of pesticides, especially on a cumulative basis, can assist a municipality in, for example, assessing the efficacy of pesticide reduction programs, tracing the sources of pesticides found in sampling programs, assessing cumulative impact of pesticide applications, and assessing outreach efforts.

Prohibitions on certain applications.

Evesham Township (Burlington) prohibits nonagricultural aerial spraying of pesticides other than microbial insecticides. (Ord. No. 29-9-84).

Aerial spraying is prohibited in several towns in Maine. 17

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<sup>&</sup>lt;sup>16</sup> See http://www.oldbridge.com/.

<sup>&</sup>lt;sup>17</sup> See list at http://www.maine.gov/agriculture/pesticides/pdf/municipal\_list.pdf. Maine's law states: "It is the policy of the State to work to find ways to use the minimum amount of pesticides needed to effectively control targeted pests in all areas of application. The agencies of the State involved in the regulation or use of pesticides shall promote the principles and the implementation of integrated pest management and other science-based technology to minimize reliance on pesticides while recognizing that outbreaks of disease, insects and other pests will necessitate fluctuations in pesticide use. These agencies, in cooperation with

## Outright or zone-specific prohibitions

Nothing in the state statute directly addresses municipal authority to prohibit the use of pesticides entirely, either throughout the municipality or in environmentally sensitive zones. Such an ordinance would clearly be "more stringent" than the state statute. It is certainly arguable that such an ordinance would be consistent with a state scheme regulating pesticides. It would effectuate the state legislature's policy findings that "indiscriminate use of pesticides in this State would constitute a serious threat to the environment; and ...this threat can be eliminated only by the adoption and enforcement of regulations governing the sale, use and application of pesticides."

## Examples of such ordinances in other states include:

The town of Owl's Head, Maine prohibits application of herbicides. The town of Castine, Maine prohibits pesticide application within 300 feet of a water supply well and nonresidential pesticide use within a source water protection zone requires site plan approval. The Town of Brunswick, Maine prohibits non-residential pesticide use, as well as application within 150 feet of a stream, within an aquifer protection zone. Other towns in Maine prohibit use of herbicides or pesticide in specific zones such as woodlands or shorelands.<sup>20</sup>

Outside the US, the City of Toronto's ban on the outdoor use of pesticides on public and private property was upheld by Canada's Supreme Court in 2005. To the date of this publication, over 145 Canadian municipalities have banned the use of pesticides, as has the Province of Quebec.<sup>21</sup>

By analogy with the DEP's Fertilizer Application Model Ordinance<sup>22</sup>, one variation of an outright prohibition would be a prohibition on the application of pesticides under circumstances that would contribute most directly to adverse water quality (e.g. during a runoff event, or within stream corridors).

## Integrated Pest Management (IPM) regulations

## Background

Integrated Pest Management is a set of practices that seek to minimize the use of pesticides, so as to reduce harmful effects on people and the environment. IPM

private interest groups, shall work to educate pesticide users and the general public in the proper use of pesticides and to determine other actions needed to accomplish the state policy. "Title 22, Ch. 258-A, Sec. 1471-X of Maine Statutes.

<sup>&</sup>lt;sup>18</sup> Pesticide Control Act of 1971 (NJSA Title 13, Section 13:1F-2)

<sup>&</sup>lt;sup>19</sup>A municipality could find that pesticides are degrading the water quality of its streams, and that restricting the application of pesticides is the best way to address the issue. For example it could be said that merely restricting the use of pesticides by a registration and notification scheme coupled with school IPM (the extent of NJDEP's regulations) is demonstrably inadequate to prevent degradation in water quality given the findings of the USGS survey. Additional sampling of streams within the municipality could provide a further factual basis for regulation.

<sup>&</sup>lt;sup>20</sup> See ordinances referenced in list cited above, fn 17.

<sup>&</sup>lt;sup>21</sup> Private Property Pesticide By-laws In Canada, http://www.flora.org/healthyottawa/BylawList.pdf
<sup>22</sup>http://www.state.nj.us/dep/watershedmgt/DOCS/TMDL/Fertilizer%20Application%20Model%20Ordinan ce.pdf

emphasizes alternative approaches such as preventive programs and nontoxic substances. "IPM means responding to pest problems with the most effective, least-risk option."; IPM does not prohibit pesticide use, but pesticide applications are "always the last resort."<sup>23</sup>

IPM uses a four-tiered approach to managing pests:

## \* Set Action Thresholds

Before taking any pest control action, IPM first sets an action threshold, a point at which pest populations or environmental conditions indicate that pest control action must be taken. Sighting a single pest does not always mean control is needed. The level at which pests will either become an economic threat is critical to guide future pest control decisions.

## \* Monitor and Identify Pests

Not all insects, weeds, and other living organisms require control. Many organisms are innocuous, and some are even beneficial. IPM programs work to monitor for pests and identify them accurately, so that appropriate control decisions can be made in conjunction with action thresholds. This monitoring and identification removes the possibility that pesticides will be used when they are not really needed or that the wrong kind of pesticide will be used.

### \* Prevention

As a first line of pest control, IPM programs work to manage the crop, lawn, or indoor space to prevent pests from becoming a threat. In an agricultural crop, this may mean using cultural methods, such as rotating between different crops, selecting pest-resistant varieties, and planting pest-free rootstock. These control methods can be very effective and cost-efficient and present little to no risk to people or the environment.

#### \* Control

Once monitoring, identification, and action thresholds indicate that pest control is required, and preventive methods are no longer effective or available, IPM programs then evaluate the proper control method both for effectiveness and risk. Effective, less risky pest controls are chosen first, including highly targeted chemicals, such as pheromones to disrupt pest mating, or mechanical control, such as trapping or weeding. If further monitoring, identifications and action thresholds indicate that less risky controls are not working, then additional pest control methods would be employed, such as targeted spraying of pesticides. Broadcast spraying of non-specific pesticides is a last resort.<sup>24</sup>

<sup>&</sup>lt;sup>23</sup> The IPM Institute of North America, http://www.ipminstitute.org/faq.htm.

<sup>&</sup>lt;sup>24</sup> US EPA, Integrated Pest Management (IPM) Principles, http://epa.gov/pesticides/factsheets/ipm.htm

## School regulations as a model

New Jersey, like many states, requires Integrated Pest Management to be used in public, private and charter schools. The state requires schools to adopt an IPM policy and Model Plan, covering both indoor and outdoor pests. The Model Plan states

"Each school shall consider the full range of management options, including no action at all. Non-pesticide pest management methods are to be used whenever possible. The choice of using a pesticide shall be based on a review of all other available options and a determination that these options are not effective or not reasonable. When it is determined that a pesticide must be used, low impact pesticides and methods are preferred and shall be considered for use first."

## As defined by the NJDEP,

"Integrated pest management' or 'IPM' means a sustainable approach to managing pests by using all appropriate technology and management practices in a way that minimizes health, environmental and economic risks. IPM includes, but is not limited to, monitoring pest populations, consumer education, and when needed cultivation practices, sanitation, solid waste management, structural maintenance, physical, mechanical, biological and chemical controls." NJAC 7:30-1.

NJDEP provides standards for IPM in certain sectors (such as rights of way or mosquito control), which could be used as guidance by municipalities seeking to require IPM in specific applications.<sup>25</sup>

## IPM on municipal property

Many New Jersey state, county and local authorities have enacted policies that require IPM to be used in parks and other public property. Municipalities that have done so include the Boroughs of Princeton, Bernardsville, Belmar, Chatham, Collingswood, Haddonfield, Madison, Pine Beach, and Sayreville; the Townships of Aberdeen, Barnegat Light, Beach Haven, Brick, Burlington, Cinnaminson, Cranford, Dover, East Windsor, Egg Harbor, Evesham, Fairfield, Hazlet, Harvey Cedars, Irvington, Keyport, Livingston, Mansfield, Marlboro, Monroe (Gloucester County), Middletown, Millburn, Morris, Mount Laurel, Mount Holly, Neptune, Princeton, Ship Bottom, Stafford, Surf City, Verona, Wall, Westfield, and Woodbridge; and the Cities of Beverly, Camden, Clifton, Elizabeth, Irvington, New Brunswick, Ocean City, Perth Amboy, and Rahway.<sup>26</sup>

In addition to parks, municipal right-of-ways – such as roadsides, drainage ditches and swales, or bridge culverts – are often maintained using pesticides, and could be made part of a municipal IPM program.

#### "Pesticide-Free Zones"

As noted above, pesticides are *not* prohibited under IPM. Recently a few local authorities have enacted variations on IPM polices that restrict the application of pesticides to

<sup>26</sup> New Jersey Environmental Federation, http://cleanwateraction.org/njef/pesticides.htm

<sup>&</sup>lt;sup>25</sup> http://www.nj.gov/dep/enforcement/pcp/ipm-pubs.htm

extremely limited circumstances or types. Such programs are sometimes referred to as Pesticide-Free Zones. Burlington County established an IPM plan for the county parks system; the policy permits only two types of chemical pesticides to be used in playgrounds, picnic areas and 300-foot-wide corridors around waterways. Clifton, Pine Beach, Hazlet, Dennis, Fair Lawn, Red Bank, East Windsor, Neptune, Brick, Chatham Township, Wall, Irvington and Ocean City have all established PFZs by resolution as has Cape May County.<sup>27</sup> A model resolution (prepared by New Jersey Environmental Federation) is available and has been used by some of these towns. <sup>28</sup>(The model resolution premises action on health as well as environmental risks.)

## Mandatory IPM or PFZ

No municipality in New Jersey has sought DEP approval to require IPM on private property. However, as noted in the discussion above regarding pesticide use bans, there is nothing in the state statute that would appear to prohibit such a regulation, including a PFZ-type variation (for example to protect surface water by restricting use in stream corridors, or stormwater management facilities (broadly defined to include all areas of runoff including public rights of way) or to protect groundwater by restricting use within wellhead protection zones. Municipalities that protect environmentally sensitive areas (such as woodlands, steep slopes, aquifer outcrops) through critical areas ordinances may wish to add pesticide application to restrictions on activities therein.

## Pesticide Reduction Outreach

Municipalities can adopt educational outreach programs encouraging alternatives to routine pesticide use, and/or the use of IPM, on a voluntary basis.

It is sometimes said that banning pesticide use by commercial applicators simply drives pesticide use "underground" by moving the decision to the property owner.<sup>29</sup> Empirical evidence suggests that a dual program of outreach combined with regulation enhances the effectiveness of community efforts to reduce pesticide use; outreach in the absence of regulation reduces pesticide use more modestly. 30 Therefore a social marketing campaign to influence consumer behavior is an invaluable adjunct to regulation or a potential (albeit less effective) alternative.

One example is the PFZ "safe lawn door-hanger" campaign. This is a nationally organized outreach effort to encourage homeowners to reduce pesticide use by distributing doorhangers that uses imagery of green lawns and happy children combined with brief statements such as "You Don't Need to Use Toxic Lawn Chemicals To Have a Safe and Healthy Green Lawn," and provides summary information on the benefits of using nontoxic lawn care as well as contacts for more information.<sup>31</sup>

<sup>&</sup>lt;sup>27</sup> Id.

Available at http://cleanwateraction.org/njef/pfzresolution.pdf.
 E.g. "Rough ride for lawn industry at meeting: Experts debate bylaw banning pesticides," Oct 30, 2006: http://www.yorkregion.com/yr/yr4/Business/Your Money/story/3752389p-4337024c.html

<sup>&</sup>lt;sup>30</sup> "The Impact of By-Laws and Public Education Programs on Reducing the Cosmetic/Non-Essential, Residential Use of Pesticides A Best Practices Review," The Canadian Centre for Pollution Prevention /Cullbridge Marketing and Communications (March 2004),

http://www.c2p2online.com/documents/Jay Kassirer.pdf.

<sup>&</sup>lt;sup>31</sup> http://www.beyondpesticides.org/pesticidefreelawns/resources/index.htm

Stony Brook-Millstone Watershed Association's "River-Friendly Program" is another example of the use of outreach to encourage the reduced use of pesticides. The program works cooperatively with municipalities, businesses, golf courses and schools to provide education and guidance on how to reduce the amount of chemicals entering waterways. Participants learn how to improve their land use practices. By going through a certification process, the participants learn about what they have been doing right and where they can improve their stewardship.<sup>32</sup> The program has had demonstrated success in reducing pesticide use.<sup>33</sup>

Municipalities that change pest management practices on municipal property are not only reducing pesticide impact to the environment, they are also modeling behavior that the community should emulate. Among the outreach efforts that seem to have the most effect on reducing pesticide use are the following<sup>34</sup>: engage residents in the process and promote public discussion, even to the point of controversy; combine pesticide reduction with promotion of native plants, xeriscaping, and other natural landscaping practices; measure change by establishing baselines; develop municipal pride in reduced pesticide use; involve retailers and landscape professionals; use social marketing techniques to create effective campaigns.

It is a truism that most people want to "do the right thing." They don't want to pollute, they don't want to harm plants and wildlife, and they don't want to impair the environment. Yet unless these choices are easy to make – so that information on alternatives is easily found and products are reasonably priced and readily available – most people will opt for the easy way out: use a pesticide. Communities that seek to reduce pesticide use to protect the environment must simultaneously promote the idea that it is "the right thing" and remove barriers to changing practices.

See also the City of Toronto's "Reducing Pesticides" initiative.

http://www.toronto.ca/health/pesticides/index.htm

<sup>32</sup> http://www.thewatershed.org/river friendly program.php

<sup>&</sup>lt;sup>33</sup> Johnson & Johnson Skilman reported a reduction in pesticides used from about 2000lb in 2002 to about 600lb in 2005; Janssen Pharmaceutica (Titusville) reported 54%C reduction in pesticide use from 2000-2004. Publications on file at Stony Brook Millstone Watershed Association.

<sup>&</sup>lt;sup>34</sup> See Best Practices Review, footnote 29 above, pp. 15-17.

# Appendix: Sample pesticide ordinances/policies

Township of Old Bridge: example of a community-wide notification ordinance Westchester County NY: example of a neighbor notification law City of Toronto: example of lawn pesticide use restriction Burlington County: example of an IPM resolution for public property

## Township of Old Bridge Community-wide Notification Ordinance http://www.oldbridge.com/

Chapter 355: PESTICIDE CONTROL

[HISTORY: Adopted by the Township Council of the Township of Old Bridge 9-3-1985 by Ord. No. 42-85 (Sec. 19-12 of the 1973 Revised General Ordinances). Amendments noted where applicable.]

## § 355-1. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings:

ACT — The Pesticide Control Act of 1971, as amended, N.J.S.A. 13:1F-1 et seq.

ACTIVE INGREDIENT — Any ingredient which will prevent, destroy, repel, control or mitigate pests or which will act as a plant regulator, defoliant or desiccant.

AGRICULTURAL COMMODITY — Any plant, or part thereof, or animal or animal product, produced by a person (including farmers, ranchers, vineyardists, plant propagators, Christmas tree growers, aquaculturists, floriculturists, orchardists, foresters or other comparable persons) primarily for sale, consumption, propagation or other use by man or animal.

BRAND or BRAND NAME or TRADE NAME — The characteristic designation by words, symbols, name, number or trademark of a specific, particular pesticide or formulation thereof under which the pesticide is distributed, sold, offered for sale, handled, stored, used or transported in the State of New Jersey.

COMMERCIAL PESTICIDE APPLICATOR — Any person (whether or not he is a private applicator with respect to some uses) who uses or supervises the use of any pesticide for any purpose or on any property other than as provided by the definition of "private pesticide applicator."

COMMERCIAL PESTICIDE OPERATOR — Any person who applies pesticides, by equipment other than aerial, under the direct supervision of a certified and registered responsible pesticide applicator.

COMMUNITY-WIDE OR AREAWIDE — Any pesticide application performed on aggregate areas greater than three acres of land which is part of a pest control program administered by a governmental agency or which is contracted for or performed by one person who has control over the use of the land to which the pesticide is applied.

CUSTOMER — Any person who hires a commercial pesticide applicator business to perform an ornamental pest control application utilizing hydraulic spraying equipment operating at a rate greater than 300 pounds per square inch and 10 gallons per minute,

airblast sprayers or aerial application equipment on property owned or controlled by him. For the purposes of this definition, the term "customer" shall include any person who makes such application on property owned or controlled by him.

EPA — The United States Environmental Protection Agency.

ORNAMENTAL — Trees, shrubs and other planting in and around habitations generally but not necessarily located in urban and suburban areas, including residences, parks, streets, retail outlets and industrial and institutional buildings.

PERSON — Includes corporations, companies, associations, societies, firms, partnerships and joint-stock companies, as well as individuals, and shall also include all political subdivisions of this state or any agencies or instrumentalities thereof.

PEST — Any insect, rodent, nematode, fungus, weed or any other form of terrestrial or aquatic plant or animal life or virus, bacteria or other microorganism (except viruses, bacteria or other microorganisms on or in living man or other animals) which is injurious to health or the environment.

PESTICIDE — Includes any substance or mixture of substances labeled, designed or intended for use in preventing, destroying repelling or mitigating any pest or any substance or mixture of substances labeled, designed or intended for use as a defoliant, desiccant or plant regulator, provided that the term "pesticide" shall not include any substance or mixture of substances which the EPA does not consider to be a pesticide.

PESTICIDE APPLICATOR BUSINESS — Any person who, either wholly or in part, holds himself out for hire to apply pesticides in the State of New Jersey.

PRIVATE PESTICIDE APPLICATOR — Any person who uses or supervises the use of any pesticide for purposes of producing any agricultural commodity on property owned or rented by him or his employer or, if applied without compensation, other than trading of personal services between producers of agricultural commodities, on the property of another person.

PROPER ENFORCEMENT PERSONNEL — An official designated by the municipality, subject to approval by the New Jersey Department of Environmental Protection, whose duties are to enforce the rules and regulations promulgated under this chapter.

RESPONSIBLE PESTICIDE APPLICATOR — Any individual who is accountable for the use of a pesticide by himself or any person under his direct supervision.

RESTRICTED USE PESTICIDE — Any pesticide or pesticide use so classified under the provisions of N.J.A.C. 7:30-2 or so classified by the Administrator of the United States Environmental Protection Agency.

STATE REGULATIONS — Pesticide rules and regulations promulgated under the Act and codified in N.J.A.C. 7:30.

TARGET SITE — A specific location, including but not limited to any crop, commodity, object, delineated field or area, or structure or part thereof, that is intended to be treated by a pesticide so that any pests therein or thereon are controlled. This term does not include any similar site which was not a part of the original agreement between the contracting parties even if such site is included on the label or labeling of the pesticide.

USE — Any act of handling or release of a pesticide or exposure of man, property or the environment to a pesticide through acts which include, but are limited to:

Α.

Applying a pesticide, including mixing and loading and any required supervisory action in or near the area of application.

B.

Handling, transporting or storing a pesticide or pesticide container.

 $\mathbf{C}$ 

Disposal actions for a pesticide and/or containers or equipment associated with the pesticide.

§ 355-2. Commercial pesticide operator.

Α.

No person shall engage in the activities of a commercial pesticide operator without having satisfied the applicable requirements established by the New Jersey Department of Environmental Protection and having obtained a valid pesticide operator registration issued by that Department.

В.

Each commercial pesticide operator shall at all times have in his/her possession the valid registration card and shall produce it upon request by proper enforcement personnel. § 355-3. Commercial pesticide applicator.

Δ

No person shall engage in the activities of a commercial pesticide applicator without having satisfied the applicable requirements established by the New Jersey Department of Environmental Protection and having obtained a valid commercial pesticide applicator registration issued by that Department.

В.

Each commercial pesticide applicator shall at all times have in his/her possession the valid registration card and shall produce it immediately upon request by proper enforcement personnel.

C.

Each commercial pesticide applicator must keep records of each application of pesticides in accordance with provisions of state regulations. Such records shall be made available to all proper enforcement personnel.

§ 355-4. Pesticide applicator business.

A.

No person shall engage in the activities of a pesticide applicator business without having satisfied the applicable requirements established by the New Jersey Department of

Environmental Protection and having obtained a valid pesticide applicator business registration issued by that Department. The business registration shall be made immediately available upon request of proper enforcement personnel.

Β.

The pesticide applicator business must keep records of each application of pesticides in accordance with provisions of state regulations. Such records shall be made available to all proper enforcement personnel.

§ 355-5. Private pesticide applicator.

Α

No person shall engage in the activities of a private pesticide applicator without having satisfied the applicable requirements established by the New Jersey Department of Environmental Protection and having obtained a valid private pesticide applicator registration issued by that Department.

B.

The valid registration card shall be made available within 24 hours of the request of proper enforcement personnel.

C.

All private pesticide applicators must keep records of each application of pesticides in accordance with provisions of state regulations. Such records shall be made available to all proper enforcement personnel.

§ 355-6. Storage of pesticides.

No person shall store restricted-use pesticides without first meeting the applicable provisions of state regulations.

§ 355-7. Pesticide equipment.

No person shall add water to any pesticide handling, storage or application equipment via a hose, pump or other equipment unless such hose, pump or other equipment is fitted with an effective valve or device to prevent backflow of pesticides or liquids containing pesticides into water supply systems, streams, lakes or sources of water or other areas, except that such backflow devices or valves are not required when the hose, pump or other equipment is not allowed to contract or fall below the level of the liquid in the handling, storage or application equipment to which water is being added and no other possible means of establishing a backsiphon or backflow exists.

§ 355-8. Safety equipment.

All persons having employees who use, apply, transport or otherwise handle any pesticide shall make available to such employees any necessary and appropriate safety equipment in good working order and shall train such employees in the proper operation of such safety equipment.

§ 355-9. Notification of community-wide or areawide applications.

A.

No person shall apply any pesticide on a community-wide or areawide basis unless prior notification of the proposed application has been given to persons residing in the vicinity of the proposed target site.

(1)

The notification shall be made through advertisement in at least two newspapers having the greatest likelihood of informing the public within the area of application.

(2)

The newspaper notification must be given a maximum of 60 days and a minimum of seven days prior to the proposed application date.

(3)

The notification must contain at least:

(a)

The proposed application date.

(b)

The location of the application.

(c)

The name, address and registration number of the applicator business or the responsible pesticide applicator associated with the application.

(d)

The brand name and active ingredients of the pesticide(s) to be used.

(e)

Application equipment to be used.

(f)

The name, address and phone number of a person who may be contacted and is responsible for supplying updated information on the advertised pesticide applications to those persons requesting it.

(4)

Upon the request by a person residing in the vicinity of the proposed target site to a person designated pursuant to Subsection A(3)(f) above, such designated person shall provide, at a minimum, the following information at least 12 hours prior to the application, except that if a reasonable attempt to provide notice is unsuccessful, an attempt to notify such person, by telephone, shall be made immediately prior to the application.

(a)

The actual time and date of application.

(h)

The actual pesticide to be applied, including the EPA registration number.

(c)

Any precautionary statement(s) on the products' federal registered label.

(5)

The person designated pursuant to Subsection A(3)(f) above shall maintain a record of all telephone calls, attempted and completed, with persons requesting information referred to in Subsection A(4) above and a file of related correspondence. Such record and file shall be made available to the proper enforcement personnel upon request. The minimum information required to be kept on the call record shall include:

(a)

The name and phone number of the person contacted.

(b)

The time and date of the call.

(6)

The person making the application, subject to the notification requirements, shall keep a record of the newspapers in which the advertisement was placed and the dates published.

This information shall be made available to the proper enforcement personnel upon request.

В.

The provisions of this section shall not apply to any pesticide application which is made for the purpose of producing an agricultural commodity, mosquito larviciding applications or the application of granular formulations in nonresidential areas.

§ 355-10. Notification of ornamental applications.

A.

No person shall cause or allow an outdoor ornamental pest control application utilizing hydraulic spraying equipment, operating at a rate greater than 300 pounds per square inch and 10 gallons per minute, airblast sprayers or aerial application equipment on property owned or controlled by him unless the following procedures have been implemented:

(1)

The customer may obtain copies of notices from the commercial pesticide applicator and shall deliver such notices, at least 48 hours prior to the proposed application, to residents of property adjacent and contiguous to the customer's property, such notice to contain the following information:

(a)

A general statement of the purpose of the notification and procedures to follow to obtain additional updated information.

(b)

The proposed application date(s).

(c)

The location of the application.

(d)

The name, address and registration number of the applicator business or the responsible pesticide applicator associated with the application.

(e)

The brand name and active ingredients of the pesticide(s) to be used.

(f)

The name, address and phone number of the applicator who may be contacted and is responsible for supplying updated information on the proposed pesticide applications to those persons requesting it.

(2)

Upon the request of any resident of property adjacent and contiguous to the customer's property, to the applicator designated above, such designated applicator shall provide, at a minimum, the following information at least 12 hours prior to the application, except that if a reasonable attempt to provide notice is unsuccessful, an attempt to notify such person, by telephone, shall be made immediately prior to the application:

(a)

The actual time and date of application.

(b)

Any precautionary statement(s) on the product's federal registered label.

(3)

The applicator designated above shall maintain a record of all telephone calls, attempted and completed with persons requesting information referred to in Subsection A(2) above,

and a file of related correspondence. Such record and file shall be made available to the proper enforcement personnel upon request. The minimum information required to be kept on the call record shall include:

(a)

The name and phone number of the persons contacted.

(b)

The time and date of the call.

(4)

The customer shall keep a record on file of the notice he provided which may include a copy of the receipt for the certified letter(s), if certified mail is utilized.

(5)

The provisions of this section shall not apply to an additional application made on the same day and in the same locality as an application governed by this section, if the following requirements are satisfied:

(a)

The customer demonstrates to the satisfaction of the local governing authority that he had not hired the applicator more than 48 hours prior to the start of the application governed by this section.

(b)

The customer has personally contacted residents of property adjacent and contiguous to property on which the application is proposed and no objections were raised.

(6)

A waiver of the minimum amount of prior notice required may be granted at the discretion of the local governing authority.

В.

Prior to performing an outdoor ornamental pest control application, subject to the notification provisions, the commercial pesticide applicator shall provide the customer with a written statement outlining the customer's notification responsibilities and the specifics of the proposed application.

C.

The customer may delegate, in writing, his notification responsibilities to the commercial pesticide applicator, provided that the commercial pesticide applicator agrees, in writing, to assume the notification responsibilities as delineated in this chapter.

D.

The commercial pesticide applicator is not responsible for any actions resulting from the failure of the customer to fulfill his notification obligations unless the customer has delegated and the commercial pesticide applicator has assumed the notification responsibilities as stated in Subsection C above.

E.

The provisions of this section shall not apply to any pesticide application which is made for the purpose of producing an agricultural commodity or to any person required to supply advance notification pursuant to the provisions of N.J.A.C. 7:30-10.9.

F.

The provisions of this section shall not apply where the target site is greater than 100 feet from the customer's property line.

§ 355-11. Notification of apiarists.

A.

No person shall make an outdoor application of a pesticide product which has information on its label or labeling noting that the product is toxic to bees, unless such person first notifies, at least 36 hours prior to the application, each apiarist who:

(1)

Desires notification.

(2)

Maintains an apiary which is located within 1/2 mile of the target site.

(3)

Has been registered with the New Jersey Department of Environmental Protection by March 1 of the calendar year in which the applications subject to the notification requirements of this section will occur.

В.

The notification must include the following information:

(1)

The intended date of the application.

(2)

The approximate time of the application.

(3)

The brand name and active ingredient of the pesticide to be applied.

*(*4*)* 

The location of the land on which the application is to be made.

(5)

The name and certified pesticide applicator registration number of the responsible pesticide applicator.

C.

If the application date is changed so that the application will not occur on the intended date specified in the original notification of application but will be conducted during the next consecutive day, notification must be given to the individual apiarist as soon as reasonably possible, but not later than 10:00 p.m. the night prior to the new application date.

D.

If the owner or operator of an apiary does not choose to move, cover or otherwise protect the apiary, the application may be made without delay, provided that such application complies with the pesticide labeling and any provisions of the Act or any rules and regulations promulgated thereunder.

E.

The provisions of this section shall not apply to any person using a pesticide on an aggregate area less than three acres, provided that the application is not made with hydraulic spraying equipment operating at a rate greater than 300 pounds per square inch and 10 gallons per minute, airblast sprayers or aerial equipment.

F.

Any person required to notify apiarists pursuant to the provisions of this section shall not be responsible for notifying any apiarist who cannot be notified because the New Jersey Department of Environmental Protection failed to provide information deemed necessary by the Department for such notification.

G.

The provisions of this section shall not apply to any pesticide application which is made for agricultural purposes, except to the crops within the dates and/or stages as stated below:

Crop Dates

Apples
April 15 to May 15

Pears April 15 to May 15

Strawberries
April 15 to May 15

Blueberries April 15 to May 31

Cranberries
June 15 to August 15

Holly June 1 to June 30

Vince crops (Cucurbits) June 1 to August 31

Sweet corn Flowering stage § 355-12. Violations and penalties.

Any person violating any provision of this chapter shall be subject to the general penalty provisions of Chapter 1, Article II, Penalty. A copy of the report of such enforcement actions will be forwarded to the Bureau of Pesticide Control within the New Jersey Department of Environmental Protection.

## Westchester County (NY) Neighbor Notification Law

## http://www.westchestergov.com/Health/PDF/691%20Pesticide%20Notification.pdf

## Chapter 691 PESTICIDE NOTIFICATION\*

\*Cross references: Pesticide reduction, Ch. 690.

Sec. 691.01. Purpose. Sec. 691.02. Definitions. Sec. 691.21. Notification. Sec. 691.31. Markers. Sec. 691.41. Enforcement. Sec. 691.51. Penalties. Sec. 691.61. Severability.

## Sec. 691.01. Purpose.

The purpose of this law, to be known as the Westchester County Pesticide Notification Law, is to adopt the special notice requirements for commercial and residential applications of pesticides to lawns as established by the State of New York and as set forth in Section 33-1004 of the New York State Environmental Conservation Law.

(Added by L.L. No. 22-2000)

## Sec. 691.02. Definitions.

For purposes of this chapter, the following words shall have the meanings indicated:

- 1. "Abutting property" shall mean any property which has any boundary or boundary point in common with the property on which the pesticide is to be applied.
- 2. "Commercial application" means any application of any pesticide except as defined in private or residential application of pesticides.
- 3. "Dwelling" shall mean any building or structure or portion thereof which is occupied in whole or in part as the home, residence or sleeping place for one (1) or two (2) families.
- 4. "Multiple dwelling" shall mean any dwelling which is to be occupied by or is occupied as the residence or home of three (3) or more families living independently of each other.
- 5. "Multiple dwelling unit" shall mean that portion of a multiple dwelling occupied by one (1) or more persons as the residence or home of such persons.
- 6. "Premises" shall mean land and improvements or appurtenances or any part thereof.
- 7. "Residential lawn application" shall mean the application of general use pesticides to the ground, trees or shrubs on property owned by or

leased to the applicator. For the purposes of this law, the following shall not be considered a residential lawn application:

- a. The application of pesticides for the purpose of producing an agricultural commodity;
- b. The application of pesticides around or near the foundation of a building for the purpose of indoor pest control;
- c. The application of pesticides by or on behalf of agencies, which shall include county departments, and which shall be subject to the visual notification requirements of Section 33-1003 of the New York State Environmental Conservation Law as provided for in section 690.09 of the Laws of Westchester County where such application is within one hundred (100) feet of a dwelling, multiple dwelling, public building or public park; and
- d. The application of pesticides on golf courses or turf farms.

(Added by L.L. No. 22-2000)

### Sec. 691.21. Notification.

- 1. Retail establishments.
  - a. All retail establishments that sell general use pesticides for commercial or residential lawn application shall display in a conspicuous place a sign meeting standards established by the Commissioner of the New York State Department of Environmental Conservation. Such signs shall be placed as close as possible to the place where such pesticides are displayed.
  - b. Such signs shall contain the following information at a minimum:
    - i. A warning notice directing consumers to follow directions on labels;
    - ii. A provision to inform the customer of the posting requirements set forth in section 691.31 1. of this chapter;
    - iii. A recommendation that the customer notify neighbors prior to the application of pesticides so that neighbors may take precautions to avoid pesticide exposure.
- 2. Commercial applications. At least 48 hours prior to any commercial lawn application of a pesticide, the person or business making such application shall supply and post written notice of such application to:
  - a. Occupants of all dwellings on abutting property with a boundary that is within 150 feet of the site of such application; and to
  - b. Owners, owners' agents, or other persons in a position of authority for all other types of premises that are on abutting property with a boundary that is within 150 feet of the site of such application, and
    - i. Owners or owners' agents of multiple family dwellings shall provide this written notice to the occupants of such multiple family dwellings.

- ii. For all other types of premises, owners, owners' agents or other persons in a position of authority shall post such written notice in a manner specified by the Commissioner of the New York State Department of Environmental Conservation.
- 3. Content and form of notices. The content and form of all such written notices shall conform to standards established by the Commissioner of the New York State Department of Environmental Conservation and shall consist of at least the following:
  - a. The address of the premises where the application is to be done;
  - b. The name and telephone number and pesticide business registration number or certified applicator number of the person providing the commercial lawn application;
  - c. The specific date of each pesticide application and two alternative dates to the proposed date of each application if the application on the proposed date is precluded due to weather conditions. The alternative dates shall be consecutive business days to the proposed date;
  - d. The common and scientific name or names of the pesticide or pesticides to be used and the United States Environmental Protection Agency Registration Number or Numbers of the pesticide or pesticides to be applied; and
  - e. A prominent statement that reads:

This notice is to inform you of a pending pesticide application to neighboring property. You may wish to take precautions to minimize pesticide exposure to yourself, family members, pets or family possessions. Further information about the product or products being applied, including any warnings that appear on the labels of such pesticide or pesticides that are pertinent to the protection of humans, animals or the environment can be obtained by calling the National Pesticides Telecommunications Network at 1-800-858-7378 or the New York State Department of Health Center for Environmental Health INFO LINE at 1-800-458-1158.

- 4. *Exceptions to notification.* The prior notification provisions of this section shall not apply to the following:
  - a. The application of anti-microbial pesticides and anti-microbial products as defined by FIFRA in 7 U.S.C. ¤ 136(mm) and 7 U.S.C. ¤ 136g(h)(2):
  - b. The use of an aerosol product with a directed spray, in containers of 18 fluid ounces or less, when used to protect individuals from an imminent threat from stinging and biting insects, including venomous spiders, bees, wasps and hornets. This section shall not exempt from notification the use of any fogger product or aerosol product that discharges to a wide area;
  - c. The use of non-volatile insect or rodent bait in a tamper resistant container;
  - d. The application of a pesticide classified by the United States Environmental Protection Agency as an exempt material under 40 CFR Section 152.25;

- e. The application of a pesticide which the United States Environmental Protection Agency has determined satisfies its reduced risk criteria, including a biopesticide;
- f. The use of boric acid and disodium octaborate tetrahydrate;
- g. The use of horticultural soap and oils that do not contain synthetic pesticides or synergists;
- h. The application of a granular pesticide, where granular pesticide means any ground applied solid pesticide that is not a dust or powder;
- i. The application of a pesticide by direct injection into a plant or the ground;
- j. The spot application of a pesticide, where spot application means the application of pesticide in a manually pressurized or non-pressurized container of 32 fluid ounces or less to an area of ground less than nine square feet;
- k. The application of a pesticide to the ground or turf of any cemetery; and
- I. An emergency application of a pesticide when necessary to protect against an imminent threat to human health; provided, however, that a written declaration has been issued by the New York State or County Commissioner of Health that a public health emergency exists requiring the emergency application of a pesticide during the period of such public health emergency. Prior to making an emergency pesticide application, the person making such application shall:
  - i. Provide the Commissioner of the Westchester County Department of Health, using a form developed by the Commissioner of Health for such purposes that shall minimally include: the name of the person making such application, the pesticide business registration number or certified applicator number of the person making such application, the location of such application, the date of such application, the product name and United States Environmental Protection Agency Registration Number of the pesticide applied and the reason for such application; and
  - ii. Make a good faith effort to supply the written notice required pursuant to subsections 2. and 3. of this section.

(Added by L.L. No. 22-2000)

#### Sec. 691.31. Markers.

- 1. All persons performing residential lawn applications treating an area of more than 100 square feet shall affix markers to be placed within or along the perimeter of the area where pesticides will be applied. Markers are to be placed so as to be clearly visible to persons immediately outside the perimeter of such property. Such markers shall be posted at least 12 inches above the ground and shall be at least four inches by five inches in size.
- 2. The markers required pursuant to this section shall be in place on the day during which the pesticide is being applied and shall instruct persons not to enter the

property and not to remove the signs for a period of at least 24 hours. Such instruction shall be printed boldly in letters at least three-eighths of an inch in height.

(Added by L.L. No. 22-2000)

## Sec. 691.41. Enforcement.

- 1. Westchester County shall have concurrent authority with the State of New York to enforce this Local Law.
- 2. The Commissioner of the Westchester County Department of Health shall promulgate rules and regulations not inconsistent with any other provisions of law specifying procedures for the investigation and processing of alleged violations of this chapter that pertain to persons performing residential lawn applications of pesticides.
- 3. The Westchester County Board of Health shall coordinate with the Westchester County Department of Health to enforce the provisions of this Local Law on behalf of Westchester County, providing, however, that all penalties that shall be assessed after a hearing or providing an opportunity to be heard, as appropriate, shall be as specified in section 691.51 below and shall be payable to Westchester County.

(Added by L.L. No. 22-2000)

## Sec. 691.51. Penalties.

- 1. Civil penalties.
  - a. Commercial and residential lawn applications. Notwithstanding any provision of law to the contrary, an owner or owner's agent of a multiple dwelling, or owner, owner's agent or a person in a position of authority for all other types of premises who violates any provision of this chapter or Section 33-1004(2)(c) of New York State Environmental Conservation Law with respect to written notice of commercial lawn applications, and any person who violates any provision of this chapter or Section 33-1004(3) of New York Environmental Conservation Law with respect to markers for residential lawn applications, shall be issued a written warning at the time of the first violation, and shall also be issued educational materials published by or in accordance with the New York State Department of Environmental Conservation in conjunction with the New York State Health Department. For a second and subsequent violation, such person shall be liable for a civil penalty not to exceed \$100.00, and not to exceed \$250.00 for any subsequent violation.
  - b. Disclosure signs in retail establishments and other violations. Notwithstanding any provision of law to the contrary, any person who violates a provision of this chapter or of New York State Environmental Conservation Law Section 33-1004 regarding disclosure signs in retail establishments, or who violates any rule, regulation or order issued pursuant to this chapter or pursuant to such Section 33-1004 of the Environmental Conservation Law, shall be issued a warning for the first violation, and shall be provided

- seven days to correct such violation. In addition, such person shall be liable for a civil penalty not to exceed \$100.00 for a second violation, and not to exceed \$250.00 for a subsequent violation.
- c. The Commissioner of the Westchester County Department of Health, acting through the County Attorney, may bring suit for collection of any such assessed civil penalty in any court of competent jurisdiction. Such civil penalty may be released or compromised by the Commissioner of the Westchester County Department of Health before the matter has been referred to the County Attorney, and any such penalty may be released or compromised and any action commenced to recover the same may be settled and discontinued by the County Attorney. Any civil penalty assessed by the Westchester County Commissioner of Health under this subdivision shall be reviewable in a proceeding under Article 78 of the New York Civil Practice Law and Rules.
- 2. Criminal penalties for persons providing commercial lawn applications. Any person providing a commercial lawn application who, having the culpable mental states defined in New York State Penal Law Sections 15.05(1) or (2) or 20.20, violates any provision of this chapter or of New York State Environmental Conservation Law Section 33-1004 with respect to commercial lawn applications of pesticides shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine not to exceed \$5,000.00 for each day during which such violation continues or by imprisonment for a term of not more than one year, or by both such fine and imprisonment. If the conviction is for a subsequent offense committed after a first conviction of such person under this paragraph, punishment shall be by a fine not to exceed \$10,000.00 for each day during which such violation continues or by imprisonment for a term of not more than one year, or by both such fine and imprisonment. Prosecution hereunder shall be conducted by the District Attorney consistent with Section 71-0403 of the New York Environmental Conservation Law.

(Added by L.L. No. 22-2000)

## Sec. 691.61. Severability.

If any clause, sentence, paragraph, subdivision, section or part of this chapter or the application thereof to any person, individual, corporation, firm, partnership, entity, or circumstance shall be adjudged by any court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, subdivision, section or part of this chapter, or in its application to the person, individual, corporation, firm, partnership, entity, or circumstance directly involved in the controversy in which such order or judgment shall be rendered.

(Added by L.L. No. 22-2000)

## City of Toronto Pesticide Bylaw

## http://www.toronto.ca/legdocs/municode/1184\_612.pdf

612-1 **2005 - 02 - 16** 

Chapter 612

PESTICIDES, USE OF

§ 612-1. Definitions.

§ 612-2. Restrictions.

§ 612-3. Offences.

[HISTORY: Adopted by the Council of the City of Toronto 2003-05-23 by By-law No. 456-2003.1 Amendments noted where applicable.]

GENERAL REFERENCES

general references 1

Editor's Note: This by-law was passed under the authority of section 130 of the *Municipal Act*, 2001, S.O. 2001, ch. 25. Section 2 of this by-law states that it comes into force 2004-04-01. Property standards — See Ch. 629.

### § 612-1. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

ENCLOSED — Closed in by a roof or ceiling and walls with an appropriate opening or openings for ingress or egress, which openings are equipped with doors which are kept closed except when actually in use for egress or ingress.

HEALTH HAZARD — A pest which has or is likely to have an adverse effect on the health of any person.

INFESTATION — The presence of pests in numbers or under conditions which involve an immediate or potential risk of substantial loss or damage.

PEST — An animal, a plant or other organism that is injurious, noxious or troublesome, whether directly or indirectly, and an injurious, noxious or troublesome condition or organic function of an animal, a plant or other organism. PESTICIDE — Includes:

A. A product, an organism or a substance that is a registered control product under the federal Pest Control Products Act which is used as a means for directly or indirectly controlling, destroying, attracting or repelling a pest or for mitigating or preventing its injurious, noxious or troublesome effects.

B. Despite Subsection A, a pesticide does not include:

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- (1) A product that uses pheromones to lure pests, sticky media to trap pests or "quick-kill" traps for vertebrate species considered pests, such as mice and rats.
- (2) A product that is or contains only the following active ingredients:

## [Amended 2004-05-20 by By-law No. 385-2004]

- (a) A soap;
- (b) A mineral oil, also called "dormant or horticultural oil";
- (c) Silicon dioxide, also called "diatomaceous earth";
- (d) Biological pesticides, including Bt (bacillus thuringiensis) and nematodes; [Amended 2005-02-16 by By-law No. 121-2005]

- (e) Borax, also called "boric acid" or "boracic acid";
- (f) Ferric phosphate;
- (g) Acetic acid;
- (h) Pyrethrum or pyrethrins;
- (i) Fatty acids;
- (j) Sulphur; or
- (k) Corn gluten meal.

## § 612-2. Restrictions.

- A. No person shall apply or cause or permit the application of pesticides within the boundaries of the City.
- B. The provision set out in Subsection A does not apply when pesticides are used:
- (1) To disinfect swimming pools, whirlpools, spas or wading pools;
- (2) To purify water intended for the use of humans or animals;
- (3) Within an enclosed building;
- (4) To control termites;
- (5) To control or destroy a health hazard;
- (6) To control or destroy pests which have caused infestation to property;
- (7) To exterminate or repel rodents;
- (8) As a wood preservative;

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- (9) As an insecticide bait which is enclosed by the manufacturer in a plastic or metal container that has been made in a way that prevents or minimizes access to the bait by humans and pets;
- (10) For injection into trees, stumps or wooden poles;
- (11) To comply with the *Weed Control Act*<sup>2</sup> and the regulations made thereunder; or
- (12) As an insect repellent for personal use.

## § 612-3. Offences.

Any person who contravenes any provision of this chapter is guilty of an offence and, upon conviction, is liable to a fine or penalty provided for in the *Provincial Offences Act*.3

Editor's Note: See R.S.O. 1990, c. W.5.

Editor's Note: This section was passed under the authority of section 425 of the *Municipal Act*, 2001, S.O. 2001, ch. 25, and, under section 61 of the *Provincial Offences Act*, R.S.O. 1990, c. P.33, a person convicted of an offence under this section is liable to a fine of not more than \$5,000.

## [Burlington County IPM policy for public property]

6/8/06 final

## Integrated Pest Management for the Burlington County Parks System

What is Integrated Pest Management? Integrated Pest Management (IPM) is a method of managing insects, undesired plants, and plant diseases with the tools that a least likely to impact human health or the environment. It involves developing a plan, such as this plan for the Burlington County Parks system. Integrated Pest Management means that regular monitoring of the site must occur to ensure detection of a pest problem and to correctly identify the problem. It will include steps in the management, such as recognizing a threshold where a pest will require action or where no action is necessary. When some action is necessary, IPM dictates what the action should be, typically starting with manual or non-chemical management tools and resorting to more persistent or stronger pesticides if the problem reaches a threshold. After an action is taken, effective IPM will evaluate the success of the action and follow-up as appropriate. The best IPM balances the action and economics of pest control with impacts to the environment and human health. Briefly stated, IPM plans actions, monitors pest levels, sets action thresholds and evaluates success of a coordinated array of tools to control pests.

This document will provide a plan for integrated pest management within the Burlington County Parks System. As a policy and operational procedure, the use of pesticides will be limited at all parks in the County Parks System. This plan will delineate what types of pest management practices will be used and what areas of the parks will receive particular treatments. This plan makes clear the Board of Chosen Freeholders' intention to protect our natural resources and to provide children with safe and healthy places to play. The plan may be updated as necessary to recognize new management tools or options.

Implementation of this management plan must recognize that to minimize use of pesticides in all areas of the parks, a close watch of parklands must be maintained. Regular inspections should be scheduled to assure that pests or invasive species do not gain so much territory that rapid, intensive, pesticide treatment would be necessary to regain control of the pest.

Integrated Pest Management activities will consist principally of using native plant species and biological controls to encourage natural land management.

Manual/mechanical controls, such as pulling weeds by hand or mowing, will be the first choice for management of invasive or undesirable plant species when and where most

feasible. Other low impact pest management tools (listed below) are also available for use when manual or mechanical controls are impractical.

The use of pesticides should be reviewed and limited so that they are not applied unnecessarily or as a matter of routine. Where plant, fungal or insect pests become otherwise unmanageable by the various low impact pest management methods, pesticides may be used as a control method of "last resort". When pesticide use is required, public notification shall be made as detailed below and in accordance with applicable NJDEP regulation.

## I. "Pesticide-Free Zones" (PFZ)

The following areas have been designated as "Pesticide-Free Zones" (PFZ):

## A. Family Areas

The PFZ includes and extends to a distance of 50 feet from each of the following areas:

- Playgrounds this will include all areas of play equipment
- Picnic grounds this will include areas established as picnic areas with picnic tables and/or grills
- Pavilions / rest areas

### B. Waterways

The PFZ includes and extends to a distance of 300 feet from any stream bank, pond, lake or natural wetland.

Low impact pest management tools for PFZ's include:

- 1. Native Plantings planting of primarily native species to ensure the least need for fertilizers and pesticides
- 2. Manual/Mechanical Control hand weeding, cutting, mulching
- 3. Vinegar or citric acid products
- 4. Burn-out" ®
- 5. Corn gluten
- 6. Neem
- 7. Horticultural oil (dormant oil)
- 8. Potassium soaps of fatty acids
- 9. Boric acid
- 10. Diatomaceous earth
- 11. Microbe based insecticides (B.t.)
- 12. Non-pesticide pest traps
- 13. Biological controls (predator species)

If the low impact tools listed above are shown to be ineffective, the following chemical pesticides may be used:

- 1. Various pyrethrins insecticides
- 2. Glyphosate(different formulations)

## **II. Invasive Species Control Areas**

Some areas within the parks system may have existing or may develop disturbed and degraded areas with invasive species of vegetation or may become infested with invasive insect species. These special habitats may require more drastic, rapid, or pesticide intensive treatments to retain the native species and minimize damage to parklands. However, in any control event, pesticides will be the tool of last resort.

Primary pest management tools for Invasive Species Control Areas include any of the tools listed above for waterways or family use areas. However if the low impact tools listed above are shown to be ineffective, the following chemical pesticides may be used:

- 1. Various pyrethrins insecticides
- 2. Glyphosate(different formulations)

## III. Special Use Areas

These include, but are not limited to, the following Parks System areas:

- Exhibit gardens
- Amphitheater
- Smithville Mansion grounds & historic structures

As with all areas of the park system, the low impact tools listed above will be the first choice for pest control. However, if the IPM coordinator determines these methods to be ineffective, then methods listed below may be employed.

- Indoors Insecticides may be used from the list below. Baits/gels will be the preferred option if sanitation/exclusionary measures fail to control a pest problem. Notice will be posted at the structure or bulletin board. Pyrethrin applications will be used only if baits/gels fail to control a pest problem.
  - 1. Hydramethylnon roach bait stations
  - 2. Fipronil roach bait stations
  - 3. Avermectin roach/ant bait stations
  - 4. Sulfluramin ant bait stations
  - 5. Bromodionlone rodent control
  - 6. S-hydroprene roach and insect control devices
  - 7. Various pyrethrin insecticides

- Outdoors If low impact tools listed in I and II above are ineffective, pesticides used at these specific sites may include the following:
  - A. Glyphosate (different formulations)
  - B. Bifenazate acaricide
  - C. Imidacloprid (different formulations)
  - D. Pyrethrin

## IV. Public education and Notification

Parks System properties will be posted with a map designating the PFZ zones at the park information shelter and/or at the PFZ site with an explanation that PFZ means no pesticides are used in the area in order to protect children, pets, and the waterways of the parks. Non-toxic methods may be used if needed, and if a pesticide is deemed necessary, a sign will be posted in advance letting people know of the application.

When pesticide use is necessary in any Burlington County Parks System property application shall be made when public use of the area is minimal. Notice of the application will be posted at the park information shelter 48 hours in advance of the application and will remain in place for 72 hours after the treatment. The notice will state the area of the park to be treated, the pesticide to be applied with the EPA registration number, the precautionary statement from the label, and the reason the pesticide is being applied. The area will be flagged at the time of the treatment and the flagging will remain in place for 72 hours after the treatment.