
REPORT ON FINDINGS AND RECOMMENDATIONS PURSUANT TO PL 2009, CHAPTER 584

JANUARY 2011

MAINE BOARD OF PESTICIDES CONTROL



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EXECUTIVE SUMMARY

The Board of Pesticides Control (BPC) has long been aware of an ongoing conflict between aerial pesticide applicators and nearby residents, which has been marked by a series of public efforts intended to restrict or ban aerial spraying. With the goals of addressing public concerns, fostering communication, reducing conflict, and minimizing burdens to applicators, the BPC began a comprehensive review and update of pertinent rules beginning in 2006. The revised Drift Rule, providing additional protection to residents living adjacent to pesticide application sites, was approved in 2009. Rules covering advance notice of spraying were also identified as key to this effort because advance warning is a low-cost way to remove the element of surprise and allow neighbors to take commonsense steps to avoid potential exposure. The BPC's proposed notification rule revisions were not approved by the Legislature, and a new law calling for a notification registry was enacted instead, in the spring of 2009 (Public Law 2009, Chapter 378).

Recognizing that Chapter 378 created substantial burdens for some businesses, the Legislature amended the law in the spring of 2010 by enacting Public Law 2009, Chapter 584 (hereinafter referred to as Chapter 584). Balancing residents' right-to-know about nearby pesticide spraying against the burden involved with providing notice is what makes this subject contentious and polarizing. Like the previous statute, Chapter 584 directs the BPC to establish and maintain an outdoor pesticide notification registry. The new registry initially focused only on applications made by aircraft or air-assisted sprayers, but Chapter 584 directs the BPC to develop a comprehensive notification registry. The BPC must also file a progress report with the Legislature no later than February 1, 2011, including updates on four other specific topics outlined in the law. This report identifies key public policy questions for which the BPC is seeking Legislative input and summarizes the BPC's efforts to fulfill its mandates.

Key Policy Questions for the Legislature

During 2010, the BPC made a number of fundamental policy determinations relative to development of a comprehensive registry. However, there are two key, controversial policy questions (below and with more detail on page 5) on which the BPC seeks Legislative input prior to initiating rulemaking on a comprehensive registry.

1. Who Should Identify Properties that Trigger Notification?

With the passage of Chapter 584, the BPC now administers two notification registries—one agricultural and the other non-agricultural. Different parties are assigned the responsibility of identifying properties that trigger a notification duty. Under the 1998 non-agricultural registry, to receive advance notice of spraying, registry participants must identify property owners within 250 feet of their boundary. Under the new agricultural registry, the burden to identify properties that trigger a notification duty falls on the business conducting the spraying. Who identifies properties that trigger a notification duty is of greater concern to commercial applicators who work in the urban/suburban landscape, since they generally treat a much larger number of properties, and therefore the burden of identifying and providing notice to registry participants would be larger. The BPC has focused primarily on the system dictated by the new statute. However, stakeholders are sharply divided over who should bear this burden under a comprehensive registry. Consequently, the BPC is seeking the Legislature's input on this question prior to initiating rulemaking on a comprehensive registry. (See additional discussion on page 5.)

2. What Types of Pesticide Applicators Should Be Required to Notify Neighbors under a Comprehensive Notification Registry?

The BPC is in general agreement that a comprehensive registry should pertain to pesticide applications made by commercial applicators and commercial farmers. This position is based on practical considerations of available resources, the size of areas treated and the types of equipment used by these two groups of applicators. Expanding the notification registry to require homeowners to comply would necessitate a considerable expansion of the BPC staff. However, a number of stakeholders have argued that a comprehensive registry should apply to all outdoor pesticide applications, regardless of the resource constraints or consideration of scale. (See additional discussion on page 5.)

Summary of BPC Actions to Fulfill Mandates under Chapter 584

Chapter 584, Section 6, Subsections 1–5, requires the BPC to report to the Legislature on five specific topic areas. A summary for each topic is listed below with a more detailed explanation in the full report that follows.

1. Since enactment of Chapter 584, the BPC held five public forums across the state and worked on the comprehensive registry at all eight of its regular meetings. Consensus was reached on most of the operational details and the BPC is prepared to initiate rulemaking once input has been received from the Joint Standing Committee on Agriculture, Conservation and Forestry (ACF).
2. The BPC has reached consensus to move forward with three notification distances—250, 500 and 1,320 feet—based on the type of pesticide application equipment used. Details are contained in the full report.
3. The BPC’s staff conducted an extensive public awareness campaign during May and June of 2010. The campaign focused on paid newspaper ads and free publicity using press releases and e-mails to municipalities, non-profit organizations and governmental agencies. A statewide survey indicated that approximately 18% of adults were aware of the registry in August of 2010, an excellent result according to the firm that conducted the survey.
4. The BPC was unable to identify a practical sign posting requirement, because, in many cases, the signs would not be in a publicly visible location. Some stakeholders still advocate the use of signs as a substitute for the pre-season notification requirement (contained in Chapter 378) that was repealed during the 2010 Legislative session.
5. The BPC is moving forward with development of an Internet-based mapping tool that is expected to greatly reduce the effort required to provide notification.

Summary of Other Key Concepts Recommended for a Comprehensive Registry

- CMR 01-026, Chapter 28, allows a “by request” option for receiving notification about any outdoor pesticide use within 500 feet of a resident’s property. For a variety of reasons, the BPC recommends retaining this option.
- Other existing pesticide notification requirements should be merged and consolidated into CMR 01-026, Chapter 28.
- The BPC staff should take affirmative steps to ensure that the registry remains current.
- There is general agreement to move forward with an Internet-based tool to assist stakeholders in determining which properties trigger a notification duty.

Next Steps

Once the BPC has met with the ACF, and received its feedback on key policy issues, the BPC is prepared to initiate rulemaking to establish a comprehensive notification registry. The Maine Legislature would then review a provisionally adopted rule early in 2012, or choose to bypass the additional review by designating the notification rules as routine technical. The BPC will then turn its attention to implementation.

The full report to the Legislature follows. It contains details on the topics described above, as well as background and other information about the BPC’s recommendations and activities relating to the pesticide notification issue.

FULL REPORT TO THE LEGISLATURE PURSUANT TO PUBLIC LAW 2009, CHAPTER 584

Why Advance Notification of Spraying?

Conflicts between pesticide applicators and nearby residents date back to at least the 1970s. In the 1980s, both the Maine Legislature and the Maine Board of Pesticides Control (BPC) recognized that keeping the public informed about nearby pesticide applications should reduce the conflict. Experience has demonstrated that pesticide notification is an effective, low-cost tool for alleviating the conflict because it removes the element of surprise and allows nearby residents to take simple, common-sense steps to reduce the risk of pesticide exposure.

History of Pesticide Notification in Maine

The following table lists and summarizes Maine pesticide notification laws referred to in this report.

SUMMARY OF MAINE LAWS AFFECTING PESTICIDE NOTIFICATION			
Law & Citation	Summary	Key Notification Provisions	Originally Enacted/ Adopted
<p>Maine Statute 7 M.R.S.A. § 610 (2) (e) <i>(Enacted as Public Law 1983, Chapter 761, An Act to Amend the Act to Protect the Public from Unsafe Pesticide Use)</i></p>	<p>Directs the Board to promulgate rules designed to minimize pesticide drift to the maximum extent practicable.</p>	<p>BPC subsequently promulgated its Drift Rule in 1987 which included the “by request” notification option for up to 500 feet from the application site and requires signs for lawn and ornamental applications.</p>	<p>Effective April 13, 1984</p>
<p>Maine Statute 22 M.R.S.A. § 1471-R <i>(Enacted as Public Law 1983, Chapter 819, An Act Relating to Periodic Justification of Departments and Agencies of State Government under the Maine Sunset Laws)</i></p>	<p>Sets forth a series of requirements regulating aerial forest insect spraying and includes a public notice (newspaper) provision.</p>	<ul style="list-style-type: none"> • Signs • Newspaper ads • Notice to BPC for aerial forest insect spraying 	<p>Effective January 1, 1985</p>
<i>Table continued on next page</i>			

SUMMARY OF MAINE LAWS AFFECTING PESTICIDE NOTIFICATION, *CONTINUED*

Law & Citation	Summary	Key Notification Provisions	Originally Enacted/ Adopted
<p>BPC Rule CMR 01-026, Chapter 51</p> <p><i>Notice of Aerial Pesticide Applications</i></p>	<p>One of two BPC rules containing notification provisions—sets forth details for Chapter 819. Describes the notification requirements for persons contracting aerial pesticide applications to control forest, ornamental plant, right-of-way, biting fly and public health pests.</p>	<ul style="list-style-type: none"> • Signs • Newspaper ads • Notice to Poison Control Center • Written notice to property owners 	<p>Effective August 12, 1985</p>
<p>BPC Rule CMR 01-026, Chapter 28</p> <p><i>Notification Provisions for Outdoor Pesticide Applications</i></p>	<p>One of two BPC rules containing notification provisions. Sets forth the requirements for requesting notification about pesticide applications, for posting property on which certain commercial pesticide applications have occurred and establishes the Maine Pesticide Notification Registry for non-agricultural applications structure and fees.</p>	<ul style="list-style-type: none"> • Includes the “by request” notification option • Created the “non-agricultural notification registry” • Requires signs for lawn and ornamental applications 	<p>Effective September 22, 1998</p>
<p>Maine Statute 22 M.R.S.A. § 1471-Y and Z</p> <p><i>(Enacted as Public Law 2009, Chapter 378, An Act to Require Citizen Notification of Pesticide Applications Using Aerial Spray or Air-carrier Application Equipment)</i></p>	<p>Establishes a pesticide notification registry covering applications made by aircraft and air-carrier equipment. Requires pre-season notification.</p>	<ul style="list-style-type: none"> • Pre-season notification • Notification registry for applications made by aircraft or air-carrier equipment 	<p>Effective September 12, 2009</p>
<p>Maine Statute 22 M.R.S.A. § 1471-Z and AA</p> <p><i>(Enacted as Public Law 2009, Chapter 584, An Act to Revise Notification Requirements for Pesticides Applications Using Aircraft or Air-carrier Equipment)</i></p>	<p>Repealed the pre-season notification provisions and narrowed the scope of the registry (for two years) to agricultural spraying using aircraft or air-carrier equipment. However, it directs the Board to develop a comprehensive notification registry.</p>	<ul style="list-style-type: none"> • Repealed the pre-season notification • Narrowed the registry to agricultural applications, hence is commonly called the “agricultural registry” 	<p>Effective April 1, 2010</p>

In 1984, the Maine Legislature enacted two provisions that eventually led to different forms of pesticide notification in the state. In response to a series of events surrounding aerial budworm spraying, the Legislature enacted Public Law 1983, Chapter 819, that set forth a series of requirements regulating aerial forest insect spraying and included a public notice (newspaper) provision. In Public Law 1983, Chapter 761, the Legislature directed the BPC to promulgate rules designed to minimize pesticide drift to the maximum extent practicable. Rulemaking to fulfill this mandate proved to be contentious, taking over three years to complete. A key provision of the BPC's new drift rule was the so-called "by request" notification option, which allowed nearby residents (within 500 feet) to ask for spray notification. This provision has generally been viewed favorably by the regulated community. The principle shortcoming is that a relatively low percentage of the public is aware of it.

In the mid 1990s, during a sharp rise in the use of lawn care pesticides, a BPC stakeholder committee recommended establishing a notification registry to cover commercial, non-agricultural pesticide applications. The logic behind this registry is that commercial pesticide applications are not made by the land owner, making it more difficult for concerned neighbors to request notification from the pesticide applicator. The BPC established the non-agricultural registry in 1998 and required an annual \$20 registration fee. While the non-agricultural registry has functioned smoothly, very few people (just over 20, on average, annually) have participated in it since its inception. Several factors are thought to be responsible for the low participation, including a general lack of awareness, the annual fee and the requirement for the registry participant to list property owners within 250 feet of his/her property boundary. Despite the low participation, feedback suggests it's a very important tool for a handful of people, especially those with health issues that may be exacerbated by chemical exposures.

A series of public efforts beginning in 1995 indicated that there is increasing concern about aerial spraying in Maine. These included citizen petitions in 1995 and 2005 to ban aerial spraying; two bills to the Legislature; lawsuits threatened under the Clean Water Act against Maine's two largest blueberry companies over aerial spraying; and a vote in the Town of Addison to ban aerial spraying (which was later reversed). In response, the BPC began a comprehensive review of pertinent regulations beginning in 2006. The Legislature approved revisions to the BPC's drift rule (CMR 01-026, Chapter 22) in the spring of 2009, but did not authorize final adoption of its revisions to the notification rule (CMR 01-026, Chapter 28). Instead, the Legislature enacted Public Law 2009, Chapter 378 which established a pesticide notification registry covering applications made by aircraft and air-carrier equipment. Chapter 378 was amended the following spring (Public Law 2009, Chapter 584) due to concerns that it created significant burdens for businesses that apply pesticides to a large number of properties. The amended statute further directed the BPC to develop a comprehensive notification registry and to file this report with the Legislature no later than February 1, 2011.

Key Notification Policy Decisions for the Maine Legislature

During the course of its deliberations on the development of a comprehensive notification registry, the BPC identified two key policy questions that it believes are fundamental in nature and of sufficient importance, such that they are more appropriately decided by the Legislature. Consequently, the BPC prefers that the Joint Standing Committee on Agriculture, Conservation and Forestry (ACF) provide guidance on these topics prior to moving forward with a formal rulemaking process.

- *Question 1: Who Should Identify Properties that Trigger Notification? Option A—land managers and/or pesticide applicators, or Option B—neighbors seeking information.*

With the passage of Chapter 584, Maine pesticide law now has two pesticide notification registries with two different models for identifying properties that, prior to the application of pesticides, create a duty to notify registry participants. In the agricultural registry created pursuant to Chapter 584, the Maine Legislature placed this burden on the land manager, while the non-agricultural registry contained in CMR 01-026, Chapter 28 of the BPC's rules places the burden on the registry participants. In implementing the agricultural registry, the BPC assumed it should rely on the model laid out by the

Legislature in Chapter 584. Furthermore, it believes that identifying properties that trigger a notification duty will create a burden primarily in the first year of implementation, and the burden will decrease in succeeding years. The burden should be further diminished by the development of the Internet-based mapping tool. However, the stakeholder community is polarized and divided on this issue and the BPC sees merit in both sides of the argument.

- *Question 2: What Types of Pesticide Applicators Should Be Required to Notify Neighbors under a Comprehensive Notification Registry? Option A—commercial applicators and land managers, or Option B—anyone applying pesticides (including private homeowners).*

The BPC received considerable input suggesting that homeowners and other applicators that are not part of the BPC's primary regulated community should be required to review and comply with the comprehensive notification registry. While the BPC agrees that homeowners are more prone to misuse of pesticides, they also recognized that homeowners rarely use equipment capable of dispensing large volumes of pesticides, nor do they apply pesticides to large acreages. For these reasons, the BPC believes that homeowners are far less likely to apply pesticides in a manner in which their neighbors may be concerned or exposed. Moreover, the BPC recognized that requiring the entire state population to comply with a new regulation is far beyond the capability of the BPC's staff. In addition, the BPC believes there is a more practical and tested approach for people to be informed about homeowner use of pesticides (see next page). Consequently, the BPC does not recommend requiring homeowners to comply with the notification requirements in a comprehensive registry, but it believes the Legislature needs to be aware of the issue because of the wide variety of stakeholders who advocated for it.

BPC Recommendations Relating to the Development of a Comprehensive Registry

After soliciting feedback and extensive deliberations on the subject, the BPC arrived at consensus around the following recommendations for a comprehensive registry:

- Sign-up and distribution of the registry should be primarily electronic in order to keep administration manageable. A hard-copy option must be retained for those without computer access.
- There should be three notification distances—250, 500 and 1,320 feet—based on the type of application equipment used (see discussion on recommendations of distances below).
- The current annual sign-up deadline for the registry is March 15. In an expanded registry this date should be earlier since commercial pesticide applications may begin as early as April 1 and commercial pesticide application companies generally apply pesticides to a far larger number of properties, necessitating greater time to compare the registry to their customer list and implement the requirements. The sign-up deadline presumably loses significance as the registry matures, since most people who are interested will have already signed up. A deadline of January 31 would be a reasonable compromise.
- The scope of the registry (see key policy issues above) should cover the regulated community that the BPC regularly communicates and primarily deals with: commercial applicators and commercial farmers. It is this group of applicators that does the type of spraying that is historically of concern to area residents. As stated in the preceding section, many stakeholders advocated for a comprehensive registry that covers all outdoor pesticide applications, including those made by homeowners. The BPC acknowledges that homeowners apply pesticides, but rarely in a manner that produces significant volumes of vapors and/or mists—the driving factor behind notification requests.
- Accordingly, the BPC has taken the position that requiring homeowners to comply with a whole new set of rules is both impractical and well beyond the means of the BPC's resources. Thus, requiring homeowners to comply with the notification registry would necessitate a significant expansion of the BPC's staff, especially enforcement staff.

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- Alternatively, the BPC recommends that anyone who wants to be notified about pesticide applications made by homeowners send their neighbor a BPC-approved letter detailing their desire to be notified and the state law requiring such notice. This approach has both a precedent and a positive track record under the non-agricultural registry. (CMR 01-016, Chapter 28, Section 2)
 - The longstanding “by request” option (CMR 01-016, Chapter 28, Section 1) for notification within 500 feet should be retained. While the BPC recognizes that Chapter 584, Section 5, appears to envision the registry as a single source for pesticide notification contacts, and that some stakeholders are against keeping the “by request” option, the BPC believes the benefits of retaining this option far outweigh any downside based on the following logic:
 - It would allow people who feel they need notice beyond 250 feet, due to medical reasons, an option.
 - Some people will refuse to participate in the registry because they don’t want their personal contact information on a publicly available list on the Internet.
 - Some people prefer to communicate directly with their neighbors.
 - Some people will miss the annual deadline to sign up for the registry.
 - The “by request” option is used in another rule relating to Plant Incorporated Protectants (CMR 01-026, Chapter 41).
 - It provides a simple, effective mechanism for concerned citizens to find out about pesticides used by neighboring homeowners (see discussion of proposed regulated community above).
 - Many pesticide applicators support and prefer the “by request” approach.
 - The existing “non-agricultural” registry should be merged into and aligned with the comprehensive registry.
 - The notification time frames need to be aligned.
 - The notification methods need to be aligned.
 - The annual renewal requirement and fee should be eliminated to be consistent with Chapter 584.
 - The aerial notification requirements contained in CMR 01-026, Chapter 51 of the BPC’s rules should be consolidated into and aligned with CMR 01-026, Chapter 28, of the BPC’s rules.
 - Chapter 51 is tailored to address “wide-area” aerial spray programs, many of which occur in the sparsely populated areas of the state that are managed for forest products. Consequently, the provisions in Chapter 51 are designed primarily around a public notification system rather than notification of individuals. Much of the logic behind the Chapter 51 provisions is still valid, so the BPC supports retaining some of the major provisions including:
 - Advance notice of aerial spraying to the BPC—although there is general agreement that the notice to the Northern New England Poison Center may be discontinued.
 - There is some BPC support for making the notice to the BPC for aerial spraying universal, instead of exempting agriculture as the current rules do.
 - Newspaper notices for wide-area aerial programs in unpopulated areas
 - Use of signs at major points of ingress and egress to treated areas in unpopulated areas.
 - The BPC supports discontinuing the requirement that land managers notify abutting landowners about aerial spraying in areas where newspaper coverage is questionable. The comprehensive registry would substitute for that requirement.
 - The BPC should take affirmative steps to ensure that a comprehensive registry is kept current. Chapter 584 specifies that participants shall remain on the registry until they notify the BPC they want to be removed or until the BPC staff determines the contact information is no longer valid. Stakeholders generally agree that care must be taken to ensure the list does not contain a significant number of invalid entries. Some members of the regulated community have advocated for a statutory amendment to require an annual renewal.
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- The BPC is supporting development of an Internet-based mapping application to assist in identifying properties that will trigger a notification duty when treated (see details below). The BPC is mindful that the new Legislature could make changes to Chapter 584, but it reasoned that the benefits of this tool are significant compared to the costs, and it would assist in fostering good-neighbor relations regardless of the final notification requirements.
- The Legislature should also be aware that there is another section of Title 22, in addition to Section 1471-Z, that specifies spray notification requirements. Section 1471-R, dating back to 1984, requires newspaper notices and posting for aerial forest insect spray programs (see discussion of Chapter 51 above). The BPC sees no obvious conflicts or redundancy between the two sections.

BPC Efforts to Implement the Notification Registry for 2010

After the Governor signed Public Law 2009, Chapter 584, on April 1, 2010, the BPC staff had only a short time to finalize the new agricultural registry and assist the regulated community in implementing the law in time for the 2010 growing season. Missing or incomplete information in the registry was researched by contacting participants by telephone or e-mail, and then the entire list of 525 participants was edited, standardized and put into an accessible format for posting on the BPC website and printing out on paper.

Details of the new law, together with instructions for accessing the registry, were sent via e-mail and US Mail to 1,000 licensed pesticide applicators affected by the law, to all registry participants and to Maine agricultural organizations. A press release announcing the new law was e-mailed to approximately 160 media outlets across the state, and posted on the state and BPC websites.

BPC Progress in the Development of a Comprehensive Notification Registry (Chapter 584, Section 6 [1])

During 2010, development and implementation of the notification registry dominated the BPC's meeting agendas and was the top priority for the BPC staff. In an effort for the BPC to get as much input as possible from stakeholders and the public, five Public Information Gathering Meetings were held across the state (see table below), and the registry was the primary topic discussed at all eight monthly BPC meetings following enactment of Chapter 584 on April 1, 2010. During that period, the BPC also received and considered 157 written comments. In addition, the BPC organized an ad hoc committee of public health officials which met twice and provided feedback to the Board (see recommendations on page 8).

PUBLIC INFORMATION GATHERING MEETINGS ON A COMPREHENSIVE PESTICIDE NOTIFICATION REGISTRY		
Location	Date	Number of Commenters
Fairfield	April 16	12
Bangor	May 14	10
Machias	June 24–25	17
Presque Isle	July 8	7
Portland	July 23	21

Over the course of the development process, the BPC vetted and reviewed an array of concepts relating to the scope and operation of the registry. In addition, the BPC reviewed its existing notification requirements with the goal of standardizing and incorporating those requirements with the comprehensive registry. In general, the

BPC aligned concepts and operational details with those set forth in Chapter 584, reasoning that Chapter 584 best represents the Legislative position on the subject. The BPC has made preliminary determinations on all significant operational details (except the key policy questions identified above), and is prepared to initiate formal rulemaking on the comprehensive registry after receiving input from the ACF, following submission of this report in January.

Recommendations of the Ad Hoc Committee of Public Health Professionals

One part of the Legislature's directive to the BPC for developing a comprehensive notification registry was to seek input from the Department of Health and Human Services (DHHS) and other public health professionals. The BPC organized a group of public health professionals that included four professionals from DHHS; Dr. Lani Graham, from Physicians for Social Responsibility; Dr. Tamas Peredy, from the Northern New England Poison Center; and the medical member of the BPC, Dr. Carol Eckert.

The Ad Hoc Public Health Committee met on July 30 and December 17, 2010. In July, the Committee reviewed the relevant components of Chapter 584 and some background information about pesticide notification in Maine. In December, the Committee reviewed the draft report to the Maine Legislature summarizing the BPC's recommendations for developing a comprehensive notification registry. The Committee strongly supported two points:

- The public has a right to know about pesticide use in the vicinity, but the details and mechanics should be up to the BPC and the Legislature.
- Public education and outreach about pesticide use in Maine are very important. Care should be taken to include ways for people without computer access to participate in the registry, and outreach efforts should not be limited to registry participants.

The Committee reached consensus on the following points:

- Using health-related sciences to determine appropriate pesticide notification distances is not feasible.
- Distances recommended by the Board are satisfactory.
- Education should include making sure that people understand what the registry provides for, and what it doesn't provide (such as halting applications).
- Who should bear the burden of identifying properties that trigger a notification duty is a policy decision, not a health issue. However, it is more logical to assign that duty to pesticide applicators initially, and the BPC should work hard to minimize that burden regardless of the final decision.
- To promote awareness of the registry and the need to minimize the impact on neighbors when spraying, the BPC could consider adding information to the BPC-required sign that is currently displayed in pesticide retail sales areas.
- A new application site notification sign requirement would not be useful, since signs are generally ineffective as a means of public education.
- The notification system should be simple and easy to use. (Currently operating public alert systems were offered as possible models.)
- The notification registry should be kept as up to date as possible.
- The Executive Summary in the Report to the Legislature is still too complicated; add a cover memo with a handful of concise bullets.

Recommendations Regarding Changes to the Distances and Types of Applications Requiring Notification (Chapter 584, Section 6 [2])

The BPC spent considerable time and effort grappling with the question of what are appropriate distances from a pesticide application site for which registry participants should be entitled to notification. Some pesticide

applicators favored relying on spray droplet movement studies as a basis for setting distances. The BPC decided against relying on this type of research because it recognized droplet studies are not suitable for evaluating inhalation exposure, which is one of the principle reasons neighbors express concern about nearby spraying. In addition, individuals with allergies or other chemical sensitivities may react to a dose far below that which affects a “normal” individual.

Underlying the question of notification distances is the question of what is the purpose of notification about pesticide spraying. The BPC has taken the position that notification addresses a fundamental right-to-know about the use of chemicals adjacent to occupied areas. It does not believe there needs to be clear and irrefutable evidence that pesticide drift will result in demonstrable health effects to neighboring residents before notification should become a right. On this basis, any reasonable likelihood that neighbors may be exposed to even low levels—beyond background—of pesticides is sufficient justification to honor a notification request. This logic—coupled with input from public health officials suggesting a health risk assessment approach to establishing appropriate notification distances is not feasible—led the BPC to look for other information to guide the assessment.

As a result, the BPC looked at historical precedents, notification requirements in other states, an evaluation of the Northern New England Poison Center human pesticide exposure data and the BPC’s own records relating to complaints and inquiries about pesticide applications taking place in the vicinity. Ultimately, the BPC was not able to identify compelling information that clearly pointed to specific distances. At the same time, the BPC reasoned that distances existing in current Maine pesticide law have worked fairly well, and that there was no clear evidence suggesting they were either too large or too small. In addition, the BPC recognized that simplicity would be important for all stakeholders, and that distances based on the type of equipment were the most logical approach. Consequently, the BPC recommends the following set of notification distances:

RECOMMENDED NOTIFICATION DISTANCES FOR A COMPREHENSIVE REGISTRY	
Notification Distance <i>(application site boundary to registry participant’s property boundary)</i>	Types of Pesticide Applications Covered
≤ 250 feet	<ul style="list-style-type: none"> • Non-powered commercial applications • Granular/pelletized applications (including aerial) • In furrow and band applications • Powered backpacks • Low-pressure hydraulic applications (≤ 60 psi)
≤ 500 feet	<ul style="list-style-type: none"> • Boom sprayers • Chemigation • Fumigation • Air-carrier equipment • High-pressure hydraulic applications (≥ 60 psi) • Other powered equipment

RECOMMENDED NOTIFICATION DISTANCES FOR A COMPREHENSIVE REGISTRY	
Notification Distance <i>(application site boundary to registry participant's property boundary)</i>	Types of Pesticide Applications Covered
≤ 1,320 feet	<ul style="list-style-type: none"> All aerial spraying

The Effectiveness of the BPC Public Awareness Activities (Chapter 584, Section 6 [3])

BPC staff researched the options for publicizing the notification registry to raise public awareness. Given a \$25,000 budget and June 15 deadline for the close of the 2010 registry, it was determined that there were not sufficient resources to produce a television ad, nor buy enough airtime to achieve the desired goal. Based on this research, it was decided that newspaper advertising would be the most effective means of communication. With help from one of the major newspapers, an ad was designed and formatted, and an intensive newspaper advertising campaign was developed to run in print and online media over a two-week period preceding the June 15 deadline.

A press release was also sent to all statewide news media, all municipalities, community television stations, the Maine Center for Disease Control and major environmental organizations. With the exception of the news media, an informational poster about the registry was included with the press release.

A chronology of the advertising campaign follows:

- May 23–June 6: During this period, a ¼- or ½-page display ad (see attached) ran five times in the weekday and weekend editions of five major daily newspapers and two times in 22 weekly newspapers (see list attached). Total circulation coverage: 439,500; total cost: \$26,788. While the daily papers broadly covered all regions of the state, weeklies were chosen to supplement coverage in areas where aerial and air-carrier spraying are employed.
- May 30–June 15: A banner ad (see attached) ran on the websites of the five daily newspapers. Total cost \$1,308 (included in the total above).
- May 27, 2010: A press release (attached) was sent to 175 Maine media outlets, including newspapers, television, radio, and wire services; the release was also posted on the state homepage and BPC website.
- May 27, 2010: The press release and an informational poster, formatted for television (attached), were sent to 93 Maine public access community television stations for use on the air.
- June 1, 2010: The press release was sent to the Maine Center for Disease Control and Prevention state epidemiologist, Dr. Stephen Sears, who then forwarded it to district health liaisons for local distribution and posting in medical offices, health clinics, etc.
- June 1, 2010: The press release and an informational poster (see attached) were sent to 85 contacts at approximately 30 Maine environmental organizations.
- June 2, 2010: The press release and a copy of the newspaper ad, for use as a poster, were sent to approximately 4,000 municipal e-mail addresses.

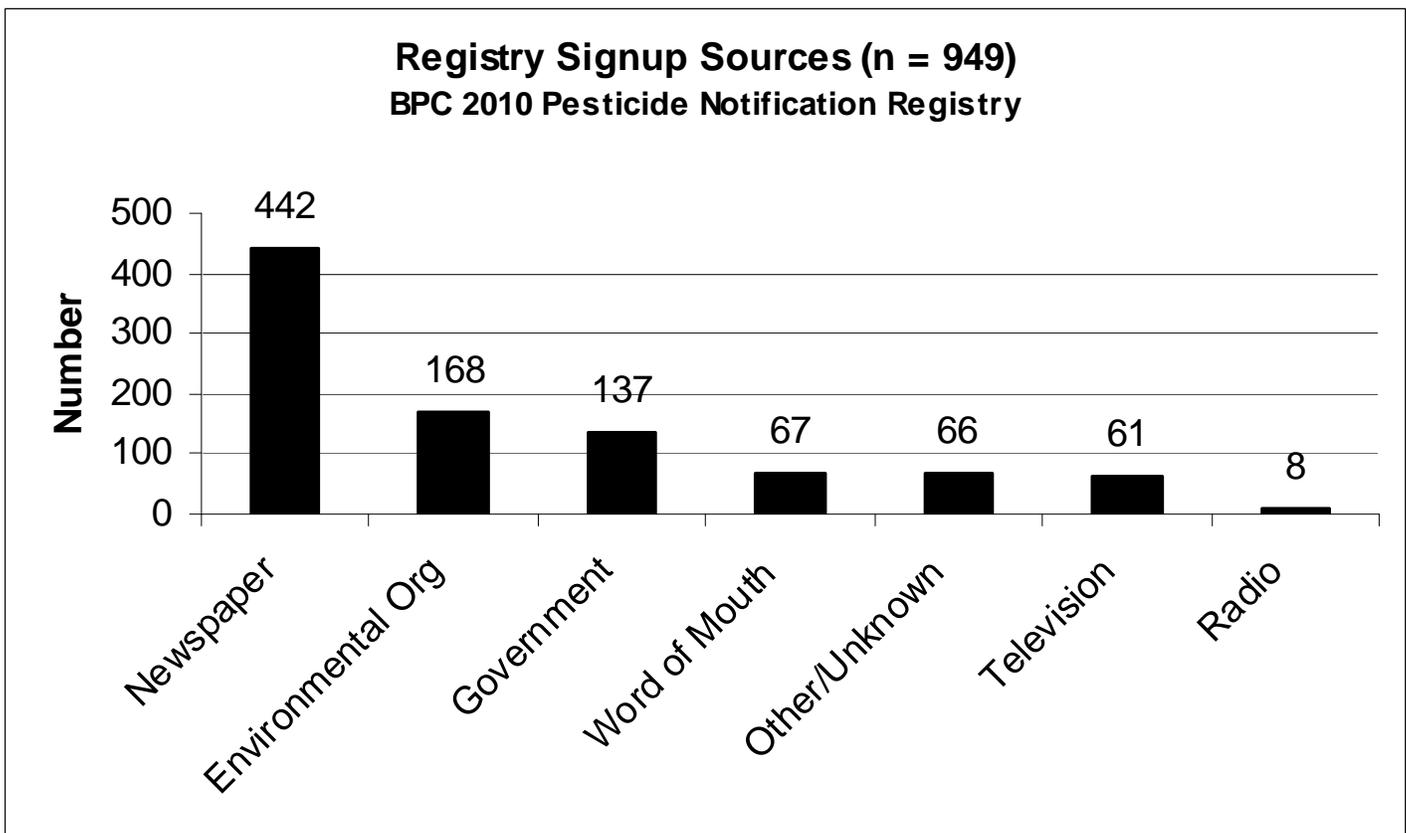
Before the campaign began, there were 525 names on the registry. By June 15, the list had increased to a total of 1,606 participants.

Following the advertising campaign and the close of the 2010 notification registry on June 15, the BPC contracted with the Portland research and marketing firm, Market Decisions, to survey Maine citizens and determine if they had heard about the registry. In a random sampling, 401 people were interviewed by telephone between July 14 and August 3. Survey participants were asked the following question:

Have you heard about the new Maine Pesticide Notification Registry which requires farm managers to inform registry participants about nearby pesticide applications?

The key finding of the survey was that 18%, or nearly 1 in 5 Maine citizens, had heard about the new registry. Other findings included that men, college graduates, and residents of northern Maine were more likely to have heard about the registry (see complete report attached). Following the survey, it was the opinion of Market Decisions, based on experience with similar campaigns and surveys, that 18% awareness was very successful and higher awareness could be achieved only with a much more comprehensive and expensive effort using television and radio.

The BPC added a field to the online sign-up form for the registry which asked participants to indicate how they had learned about the registry. The graph below shows the results of this query.



The Feasibility and Advisability of Requiring Land Managers to Post Signs (Chapter 584, Section 6 [4])

The BPC sought input and discussed the appropriateness of a sign posting requirement during several of its meetings. With the exception of forest managers, the applicator community was opposed to any new sign requirement. Few other stakeholders voiced strong support for a sign requirement, although one organization

strongly advocates for a sign requirement based on the aerial forestry spraying model. The following points summarize the BPC consensus relating to a new proposed posting requirement for pesticide applications:

- The BPC recommends that the current aerial posting requirements contained in Chapter 51 be retained since it focuses on “wide area” spray programs that often cover remote, unpopulated areas where recreationalists predominate.
- The BPC believes that the purpose of any new posting requirement should be clear and defensible. BPC members determined that posting should be intended to help alert area residents that spraying may occur and to provide a contact for obtaining additional information.
- The BPC foresees a significant burden associated with any new posting requirement.
- The BPC noted that many application sites are in remote locations, surrounded by woods or agricultural lands, so that the vast majority of signs would not be visible to the public.
- Ultimately, the BPC was not able to identify a practical posting requirement that would not result in posting of signs of questionable public benefit. Consequently, the BPC determined that the costs associated with a comprehensive posting requirement exceed the benefits to be derived, and therefore it does not advocate for additional posting requirements at this time.

The Feasibility of Establishing and Maintaining an Internet-based System to Allow Land Managers to Electronically Provide Notification (Chapter 584, Section 6 [5])

In researching the possibility of an Internet-based notification system, the BPC considered numerous entities, both public and private, with both mapping and database expertise. It was determined that the Maine Office of Geographic Information Systems (MEGIS) was the most logical choice for the needed services.

Between June and October 2010, BPC staff met three times with MEGIS to review the requirements of the project. It was determined that a mapping application had already been developed for the Maine Geological Survey that performed many of the desired functions and, for an additional cost of \$10,400, MEGIS would customize this existing application to add new functionality and incorporate the notification registry. The BPC was informed that, without the existing application foundation, the cost of the mapping application would be about \$40,000.

The following specifications were developed for an Internet-based mapping tool (details attached):

- Based on BPC Pesticide Notification Registry
- Display property boundaries or address points of registry participants
- Provide pesticide applicators with the ability to draw pesticide application area boundaries or polygons representing a general area of pesticide applications
- Search and identify all registry properties within specified distances from the application boundary
- Provide reports to applicators with e-mail addresses, US postal addresses and telephone numbers, to enable them to contact registry participants and notify them of pending pesticide applications
- Completely self-contained on the state server, with no download of any software required

While there was no question that the technology existed to create an application that would meet all requirements, the availability of digital parcel data for properties listed on the registry would be essential for accuracy, as the law bases the notification distance on property boundaries. At present, data exists for all the unorganized territories, but for only about 135 of the nearly 500 municipalities in the state. For the 2010 registry, approximately 100 of the 382 towns represented on the registry have parcel information.

Where no parcel data exists, a point, based on the 911 address system, will appear on the map. This point would represent only a single spot somewhere along or near the property boundary, and would not allow for accurate measurement from a pesticide application site to the registry participant’s property. There is also a known error

margin of about 100 feet over ¼ mile for digital maps. For these reasons, to avoid excluding registry participants' properties that should be included, this error rate would be automatically factored into all distance measurements and two notification zones would be generated around the pesticide application site. The first area would highlight the required notification distance, and the second would extend beyond the required distance and highlight an area where there may be additional properties that should be notified, but weren't included due to the inaccuracies of the system. These two zones will also be generated for properties where parcel data is available. Users will also have a tool that will allow for nearby properties to be manually added to the notification list. (See map simulations attached.)

In all cases, whether parcel data is available or not, applicators would be encouraged to err on the side of including more registry names, to be sure no one is excluded. Applicators will also be cautioned that use of the on-line tool does not guarantee that they have met the requirements of the notification rule and that they can use other methods for ensuring compliance, including measuring the actual distances on the ground.

Concerns about the Use of an Internet-based Notification Registry

During the course of developing and implementing the notification registry required under PL 2009, Chapters 378 and 584, the BPC has become aware of certain concerns that have been expressed about the operation of the registry and operating it as an Internet-based system.

- Like virtually every written document maintained by the BPC (and most state agencies), the registry is a public document, available to anyone upon request. Since the registry contains detailed personal contact information about the participants, some people will not use the registry because they refuse to disclose their personal information for use in a publicly available document.
- Similarly, since sign-up and distribution of the registry are currently accomplished through an Internet-based application, personal contact information is essentially available to anyone with an Internet connection. The BPC is currently requiring a username and password to protect the information from Web crawler software. However, the Maine Office of Information Technology has advised the BPC that there is other technology to prevent Web crawler access, and they discourage use of usernames and passwords because it is contrary to state policies relating to transparency and open access.
- Another concern relating to the Internet-based registry is the potential for malicious use of the information, such as distributing fake e-mails alerting participants about nonexistent pesticide applications.
- Finally, the Internet-based notification system should be a tool available to land managers to meet the notification requirements under the law. It should not be viewed as assigning any responsibility to the BPC to provide notice to registry participants; and it should be clear that the state has no responsibility for any failure of an Internet-based system to operate to provide such notice.

Costs Associated with Development of a Comprehensive Pesticide Notification Registry

Some stakeholders requested that the BPC list the costs associated with the development of a comprehensive notification registry. The BPC does not have any systematic method for recording and summarizing those costs, since it has primarily involved Board member and staff time commitments to date. The Maine Office of GIS has provided an estimate of \$10,400 for development of the Internet-based mapping tool to assist in the identification of properties that trigger a notification duty. In addition, the staff conservatively estimates it has devoted at least 700 man-hours to the registry project to date, and this does not include Board member time.

Next Steps for the BPC in Development of a Comprehensive Pesticide Notification Registry

After receiving policy guidance from the ACF, the BPC is prepared to initiate a formal rulemaking process, based on the concepts articulated in this report, and feedback from the Maine Legislature. Rulemaking could be completed and ready for Legislative review by January of 2012, unless the Legislature chooses to bypass additional review by designating the rule as routine technical. The BPC will then turn its attention to implementing the final provisions.

Additionally, the BPC needs to refine the property location information for some of the current registry participants so that the locations can be mapped using the Internet-based mapping tool. Data standards for future participants will likely need to be revised for this purpose also.

The BPC staff will need to develop and implement a system for ensuring that the registry does not contain invalid or outdated entries. Development of the Internet-based mapping tool will need to be completed and implemented. Training on all aspects of the comprehensive registry will become a priority for the BPC over the next couple of years. Finally, the BPC will need to implement an ongoing public awareness campaign to ensure that the registry is effective. This becomes more challenging as the registry matures because it becomes less newsworthy.

Attachments:

- PL 2009, Chapter 378
- PL 2009, Chapter 584
- Minutes and comments from Ad Hoc Public Health Committee
- Memo on Internet-based system
- Registry map simulations
- Registry press release, ads and poster
- Market Research report