PROPOSED REGULATION FOR THE NOTIFICATION OF PESTICIDE USE

The NSW Department of Environment and Conservation (DEC) is proposing to introduce new requirements for mandatory pesticides notification in certain situations.

The purpose of this document is to assist interested parties in assessing the overall economic, social and environmental costs and benefits that may be associated with new requirements for mandatory notification.

The proposed regulation has been developed in consultation with the Pesticides Implementation Committee, an independently chaired stakeholder advisory committee that is made up of a broad range of representatives from industry, the community and government.

The proposed regulation is divided into two parts.

The first part deals with pesticide applications made by licensed **pest management technicians** in urban areas. It is designed to protect those members of the community that have been shown to be more sensitive to pesticides, such as children, the elderly and people who are ill or have compromised immune systems.

The second part of the proposed regulation deals with **pesticide applications made by local councils and State government agencies** in public spaces such as parks and sporting fields that are frequently used by the community.

1) WHY IS THIS REGULATION BEING PROPOSED?

Pesticides notification is based on the principle of community right to know. The community's right to know about chemical usage is internationally recognised as a key element of best practice chemical management[1] and was strongly supported in public meetings and written submissions during the development of the *Pesticides Act 1999*.

Notification acknowledges the right of the community to proper information about pesticide use so that they can make informed decisions about their contact with pesticides. It does not grant any rights to enforce changes to how or when pesticides are applied. It does however, give the community the ability to avoid or reduce their exposure if they choose to do so (i.e. by not accessing the area that has been treated, closing windows, taking in washing etc). Informing the community about a pesticide application can also provide reassurance and help avoid unnecessary concern that can be triggered when people become aware of a nearby pesticide application during or after the event.

[1] United Nations/IOMC, (1998), *Key Elements of a National Program for Chemicals Management and Safety*.

The proposed regulation is part of a staged approach to pesticide notification that involves both voluntary and mandatory measures in urban and rural NSW. As a first step it aims to protect the urban community (where population and housing density can mean that potential for exposure to pesticides is high), focusing particularly on those groups of people, such as children, the unborn, the elderly and the sick, who have been shown to be especially vulnerable to pesticides exposure.

Following this proposed regulation, the Pesticides Implementation Committee will be looking at options for introducing pesticide notification in other situations, including the adoption of voluntary principles for notifying neighbours of agricultural pesticides use, the use of agricultural pesticides near sensitive places, and the current regulatory controls on aerial pesticides applications.

While considerable research still needs to be done on the impacts of pesticides on human health, several global trends are emerging that support the introduction of pesticide notification as a basic community right:

- Surveys have found that up to 33% of the population consider that they have some sensitivity to chemicals, even when those chemicals are applied correctly[2].
- The known health impacts from pesticides exposure can range from no adverse health impact at all to headaches, rashes, swelling and nausea, and occasionally to more severe reactions such as shaking, shortness of breath, convulsions, and damage to the nervous system[3].
- Multiple Chemical Sensitivity – a chronic medical condition with multiple symptoms that occur as a result of chemical exposure is becoming increasingly recognised by governments and health professionals[4].

While correlations between these health impacts and pesticides exposure have been made, the frequency with which they occur, and the dose-response level (degree of exposure required to produce the health effect) are not currently known. There is, however, growing evidence that certain groups in the community are at greater risk of harm from pesticides than others.[5]

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[2] Meggs et al, (1996), 'Prevalence and nature of allergy and chemical sensitivity in a general population' in *Archives of Environmental Health*, 51:275-282

[3] Cornell University, Pesticides Management Education Program http://pmep.cce.cornell.edu/facts-slides-self/facts/gen-posaf-health.html

[4] Various references including: *Examples of Recognition of Chemical Sensitivity by US Federal Government Authorities that are not disclosed in the Draft Report of the Interagency Workgroup on MCS*, Adapted from 'Recognition of MCS' by Albert Donnay, August 1998, www.mcsrr.org/fedmcsgroup/fedmcsrec.html; Evans, P., *Multiple Chemical Sensitivity – Basic Overview*, accessed on 13/03/2003 at sacfs.asn.au/about/chemical/chem_overview.pdf; Donohoe, Mark., *Multiple Chemical Sensitivities and Issues pertinent to the court regarding sufferers*, http://homepage.mac.com/doctormark/Medical/Legal/MCS+court.html, last updated 21/9/98.

[5] Short, Dr. K., and Want, A., (1995) 'The toxic school and playground' in *Issues*, No. 33, October 1995, pp 25-30

- **Children** in particular are at greater risk of harm than adults if they are exposed to pesticides for a range of ***physical*** reasons. Children have a higher ratio of skin surface to body rate, which makes them more susceptible to dermal (skin) absorption of chemicals[6]. Children also have different metabolic rates to adults, which influences their ability to "activate, detoxify and excrete" toxics[7] and faster respiratory systems that result in them breathing a greater volume of air per kilogram[8]. Children also have less developed immune systems than adults that can leave them less able to cope with the impacts of pesticides exposure[9].
- In addition there are a range of ***behavioural*** reasons that mean that children may come into greater contact with pesticides. For example, children spend more time on carpets, floors and lawns,[10], they place their hands or objects in their mouths[11], and spend a greater amount of time outdoors.[12] This means that if pesticides are present, children have a greater risk than adults of skin absorption, inhaling or swallowing pesticides.
- **The unborn.** Several studies have found that pesticides can disrupt the rapid developmental processes of unborn children.[13]
- People with weakened immune systems, such as the **elderly** and the **unwell,** are less able to process and excrete pesticides[14] than the general population.

There are controls on the use of pesticides in NSW that protect human health and the environment. The Australian Pesticides and Veterinary Medicines Authority (APVMA), formerly the National Registration Authority, assesses the impacts of a pesticide (including an assessment of the risks to human health) and determines the conditions of its use, before it is registered for use in Australia. Commercial pesticides users in NSW are required to keep rigorous records and undertake training in the proper use of pesticides if they use them as part of their job or business. In addition, all pesticides users can be prosecuted under the *Pesticides Act 1999,* for the misuse of pesticides, including any off-target harm to people or property.

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[6] Fustman, E.M. et al, (2000), 'Mechanisms Underlying Children's Susceptibility to Environmental toxicants' in *Environmental Health Perspectives*, Vol 108, Supplement 1, March 2000, pp 13-21, p.17
[7] National Academy of Sciences, (1993), *Pesticides in the Diets of Infants and Children*, National Academy of Sciences Press, Washington, p.3
[8] Standing Committee on Environment and Sustainable Development, Canada (2000), *Pesticides: Making the right choice for the protection of health and the environment*, May 2000, chapter 6.
[9] European Environment Agency and World Health Organisation Regional Office for Europe, (2002), *Children's Health and Environment: A Review of Evidence*, section 11.4
[10] Schmidt, C.W., (1999) 'A closer look at chemical exposures in children' in *Environmental Science and Technology*, volume 33, issue 3, pp 72A – 75A, p.72
[11] Nishioka, M. G., et. Al, (1999), 'Distribution of 2, 4-Dichlorophenoxyacetic Acid in Floor Dust throughout Homes Following Homeowner and Commercial Lawn Applications: Quantitative Effects on Pests, Children and Shoes' in *Environmental Science and Technology*, Volume 33 (9), pp1359 – 1356.
[12] Standing Committee on Environment and Sustainable Development, Canada (2000), *Pesticides Making the right choice for the protection of health and the environment*, May 2000, chapter 6
[13] ibid.
[14] Californian Government, *Understanding Environmental Health*, http://www.dhs.cahwnet.gov/deodc/ehib2/topics/pesticides2.html, accessed 1/7/2003

Despite these protections, there remain a number of uncertainties about the long-term impacts of exposure to pesticides, due mainly to the lack of scientific research into this area. As our knowledge of chemicals increases, we have begun to discover that what was previously considered a safe level of exposure could be potentially dangerous. A good example of this is the current review by the APVMA of the use of Copper Chrome Arsenate (CCA) as a timber treatment in certain domestic situations (such as decking and children's playground equipment)[15]. The introduction of programs such as the recently commenced APVMA Adverse Experience Reporting Program should also help to improve knowledge in this area.

Therefore, in situations where an activity raises some indication of a threat of harm to human health, precautionary measures need to be taken even if some cause and effect relationships are not fully established scientifically. In the absence of scientific certainty, pesticide notification would establish a higher level of awareness in the community and industry about the importance of responsible pesticide use. It would not replace the protection achieved by Government regulation of pesticide use, but would provide an additional tool that members of the community could use to take their own precautions in terms of their exposure to pesticides.

2) APPLICATIONS BY URBAN PEST MANAGEMENT TECHNICIANS

What is proposed?

The proposed regulation would mean that pest management technicians would be required to:

- Notify schools, preschools, kindergartens, childcare centres, hospitals, community health centres, nursing homes and hospices in urban areas if they were going to apply a pesticide on properties near or adjacent to these places.

The DEC is seeking your views on whether you think the appropriate sensitive places have been identified. Should any be added or removed?

- Ensure that tenants or residents in flats, units, townhouses or other multiple-occupancy residential complexes were notified if a pesticide was going to be applied to the common areas of the property (e.g. car parks, foyers or stairwells).

How would schools, childcare centres, hospitals and other sensitive places be notified?

Firstly, the pest management technician employed to apply the pesticide would be responsible for identifying any sensitive place that is:

- **next door** to the property being treated (i.e. it shares a boundary); or

[15] see the APVMA website at www.apvma.gov.au/

- **directly across the road from** and within **100 metres** of the property being treated; or
- within **100 metres** of the sensitive place where there is a **clear line of sight** between the sensitive place and the property being treated. A clear line of sight means that a solid wall, fence or other solid structure of at least 2 metres is not present between the sensitive place and the property where the pesticide is being applied.

Where any of the above situations apply, the pest management technician would need to contact the person responsible for managing the sensitive place (e.g. the principal, childcare centre manager, hospital director) either by phone, fax, email or post. This would happen at least 5 working days before the pesticide application was due to take place.

What sort of pesticide applications would require notification?

Under the proposed new law, pest management technicians would only need to provide notification of pesticide applications made to the exterior of the property and sprayed through the air. This includes all types of pesticide, including herbicides, insecticides and fungicides. They would not be required to provide notification of any indoor pesticide applications, as these applications are less likely to result in spray drift.

Pest management technicians would also not be required to provide notification of any pesticide applications that were made via a trench (for example termite treatments) provided:

- the trench is immediately backfilled with soil; and
- the trench is more than 2 metres away from the boundary of the sensitive place.

While there is only likely to be minimal spray drift from pesticides applied via a trench, there may be some odour and/or vapour from these applications. ***The DEC is seeking your views on whether you think that all trench applications, regardless of backfilling or distance from the boundary of a sensitive place should be notified. The DEC is also seeking your views on whether pesticide applications that are 'injected' into a slab (e.g. termite treatments to a concrete slab building foundation) should be notified regardless of distance from the boundary of a sensitive place***

How would residents in a flat, unit or townhouse be notified?

The manager or owner of the flat, unit or townhouse would be required to notify residents/tenants in the property before a pesticide is applied to the common areas of the property. Residents would be notified at least 5 working days before the pesticide application was due to take place.

The notice would be posted on all notice boards, at all entrances and exits, all lifts/stairwells and in any other main common areas of the property. The pest

management technician would be responsible for providing the manager/owner with all the necessary information to be contained in the notice.

The pest management technician would also be responsible for ensuring that a notice was prominently displayed on all notice boards, at all entrances and exits, all lifts/stairwells and in any other main common areas of the property **during the application**. This notice would have to remain in place for the length of time that the area should not be used (if this is specified on the pesticides label).

What information would be given to the person being notified?

The person responsible for managing the property or in the case of multi-occupancy buildings, the residents/tenants, would be given:

- the name of the pesticide used;
- the reason why the pesticide is being used (i.e. what pest is being treated);
- the location where the pesticide will be used;
- the date the pesticide will be used;
- any re-entry information that is on the pesticides label;
- the contact details of the person who will be applying the pesticide; and
- a copy of the material data safety sheet, if requested.

What would the proposal cost?

It is estimated that providing notification to the property and the tenants in multi-occupancy buildings would increase the work done by administrative staff in a pest management business by an average of 8 to 10 minutes per day, and the amount of time worked by pest management technicians by 12 to 15 minutes per day. Actual cash outlays by pest management companies would be minimal. On this basis, the proposal would increase pest management technician's average costs by around $3.50 per job, when spread out across all jobs. Considering the average job costs the customer between $150 and $280, with some more extensive jobs costing up to $1,500–$5,000, this is only a minor increase in costs of around 2% for the average job[16].

With a total of between 2.1 and 2.6 million urban pesticide applications in NSW each year, this time is worth between $7 and $9 million to the pest control industry annually. It is not clear whether the costs of providing sensitive place notification would be absorbed by pest management businesses or passed on to the community in the form of higher fees for pest control treatments.

[16] This is mainly the cost of the pest controller's time for working out whether a sensitive place is nearby, and if so, notifying them.

These costs may be reduced if a register of sensitive places is provided to assist pest management technicians to carry out notification. A discussion of a notification register for sensitive places is provided below.

Some costs may be incurred by building managers in terms of posting the information provided by the pest management technician on notice boards/doors/stairwells. ***The DEC is seeking advice from property managers on how long they think this task would take.***

Some costs may also be incurred by sensitive places in terms of what they do in response to the notification information (i.e. informing parents/changing schedules). ***Advice is sought from the managers of sensitive places on what action they anticipate taking if they are notified that a pesticide application will be taking place.***

3) A NOTIFICATION REGISTER

Some local councils already use notification registers as a way of easily identifying those people in the community who want to be notified of council pesticides use.

The DEC proposes that the register would be developed as an electronic database of all schools, childcare centres/preschools, hospitals, hospices and aged care facilities. Pest management technicians would be able to access the database via the Internet. It would provide the address of the sensitive place and the preferred contact details of the person who should be notified (i.e. the phone number of the principal or manager). For privacy reasons, it is proposed that the register only include the address of the sensitive place (i.e. 21 George Street, Sydney) without identifying the nature of the sensitive place (i.e. childcare centre, school). Access to the sensitive place would be limited to registered pest management technicians.

What would a register cost?

It is estimated that an electronic register of sensitive places would significantly reduce the costs that pest management businesses would incur in implementing notification, by reducing the time needed to identify whether a sensitive place is in the vicinity of the pesticides job. With a notification register, it is estimated that the proposed new requirements would only increase pest management business' costs by around $1.70 per job.

In practical terms, it would need administrative staff time of between 2 and 10 minutes per day (depending on the speed of their internet dial-up connection), but would require no additional time from the pest management technician. A proportion of the estimated extra costs of $1.70 per job relate to actual cash outlays by those pest management businesses not currently connected to the internet, who would need to purchase hardware and pay for an internet connection. For those businesses that already have internet access, the costs of implementing notification would be less.

The total cost of this option to the pest control industry would be between $3 and $5 million annually. There would also be an additional cost involved in establishing and maintaining the database.

The DEC is seeking your views on the practicality and desirability of setting up a register of sensitive places to assist pest management technicians work out when notification is required.

4) APPLICATIONS BY PUBLIC AUTHORITIES

What is proposed?

The proposed regulation says that:

- Local councils and State government agencies must prepare a notification plan that says how they will notify members of the community of any pesticide applications they make to public spaces.
- Public spaces are:
  - public gardens, picnic areas, playgrounds, parks, sporting fields or ovals;
  - any public land owned or maintained by a public authority (for example, road verges, electricity or rail easements) that is legally accessible by the public;
  - any national park, state forest or Crown land.

What must be in a notification plan?

Under the proposed regulation, the notification plan must outline:

- What public places are covered by the plan
- Who is most likely to use or access these public places and an estimate of the level of use (e.g. high, medium, low)
- How and when council will provide the community with information about its pesticide applications (i.e. what notification arrangements will be used)
- What information will be provided (this **must** include the name of the pesticide, why it is being used, the place and date of use, council contact details and re-entry warnings)
- How the community will be informed of the notification arrangements contained in the plan
- How future reviews of the plan will be conducted
- Contact details for anyone wishing to discuss pesticide notification with council.

How would the community be notified about pesticide use in public spaces?

Under the proposed regulation, local councils and State government agencies would have to prepare a plan that sets out how they will notify the community about pesticide use in public spaces.

The proposed regulation does not say what sort of notification (e.g. signs, letterbox drops, newspaper advertisements etc) should be used. It is up to local councils and State government agencies to consult with the community and come up with notification arrangements that best suit local and community needs.

How would the community know what is in a notification plan?

The proposed regulation requires the local council or State government agency to consult the public on a draft notification plan for four weeks and ensure that a copy of the plan is available for public viewing during this time. Once the plan is finalised, it should be published in the Government Gazette and a local newspaper and made available for public viewing, free of charge, at any time (i.e. at council libraries or offices).

What would the proposal cost?

Councils

Based on discussions with a range of local councils, including those that already do some form of notification, it is estimated that it would take between 2–3 weeks of staff time for councils to prepare a notification plan, conduct consultation on it and make any required changes. For a full time staff member on a mid-range salary of $50,000 per annum, plus 50% on-costs, this is a cost of between $2,900 and $4,300 for councils to **develop** a notification plan. It is estimated that a further $2,000 would be incurred on **advertising and publicising** the plan once it is finalised.

Local councils would also face ongoing costs to **implement** the plan. It should be noted that the proposed regulation does not require a specific form of notification to be adopted. Depending on the outcome of their consultations, some councils may implement very limited notification practices (e.g. a yearly notice in the council newspaper), while others might implement more extensive measures (e.g. letters to ratepayers, signs, notification register etc).

The implementation costs would therefore vary widely depending on the type of notification adopted, the number of pesticide applications made per year, and whether there are any notification practices currently in place. It is estimated that for the 60% of councils that currently do **no** notification, ongoing costs of $2,900 (2 weeks staff time) per annum will be incurred in implementing notification and a further $2,000 per annum incurred on other notification costs (such as preparing signage, printing leaflets). For the 40% of councils that already undertake notification, ongoing costs are expected to be almost half this amount.

Total costs to all local councils across NSW are expected therefore to be between $850,000–$1.1 million in the first year of the proposed regulation (or around 40c per rateable property), and around $650,000 each year after (or around 25c per rateable property).

State government agencies

Costs to State government agencies are expected be similar to those incurred by local councils. Twelve agencies carry out regular large scale pesticide applications. It is anticipated that these agencies will need between 2–3 weeks of staff time ($3,800 to $5,700)[17] to prepare a notification plan and manage the consultation process. It is estimated that an additional $2,000 will be required for printing and ancillary costs and that there will be ongoing costs of approximately 2 weeks of staff time ($3,800) per annum to undertake notification and $2,000 per annum will be needed for other notification costs (signs, advertising etc).

Six agencies use pesticides on a much smaller scale. For these agencies it is anticipated that the costs involved in preparing and consulting on a notification plan will be much lower ($1,900, which is one week of staff time), as will the printing and advertising costs (estimated at $500). For the smaller users it is anticipated that there will be ongoing costs of approximately 3 days of staff time per annum to undertake notification and $500 per annum in other notification costs (signs, advertising etc).

Total costs to State government agencies then, are expected to be in the range of $85,000–$105,000 in the first year of the proposed regulation, and around $80,000 each year after that.

5) SUMMARY

This proposed regulation would:

- provide notice to schools and other sensitive places of upcoming pesticide use in neighbouring or nearby properties;
- provide notice to residents of multi-dwelling housing of upcoming pesticide use in common areas of these buildings; and
- provide notice, in a way agreed to by the community, of pesticide use in public places.

Such notification would recognise people's right to know about pesticides they may come into contact with, and allow them to make informed decisions about their potential exposure. Those concerned about risks of pesticides exposure could take action to avoid being exposed, and in doing so, avoid any adverse impacts which they believe could potentially result.

[17] For a full time staff member on a salary of 66,000, plus 50% on-costs

To achieve these outcomes, the proposed regulation would:

- Add around $3.50, or 2%, to the cost of the average professional pest control application ($7–$9 million per year over all NSW), **OR**, if a register were established, add around $1.70 to the cost of the average professional pest control application ($3–$5 million per year over all of NSW).
- Require councils to spend around $1 million in the first year of the proposed regulation, and $650,000 each year after that on notification, which is equivalent to around 40c per rateable property in NSW in the first year, and around 25c per rateable property each year after that.
- Require State government agencies to spend a total of around $95,000 in the first year of the proposed regulation, and around $80,000 each year after that, on notification.

6) SUBMISSIONS

The DEC is seeking your views on **all** aspects of the proposed regulation. In particular, we would welcome your comments and suggestions on the specific questions highlighted throughout this consultation document.

Submissions on the proposed regulation need to be in writing and should be sent to:

Janet Dawson
Director Chemicals Policy, Policy and Science Division
Department of Environment and Conservation (NSW)
PO Box A290
SOUTH SYDNEY NSW 1232

Submissions may also be emailed to higginsona@epa.nsw.gov.au. If you need more information about the proposed regulation, or you are still not sure what it means for you, you can call the NSW Department of Environment and Conservation's Chemicals Policy staff on (02) 9995 5799.