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Out Damned Weeds! Weed Management in Australia – Keeping Them at Bay

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Abstract

Weeds have long been identified as a threat to agriculture and human health and, more recently, as a threat to the environment. In order to address these threats, a two-pronged approach is required, encompassing the prevention of weed introductions and the control of existing weed infestations. Regulation is necessary to achieve this control. The regulatory and policy regimes for both prevention and management of weeds are analysed, with a particular focus on the scope and implementation of weed management under the Noxious Weeds Act 1993 (NSW). The legislation relating to the prevention and management of weeds is found to be broad in its scope. However, the potential scope of the legislation is not being fully realized, due to current policy, the interplay with other regimes, international politics and practical issues such as insufficient funding.

Keywords

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Abstract

Weeds have long been identified as a threat to agriculture and human health and, more recently, as a threat to the environment. In order to address these threats, a two-pronged approach is required, encompassing the prevention of weed introductions and the control of existing weed infestations. Regulation is necessary to achieve this control. The regulatory and policy regimes for both prevention and management of weeds are analysed, with a particular focus on the scope and implementation of weed management under the *Noxious Weeds Act 1993* (NSW). The legislation relating to the prevention and management of weeds is found to be broad in its scope. However, the potential scope of the legislation is not being fully realized, due to current policy, the interplay with other regimes, international politics and practical issues such as insufficient funding.

1. An Introduction to Weeds in Australia: Problems and Policy

I INTRODUCTION

The need to control weeds is not an issue which is prevalent in conservation circles nor the linchpin campaigns. In fact, weed management tends to be overshadowed by more spectacular or 'popular' environmental and agricultural concerns.¹ However, it is an issue which deserves attention. Weed infestations cause losses to farmers, degradation of the environment and threats to human health.

There are two elements necessary for the control of weeds in Australia:

1. The prevention of weed incursions, and
2. The management of existing weed infestations.

This paper addresses the two approaches from a regulatory perspective. The focus of this research is the regulatory regimes for the management of weeds in NSW, with a particular focus on the *Noxious Weeds Act 1993* (NSW). However, it is not only the legislation which must be adequate, the policy and enforcement procedures must also facilitate weed control.

An outline of the problems caused by weeds and the general policy structure is contained in this chapter. Prevention is discussed in Chapter 2, focusing on the Commonwealth quarantine legislation and Weed Risk Assessment Policy. The regulatory options for weed management in NSW are outlined in Chapter 3. Chapter 4 contains an in-depth discussion of the scope and implementation of the primary piece of weed legislation in NSW, the *Noxious Weeds Act 1993* (NSW). The conclusions of the research are contained in Chapter 5.

¹ A hint of change is evident in the Democrats' environment policy for the 2001 Federal election campaign, which contains weeds as one of the central elements: A Hodge, "Democrats get tough on weeds", *The Australian*, 31 October 2001 p 11.

II WEEDS: WHAT, WHERE, HOW AND WHY

A broad and well-accepted definition of a weed is ‘a plant growing where it is not wanted’.² Weeds are further categorized as ‘agricultural’ (plants which damage agriculture), ‘environmental’ (plants which damage the environment), or plants harmful to human health. The damage to agriculture includes the infection or poisoning of stock, wool damage and crop contamination.³ It is estimated that the cost of these agricultural losses, together with the cost of weed control, is \$AUD 3.3 billion per annum.⁴ Damage to the environment is harder to quantify but it is clear that weed species alter habitats, compete with indigenous species and therefore can cause the extinction of both flora and fauna.⁵ The human health implications range from chronic poisoning and allergic reactions, to mild discomfort upon touching or digesting the weed.

Weeds exist throughout Australia and, although some are native species, which have spread beyond their natural range, most are introduced. There is no evidence of Aborigines introducing species into Australia, although their use of fire may have had some impact on the distribution of existing species within the country.⁶ Therefore, the introduction of weed species commenced with the white colonization of Australia in 1788, with species introduced for productive and ornamental purposes.⁷ From 1788 and continuing through to the mid-1980s, Australian governments actively encouraged the use and introduction of species, which are today recognized as weeds.⁸ The prevention of such introductions is clearly the first step in dealing with weeds.

The next step is to prevent weeds becoming established and to manage any species, which do become established. Establishment and management are influenced by the biological characteristics of the weed and the features of the ecosystem into which it is introduced. Relevant biological characteristics include the method of reproduction and resilience. Features of the ecosystem which often lead to successful invasion include exposure to sunlight, disturbance of the soil structure and chemical or nutrient enrichment.⁹ Humans cannot alter the biological characteristics of species. However, we can exert some control over the

² It should be noted that this is an entirely anthropocentric definition as the weeds are unwanted by humans. An alternative definition is that weeds are plants “whose virtues have not yet been discovered”: 19th century American philosopher Ralpho Waldo Emerson, quoted in D Pomery, “Weed eradication essential” in W Davis (ed), *Environment Illawarra – Initiatives* (1995) Keira Green Corridor Committee, Wollongong p 8.

³ There are also flow-on effects such as a detrimental impact on land value – see *Crown Lands Act 1989* (NSW) s 32.

⁴ David Pomery, Illawarra District Noxious Weeds Authority Chief Weed Officer, speaking on ABC Radio 24 September 2001. This is an increase since the estimation in 1995 of \$AUD 3 billion per annum: T Low, “Australia’s Weed Scandal” (1995) 25(2) *Nature Australia* 80.

⁵ This has been recognized both nationally and internationally: R Groves & A Willis, “Environmental Weeds and Loss of Native Plant Biodiversity: Some Australian Examples” (1999) 6(3) *Australian Journal of Environmental Management* 164, Aspen Global Change Institute, *A Draft Model Law – Prevention of Harm by Non-Indigenous Species Act* (1994).

⁶ J Kirkpatrick, *A Continent Transformed: Human impact on the natural vegetation of Australia* (1994) Oxford University Press, Melbourne pp 25-36.

⁷ The first example of such behaviour was the Acclimatisation societies of the 1800’s who “were formed to make this country look more like Europe, but they succeeded partly in making it look like an environmental mess.”: M Parfit, “Australia – A Harsh Awakening” (2000) 198(1) *National Geographic* 2 at 10.

⁸ Agriculture and Resource Management Council of Australia and New Zealand Australian and New Zealand Environment and Conservation Council and Forestry Ministers, *The National Weeds Strategy: A Strategic Approach to Weed Problems of National Significance* (Revised edition, March 1999) p 23 regarding pampas grass promotion as wind breaks.

⁹ U Starfinger, K Edwards, I Kowarik & M Williamson (eds), *Plant Invasions: ecological mechanisms and human responses* (1998) Backhuys Publishers, Leiden pp 15-19, A Andrews, “Fragmentation of Habitat by Roads and Utility Corridors: A Review”, 26 (3 & 4) *Australian Zoologist* 130.

establishment and management of weed species through our land and water management practices, which affect the ecosystem.

III POLICY AND DIRECTION

Regulation concerning prevention and management of weeds is the focus of this research, but it is only part of the overall strategic approach to weeds, the framework for which is provided by government policy. Weeds have been recognized by the government as a problem in Australia since the mid-1800's, albeit only agricultural weeds being identified at that stage.¹⁰ While general government policy has identified weeds as a significant issue for many years,¹¹ it was not until 1997 that comprehensive weed policy was established. That policy is the *National Weeds Strategy* ('NWS'),¹² which is complemented by state policies such as the *NSW Weed Strategy*.¹³

The NWS has the following goals:

1. To prevent the development of new weed problems,
2. To reduce the impact of existing weed problems of national significance, and
3. To provide the framework and capacity for ongoing management of weed problems of national significance.

While the focus of much of the NWS is "weeds of national significance", the approaches and implementation of the NWS focus on weed management within the states and at the local level.¹⁴ The NWS has adopted both prevention and management as key elements in its "strategic approach to weeds", identifying roles for each level of government, the community and individual landholders.

The NWS, insofar as it relates to prevention, focuses on strengthening quarantine practices and legislation, along with screening processes for proposed introductions and greater awareness among the community of the dangers of such introductions.¹⁵ In relation to the management of weeds, in NWS places less emphasis on regulation and government action. Instead, responsibility is placed squarely with individual landholders. The NWS identifies the need for an integrated approach, emphasizing voluntary and cooperative management, with regulation only a part of the overall strategy. The need for coordination across stakeholders and administrative jurisdictions is emphasized, as is education of industry, landholders and the

¹⁰ WT Parsons & EG Cuthbertson, *Noxious Weeds of Australia*, (2nd edition 2001) CSIRO Publishing, Collingwood p 3.

¹¹ *The National Strategy for the Conservation of Australia's Biological Diversity* (1996) Commonwealth of Australia pp 254-26. See also Australian and New Zealand Environment & Conservation Council, *Review of the National Strategy for the Conservation of Australia's Biological Diversity* (June 2001) Environment Australia, Canberra at pp 52-54, *The Decade of Landcare Plan* (1991) Commonwealth Government, Canberra and the *National Strategy for Ecologically Sustainable Development* (1992) Commonwealth of Australia, Canberra.

¹² *The National Weeds Strategy*, above note 8.

¹³ New South Wales Weeds Strategy (April 1998) at <http://www.agric.nsw.gov.au/reader/1981> (accessed 13 August 2001). There are policies in other states, notably Tasmania, where the policy was finalised before the NWS was completed: Ministerial Working Group for the Development of Tasmanian Weed Management Strategy, *WeedPlan: putting the pieces together: A Tasmanian Weed Management Strategy* (1996) Department of Primary Industries and Fisheries, Hobart.

¹⁴ *National Weeds Strategy*, above note 8 p 25-27.

¹⁵ Above pp 29-38.

community. Governments are to conduct research and facilitate control measures,¹⁶ which has to date included the establishment of national training standards.¹⁷

The bulk of the activity under the NWS occurs through weed-specific strategies.¹⁸ Funding to implement those strategies is available from the Natural Heritage Trust's ('NHT') National Weeds Program.¹⁹ However, the NHT funding has been criticized as insufficient, with a perception that money is being absorbed by more 'popular' issues such as salinity.²⁰ Further, it is believed that the Commonwealth will not provide any additional resources and the bulk of funding to implement the NWS will have to come from the States.²¹

In NSW, the NSW Weed Strategy establishes the framework for the implementation of the NWS. This is done by nominating lead agencies to implement aspects of the NWS and creating criteria for funding additional to the NHT funding. Once again, the money is tied to weed strategies (be they state, regional or local), which must comply with NSW Agriculture's requirements.²²

IV. THE FRAMEWORK

Weeds are detrimental to the economy, the environment and human health. Considering their impacts, there is clearly a need for their control. The NWS, together with the detail and funding available through the NSW Weed Strategy, establishes a framework for an approach to this problem. The policies envisage that the two elements of weed prevention and weed management are to be implemented through a combination of regulation and voluntary measures, with weed-specific strategies as the basis of government funding. Prevention is more focused on government action while in relation to the management of weeds in Australia, regulation is only part of the strategy. Prevention and management of weeds are addressed in the following chapters, by analyzing the regulatory regimes for both, with a focus on the management of weeds under the *Noxious Weeds Act 1993* (NSW).

¹⁶ Above p 27.

¹⁷ B Walsh & D Bayley, *Final Report: Second Phase of the National Weeds Program Project 16830 – National Competency Standards for Weed Control* (February 2001) NSW Agriculture, Orange.

¹⁸ These have included draft strategies for *Alternanthera philoxeroides* (alligator weed), *Cabomba caroliniana*, and serrated tussock, all in 2000.

¹⁹ See <http://www.nht.gov.au/programs/weeds.html>.

²⁰ Professor Rick Roush, Director of the Cooperative Research Centre for Weed Management Systems, Adelaide, speaking on ABC Radio Country Hour at 12 pm, 7 September 201.

²¹ Personal communication with John Thorpe, Project Manager, National Weeds Strategy Executive Committee, 7 September 2001.

²² Noxious Weeds Advisory Committee, Policy on allocation and use of grant funds NWAC Policy Paper 2 (March 2001) at <http://www.agric.nsw.gov.au/reader/1977> (accessed 10 October 2001).

2. Quarantine: Preventing Weed Incursions

I INTRODUCTION

The prevention of weed incursions is the first step in addressing the issue of weeds in Australia. This chapter examines the regulatory regime for such prevention. The legislation examined is the *Quarantine Act 1908* (Cth), enacted under the specific quarantine power in the Commonwealth Constitution.²³ There are also relevant wildlife protection provisions, which are dealt with briefly. The quarantine legislation establishes the framework for preventing weed incursions but the substance comes from the policy of import risk assessment. This policy is discussed in relation to the assessment of plant species for weed potential. Following the discussion of policy, the implementation of quarantine, as affected by resourcing and international trade law, is considered.

II THE NEED FOR QUARANTINE

Weeds can be species which originate from within Australia. However, most weeds have been introduced from overseas. Plants have been introduced for a variety of reasons, including use as fodder, ornamental plants, or cropping species. Some enter Australia accidentally, for example through contamination of agricultural produce. The first line of defence against weeds is therefore stopping them from entering the country through effective quarantine, an approach which has been recognized in both the NWS²⁴ and the 1996 review of Commonwealth quarantine.²⁵ This approach of screening imports is also considered to be cost-effective, as the screening costs less than the cost of control and lost production caused by weed infestations.²⁶ The old saying is quite true – prevention is better than cure. To begin the discussion of the Commonwealth quarantine regime, the legislative provisions are outlined.

III THE LEGISLATION

QUARANTINE AND WILDLIFE PROVISIONS

A. The Quarantine Act and managing risk

The *Quarantine Act 1908* (Cth) ('OA') is the principle piece of legislation to protect Australia from the introduction of pests and diseases. It is administered by the Commonwealth Department of Agriculture, Fisheries and Forestry ('DAFF') and operates through the implementation of:

“measures

(a) for, or in relation to, the examination, exclusion, detention, observation, segregation, isolation, protection, treatment and regulation of vessels, installations, human beings, animals, plants or other goods or things

²³ The *Commonwealth Constitution Act 1900* (Cth) s 51(ix). This legislation arguably covers the field to the exclusion of any state legislation: P Hanks, *Constitutional Law in Australia* (2nd edition 1996) Butterworths, Canberra p 274.

²⁴ *The National Weeds Strategy*, above note 8 p 4 and see pp 30-33.

²⁵ ME Nairn, PG Allen, AR Inglis & C Tanner, *Australian Quarantine: a shared responsibility* (1996) Department of Primary Industries and Energy, Canberra.

²⁶ P Pheloung, “Preventing the Introduction of Potential New Weeds to Australia” in P Blackmore (ed), 10th Biennial Noxious Weeds Conference – Ballina 1999: Papers (1999) NSW Agriculture, Armidale p 18.

(b) having as their object the prevention or control of the introduction, establishment or spread of...pests that will or could cause significant damage to human beings, animals, plants, other aspects of the environment or economic activities.”²⁷

The “measures” which are adopted are not expressly defined and therefore depend on the application of government policy. One central element of government policy relating to quarantine is the “appropriate level of protection” (‘ALOP’), which informs what species are allowed to enter Australia and what procedures are adopted to ensure that only those species enter the country.²⁸ The actual *content* of the ALOP is in turn dependent on the risk management approach adopted by the Commonwealth.

Until the 1980’s, the Australian government adopted a ‘no-risk’ approach to the introduction of new plant species. However, risk can only be eliminated by completely banning all imports and travel from outside Australia, an approach which is not realistic. Therefore, a ‘managed risk’ policy was adopted.²⁹ The ‘managed risk’ approach is said to address “the need for consistency, benefits over costs associated with a trade activity and the diminishing returns of additional measures to further reduce risk”.³⁰

Managed risk seems to be a practical compromise. However, there are calls for a complete ban on introduced ornamental and pasture plants, on the basis that they are unnecessary.³¹ This is consistent with the guidelines being finalised under the *United Nations Convention on Biological Diversity* (*Biodiversity Convention*),³² which hold that plants should only be introduced where there are clear benefits to natural communities and humans, and that a ban should exist on all introductions to natural communities and humans, and that a ban should exist on all introductions to natural and semi-natural areas. Although the government policy in Australia is ‘managed risk’, a consideration of the assessment process, discussed below, reveals that bans on certain species are possible under the current regime.

From 1908, the method employed by the QA for controlling weed incursions was to list, under individual Proclamations, species which could only enter Australia with a permit (“prohibited species”). Anything not on the list was permitted entry. In 1998 a radical change occurred when the Proclamations were consolidated. A “permitted list” was created of species considered not to be pests,³³ which can be imported subject to inspection. A “prohibited” list was created of species known to have high weed potential and are therefore banned from entry.³⁴ All other species are prohibited entry until assessed as posing little weed risk. This

²⁷ *Quarantine Act 1908* (Cth) s 4.

²⁸ Australian National Audit Office, *Managing for Quarantine Effectiveness* Audit Report No 47 2000-01 (2001) Australian National Audit Office, Canberra p 32.

²⁹ S Gray, “Aquatic imports in Australia: quarantine, international trade and environmental protection” (2000) 17(4) *Environmental and Planning Journal* 241 at 242. See the definition of “quarantine risk” in the *Quarantine Act 1908* (Cth) s 5D:

“(a) the probability of a pest being introduced, established or spread in Australia; and the pest causing harm to human beings, animals, plants, other aspects of the environment, or economic activities; and

(b) the probable extent of the harm.”

³⁰ Pheloung, above note 26 p 18.

³¹ Low, above note 4 p 80.

³² M Clout & S Lowe, *Draft IUCN Guidelines for the Prevention of Biodiversity Loss due to Biological Invasion* (1996) IUCN/SSC Invasive Species Specialist Group. Written to complement the *United Nations Convention on Biological Diversity*. Done at Rio de Janeiro 5 June 1992, ATS 1993 No 32; 31 ILM 818 (entered into force 29 December 1993); signed for Australia 5 June 1992; instrument of ratification deposited for Australia 18 June 1993.

³³ *Quarantine Proclamation 1998* (Cth) s 63 & Schedule 5.

³⁴ *Quarantine Proclamation 1998* (Cth) s 58 & Schedule 4 Part 2.

approach was a complete reversal of past practice and was an adoption of a more precautionary approach, consistent with NWS objectives.³⁵

Further changes to the QA occurred in 1999, with the inclusion of environmental impact assessment.³⁶ This is to be complemented by collaboration between DAFF and Environment Australia, but this working relationship is “progressing only slowly”.³⁷

B. Wildlife protection provisions

Another approach to protecting biodiversity from the introduction of alien species is the Commonwealth’s wildlife protection provisions, recently incorporated into the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (‘EPBC Act’).³⁸ The provisions seek to implement Australia’s obligations under both the *Convention on International Trade in Endangered Species*³⁹ and the *Biodiversity Convention*,⁴⁰ by establishing lists of species which require import permits. The legislation includes environmental impact assessment,⁴¹ which is intended to be additional to any assessment which takes place under the AQ.⁴²

C. Where legislation ends and policy begins

Commonwealth legislation deals with quarantine issues relating to weeds through a listing procedure. Each species must be assessed to determine what status it will be given and on what list it will be placed. The legislation provides the framework for that system but it is policy that provides the detail for how the assessment takes place.

IV. IMPORT RISK ASSESSMENT

The policy which provides the necessary detail is import risk assessment (‘IRA’), which has been described as a system to establish the statistical probabilities of the risk associated with an identifiable hazard, with an objective of minimizing that risk.⁴³ In Australia, IRA is developed by Biosecurity Australia for each identifiable hazard associated with importation, one of which is weeds.⁴⁴

Before 1990, there was no comprehensive weed risk assessment for imports into Australia. In 1990, the Hazard system was introduced but it only considered species according to their known

³⁵ *National Weed Strategy*, above note 8 p 4.

³⁶ See the new *Quarantine Act 1908* (Cth) Part IIA – Proposed decision affecting the environment, especially s 11C(1) under which the Minister of the Environment must be notified and give advice as to the proposed assessment process, which must then be taken into account in making the decision: ss 11C-E. The changes were introduced under the *Quarantine Amendment Act 1999* (Cth) No 196 and included the expansion of the scope of quarantine in s 4 to include environmental impact.

³⁷ Australian National Audit Office, above note 28 p 32.

³⁸ *Environmental Protection and Biodiversity Conservation Amendment (Wildlife Protection) Act 2001* No 82. This created a new Part 13A in the EPBC Act and repealed the *Wildlife Protection (Regulation of Exports and Imports) Act 1982* (Cth).

³⁹ *Convention on International Trade in Endangered Species of Wild Fauna and Flora*. Done at Washington 3 March 1973; instrument of ratification deposited for Australia 29 July 1976. Entry into force for Australia 27 October 1976.

⁴⁰ *UN Convention on Biological Diversity*, above note 32. See EPBC Act s 303BA(1)(a).

⁴¹ This occurs under EPBC Act Div 1 Part 3, or, in relations to the import of live animals and plants: EPBC Act s 303EE(2), where there is a compulsory requirement to consider “the potential impacts on the environment”.

⁴² Commonwealth of Australia, *Parliamentary Debates (Hansard)*, Senate, 24 May 2001 p 24271 (Ian Campbell reading the second reading speech of the EPBC Amendment (Wildlife Protection) Bill 2001).

⁴³ Gray, above note 29 at 243.

⁴⁴ Australian National Audit Office, above note 28 p 11.

weediness and focused solely on agricultural weeds.⁴⁵ This had the obvious limitation of addressing only those agricultural weeds which were problems in other countries. Following changes in international trade law and environmental obligations, there was a call for a systematic weed risk assessment for Australia, to incorporate a proper assessment which would address both environmental and agricultural weeds.⁴⁶

A. The Weed Risk Assessment structure

A national Weed Risk Assessment System ('WRA') was developed with NHT funding and was formally adopted by the Australian Quarantine and Inspection Service ('AQIS') in August 1997. The system has three stages:

STAGE 1 – the existing legal status of a species.

If the species is listed as prohibited or permitted, that is where the process ends. If the species is not listed as either, it proceeds to Stage 2.

STAGE 2 – initial assessment

The species is assessed by a checklist and scoring system which addresses:

- History and biogeography ie domestication/cultivation, climate and distribution, weediness elsewhere, and
- Biology and ecology ie undesirable traits, plant type, reproduction, dispersal mechanisms and persistence attributes.⁴⁷

If the species is shown to be of low weed risk, it is added to the "permitted" list, if it is shown to be of high weed risk, it is declared "prohibited". If it falls between the two extremes, or cannot be assessed according to the checklist, it is referred to Stage 3.⁴⁸

STAGE 3 – secondary assessment

If a species has some weed potential and high economic potential, a controlled trial is conducted. Alternatively, if a species' weed potential was not conclusively assessed in Stage 2, it is subject to further detailed assessment.⁴⁹

B. Is the Australian WRA adequate?

The WRA makes an assessment of weediness based on the ecological characteristics of the species and proposed ecosystem, which satisfies the long-standing calls for such a scientific

⁴⁵ E Steinke & C Walton, "Weed Risk Assessment of Plant Import Australia: Policy and Process" (1999) 6(3) *Australian Journal of Environmental Management* 157 at 157-9.

⁴⁶ Nairn et al, above note 25 p 32.

⁴⁷ For the full questionnaire see Appendix 1.

⁴⁸ It should be noted that at this stage, the authorities rely on cooperation from importers in identifying the species, as Australia does not have the capacity to check the taxonomy of every import: Pheloung, above note 26 p 23.

⁴⁹ For the details on the full 3-stage system see Appendix 2. Prior to this stage, the government, via AQIS, bears the cost of assessment. Once an importer wishes to continue to Stage 3 it must bear the cost: Pheloung, above note 26 p 20. This is in comparison to the IUCN Guidelines under the *Biodiversity Convention* where it is stated that importers should have to bear the costs of providing information to the assessing body, including similar information to that contained in the WRA checklist, in addition to information as to the benefits of the species' introduction: see Clout & Lowe, above note 32.

approach.⁵⁰ However, when applying the WRA there is always room for doubt about the ability to estimate weediness when a species has never been exposed to the exact target ecosystem. Numerous studies have been conducted which give an indication of the information which is required to apply the WRA,⁵¹ but the system is limited by the available data.

These limitations have led to the call for an alternative approach based on a cost-benefit analysis. This would involve importers bearing the onus of proving that the benefit of the import will outweigh the possible cost of controlling the species as a weed.⁵² In addition, the element of doubt has led to judicial comments that import risk analysis fails to apply the precautionary principle.⁵³ Regardless of the scientific precision of the WRA, it is held out as an objective assessment, divorced from either economics, conservation or agricultural biases that would exist if the assessment were made by “expert” analysis.⁵⁴ In addition, the WRA is based upon explicit scientific assumptions and principles which may assist in avoiding international trade disputes, discussed below, and has led to the offering of the Australian WRA as a prototype for the rest of the world.⁵⁵

The Commonwealth quarantine system is therefore set in a broad framework of the QA, with the WRA providing the substance in relation to assessing imports for potential weediness. Overall, the system takes a precautionary approach. However, does the implementation of the regime match its potential? Is there sufficient resourcing to enforce the quarantine restrictions at every mode of entry and is that enforcement consistent with international trade laws?

⁵⁰ See for example BJ Quinlivan, “An Ecological Basis for Decision-making” (1972) 38(4) *The Journal of the Australian Institute of Agricultural Science* 283.

⁵¹ Studies have been conducted regarding characteristics of weediness in Australia, New Zealand, South Africa, Britain, North America and in relation to particular groups of taxa including herbs and woody plants. For Australia see IR Noble, “Attributes of invaders and the invading process: terrestrial and vascular plants” in JA Drake & H Mooney (eds), *Biological Invasions: A Global Perspective* (1998) John Wiley, Chichester pp 301-310 and FD Panetta. “A system of assessing proposed plant introductions for weed potential” (1993) 8 *Plant Protection Quarterly* at 10-14.

⁵² Low, above note 4.

⁵³ *Conservation Council of South Australia Inc v Tuna Boat Owners Association of South Australia* [1999] SA ERDC 86 at para 21.

⁵⁴ PC Pheloung, PA Williams & SR Halloy, “A weed risk assessment model for use as a biosecurity tool evaluating plant introductions” (199) 57 *Journal of Environmental Management* 239. It should be noted, however, that the first author of this article helped develop the Australian WRA, therefore his own bias must be acknowledged.

⁵⁵ Pheloung et al, above at 247.

V IMPLEMENTATION OF QUARANTINE

A. Resourcing quarantine

The enforcement of quarantine is a mammoth task due to Australia's huge border and therefore raises significant resourcing challenges for its implementation. The enforcement of quarantine restrictions is the responsibility of the Australian Customs Service and AQIS, which operate with the assistance of some state and territory agencies.⁵⁶ These agents work together to enforce quarantine, by focusing on five main entry points, each of which is addressed by a quarantine program:

- Import Clearance Program (commercial imports),
- Seaports Program,
- Airports Program (international),
- International Mail Program, and
- Northern Australia Quarantine Strategy.⁵⁷

The current budgets for each of these programs are (in \$AUD million pa): 37.5, 5, 22.5, 2.5 and 6.5 respectively and there is an additional \$AUD 600 million over 4 years earmarked in the 2001-2002 Budget.⁵⁸ However, despite the increase in funding, it is estimated that 90% of mail and 50% of international passengers' material goes undetected.⁵⁹ These figures are of growing concern, especially in relation to mail, due to the increase in seeds posted and the inability to screen the huge volume of mailed material.⁶⁰

B International trade laws – conflicting with Australian quarantine?

Beyond the resourcing issues (which are common to all government enforcement agencies), there are international trade restrictions which influence Australia's choice in refusing imports. International pressure against quarantine comes through the push for free trade throughout the world, which is a climate within which demand to import new plants will continue to grow.⁶¹

The idea of free trade is embodied in the *General Agreement on Tariffs and Trade* ('GATT'),⁶² under which there is a rule of no trade barriers or trade discrimination between nations.⁶³ This rule is enforceable through formal dispute resolution by the World Trade Organisation⁶⁴ or sanctioned retaliatory trade action.⁶⁵ Quarantine efforts could therefore be a trade restriction which could cause significant economic or diplomatic problems. In order to avoid contravention of GATT, Australian quarantine procedures must fall within one of the exceptions in the Agreement. The most relevant exception is: any measure "necessary to protect human,

⁵⁶ In WA, Tas, NT: Australian National Audit Office, above note 28 p 11.

⁵⁷ Above p 43.

⁵⁸ Above pp 14, 17.

⁵⁹ Above p 16.

⁶⁰ Personal communication with John Thorpe, Project Manager, National Weed Strategy Executive Committee, 15 August 2001. It should be noted that there are currently international discussions taking place regarding the management of mail which contains plant material that could become weedy, as well as sales over the internet: J Williams & C West, "Environmental weeds in Australia and New Zealand: Issues and approaches to management" (2000) 25(5) *Austral Ecology* 423 at 425.

⁶¹ Pheloung, above note 26 p 18.

⁶² *General Agreement on Tariffs and Trade*. Done at Geneva, 30 October 1947. ATS 1948 No 23. In force 1 January 1948, confirmed in the *Marrakesh Agreement establishing World Trade* Done at Marrakesh, 15 April 1994. ATS 1995 No 8. Entered into force 1 January 1995.

⁶³ Above Art 1.

⁶⁴ Above Art XXII.

⁶⁵ Above Art XXIII.

animal or plant life or health”, which is neither an arbitrary or discriminatory measure, nor a disguised restraint on trade.⁶⁶

Australia’s quarantine legislation and WRA would certainly satisfy the definition of a “measure” as required under GATT. However, following the signing of the *Agreement on the Application of Sanitary and Phytosanitary Measures* (‘SPS Agreement’),⁶⁷ these measures must also be “necessary” and “based on scientific principles”, maintained with sufficient scientific evidence.⁶⁸ Herein lies the difficulty. While the Australian system does apply scientific principles, it adopts a precautionary approach in that, unless a species is shown to be of low risk, it is rejected. In doing so, it is consistent with the NWS which states: “it is better to erroneously reject a plant species that would confer a new benefit than to erroneously admit one that would yield a net disbenefit”.⁶⁹

In complete contrast to the WRA, the SPS Agreement demands sufficient evidence to prove that the species is a weed before applying any import restrictions.⁷⁰ Nevertheless, the creators of the WRA argue that the process is a solution to Australia’s international obligations, as it adopts a scientific approach which provides sufficient evidence of potential weediness to satisfy the SPS Agreement’s requirements.⁷¹

One element which, on its face, the WRA does not address, is the economic consideration requirement of the SPS Agreement. The SPS Agreement requires that the economic detriment caused by applying import restraints is to be weighed up against the negative effects of weed incursions, along with the overall objective of minimizing negative trade effects.⁷² This preoccupation with economic impact has arguably led to international law favouring a lowering of quarantine standards.⁷³

VI CONCLUSION

Quarantine in Australia is implemented through the framework established under the QA, which provides the scope for any kind of “measure” of import restriction to be used to address the problem of weed incursions. This framework is then given substance through the risk assessment process which addresses the scientific potential for the weediness of plant species, as well as science can at the present time. Therefore, the potential of the system is very heartening. However, the implementation of the system is subject to resourcing constraints and continuous international pressure to allow imports, through trade demands and international obligations. These elements prevent the Commonwealth from taking a hardline approach and banning imports, which is possible under the domestic legislation. Even if a ban were adopted, it is unrealistic to imagine that the enforcement of quarantine regulation will ever be perfect. Therefore, although the Australian quarantine system can perform well as a first line of defence

⁶⁶ Above Art XX(1)(b).

⁶⁷ *Agreement on the Application of Sanitary and Phytosanitary Measures* (‘SPS Agreement’) contained in the *Marrakesh Agreement establishing World Trade*, above note 61. *The International Plant Protection Convention* (under the auspices of the FAO) opened for signature 30 April 1952 ATS 1952 ATS 1952 No 5, entered into force 27 August 1952, also deals with plant protection from alien species, but the later two agreements have encompassed most of the substantive elements which relate to Australian quarantine.

⁶⁸ SPS Agreement, above Art 2.2. Emphasis added.

⁶⁹ National Weed Strategy, above note 8 p 32.

⁷⁰ There is the opportunity for an interim adoption of quarantine restrictions if sufficient data is unavailable to prove weediness, but if such an approach is adopted, the authorities must seek to obtain additional information necessary for a more objective assessment of risk and review the measure accordingly: SPS Agreement, above note 66 Art 5.7.

⁷¹ Pheloung, above note 26.

⁷² SPS Agreement, above Art 5.2-5.4.

⁷³ Gray, above note 29 at 250.

to weeds, control of weeds once in Australia will always be required in order to address the risks imposed by such species.

3 The Regulatory Options for Weed Management in NSW: the contexts of agriculture, biodiversity and planning

I INTRODUCTION

This chapter outlines the regulatory options for weed management within NSW, beginning with an argument for regulation. The Commonwealth and state legislative options for management are outlined. However, the discussion of the key Act in NSW, the *Noxious Weeds Act 1993* (NSW), is contained in Chapter 4.

II WEED CONTROL – THE NEED FOR REGULATION?

The NWS and the NSW Weed Strategy emphasise voluntary action and the voluntary cooperation of landholders in implementing weed control. A number of voluntary programs which include weed management have been in existence for at least a decade. These are landcare, bushcare, rivercare and coastcare, which are funded through NHT monies, criticized above as inadequate. Specific projects have also developed, from community calls for action and regulatory requirements for weed control.⁷⁴ In addition, ad hoc weed control occurs on property outside the organized programs.

Voluntary weed control is dependent on the will of individual landholders to be involved. Therefore, it cannot be assumed that every landholder will take part. The decision to do so will be based on the philosophy of the individual and a consideration of the cost-benefit ratio of the weed control. Agricultural weeds are likely to be controlled on productive land due to obvious economic benefits. However, the monetary value of the impact of weeds on non-productive areas is harder to quantify and therefore may lead to less control occurring in those areas.⁷⁵

One method to increase the coverage of weed control is to apply financial incentives. Tax concessions exist for activities addressing land degradation, under which weed control may fall,⁷⁶ as well as proposals for concessions for *all* environmental works with an “obvious community benefit”.⁷⁷ However, tax-based incentives only apply to people whose income is earned from the land and exceeds the tax-free threshold. Alternatives include direct funding for weed strategies flowing from the NWS or *NSW Weed Strategy*.⁷⁸ Regardless of the delivery of financial incentives, they may not always address the ‘motivational complexity’ which influences individuals’ decisions and therefore may not be sufficient to ensure voluntary programs are followed by every landholder.⁷⁹

Voluntary schemes, whether or not supported by financial incentives, cannot guarantee the involvement of every landholder. Therefore, some form of regulation is necessary to ensure weed control occurs across the landscape. The economic argument relating to ‘market failure’

⁷⁴ Examples include the South Coast Bitou Bush Project and the Parramatta River Foreshores Improvement Program.

⁷⁵ MS Common & TW Norton, *Biodiversity, natural resources accounting and ecological monitoring* Australian National University Centre for Resources and Environmental Studies Working Paper 1993/1 (1993) Canberra.

⁷⁶ *Income Tax Assessment Act 1997* (Cth) ss 38755, 38760.

⁷⁷ For example, the canegrowers’ submission to the current Inquiry by the House of Representatives Standing Committee on Environment and Heritage into the impact on farmers and landholders of public-good conservation measures, that there be a 150% tax deduction for such activities. Other proposals include a levy to fund conservation measures conducted by farmers: Environment Institute of Australia, (2001) 32 *Newsletter* at 7, and “investment allowances” or “tax credits”: NSW Farmers Association, *Submission to the Review of Legislation Concerning the Control of Weeds in NSW* (1998) p 4.

⁷⁸ See the discussion in Chapter 1.

⁷⁹ B Fisse & J Braithwaite, *Corporations, Crime and Accountability* (1993) Cambridge University Press, Cambridge p 190ff.

supports this proposition. In relation to weeds, market failure occurs where the social costs of weeds are not considered by an individual landholder. In such a situation, the government has a regulatory role to address this ‘failure’, by bringing non-cooperative landholders into the weed control system.⁸⁰

Regulation, including obligations and adequate enforcement, is necessary to achieve weed control, but it is in no way argued as sufficient. The ideal situation is the existence of regulation as an overall set of standards to ensure non-cooperative landholders satisfy some level of weed control, but used as a last resort. It should exist alongside education, research, funding and other government support. This combination aims at changing landholders’ practices and attitudes in order for the enforcement of the regulation to gradually become less necessary.⁸¹ This is in keeping with the view of the Illawarra District Noxious Weeds Authority, which argues that “All land occupiers have physical, moral *and* legal obligations to control noxious weeds on their land.”⁸²

III. AN OVERVIEW OF WEED CONTROL LEGISLATION

Regulation, albeit only part of the overall strategy of weed management, comes from legislation at both Commonwealth and state levels. While there is some potential to control weeds under the common law, that potential is beyond the scope of this discussion.⁸³

A. The Commonwealth – Potential and Reality

The Commonwealth’s legislative involvement in the management of weeds in Australia is dependent on constitutional power and the political will of the Parliament to enact legislation. The external affairs power of the Commonwealth Constitution is the most promising in relation to weed control,⁸⁴ as it allows the Commonwealth to legislate in order to implement obligations contained in treaties signed by Australia.⁸⁵ One such treaty is the *Biodiversity Convention*, which includes obligations to control and eradicate “alien species”.⁸⁶ Therefore, the Commonwealth can legitimately legislate to control weeds at a national level, although this power is perhaps limited by the definition of “alien species”, to weeds which are not native to Australia.

⁸⁰ K Menz, “Galvanised Burr, Control, and Public Policy Towards Weeds” (1977) 8(8) *Search* 281 at 285, DJ Pannell, “Economic justifications for government involvement in weed management: a catalogue of market failures” (1994) 9(4) *Plant Protection Quarterly* 131, W Clifford & J Braithwaite, *Cost-effective Business Regulation* (1981) Australian Institute of Criminology, Canberra p 12. However, it should be noted that ideally, the cost of the government’s involvement should be less than the cost of the market failure it is trying to address.

⁸¹ B Scott per Far North Coast County Council, *Submission: Review of the Noxious Weeds Act 1993* (14 Aug 1998) p 3, Illawarra District Noxious Weeds Authority, *IDNWA Submission: Review of Legislation Concerning the Control of Weeds in New South Wales* (1998) Illawarra District Noxious Weeds Authority, Wollongong p 4, Local Government and Shires Associations of NSW, *Submission to the Noxious Weeds Review Team: Review of the Noxious Weeds Act* (July 1998) pp 2-3.

⁸² Illawarra District Noxious Weeds Authority, *Obligations and Penalties* (undated), obtained by the author from the Authority’s Chief Weeds Officer, David Pomery, 14 August 2001, emphasis added.

⁸³ The doctrines of trespass, nuisance and negligence may be applicable. See for example the cases of *Van Son v Forestry Commission* (unreported, Supreme Court NSW 3 February 1995), *Watson v Cowen* [1959] Tas SR 194 and *Goldman v Hargrave* (1966) 115 CLR 458. For a general discussion of the duty to control weeds, see A Gardner, “The duty of care for sustainable land management” (1998) 5(1) *The Australasian Journal of Natural Resources Law and Policy* 29.

⁸⁴ *Commonwealth Constitution Act 1900* (Cth) s 51(xxix). Other powers such as the corporations power, s 51(xx), may provide indirect avenues for Commonwealth legislative power.

⁸⁵ *Commonwealth v Tasmania* (1983) 158 CLR 1 at 218-9 (Brennan J) and *Richardson v Forestry Commission* (1988) 164 CLR 261 at 298 (Wilson J) and at 321-3 (Dawson J).

⁸⁶ *UN Convention on Biological Diversity*, above note 32 Art 8(h). See also Arts 7(1), 10(b), 14(a), (b).

The Commonwealth legislation in this area is the EPBC Act, which is in part based upon the *Biodiversity Convention*, as the Act has the objectives of protecting the environment and conserving biodiversity.⁸⁷ The EPBC Act allows for direct control of weeds where they threaten biodiversity, by implanting regulations⁸⁸ or by listing weeds as “key threatening processes”⁸⁹ and then subjecting them to a threat abatement plan.⁹⁰ Indirect weed control measures are also available through bioregional planning,⁹¹ bilateral agreements⁹² and management plans for Commonwealth reserves.⁹³

At present, none of these options have been pursued. A lack of political will has been touted as the reason for inaction.⁹⁴ This view is consistent with the historical lack of implementation of Commonwealth environmental impact assessment procedures in relation to alien species.⁹⁵ The unwillingness to be involved in environmental management is in part due to the States traditionally being the level of government responsible for land management.

B New South Wales – Agriculture, Biodiversity, Planning

All of the state parliaments in Australia have enacted some form of weed control legislation.⁹⁶ This legislation varies in process, detail and coverage and therefore one of the objectives of the NWS is to achieve consistency across Australian jurisdictions.⁹⁷ This is to be achieved by a series of guidelines, which is yet to be finalised.⁹⁸ Due to the confines of space, the discussion of state legislation is restricted to NSW. Within NSW there is legislation dealing with weeds from a strictly biodiversity or agricultural perspective, as well as the potential to cover weed management within planning instruments. The legislative options are outlined in this chapter and compared with the legislation exclusively directed to weeds, the *Noxious Weeds Act 1993* (NSW), in Chapter 4.

⁸⁷ EPBC Act s 3.

⁸⁸ This can occur through regulations under EPBC Act ss 301A or 303(1). From the wording of s 301A, these regulations can cover any area in “the Australian jurisdiction” whereas the regulations under s 303(1) are restricted to “Commonwealth areas”.

EPBC Act s 183 (1), see the broad definition of “threatening process” in s 188(3), to include processes which threaten or may threaten the survival, abundance or evolutionary development of a native species or ecological community.

⁹⁰ EPBC Act ss 270A – 271.

⁹¹ EPBC Act s 176, which includes provisions relating to biodiversity objectives and the means to achieve those objectives: s 176(4)(c)-(d).

⁹² EPBC Act s 45(2)(a). For example, by stipulating that any environmental impact assessment must include a consideration of the impact of weeds.

⁹³ EPBC Act s 367, especially s 367(1)(b).

⁹⁴ Personal communication with John Thorpe, Project Manager, National Weeds Strategy Executive Committee, 7 September 2001.

⁹⁵ One of the Acts repealed by the EPBC Act, the *Environmental Protection (Impact of Proposals) Act 1974* (Cth), had the scope to do so, but only three documented instances occurred in relation to alien species, and only one of those was a plant: *Mimosa pigra* in the Northern Territory. See R Sharp, “Review of Australia’s National Environmental Impact Assessment Processes in the Control of Alien Species in order to Prevent Biodiversity Loss” (1999) 16(1) *Environmental and Planning Law Journal* 92 at 93.

⁹⁶ See the *Catchment and Land Protection Act 1994* (Vic), *Plant Diseases Act 1989* (WA), *Agricultural and Related Resources Protection Act 1976* (WA) & *Plant Pests and Diseases (Eradication Funds) Act 1974* (WA), *Animal and Plant Control (Agricultural Protection and other purposes) Act 1986* (SA), *Noxious Weeds Act 1964* (Tas), *Land (Planning and Environment) Act 1991* (ACT), *Rural Land Protection Act 1985* (Qld), *Noxious Weeds Act 1962* (NT) and the *Noxious Weeds Act 1993* (NSW).

⁹⁷ *National Weed Strategy*, above note 8 Objective 1.3, Strategy 1, p 30.

⁹⁸ They currently exist in draft form but are not publicly available: Personal communication with John Thorpe, Project Manager, National Weeds Strategy Executive Committee, 15 August 2001 & 10 October 2001. It should be noted that their implementation has been given a relatively low priority among the NWS projects: It is “to be tackled progressively, a lower priority than most other areas” of the NWS projects: *National Weeds Strategy: Role and Function of Executive Committee* Outcomes of the National Weeds Strategy Executive Committee Workshop (29th August 1997) Sydney.

(a) Agriculture or biodiversity

The historically agricultural focus of weed control is reflected in the *Seeds Act 1982* (NSW) ('Seeds Act') and the *Stock Foods Act 1940* (NSW) ('Stock Act'). The Seeds Act establishes a list of species, the seeds of which are prohibited from being sown, in order to protect purity of crops.⁹⁹ The Stock Act also establishes a list of species and then regulates the maximum amount of listed material that can be contained in stock food.¹⁰⁰ It does not directly prohibit the sowing of those species, but provides an incentive to primary producers to avoid using those plants. Due to the different objectives of the two Acts, the lists are not consistent with each other, nor are they consistent with the list under the Noxious Weeds Act 1993 (NSW), discussed below. However, there are moves to consolidate the three.¹⁰¹

In contrast to the long-standing concern for agricultural protection, concern for the environment has developed relatively recently. Nevertheless, it has resulted in the proliferation of legislation which addresses the impact of weeds on biodiversity. One example is the Threatened Species Conservation Act 1995 (NSW). Under that Act, the main avenue for the regulation of weeds is the listing of a weed invasion as a "key threatening process", where the weed adversely affects a listed species, population or ecological community, or could cause an unlisted element to become eligible for listing.¹⁰² Once a weed is listed, a threat abatement plan must be prepared.¹⁰³

The invasion of native plant communities by *Chrysanthoides monilifera* (bitou and boneseed)¹⁰⁴ is the only weed invasion listed¹⁰⁵ and the abatement plan is yet to be completed.¹⁰⁶ Current proposals for further listings are for animal pest species only. A prioritization process is under way within the National Parks and Wildlife Service ('NPWS'), which may lead to submissions for more weed invasions to be listed.¹⁰⁷

Legislative provisions for weed control in a biodiversity context are also contained in the *National Parks and Wildlife Act 1974* (NSW) and the *Wilderness Act 1987* (NSW). These place general statutory obligations upon the NPWS to care for and manage natural areas, a role which would encompass weed management.¹⁰⁸ To implement these obligations, the NPWS has a range of weed control programs, either for specific species or areas under NPWS control. These

⁹⁹ *Seeds Act 1982* (NSW) ss 8, 31, *Seeds Regulation 1994* (NSW) s 9, Schedule 2.

¹⁰⁰ *Stock Foods Act 1940* (NSW) ss 7, 11 and Schedule 1.

¹⁰¹ NSW Agriculture, *Review of Noxious Weeds Act 1993: Summary of Issues Paper* (1998) p 17.

¹⁰² *Threatened Species Conservation Act 1997* (NSW) (TSCA) s 15. There is also the indirect avenue of addressing weeds through recovery plans for threatened species: listing of threatened species takes place under TSCA Schedules 1 and 2. See TSCA ss 56-73 for provisions regarding recovery planning. For details of current programs see NSW National Parks and Wildlife Service, *Summary of Pest Management Programs 1999* at <http://www.npws.nsw.gov.au/wildlife/pestmgmt.pdf> (accessed 14 August 2001).

¹⁰³ TACA s 74(1), and the Endangered Species Protection Act 1992 (Cth) s 36 (this Act has been repealed by the EPBC Act but it is the reference for the requisite timing for threat abatement planning in the TSCA : s 74(2)).

¹⁰⁴ Bitou and boneseed are two recognized subspecies of *Chrysanthemoides monilifera*, both of which exist in NSW. See Parsons & Cuthbertson (2001), above note 10 p 273ff for details. The two subspecies have been listed together under the TSCA. For ease of discussion, only bitou will be referred to.

¹⁰⁵ TSCA Schedule 3.

¹⁰⁶ L Fraser, "Teaming up for biodiversity conservation" (2001) 17 *Gondwana* 3.

¹⁰⁷ Personal communication with Catherine Price, National Parks and Wildlife Service, 12 Sep 2001. At present there is no clear policy direction for the listing of plant weed species.

¹⁰⁸ *National Parks and Wildlife Act 1974* (NSW) s 12, *Wilderness Act 1987* (NSW) ss 9, 5(1)(d).

are complemented by the environmental assessment of those programs in order to balance conflicting management aims and the NPWS's weed control obligations.¹⁰⁹

NSW therefore has a range of legislation which can regulate weed management through an agricultural or biodiversity framework. Planning instruments provide an alternative approach.

(b) Planning Instruments

Planning instruments with the potential to deal with weed management can be created under the *Environmental Planning and Assessment Act 1979* (NSW) ('EPAA'), *Local Government Act 1993* (NSW) and general natural resource legislation. The EPAA is the main planning statute in NSW, setting up the framework for legally enforceable "environmental planning instruments" ('EPIs').¹¹⁰ These may be created to achieve any of the objectives of the EPAA,¹¹¹ which include the proper management of resources and areas and protection of the environment.¹¹² Due to the impact of weeds on biodiversity and agriculture, weed management is clearly encompassed within these objectives.

To date, weed control has not been one of the foci of EPIs, although weed management has been included as an aim or objective of some EPIs.¹¹³ Weed management has also been incorporated into management plans for particular areas¹¹⁴ and as a compulsory consideration when obtaining development consent.¹¹⁵ Weed control can be made a condition of approval for a development application¹¹⁶ and has been considered as part of the "impact" of development, in proceedings before the Land and Environment Court.¹¹⁷ There is the potential for weed management to be considered across the planning system, by including it in a State Environmental Planning Policy. However, this has not been done. There are proposals for changing the planning system, which are supposed to create a more coordinated system and perhaps have more success in incorporating weed management across NSW.¹¹⁸ However, the proposals do not seem to extend the potential of the current arrangements, but only change the terminology.¹¹⁹

The *Local Government Act 1993* (NSW) ('LGA') provides another basis for plan making which could address weed control. Weed management may be contained within a plan of management

¹⁰⁹ S Mellor & J Muldoon, "Reviews of Environmental Factors for Weed Control" in Blackmore P (ed), 10th Biennial Noxious Weeds Conference – Ballina 1999: Papers (1999) NSW Agriculture, Armidale p 152. The NPWS' standard review of environmental factors is at pp 156-9.

¹¹⁰ These currently include State Environmental Planning Policies, Regional Environmental Plans and Local Environmental Plans.

¹¹¹ EPAA s 24.

¹¹² EPAA s 5(a)(1) and (vi).

¹¹³ *Illawarra Regional Environmental Plan No 1* s 11, *Illawarra Regional Environmental Plan No. 2 Jamberoo Valley* s 2, *Uralla Local Environmental Plan 1998* Schedule 1 s 7.

¹¹⁴ *State Environmental Planning Policy No 15 – Rural Landsharing Communities* cl 10(e), *State Environmental Planning Policy No 19 – Bushland in Urban Areas* cl 8(4), *Hunter Regional Environmental Plan 1989* s 26(6)(g).

¹¹⁵ *Byron Local Environmental Plan 1988* s 38A(3), *Sydney Regional Environmental Plan No 27 – Wollondilly Regional Open Space* s 18B(1), *Gunnedah Local Environmental Plan 1998* s 12(2), *Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment* s 11, *Tweed Local Environmental Plan 2000* s 28(4).

¹¹⁶ *Associated Minerals Consolidated Ltd v Wyong Shire Council* [1976] 3 LGATR 383.

¹¹⁷ *Hornsby Shire Council v Moit* [2001] NSWLEC 50 revised 29 March 2001, *Penrith Pty Ltd v Mathie* [2000] NSWLEC 57.

¹¹⁸ NSW Department of Urban Affairs and Planning, *Planfirst: Review of plan making in NSW – White Paper* (February 2001).

¹¹⁹ Compare the terms in above note 110, with the proposed "state planning policies", "regional strategies" and "local plans": *Planfirst*, above p 6.

(‘POM’) for land classified as a ‘natural area’.¹²⁰ The POMs must address the objectives of that land category,¹²¹ which include the maintenance and restoration of biodiversity.¹²² Therefore, weed management could be included due to the threat weeds pose to biodiversity. This is already taking place. For example, in the management planning process for the Wollongong local government area, “pest species” have been identified as a “key issue”.¹²³

In addition to the EPAA and LGA systems, there are natural resource management regimes which have the potential to provide for weed management.¹²⁴ One example from the catchment management regime is the plan-making process of the Southern Catchment Management Board (‘SCMB’).¹²⁵ Within that process, the SCMB has identified weeds as an “area for opportunity and high need”¹²⁶ and has created a weeds sub-committee to develop a plan for weed control.¹²⁷ This had led to the creation of a catchment target to control the infestation of weeds against a specified level for each weed species. Under the proposal, weeds are to be prioritized, mapped and control strategies developed.¹²⁸

¹²⁰ *Local Government (General) Amendment (Community Land Management) Regulation 1998* (NSW). These amendments also required ‘natural areas’ to be further categorized as: areas of cultural significance, bushland, wetland, escarpment, foreshore or watercourse.

¹²¹ LGA s 36.

¹²² LGA ss 36E, 36J, 36K, 36M.

¹²³ Personal communication with Paul Formosa, Natural Areas Coordinator, Wollongong City Council, 3 August 2001.

¹²⁴ Weeds can be addressed within water management plans: *Water Management Act 2000* (NSW) s 15 which then become incorporated into Regional Environmental Plans: s 46; catchment management plans: *Catchment Management Act 1989* (NSW) s 28(1) and *Catchment Management Regulation 1999 No. 686* (NSW) cl 7; and regional vegetation management plans: *Native Vegetation Conservation Act 1997* (NSW) s 25.

¹²⁵ The SCMB must produce a catchment management plan for its region: *Catchment Management Act 1989* (NSW) s 28(1).

¹²⁶ Southern Catchment Management Board, *Briefing Paper* (Version 1, May 2001) p 17.

¹²⁷ The membership includes four weeds officers, a representative from the Department of Land and Water Conservation, landholders in the catchment area and Council members: personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001.

¹²⁸ Southern Catchment Management Board, *Community Discussion Paper: Draft Targets* (2001) p 6, Southern Catchment Management Board, *Catchment Blueprint for the southern region* (October 2001) pp 4-5, 12-13.

IV CONCLUSION – LEGISLATIVE POSSIBILITIES

Weed control takes place under a variety of voluntary programs which are supported by financial incentives, but regulation will always be required to ensure control occurs on every property. Regulation with the potential to effect weed control is contained in State and Commonwealth legislation. The Commonwealth's role is potentially very broad but has to date been limited to the provision of funding through the NHT under the NWS and a small amount of regulation which is yet to be implemented in relation to weeds.

The states, on the other hand, have been active in the regulatory sphere for many years. In NSW this currently includes a range of legislative approaches to the problem of weeds, within agricultural, biodiversity and planning contexts. However, the key Act for weed management in NSW is the *Noxious Weeds Act 1993* (NSW). In order to analyse the reality of weed management, the next chapter examines both the scope and implementation of that Act.

4. The Noxious Weeds Act: a study of the scope and implementation of weed regulation

I INTRODUCTION

The overview of Chapter 3 reveals the range of regulatory weed management options.¹²⁹ All of the Acts outlined have the capacity to address weeds within the contexts of agriculture, biodiversity or planning. This is in contrast to the Noxious Weeds Act 1993 (NSW) ('NWA'), which focuses solely on the problem of weeds and is, in practice, the key piece of legislation for the control of weeds in NSW. This chapter examines the potential of the NWA along with its implementation, by considering the interrelationship between the Act, policy and other regulatory regimes. The discussion addresses the process of listing weeds and the methods of weed control to satisfy the control obligations which flow from that listing.¹³⁰ The enforcement provisions adopt a simplistic pyramid model of escalating measures. The practical application of this model is critically evaluated.

II HISTORY, ADMINISTRATION & REVIEW OF THE NWA

The NWA is a relatively recent statute but its roots lie deep within the weed legislation of the 1800s, which grew from exclusively agricultural concerns¹³¹ and addressed individual weeds like thistles¹³² and prickly pear.¹³³ In 1906, the direct regulation of weeds came under the more general framework of the *Local Government Act 1906* (NSW). Councils were given the power to declare plants "noxious", which imposed an obligation on private landholders and councils to destroy the declared plants on their property.¹³⁴ The Crown was exempted from the obligation.¹³⁵ This framework remained in operation until 1993, when the NWA came into force.¹³⁶

The NWA is entitled "An Act for the identification, classification and control of noxious weeds..." It is administered solely by NSW Agriculture, which is a change from the previously shared arrangement with the Department of Local Government. However, despite the official change in administration, local government still plays a significant role, flowing from the definition of a "local control authority" ('LCA'). An LCA is usually "the council of the local

¹²⁹ There is also legislation such as the *Commons Management Act 1989* (NSW) which grants statutory bodies the power to control weeds: ss 5, 9(1)(I), Schedule 1 cl 5(b). Also see the *Rural Lands Protection Act 1989* (NSW) under which the Rural Lands Protection Boards may levy rates to exercise their weed control functions: s 54A.

¹³⁰ There are also a range of prohibitions, which are not addressed, including the prohibition against selling or purchasing weed material: *Noxious Weeds Act 1993* (NSW) s 28, sale of turf from infested land: s 29 and "scattering" weed material: s30.

¹³¹ See L Tanner, "Prickly Pear – a New Noxious Weeds" in L Tanner & P Nolan (eds), *8th Biennial Noxious Weeds Conference – Goulburn 1995: Proceedings* (1999) NSW Agriculture, Goulburn p 118 and WT Parsons, *Noxious Weeds of Victoria* (1973) Inkata Press, Melbourne p 14.

¹³² Parsons (1973) above.

¹³³ *Prickly Pear Destruction Act 1886* (NSW). Legislation directed specifically to the control of prickly pear remained in operation in various forms until 1 January 1997, when the legislation was repealed and the species was subsumed under the *Noxious Weeds Acts 1993* (NSW) system: *Statute Law (Miscellaneous Provisions) Act (No 2) 1996* No 121 Schedule 1 cl 1.13.

¹³⁴ *Local Government Act 1906* (NSW) ss 109, 110, 112.

¹³⁵ *Local Government Act 1906* (NSW) s 112(1)(c). This immunity continued in the 1919 re-drafting of the Act: *Local Government Act 1919* (NSW) s 466(e).

¹³⁶ This occurred on 1 July 1993: NSW Government Gazette No 65 of 25 June 1993 p 3140. A couple of changes were effected in the 1919 re-drafting of the LGA: an extension of the obligation to destroy weeds to include thereafter keeping the land free from noxious weeds: *Local Government Act 1919* (NSW) ss 470(1)(c), 471(1)(a) and the inclusion of watercourses, in addition to land, as the area for obligatory control: s 474. Other minor changes were the explicit mention of "aquatic" weeds: Part XXVIII, and a requirement for Councils to comply with their neighbouring councils' weed control programs: s 475.

government area, or ...a county council”,¹³⁷ which is a combination of local councils, and its functions are to administer and enforce the NWA over private and council lands.¹³⁸ There is also an advisory system centred around the Noxious Weeds Advisory Committee (‘NWAC’), which is the state-wide body responsible for weed policy,¹³⁹ under which there are regional committees.¹⁴⁰ A review of the NWA commenced in 1998, as required under the ACT¹⁴¹ and National Competition Policy. Following the receipt of numerous submissions,¹⁴² a report was given to the Minister for Agriculture (‘the Minister’) at the end of 1998, recommending legislative changes.¹⁴³ However, the report has not yet been released. It is currently with the NSW Cabinet Office and no details are forthcoming concerning when or if it will ever be made public, nor details of the substance of the report.¹⁴⁴ The following discussion is therefore based upon the NWA as it existed at July 2001, incorporating some of the concerns raised in submissions to the Review, but without the benefit of the comprehensive report.

The NWA functions through the listing of a weed, obligations to control the listed weeds and enforcement procedures to ensure those weeds are properly controlled. These elements are discussed in turn.

III LISTING – THE BASIS OF THE NWA

Listing a weed is the basis of the NWA, as it is from this act that regulation flows. Historically, listing was of agricultural weeds only,¹⁴⁵ with the exclusive criterion for listing being that the

¹³⁷ NWA s 35. In the Western Division, the LCA is the Western Lands Commissioner and in some areas, the Department of Land and Water Conservation is the LCA: J Cummins, “Turning Theory into Practice – an Extension and Action Program to Control Mesquite in Far-western NSW” in Blackmore P (ed), *10th Biennial Noxious Weeds Conference – Ballina 1999: Papers* (1999) NSW Agriculture, Armidale p 105.

¹³⁸ NWA s 11(2).

¹³⁹ The NWAC has representatives from state departments, local government, conservation, farming, industry and community sectors: Noxious Weeds Advisory Committee, *Role and Method of Operation of Noxious Weeds Advisory Committee* Noxious Weeds Advisory Committee Policy Paper 5 (Oct 2000) para 2.1 at <http://www.agric.nsw.gov.au/reader/1972> (accessed 2 August 2001).

¹⁴⁰ NSW Agriculture has split the state into eight regions for the purpose of weed control, represented by the Southern Tablelands and South Coast Noxious Plants Committee, South West Sydney and North Sydney Regional Weeds Advisory Committee, Hunter and Central Coast Regional Weeds Advisory Committee, NSW North Coast Regional Weeds Committee, Sydney West and Blue Mountains Regional Weeds Committee, Western and Eastern Riverina Noxious Weeds Advisory Committee, Namoi/Gwydir Noxious Plants Advisory Committee and the Macquarie Valley and Lachlan Valley Noxious Plants Advisory Committee.

¹⁴¹ NWA s76.

¹⁴² NSW Government, *Review of legislation concerning the control of weeds in New South Wales for public display: Issues Paper* (May 1998).

¹⁴³ G Eggleston, “The Review of the Noxious Weeds Act” in P Blackmore (ed), *10th Biennial Noxious Weeds Conference – Ballina 1999: Papers* (1999) NSW Agriculture, Armidale p 26. Some writers have suggested that consolidation of provisions is likely, but following communication with them, no further details were obtained: Williams & West, above note 60 at 444, followed by personal communications between Williams and the author, September 2001.

¹⁴⁴ No information is available from NSW Agriculture: personal communications with Richard Carter, Director of the Weeds Program, NSW Agriculture, 27 July 2001 & 17 September 2001 and Bob Trounce, Chief Weeds Agronomist, NSW Agriculture, 11 Sep 2001, and with general staff on 5 November 2002, or the Cabinet Office of the NSW Parliament: personal communication with Elizabeth Hurst, Cabinet Office, NSW Parliament, 3 October 2001. This failure to release any information has led to calls for a new review in order to address the deficiencies of the current system but they have gone unheeded. A motion was passed by the Local Government and Shires Association of NSW in 1999 requesting a “time limit on the current review process so as to ensure an outcome is achieved, or alternatively implement a new review process to be tabled and reported on within the next twelve months”: Pomery D, *Briefing notes for delegates: Local Government Association of NSW 1999 Annual Conference*.

¹⁴⁵ The listing therefore reflected the land use in Australia at the time – the first listings were for fodder species, followed by the listing of cropping weeds: R Carter, “Strategies and planning for weed control” in M

weed posed a “serious risk” to agriculture. There was no consideration for the possibility (or otherwise) of complying with the control obligations.¹⁴⁶ In addition, the listings seem to have occurred on the basis of the conspicuous visual characteristics of weeds, rather than an evaluation of the detriment they caused.¹⁴⁷ Has anything changed with the NWA?

A The potential scope of listings under the Noxious Weeds Act

Listing under the NWA occurs when the Minister makes an order in the Gazette.¹⁴⁸ In contrast with the LGA scheme, the listing can be for the whole or part of the state.¹⁴⁹ Each species must be nominated into one of four categories (W1-W4), which leads to specific control obligations, to be discussed below.¹⁵⁰ This is in contrast to the previous blanket listing of a weed as “noxious”. There have been suggestions that the Act is agriculturally focused, a perception perhaps arising from the involvement of NSW Agriculture, the inadequacies of the consultation process prior to the introduction of the NWA and the history of weed legislation.¹⁵¹ However, the provisions of the Act allow the listing of *any* plant, including native species¹⁵² and therefore the Act has the potential to cover agricultural and environmental weeds equally. The NWA does not specify how or on what basis listings are to take place. All that it prescribes is that the Minister has the final say. Therefore, the Act has the scope for the listing of every weed on every property in NSW.

B The policy for listing – process and criteria

Details for the listing process and criteria have been prescribed in policy made by the NWAC.¹⁵³ It should be noted that the NWAC, and therefore also its policies, is subject to the discretion of the Minister.¹⁵⁴

The process of listing a weed usually begins with LCAs. They write a proposal, it is discussed at the regional level¹⁵⁵ and submitted to the Technical Weeds Committee of the NWAC, which makes a recommendation to the Minister. Where the weed is of state significance, the NWAC itself will take a nomination to the Minister.¹⁵⁶ In all cases, the Minister makes the final

Michelmore (ed), *9th Biennial Noxious Weeds Conference – Dubbo NSW 1997: Papers* (1997) NSW Agriculture, Goulburn p 10.

¹⁴⁶ Parsons (1973), above note 131 p 19.

¹⁴⁷ HPC Trumble, “Principles of weed legislation” in *Proceedings of the 1st Conference of the Council of Australian Weed Science Societies Melbourne 12 –14 April 1978* 431 at 432, FD Panetta & JC Scanlan, “Human involvement in the spread of noxious weeds: what plants should be declared and when should control be enforced?” (1995) 10(2) *Plant Protection Quarterly* 69 at 69 and A Tideman, “Noxious Weeds of Victoria by WT Parson: Book Review” (1974) *The Journal of the Australian Institute of Agricultural Science* 45.

¹⁴⁸ NWA s 7(1). There was a proposed amendment for listings to occur through regulation, to allow parliamentary review, but that amendment was defeated: New South Wales, *Parliamentary Debates (Hansard)*, Legislative Council, 21 April 1993 p 1333 (Hon RSL Jones).

¹⁴⁹ NWA s 7(2).

¹⁵⁰ NWA s 8(1).

¹⁵¹ See for example, New South Wales, *Parliamentary Debates (Hansard)*, Legislative Assembly, 31 March 1993 p 1047 (Mr McManus) & Legislative Council, 20 April 1993 p 1242 (Elizabeth Kirkby) and p 1244 (Jan Burnswoods), where the members of parliament argued that environmental concerns and environmental groups were excluded from any discussions of the NWA before its enactment.

¹⁵² The Minister responsible for National Parks must give consent to the listing of a native species: NWA s 7(4).

¹⁵³ Noxious Weeds Advisory Committee, *Policy on declaration of weeds* Noxious Weeds Advisory Committee Policy Paper 1(November 1995) at <http://www.agric.nsw.gov.au/reader/1973> (accessed 27 July 2001).

¹⁵⁴ NWA s 56.

¹⁵⁵ Personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001.

¹⁵⁶ For example, the nomination of bitou bush in 1998 for coastal NSW.

decision.¹⁵⁷ This listing process therefore allows local, regional and state concerns to inform the listing of a weed.

One seemingly logical basis for listing a weed is the seriousness of the impacts of the weed. However, NSW Agriculture has made it very clear that the categorization of weeds is *not* intended as a rating of their respective seriousness.¹⁵⁸ Instead, the NWAC policy is determinative of the criteria to be applied. Criteria has been established for listing under each category,¹⁵⁹ as well as the following considerations for all listings:

- The potential of the weed to spread and become established,
- Whether the weed has or could have serious adverse effects on agriculture, the environment or human health,
- Whether a significant and clear public benefit would be achieved if the weed is declared,
- The existence of “reasonable and enforceable means” of controlling the weed,
- The existence of a “firm intention” to implement a planned program to control the weed, and
- That the weed either does not occur in NSW or is of limited distribution.¹⁶⁰

C Analysis of the listing criteria

These guidelines show a strategic and realistic approach to the listing of weeds, by identifying only those weeds for which there exist the means and will to control them, and which have serious impacts. This approach restricts the weeds which may be listed. However, it does not prevent unlisted weeds being controlled when the occupier considers regulation is only one of a number of incentives to control weeds.¹⁶¹ Nevertheless, the restriction based on available controls does assume that the research conducted for the development of control methods will occur in the absence of a regulatory incentive. While this may be true of research regarding agricultural weeds, as there is an independent financial incentive, it is questionable whether funds will be available in relation to environmental weeds.

One positive element of the listing guidelines is the inclusion of weeds detrimental to the environment.¹⁶² Another is the preventative approach, by considering weeds which have not yet become widespread in NSW, but which have the potential to do so. On the other hand, the

¹⁵⁷ See Noxious Weeds Advisory Committee (November 1995), above note 153 para 1.3. The nominations are addressed annually unless there is an emergency: para 3.3.

¹⁵⁸ M McDonald (ed), *NSW Noxious Weeds Legislation* Agnote DPI/78 (2nd Edition, September 1993) NSW Agriculture p2.

¹⁵⁹ Noxious Weeds Advisory Committee (November 1995), above note 153 para 1.5 – see Appendix 3 for details.

¹⁶⁰ Above paras 3.5 – 3.6.

¹⁶¹ Examples of this include Sydney Water and Wollongong City Council who have both identified “environmental weeds”, which have not been listed under the NWA, and subject them to routine control. Wollongong Council’s definition of environmental weeds is those weeds which are of concern but which are not listed under the NWA. The weeds are often chosen ad hoc, through complaints by residents and inspections of Council land by the Council Weed Team: personal communication with Paul Formosa, Natural Areas Coordinator, Wollongong City Council, 3 August 2001. Sydney Water has a formalized approach through its *Noxious & Environmental Weeds Policy* (Issued Jan 1996, Updated at December 1997). Under that policy, control is effected on a list of weeds which satisfy the definition of “a plant that readily invades indigenous vegetation, adversely affecting the regeneration and survival of the indigenous flora” and which have not been declared under the NWA: *Policy* p 4/5

¹⁶² This is the only substantive change from the official listing policy that has existed since 1969, which is outlined by J Strang, Chairman of Noxious Weeds Advisory Committee, Department of Local Government, Sydney in his “Letter to the editor re Noxious Weeds” 1969 5(2-3) *Farm Management: Journal of Farm Management Sector of Australian Institute of Agricultural Science* 28.

inclusion of this criterion as a general consideration for all listings therefore excludes serious widespread weeds from the NWA obligations.

The NWAC criteria do not include the financial capacity of occupiers. Further, the policy states that listing does *not* inevitably lead to increased funding for weed control.¹⁶³ This, in combination with the weighting of government funding towards specific regional and state programs,¹⁶⁴ has meant that listing a weed can jeopardize the ability of LCA's to control other weeds. The example of the state-wide listing of bitou placed obligations on LCAs to control the weed on waterfront property, which is predominantly council land. The diversion of existing funding to the regional bitou project has led to a decrease in the management of other weeds in those areas due to the inability of LCAs to obtain replacement funds.¹⁶⁵

IV. CONTROL: OBLIGATIONS AND PRACTICE

A The obligations

Once a weed is listed under a control category, landholders are subject to the following obligations:¹⁶⁶

¹⁶³ Noxious Weeds Advisory Committee (November 1995), above note 153 para 3.7.

¹⁶⁴ NSW Agriculture *Noxious Weed Grants 2000-2001: A summary of noxious weed grants paid by the NSW Government and NSW Agriculture Planning Assistance grants 2000-01*.

¹⁶⁵ Illawarra District Noxious Weeds Authority (1998), above note 81 p 3.

¹⁶⁶ NWA s 9.

CATEGORY	OBLIGATIONS
W1	The presence of the weed on land must be notified to the local control authority and the weed must be fully and continuously suppressed and destroyed. ¹⁶⁷
W2	The weed must be fully and continuously suppressed and destroyed
W3	The weed must be prevented from spreading and its numbers and distribution reduced.
W4	Whatever action is specified in the declaration must be taken in respect of the weed. ¹⁶⁸

The obligations reflect a change from the LGA system, which required complete eradication of every weed. Weed eradication is considered to be nearly impossible and therefore the range of obligations which exist under the NWA is a move towards realism.¹⁶⁹ However, this approach has led to debate concerning whether realistic requirements will actually lead to sufficient weed control or whether onerous obligations are required to do so.¹⁷⁰

The obligations of control fall on private occupiers¹⁷¹ and LCAs that are occupiers.¹⁷² One major change from the previous legislation is that the NWA also binds the Crown.¹⁷³ However, the Crown must only exercise its obligations “to the extent necessary to prevent the weeds from spreading to adjoining land”.¹⁷⁴

B How to comply with the control obligations

The NWA obligations apply to all land but the legislation does not explain how the obligations are to be performed, apart from legislating the required end result. This is despite debate in the NSW Parliament for the inclusion of specific control methods.¹⁷⁵ Although this lack of detail means there is no *guarantee* of a sophisticated management regime being put in place,¹⁷⁶ in theory it does allow innovative measures to be adopted and the inclusion of weed control as part of a comprehensive and long-term management regime.

This possibility of long-term management is supported by the wording of the obligation to “continuously suppress” weeds, which implies the need for ongoing maintenance rather than a simple one-off action to remove the visible part of the weed. The interpretation is consistent

¹⁶⁷ In addition, there are restrictions on the movements of agricultural machines from Queensland into NSW: NWA ss 31-32, with the aim of preventing W1 weeds from entering NSW. The NWA would obviously be more comprehensive if it applied to all machines entering NSW regardless of origin. The choice of Queensland was affected by that state being the origin of many NSW weeds and the established inspection infrastructure on the Queensland/NSW border: New South Wales, *Parliamentary Debates (Hansard)*, Legislative Assembly, 31 March 1993 p 1045 (Mr Martin) & Legislative Council, 31 March 1993 p 1053 (Mr Armstrong).

¹⁶⁸ Under the W4 category, categories W4(a-g) have been created. The detailed control obligations are contained in Appendix 4.

¹⁶⁹ Parsons & Cuthbertson (2001), above note 10 p 5.

¹⁷⁰ New South Wales, *Parliamentary Debates (Hansard)*, Legislative Assembly, 2 March 1993 p 182 (Mr Armstrong, Noxious Weeds Bill 2nd reading speech), to be compared with New South Wales, *Parliamentary Debates (Hansard)*, Legislative Council, 20 April 1993 p 1239 (Hon RTM Bull).

¹⁷¹ NWA s 12. The obligation usually extends only to the boundary of the private occupiers’ property, but is extended to watercourses, roads etc when the property is in an irrigation area: s 17.

¹⁷² NWA s 14, which includes roads in the area of the LCA.

¹⁷³ NWA s 5.

¹⁷⁴ NWA s 13.

¹⁷⁵ New South Wales, *Parliamentary debates (Hansard)*, Legislative Assembly, 31 March 1993 p 1048 (Mr Windsor, member for Tamworth) and Legislative Council, 20 April 1993 p 1243 (Elizabeth Kirkby).

¹⁷⁶ In fact it has been claimed that it is impossible for any legislative prescription of weed management to do so: Carter, above note 145.

with judicial commentary in the animal pest context, where suppression was described as “not a single act, but a continuous process...of a regular and systematic series of operations following a definite course”.¹⁷⁷ On the other hand, the emphasis on “destruction” of weeds in categories W1 and W2, along with the general weed-specific approach, could encourage “the poison, burn and chainsaw brigade”.¹⁷⁸

C Choosing a control method

The NWA fails to prescribe control methods, but this allows flexibility. The range of individual control methods available for weeds can be grouped into four main types: biological, ecological, chemical and cultural.¹⁷⁹ Each approach has advantages and disadvantages, including cost of development and ease of application. Little guidance is received from the NWA, or related policy, as to how to make the best choice of control method.¹⁸⁰ However, the widely held view is that the following should be considered:

- the ecological nature of the weed, including its biology,
- the characteristics of the area of infestation, and
- the land use which exists.

The use of more than one method per weed species is often recommended through an “integrated” weed management system.¹⁸¹ This may be the optimal approach, but is it adopted in relation to the NWA obligations?

The decision of what method to adopt rests with the occupier in the first instance,¹⁸² and with the LCA upon default.¹⁸³ The first step in adopting the optimal approach is to have the relevant information. It is questionable whether it exists for every weed, but what is in existence can be easily accessed through the advice and information services of LCAs¹⁸⁴ and NSW Agriculture,¹⁸⁵ along with general publications.¹⁸⁶

¹⁷⁷ *King v Tait* [1952] SR (NSW) Vol 52 at 137. This case involved the application of the *Pastures Protection Act 1934-1949* (NSW) which was concerned with the eradication of pest animals, but that Act contained a similar wording to the obligation made under the NWA, to “continuously suppress and destroy”: *Pastures Protection Act 1934-1949* (NSW) s 81.

¹⁷⁸ New South Wales, *Parliamentary Debates (Hansard)*, Legislative Council, 20 April 1993 p 1245 (Jan Burnswoods quoting Jeff Angel Director of the Total Environment Centre in 1993).

¹⁷⁹ Menz, above note 9 at 283, R Moore “Weeds and weed control in Australia” (1971) 37 *The Journal of the Australian Institute of Agricultural Science* 181 at 183. Biological control (biocontrol) includes the introduction of organisms like insects or fungus to attack the target weed and ecological control includes the use of competition plants which inhibit the growth and dominance of weeds and assist indigenous species. Chemical control is the application of herbicides and cultural control is the use of fire, manual removal or farming mechanisms.

¹⁸⁰ The only guidance is in policy statements encouraging the use of biocontrol agents: Noxious Weeds Advisory Committee, *Policy on use of biological control in response to a Section 18 notice* Noxious Weeds Advisory Committee Policy Paper (4 November 1995) at <http://www.agric.nsw.au/reader/1976> (accessed 2 August 2001).

¹⁸¹ *The National Weeds Strategy*, above note 8 p 12.

¹⁸² This is supported by comments in *JW Murphy v Hawkesbury River County Council*, Appeal No. 20074 & 20075 of 1997, 7 October 1997, unreported judgement of G T Brown Assessor, Land and Environment Court of NSW at p 7.

¹⁸³ *O’Neill v The Far North Coast County Council* 1968 LGRA 14 at 334 p 338. The LCA can decide on the method either by specifying the method to be used, in a weed control notice, or by controlling the weed itself.

¹⁸⁴ In some cases this is available on an individual basis: personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001.

¹⁸⁵ See the Department’s website which includes information on control methods for all listed weeds and access to other documents for further details: www.agric.nsw.gov.au

¹⁸⁶ For example, Parsons & Cuthbertson (2001), above note 10 and Wright P (ed), *Bush Regenerators’ Handbook* (1991) National Trust of Australia (NSW), Sydney.

Ecological information is available, but the factors which affect an occupier's choice of control method are not restricted to a purely scientific evaluation. The financial capacity of the occupier, with or without government funding, along with their philosophical attitudes or policies concerning each possible method, will play a significant role in deciding how a weed will be controlled.¹⁸⁷ In the most favourable instances this could lead to the adoption of an integrated approach through combining weed control methods, coordinating with adjoining landholders¹⁸⁸ and taking preventative action.¹⁸⁹ However, this is not guaranteed or required.

D Regulation of the control methods

The NWA ignores the possible detriment that can be caused by the adoption of certain control methods. This concern was raised in the parliamentary debates, by farmers and conservationists, who argued that control methods may leave chemical residues in stock or cause environmental damage.¹⁹⁰ Amendments to the NWA were suggested to incorporate the precautionary principle and environmental impact assessment of control methods, but these proposals were defeated.¹⁹¹

Historically, there was little consideration of the ecological consequences of weed control¹⁹² but today there are regimes which can regulate control methods. The methods which cause the most concern are the application of herbicides, clearing and the use of biocontrol agents.

(a) Specific methods and their regulation

▪ *Herbicides*

Herbicides are chemicals used to control weed species, but their use has human health implications and raises environmental concerns, including the possible pollution of water. The human health concerns are addressed through a myriad of regulations and policy guidelines.¹⁹³

¹⁸⁷ For example, the NSW Farmers Association requires a good cost-benefit ratio to apply a control method: NSW Farmers Association (1998), above note 77, which is an idea that extends back to 1978: Trumble above note 147 p 433. Other practices include organic growers and permaculture farmers avoiding the use of chemical control methods even if they are the most effective method.

¹⁸⁸ A communal approach has specifically been stated to be irrelevant to the NWA as the Act focuses on specific and individualized obligations: *JW Murphy v Hawksbury River County Council*, Appeal No. 20074 & 20075 of 1997, 7 Oct 1997, unreported judgement of G T Brown Assessor, Land and Environment Court of NSW at pp 8-9, *RW Carveth v Cooma Monaro Shire Council*, No 10945 of 2000, 3 May 2001, unreported judgement of Dr J Roseth Commissioner, Land and Environment Court of NSW at p4.

¹⁸⁹ Sydney Water (1996), above note 161. This also includes using indigenous species, encouraging the use of biocontrol in favour of other methods and makes a scientific evaluation of the appropriate control method considering the weed species, soil erosion risk, location, habitat requirements and landuse. The NWA is considered as only part of the weed control regime. See also Snowy River Shire, *Noxious Weeds Policy* at http://www.snowyriver.nsw.gov.au/s9s_weed.htm (accessed 18 Sep 2001).

¹⁹⁰ New South Wales, *Parliamentary Debates (Hansard)*, Legislative Council, 20 April 1993 pp 1241-1242.

¹⁹¹ *New South Wales, Parliamentary Debates (Hansard)*, Legislative Council, 20 April 1993 pp 1247-1248 (R S J Jones).

¹⁹² Williams and West, above note 60 p 425.

¹⁹³ These include the *Occupational Health and Safety Act 1983* (NSW), *Occupational Health and Safety (Hazardous Substances) Regulations 1996* (NSW), *Fisheries and Oysters Farming Act 1935* (NSW) regarding the impact on aquatic life, *Dangerous Goods Act 1975* (NSW) and *Regulations 1999* concerning storage and handling, the *Australian Drinking Water Guidelines* (1996) and the *National Water Quality Management Strategy*. These are administered by NSW Health who tests for contamination and deals with poisons, including herbicides, through the Commonwealth Health Department *Standard for the Uniform Scheduling of Drugs and Poisons for labeling and packaging*. There is also the *Food Act 1989* (NSW) which provides monitoring for residues in food and A14 of the *National Foods Standards Code* published by the Australian and New Zealand Food Authority.

The most important of these address training, registration, use and disposal.¹⁹⁴ In addition, some LCAs adopt practices that go beyond the requirements to ensure health implications are minimized.¹⁹⁵ The system is quite comprehensive and subject to ongoing assessment.¹⁹⁶

Polluting water, which includes contamination by herbicides, is generally prohibited.¹⁹⁷ However, there is a defence where a licence is held from the Environment Protection Authority ('EPA') and any licence conditions are complied with.¹⁹⁸ In practice, the EPA is discouraging applications for licences relating to the use of herbicides *near water*¹⁹⁹ and has instead established guidelines which should be followed.²⁰⁰ For herbicide use *in water*, licensing is favoured by the EPA,²⁰¹ however most licences issued have been to government bodies.²⁰² In contrast, the experience of private occupiers has been of the EPA stating they do not wish to receive applications, especially in relation to closed waterbodies.²⁰³ This may be due to a lack of capacity to deal with the licence administration.

▪ *Clearing*

Clearing is an obvious way of removing weeds. However, it raises concerns about land degradation and the risks for non-target species of flora and fauna. There are regulatory regimes which generally prohibit clearing of land without consent, allowing some form of assessment to occur before clearing takes place.²⁰⁴ However, the exemptions under those regimes render clearing restrictions virtually ineffective in relation to most activities for weed control.²⁰⁵

¹⁹⁴ *Pesticides Act 1999* (NSW) ss 10-11, along with offences for the failure to abide by use restrictions and handling requirements: ss 9, 12-17. Regulations under that Act are currently in a stage of development, especially the proposed *Pesticides Amendment (Records) Regulation 2000*. (NSW). Section 5 of the *Agricultural and Veterinary Chemicals (New South Wales) Act 1994* (Cth) incorporates the *Commonwealth Agricultural and Veterinary Chemicals Code* (1994), which applies to herbicides: *Pesticides Act 1999* (NSW) s 5. See also the *National Strategy for Management of Agricultural and Veterinary Chemicals* (1998).

¹⁹⁵ See for example the Maclean Shire Council, *Policy for Herbicide Spray Application* at <http://www.msc.nsw.gov.au/noxious%20weeds/herbicide%20spray%20application%20policy.htm> (accessed 18 Sep 2001).

¹⁹⁶ EPA NSW, *Improving Pesticide Management in NSW – Discussion Paper* (1997) EPA, Chatswood.

¹⁹⁷ *Protection of the Environment Operations Act 1997* (NSW) s 120. In addition, there are specific restrictions on the use of herbicides in catchment areas to prevent pollution of drinking water supplies: *Sydney Water Regulation 2000* (NSW) s 29, *Sydney Water Catchment Management Act 1998* (NSW) and *Sydney Water Catchment Management Regulation 2000* (NSW) ss 3, 24, Schedules 1, 2.

¹⁹⁸ PROTEA s 120, 122.

¹⁹⁹ Personal communication with David Nicholson, Water and Catchment Policy Section, NSW EPA, 2 October 2001. "Near Water" means "on the banks of waterways, in intermittent streams and in stormwater drains" EPA NSW, *Draft: Guidance for the use of herbicides near water* (2000) EPA, Sydney p 1.

²⁰⁰ EPA NSW (2000) above. These guidelines include a method for choosing whether herbicides should be used and if so, best practice for their use, application, disposal and reuse along with requirements for notification, record keeping and training. The guidelines remain in draft form because of changes to the *Pesticides Act 1999* (NSW) and regulations under that Act, which have not yet been enacted. The EPA is currently in the process of revising the guidelines to make them conform to the new requirements of registration and training: personal communication with David Nicholson, Water and Catchment Policy Section, NSW EPA, 2 October 2001.

²⁰¹ Personal communication with David Nicholson, Water and Catchment Policy Section, NSW EPA, 2 October 2001.

²⁰² See Appendix 5 for licence numbers and licensee details. Another option for environmental impact assessment of herbicide use by government authorities would be through Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW). However, this has been put in doubt by *Rundle v Tweed Shire Council* (1989) 68 LGRA. In that case the judge found, at 323, that herbicide spraying is not carried out *on the land* but *on plants*. Therefore, it is not a work on the land, so is not an "activity" as required under s 110(1) *Environmental Planning and Assessment Act 1979* (NSW).

²⁰³ Personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001.

²⁰⁴ *Native Vegetation Conservation Act 1997* (NSW) ('NVCA') ss 18, 19 (land subject to a regional vegetation management plan), s 21 (land not subject to a plan) and s 22 (state protected land not subject to a plan). The

Other legislative instruments provide controls in relation to clearing on waterfront land,²⁰⁶ or require consent under an EPI. Some EPIs require consent for clearing which could cause “significant detriment to the native ecosystem”²⁰⁷ or for clearing on riparian or protected land.²⁰⁸ The proposed clearing can therefore be subject to environmental assessment under the EPAA.²⁰⁹

▪ *Biocontrol agents*

Biocontrol agents cause concern because they are usually non-natives and therefore have the potential to become damaging pests themselves. There are obvious examples of disastrous animal biocontrols, such as the cane toad. Although weed biocontrols are less conspicuous, they could be equally damaging if they attacked non-target species.

Biocontrol agents are regulated through the Commonwealth quarantine system.²¹⁰ A permit is required to import the agent, which is granted after inter-agency and inter-governmental consultation. Once a permit is granted, the agent has to stay in a controlled insectary, to allow monitoring of its activities before release.²¹¹ The release of the agent can then be subject to conditions.²¹² In addition, an inquiry can be held under state or Commonwealth legislation, to assess conflicts of interest in relation to release.²¹³

(b) Regulation – inconsistency or facilitation?

These regimes which regulate control methods place limitations on the manner in which the NWA obligations can be pursued. However, some regimes may completely prohibit any control of weeds in certain areas. The legislation of most concern is the *Heritage Act 1977* (NSW) (‘HA’). Under the HA, heritage agreements and listing of “items” can restrict works²¹⁴ and

NVCA covers both native vegetation generally and non-native species on “protected land” includes steep land, riparian land and environmentally sensitive land: NVCA s 4. These provisions came under the *Soil Conservation Act 1938* (NSW) until 1 January 1998 when they were subsumed into the NVCA. See also the *Western Lands Act 1901* (NSW) s 18DB(2) which incorporates the clearing requirements of the NVCA in relation to clearing on western leasehold land.

²⁰⁵ The exceptions under the NVCA include s 12(c) which allows clearing “authorized under the *Noxious Weeds Act 1993* (NSW)”, and the old SEPP 46 exceptions in NVCA s 3 & Schedule 4 which include (k) – clearing of vegetation declared a noxious weed, and others which could be used indirectly for the purposes of weed control such as (a) clearing up to 2 hectares per year. The exception under the *Western Lands Act 1901* (NSW) is only in relation to woody weeds: *Western Lands Regulation 1997* (NSW) Schedule 4 cl 8.

²⁰⁶ *Water Management Act 2000* (NSW) s 91(2), as clearing is contained within the definition of a “controlled act”.

²⁰⁷ *Sydney Regional Environmental Plan No. 17 Kurnell Peninsula* (1989) s 5. This EPI relates to the LGA section for weed control but would presumably also apply to weeds declared under the current system. *State Environmental Planning Policy no 14 – Coastal Wetlands* cl 7(4), *Greater Metropolitan Regional Environmental Plan No 2 Georges River Catchment* cl 23, *Sydney Regional Environmental Plan No 20 Hawkesbury-Nepean River* (No 2 1997) Schedule 3, *Sydney Regional Environmental Plan No 24 Homebush Bay Area* Schedule 2, *Maitland Local Environmental Plan 1993* cl 28(1)(a), (b), *Bellingen Local Environmental Plan 1990* s 35(a).

²⁰⁸ *Wellington Local Environmental Plan 1995* s 20(1).

²⁰⁹ Environmental Planning and Assessment Act 1979 (NSW) s 79C.

²¹⁰ *Quarantine Act 1908* (Cth) and see a discussion of this system in Chapter 2.

²¹¹ R Mfayden, “Protocols and Quarantine Procedures for Importation and Release of Biological Control Agents” in M Julien & G White, *Biological Control of Weeds: theory and practical application* (1997) Australian Centre for International Agricultural Research, Canberra at pp 64-5. The process includes an application of international guidelines contained in *FAO International Code for the Import and Release of Exotic Biological Control Agents*. Done in Rome 1995. Adopted by Australia in November 1995.

²¹² *Biological Control Act 1985* (NSW) s 33(2).

²¹³ *Biological Control Act 1984* (Cth) s 28 & Part VII, especially s 38, *Biological Control Act 1985* (NSW) Part VII.

²¹⁴ HA s 40(a), (d), (e).

prohibit damage to those “items”.²¹⁵ The definition of “item” is broad enough to encompass declared weeds.²¹⁶

Other regulatory regimes have the potential to cause such inconsistencies but include exemptions that facilitate weed control. Examples include EPIs which do not require development consent before conducting “weed control operations”,²¹⁷ or an exemption from offences related to burning vegetation.²¹⁸ However, although these measures facilitate weed control, they may result in detriment to the environment due to the bypassing of any environmental impact assessment otherwise available.

The discussion of control methods assumes weed control does take place. However, there are cases of non-compliance with the NWA, which raise the issue of enforcement.

V ENFORCEMENT

There are enforcement options under the NWA, discussed below. Alternatively, section 253(1) of the *Protection of the Environment Operations Act 1997* (NSW) (‘PROTEA’) could be utilized.

That section allows open standing for proceedings in the Land and Environment Court to restrain actual or threatened breaches of any Act if they could cause harm to the environment. It also gives the Court wide remedial powers²¹⁹. The failure to control weeds is clearly a breach of the NWA,²²⁰ which could have the requisite consequences. Therefore, the PROTEA provision would apply to weed control obligations. However, this is inconsistent with the immunity granted under the NWA to public authorities, the Minister and LCAs.²²¹ The inconsistency is arguably addressed by PROTEA section 7(2)(a) which states that PROTEA prevails over other legislation. The immunity in the NWA is therefore ineffective where the failure to control weeds would have environmental consequences.

A Enforcement against public authorities

The enforcement under the NWA is shared between the Minister, responsible for monitoring the weed control activities of LCAs and public authorities²²², and LCAs which enforce the Act against private landholders²²³. There is some duplication with the Rural Land Protection Boards’ functions, but this is currently the subject of review.²²⁴

²¹⁵ HA s 51(1).

²¹⁶ HA s 4.

²¹⁷ *Sydney Regional Environmental Plan No 22 – Parramatta River* s 11(2)(c), *Wollondilly Local Environmental Plan 1991* s 10 Zone 9(e), *Lord Howe Island Regional Environmental Plan 1996* Zone 3 (c) Recreation, *Nymboida Local Environmental Plan 1986* in Zones 7(a), (d), *Wentworth Local Environmental Plan 1993* Zone 6 (a) Open Space.

²¹⁸ *Protection of the Environment Operations Act 1997* (NSW) s 286, *Protection of the Environment Operations (Control of Burning) Regulation 2000* (NSW) cl 7, 8(1)(ii).

²¹⁹ Under PROTEA s 253(4), the Court can “make such orders as it thinks fit to restrain the breach or other conduct of the person by whom the breach is committed or by whom the threatened or apprehended breach is likely to be committed”.

²²⁰ NWA ss 12, 13.

²²¹ NWA s 70(2). This immunity is from “proceedings in any court, for an order to remedy or restrain the breach or threatened or apprehended breach” of the NWA.

²²² NWA s 11(1).

²²³ NWA s 11(2). The Minister also has the power to enforce the NWA against private occupiers: NWA ss 22-24.

²²⁴ NSW Farmers Association, above note 77 p 2.

The first enforcement option under the NWA, in relation to public authorities, is the service a weed control notice,²²⁵ although the authority must have been consulted before such action is taken.²²⁶ The next option is weed control conducted by the Minister, who can then claim the costs from the authority.²²⁷

These options have never been utilized. Instead, the approach has been to encourage weed control through negotiation between NSW Agriculture and public authorities. In most cases, the issue is dealt with through discussions among NWAC members. These include representatives from the largest land managing Departments, such as the NPWS, Department of Land and Water Conservation, State Forests and State Rail.²²⁸

B Enforcement against private occupiers – two pyramids

In contrast, the implementation of the enforcement of private occupier's obligations has involved the use of the enforcement procedures under the NWA as well as the adoption of non-legislative compliance strategies.

(a) The enforcement pyramid under the NWA

The legislative enforcement options are presented in Figure 1.

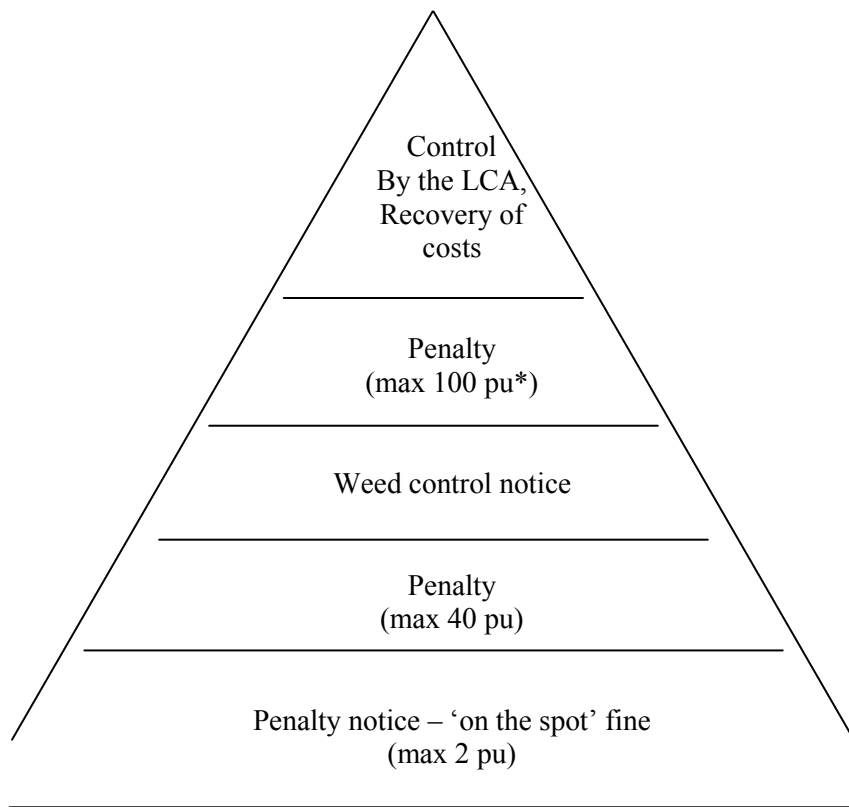
²²⁵ NWA s 22.

²²⁶ NWA s 22(3).

²²⁷ NWA ss 24, 26. However, control can only be carried out with the consent of the Premier: NWA s 24(4).

²²⁸ Personal communication with Bob Trounce, Chief Weeds Agronomist, Department of Agriculture, 11 Sep 2001.

Figure 1 – the legislative options²²⁹



*pu = penalty units, currently set at \$110 per unit.

This model seems to fit Braithwaite’s theory of an “enforcement pyramid”²³⁰. Braithwaite argues that the optimal structure of enforcement is a pyramid of escalating measures, enforcement beginning with the base option and moving methodically towards the pinnacle. This graded approach is to allow enforcement agents a variety of options which, Braithwaite argues, leads to increased compliance due to the subjects’ knowledge of ever-increasing intervention. This in turn should lower the political and administrative costs of ensuring obligations are fulfilled.²³¹

The model is attractive in theory, but how are the options actually implemented in relation to the enforcement of the NWA? The enforcement conducted by LCAs across NSW is considered, beginning with a discussion of funding problems and moving to an analysis of each enforcement option. This concludes with the proposal of a model reflecting how enforcement takes place, in contrast with Figure 1.

(b) The need for inspection and funding

²²⁹ The respective sections of the NWA are: control by the LCA s 20, recovery of costs s 26, prosecuted penalty (failure to comply with weed control notice) s 19, weed control notice s 18, prosecuted penalty s 12, penalty notice s 63. It should be noted that the penalty notice, first prosecuted penalty and weed control notice can be treated as alternatives by LCAs.

²³⁰ J Braithwaite, “Convergence in models of regulatory compliance” (1990) 2(1) *Current Issues in Criminal Justice* 59.

²³¹ Enforcement agencies with this range of options are called “Benign Big Guns” who “walk softly while carrying a very big stick”. LCAs may not hold the extreme powers possessed by some of the agencies Braithwaite examines in P Grabosky & J Braithwaite, *Of Manners Gentle: Enforcement Strategies of Australian Business Regulatory Agencies* (1986) Oxford University Press, Melbourne see Chapter 16, but the graded approach is contained in the NWA. Therefore, the bulk of Braithwaite’s argument applies.

The centrality of local government in the enforcement of the NWA is in keeping with the general trend of increasing local government's role in a great deal of natural resource management. However, it is therefore subject to the resourcing problems of taking this role.²³²

The enforcement provisions of the NWA can be used only after the LCA has come to the conclusion that a control obligation is not being carried out by an occupier. This requires awareness on the part of the LCA's area of responsibility.²³³ The NWA does not provide for the expense of initial inspections to be charged to the occupier,²³⁴ therefore it must be covered by the budget of the LCAs.

NSW Agriculture contributes funding for inspection programs. However, this is limited to matching 1:1 the amount provided by the LCAs, and is soon to be dependent on the achievement of inspectorial benchmarks.²³⁵ Some LCAs have found it impossible to inspect their entire area within the limitations of their current funding. Therefore, LCAs make strategic decisions to target "trouble spots", ie reported infestations of W1 weeds and areas where the economic and environmental costs of weeds are the greatest.²³⁶ The enforcement of the NWA is thus restricted to those areas and those weeds targeted by the inspectorial programs of LCAs.²³⁷

(c) The legislative enforcement options against private occupiers – how they are being used

▪ Penalties – general observations

Monetary penalties feature throughout the enforcement pyramid, however there are limitations to their implementation. The most important is the ineffectiveness of NSW penalties to act as deterrents against default, at least according to local government.²³⁸ This is especially true of the on-the-spot fines under regulations which are currently limited to two penalty units.²³⁹ A knee-jerk reaction would be to increase the amounts prescribed, but this would not always be effective. In some cases, default occurs because of a lack of economic capacity of the occupier and a penalty would only exacerbate the situation.

The perception of the ineffectiveness of penalties has led to relatively few being issued, and in the cases where they are, it is usually only after communication with the defaulting occupier.²⁴⁰ Another difficulty is the use of prosecutions to enforce a penalty, which is discussed below.

²³² R Sharp, "Review of the ability of local government to legally control or eradicate alien plants in order to prevent biodiversity loss" (1998) 5(1) *The Australasian Journal of Natural Resources Law and Policy* 115.

²³³ The only exception where the onus is on the occupier to notify the LCA of weeds is for category W1 weeds: NWA s 15.

²³⁴ However, the expense of reinspections following the failure to comply with a weed control notice is recoverable from the defaulting occupier: NWA s 26(1).

²³⁵ Personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001 and NSW Agriculture *Planning assistance grants* 2000-01. Note that each LCAs' funding may come from a number of local governments, as LCAs often take the form of a county council or arrangement between Kiama Council, Wollongong City Council and Shellharbour City Council, with funding from each council being proportional to the respective area of land covered by each Council.

²³⁶ Illawarra District Noxious Weeds Authority, *Final report for the Noxious Weeds Advisory Committee on activities completed from July 1999 – June 2000* p 12.

²³⁷ It should be noted that funding shortfalls experienced by Councils has been a problem in relation to weeds since the beginning of the 20th century. See for example: "The judge and the blackberries", *Illawarra Mercury*, March 1926.

²³⁸ Local Government and Shires Associations, above note 81 p 8.

²³⁹ NWA s 63. A number of offences have been prescribed, all of which are set at \$200: *Noxious Weeds Regulation 1993* (NSW) s 4, Schedule 1.

²⁴⁰ Illawarra District Noxious Weeds Authority (1999-2000), above note 236 p 13.

- *Weed control notices*

Weed control notices ('WCNs') are generally treated as a last resort rather than an automatic option upon default. The approach of many LCAs is to first inform occupiers of the need to control weeds, through a weed report, including advice on the appropriate method to use. A period for compliance is often given, perhaps followed by a further period of grace if there is an excuse for lack of control activity. A warning letter is usually given before a WCN is actually served on an occupier.²⁴¹ Upon service of a notice, LCAs continue their focus on increasing compliance by adopting the 'embarrassment tactic' of serving a notice by publication in a local newspaper.²⁴²

- *Prosecutions for failure to comply with WCNs*

According to the Far North Coast County Council, at least 50% of occupiers have not complied with a WCN by the time of the next inspection date.²⁴³ However, this relatively high level of non-compliance has not led to a corresponding high number of prosecutions.²⁴⁴ In fact, in that LCA's area, only extreme cases are taken to court and only after numerous inspections and communications with the occupier.

The usual approach taken before prosecution is even begun is a follow-up inspection and then the service of a show-cause notice.²⁴⁵ This has become so widespread a practice that the NWAC has produced a pro forma show-cause letter.²⁴⁶ Alternatively, some LCAs conduct property inspections with the occupiers, as a means of gaining greater levels of compliance without having to proceed to prosecution.²⁴⁷

Prosecution is avoided because of the associated costs and evidentiary burdens.²⁴⁸ In order to alleviate these problems, standard forms and strict procedures have been suggested by the NWAC.²⁴⁹ In addition, knowledge of the Act and its requirements is vital to an effective prosecution, and can be obtained through the education services of NSW Agriculture.²⁵⁰

Some LCAs opt for entry and control (see below) over prosecution,²⁵¹ but others such as Maclean Shire Council have found that the threat of prosecution is the most effective means to achieve compliance. This does not necessarily mean the prosecutions proceed to court. The

²⁴¹ Illawarra District Noxious Weeds Authority (personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001), Far North Coast County Council (B Scott per Far North Coast County Council, above note 81 p 2). Snowy River Shire Council (Snowy River Shire, above note 88), Maclean Shire (I Tye, "The Use of Infringement Notices Regarding Weed Control in Maclean Shire" in P Blackmore (ed), *10th Biennial Noxious Weeds Conference – Ballina 1999: Papers* (1999) NSW Agriculture, Armidale.)

²⁴² This is available under NWA s 71(2)(b) where the address of the occupier is not known.

²⁴³ Scott, above note 81 p 2.

²⁴⁴ For example, in the Illawarra region, in the period 1997-2000, 59 WCNs were issued and no prosecutions were commenced.

²⁴⁵ However, not all LCAs are diligent in following up WCNs: personal communication with a landholder in the Ashfield Council area, 19 September 2001.

²⁴⁶ Noxious Weeds Advisory Committee, *Noxious Weeds Circular No. 005* (April 97) (1997) NSW Agriculture, Orange.

²⁴⁷ These LCAs include Maclean Shire Council and Upper Macquarie County Council. See Tye above note 241.

²⁴⁸ See for example Illawarra District Noxious Weeds Authority (1999-2000), above note 236.

²⁴⁹ Noxious Weeds Advisory Committee (1997), above note 250.

²⁵⁰ For example the training opportunities offered to officers in LCAs: facsimile from NSW Agriculture, Windsor Office to David Pomery, Illawarra District Noxious Weeds Authority, re legal training (October 1999), and the publications explaining the legal elements of the NWA: for example B Trounce & P Gray, *NSW Noxious Weeds Legislation* Draft Agnote DPI/78 (3rd edition, March 2000) NSW Agriculture.

²⁵¹ Illawarra District Noxious Weeds Authority *Policy of control* (undated) at para 4, obtained by the author from David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001.

mere notification of a prosecution may be enough to bring about compliance, or at least the occupier entering into a bond to complete the work.²⁵²

- *Entry and weed control by LCAs and claims for costs*

This final option ensures control does take place and brings with it the possibility of claiming the cost of reinspection and control from the occupier. However, that money must be pursued through the judicial system unless the LCA is satisfied with it becoming a charge over the land. The difficulty in recovering this debt, and the cost in such recovery, has led some LCAs to simply absorb the loss and not chase the money.²⁵³ One submission to the Review of the NWA suggested legislative amendment to include the costs of recovery in the debt payable to the occupier.²⁵⁴ However, this does not alleviate the difficulties inherent in taking court action to recover the money.

(d) The reality of enforcement – an alternative model

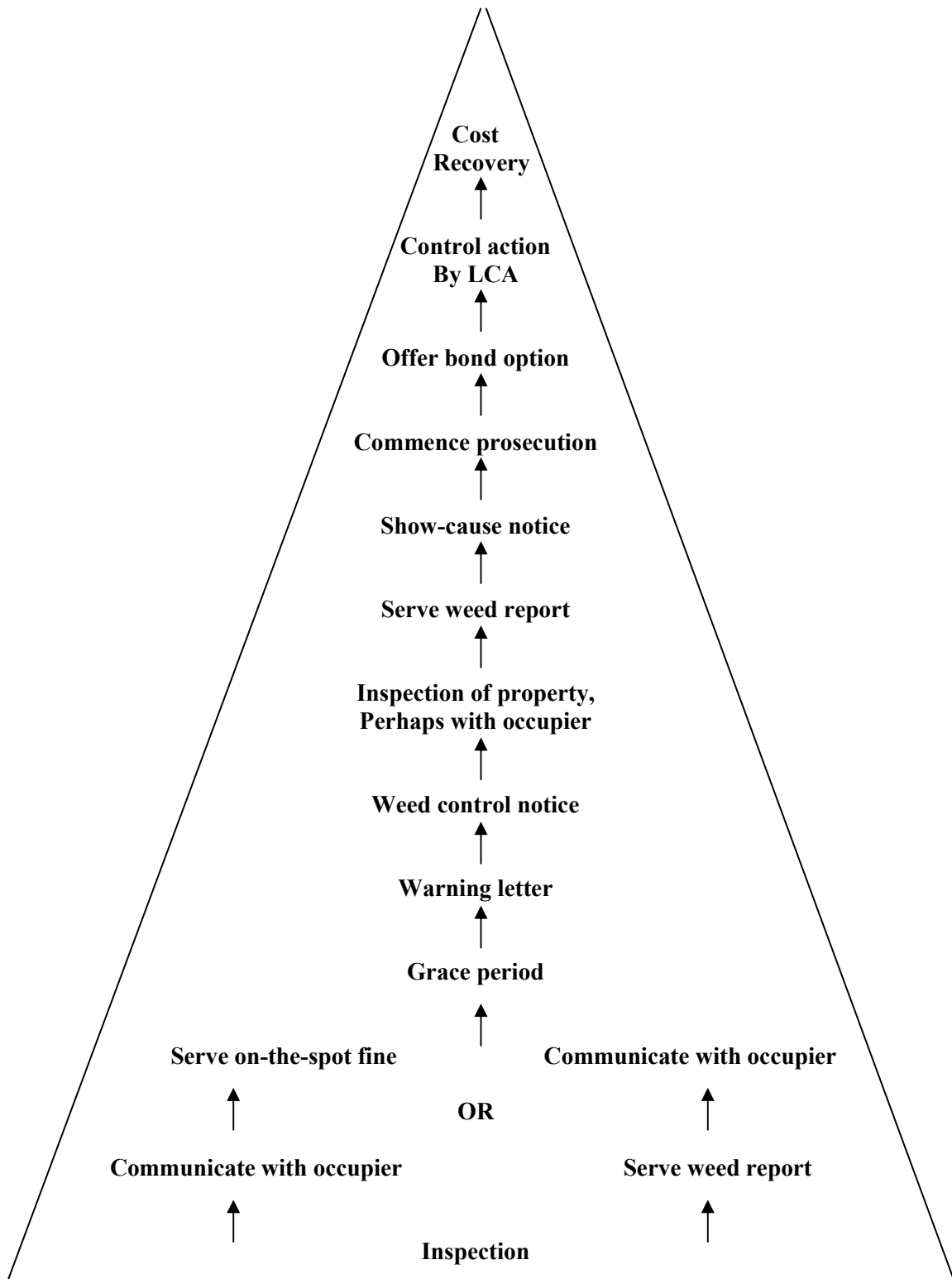
The use of each enforcement option is dependent on the policies of individual LCAs the systems they have in place to deal with legislative requirements of each option and the perceived efficacy of each method. The LCAs generally follow a compliance strategy rather than merely applying the punitive options available in the NWA. Figure 1 is therefore an overly simplistic representation of the enforcement of the NWA, due to the variety of mechanisms adopted. Figure 2 is offered as a depiction of the reality of the enforcement pyramid of the NWA.

²⁵² In the case of Upper Macquarie County Council, in the three years to 1999, 57 prosecutions were commenced but 27 withdrawn due the commencement of weed control or the entering of a bond to commence control: D Baldwin, "Prosecutions for Non Compliance under the Noxious Weeds Act 1993 (New South Wales)" in P Blackmore, (ed) *10th Biennial Noxious Weeds Conference – Ballina 1999: Papers* (1999) NSW Agriculture, Armidale p 198.

²⁵³ Personal communication with David Pomery, Chief Weeds Officer, Illawarra District Noxious Weeds Authority, 14 August 2001.

²⁵⁴ Scott, above note 81 p 2.

Figure 2 – the reality of enforcement



VI CONCLUSION

The theoretical scope of the NWA is very broad, however policy and practical issues have narrowed its application. The Act could potentially cover every weed on every property, but the policy which determines the process and criteria for listing significantly reduces this. A pragmatic and strategic approach is adopted, by considering only those weeds for which control is possible. It does allow both agricultural and environmental weeds to be listed but fails to address funding difficulties in the implementation of weed control.

Once a weed is listed, a method of control must be chosen. This choice initially rests with the occupier. There are no legislative or policy guidelines to ensure the optimal approach is taken in making this choice. However, there is continuing education across the state to overcome any ignorance which may hinder the adoption of the most appropriate methods.²⁵⁵ Although the NWA does not address the possible detriment of some of the methods, there are alternative regulatory regimes. However, the methods are not all regulated and administered comprehensively. In addition, there is no formal interaction with the regulatory regimes and the NWA in order to ensure that what regulation does exist is applied appropriately to weed control activities. Nor are there any provisions to ensure a smooth integration of that regulation.²⁵⁶

In the case of default, a range of enforcement options arise. These are completely bypassed in relation to public authority occupiers. In relation to private occupiers, LCAs experience funding difficulties in commencing enforcement procedures. Each enforcement option has its limitations, but the general approach is to apply a complex compliance pyramid, focusing on achieving weed control rather than taking punitive action. Despite the limitations and problems associated with the NWA, the legislation is considered necessary and beneficial, achieving more weed control than would be possible without any legislated obligations.²⁵⁷

5 Conclusion

Weeds impact negatively upon agriculture, the environment and human health and clearly need to be controlled. Legislation aims to control weeds by preventing their introduction into Australia and then managing weed infestations within the country. Voluntary measures and financial incentives, together with education, are valuable parts of a weed strategy. However, regulation is necessary to ensure that weed prevention and management does occur. The regulatory regimes which exist in Australia do provide a measure of protection, however there is room for improvement.

I PREVENTION

The Commonwealth quarantine system aims to prevent weeds from entering Australia. The *Quarantine Act 1908* (Cth) is broad in its scope, allowing any “measure” to be used in order to prevent the introduction of weeds into Australia. The Weed Risk Assessment System supplies the detail for the assessment of species and adopts a precautionary and risk-based approach,

²⁵⁵ The most general education project is the WeedBuster Week held every year by all LCAs.

²⁵⁶ There are a variety of opinions among LCAs and occupiers as to how this should occur – some argue for the NWA to have precedence: Local Government and Shires Associations of NSW, above note 81 p 5. Others consider the need for explicit integration to enable smooth administration and enforcement: Illawarra District Noxious Weeds Authority, above note 81 p 2, NSW Farmers Association, above note 81 p 5. This is a common call in relation to natural resources legislation regimes, see: D Farrier, A Kelly, M Comino & M Bond, “Integrated Land and Water Management in New South Wales: Plan, Problems and Possibilities” (1998) 5(2) *The Australasian Journal of Natural Resources Law and Policy* 153.

²⁵⁷ B Scott per Far North Coast County Council, *Submission of proposed changes to the Noxious Weeds Act 1993* (July 1998), Scott, above note 81.

founded on scientific knowledge. The scope of the system is impressive. However, implementation of the system could be improved. There is a lack of data which can be used in the Assessment System and insufficient resources to patrol the entry points into Australia, as well as international instruments restricting Australia's approach to quarantine.

Further research is required to obtain data concerning individual species and ecosystems, as well as broader ecological inquiries to clarify the characteristics which should be considered in the Weed Risk Assessment System. In addition, there is a need for more funding of quarantine enforcement agencies, in order to increase the quantity of material screened at each entry point to Australia.

II MANAGEMENT

A Agriculture, Biodiversity and Planning legislation

Irrespective of any improvements made to the quarantine system, there will always be a need to manage existing weed infestations. The current regulatory regimes in NSW include legislation within agricultural, biodiversity and planning contexts. These encompass a range of options which can address the risks posed by weeds, through listing procedures, management plans or a general consideration of weeds when assessing a proposed development. However, they are not being implemented to their full potential. One recommendation to improve this situation is to increase the number of weed invasions listed under the *Threatened Species Conservation Act 1995* (NSW) and the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and to then follow through with the development of threat abatement plans and action.

B The Noxious Weeds Act

The *Noxious Weeds Act 1993* (NSW) has broadened the scope of legislative weed control in NSW, to include all weeds on all property. Policy restricts the breadth of that Act's application, by listing only those weeds for which control is available. This is a realistic limitation. However, funding must be made available for the development of controls for new and unlisted weeds. The Act gives flexibility in choosing a control method, however guidelines are required for occupiers to make the most appropriate choice. These should not be regulated, as the science and understanding of weed control is evolving and methods should be adapted to specific circumstances. Therefore, education services should be continued.

Methods should not be prescribed, but the use of certain methods must be regulated, due to the harm they can cause. The current legislation is not comprehensive. This can only be improved by statutory amendment, for example, the removal of exemptions under the *Native Vegetation Conservation Act 1997* (NSW). What regulation does exist is not well-integrated with the *Noxious Weeds Act 1999* (NSW). More work is required to overcome this problem, which is common to a great deal of environmental regulation.

The Act has resulted in more weed control than would exist without such legislative requirements. However, enforcement can be improved. The main problem is the lack of funding for LCA inspection programs upon which enforcement action is based. Additional money should be made available for such programs.

The model of an enforcement pyramid is a useful tool to evaluate enforcement under the Act. The legislative options are only part of the practice of enforcement. Local control authorities have also adopted compliance strategies based upon communication with occupiers and encouraging weed control. This seems to be successful in keeping with the approach of using regulation as a last resort. The strategies should not be prescribed. Flexibility is required to

adopt the most appropriate strategy and they are adequately disseminated among local control authorities by NSW Agriculture and through weed conferences.

The regulatory systems are in place to address the threats posed by weeds, although the implementation and enforcement of them must be improved. However, regulation should not be seen as the only approach to weed problems. Access to additional funding, for both regulatory enforcement and further research, must also be provided. A great deal of the weed problem is due to ignorance, which can only be improved through education. In the 1800s, Acclimatisation societies introduced plants into Australia for what they perceived to be beneficial reasons, “but they succeeded partly in making...[Australia] look like an environmental mess.”²⁵⁸ Today, we must be wary of repeating the same mistake, when deciding to allow plant species into the country and when applying land and water management practices

²⁵⁸ Parfit, above note 7 p 10.