

... As a result, the Democrats recommend that Tasmanian forestry, and forestry activities in all other states, should be assessed under the Federal regulatory framework and must not be exempt from the provisions of the Environment Protection and Biodiversity Conservation Act 1999.” Accordingly the Democrats have proposed a new trigger for plantation forestry projects as follows:

Plantation forestry –

The establishment of plantation forests on areas greater than

(a) 100 ha in any two year period, or

(b) 20ha in any two year period where vegetation to be cleared may provide habitat for any listed threatened species or endangered or vulnerable ecological community, or have relevance to any other matter of national environmental significance, or that is recognised as critical habitat regardless of prior land use, to be assessed for cumulative impacts on biodiversity, water resources and soil development within the context of catchment areas.

The War on Weeds - issues at the international interface +

By Elisa Arcioni*

Introduction

Weeds threaten biodiversity and have a detrimental economic impact on Australia’s agricultural industries. In order to address the problems posed by weeds, prevention and management is required. This is the “strategic approach” established in national policy. This article focuses on the former aspect, prevention, and the specific issue of preventing invasive plant species entering Australia. Movement of plant species around the world is not a new phenomenon. Trade in plants has a long history, stretching back thousands of years.¹ However, such trade can introduce harmful species into a country. Therefore, just as trade emerged in the past, so did the notion of quarantine, to protect a country, its people, environment and economy, from risks posed by foreign species. With the push for free trade around the world, a tension has emerged between removing trade barriers and protecting a country from invasive species. That tension is explored here. Australia’s quarantine system is explained, as well as a major criticism made of it. Attention is then turned to international trade law, to the extent that it affects Australian quarantine measures. Finally, some comments are made with respect to the effect of bilateral trade deals on Australia’s attempts to prevent weed problems.

National Weeds Strategy

The strategic approach to weeds in Australia is set by the *National Weeds Strategy*,² adopted in 1997, following incidental mention of weeds as an environmental problem within a number of earlier government policy documents.³ The Strategy establishes that prevention and management are essential to the control of weed problems in Australia. In general terms, weed management is the responsibility of land occupiers,⁴ with the States and Territories having the primary regulatory role.⁵ However, with respect to preventing

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1 See Richard Mack, “Trade routes for commerce in plants or pathways for invasive species? The dualism of international commerce”, *Fourteenth Australian Weeds Conference* (2005), 72. With respect to Australia, it has been suggested that trade of plant species took place prior to British colonisation, by Indigenous Australians trading with the Macassans to the north of the country. Richard Groves, *Recent Incursions of Weeds in Australia 1971-1995* (CRC for Weed Management System Technical Series No 3, 1998), p 8.

2 Agriculture and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council & Forestry Ministers, *The National Weeds Strategy a strategic approach to weed problems of national significance* (rev ed, March 1999). This Strategy is currently under review by the Australian Weeds Committee.

3 See for example, *The National Strategy for the Conservation of Australia’s Biological Diversity* (1996), pp254-256.

4 Agriculture and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council & Forestry Ministers, *The National Weeds Strategy a strategic approach to weed problems of national significance* (rev ed, March 1999), p 25.

5 The primary legislation is *Noxious Weeds Act 1993* (NSW), *Catchment and Land Protection Act 1994* (Vic), *Land Protection (Pest and Stock Route Management) Act 2002* (Qld), *Agricultural and Related Resources Protection Act 1976* (WA), *Animal and Plant Control (Agricultural Protection and Other Purposes) Act 1986* (SA), *Weed Management Act 1999* (Tas), *Weed Management Act 2001* (NT), *Land (Planning and Environment) Act 1991* (ACT).

invasive plant species entering the country, the Commonwealth government, specifically the Australian Quarantine Inspection Service, is the body charged with the daunting task of securing the borders.

The Strategy addresses the issue of weeds through a series of goals, objectives and strategies. The first goal is “To prevent the development of new weed problems”. The first objective within that goal is “To prevent the introduction of new plant species with weed potential”, to be achieved through the strategy of “strengthen[ing] import entry protocols for assessing the weed potential of all proposed new plant imports.”⁶ This is “a screening process that enables the weed potential of all proposed plant importation to be assessed. The process must be able to identify potential weeds of all ecosystems, including agricultural, rangeland, bushland and aquatic systems.”⁷ This focus on prevention through a “strong quarantine barrier” is due to the belief that prevention is “the most cost effective action possible”.⁸

Quarantine Regulation – Risk Assessment

The preventive measures outlined in the Strategy are essentially the import risk assessment processes attached to Commonwealth legislation. The most important legislation in practice is the *Quarantine Act 1908* (Cth). That Act operates through:⁹

“measures ... having as their object the prevention or control of the introduction ... of pests that will or could cause significant damage to human beings, animals, plants, other aspects of the environment or economic activities.”

The “measures” are determined by the application of government risk management policy to the notion of “quarantine risk”. “Quarantine risk” is defined in the Act as:¹⁰

“(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.”

When considering weeds as a quarantine risk, the assessment of such a risk and the effect of the assessment on importation, is regulated by the Quarantine Proclamations. In addition to the text of the proclamations is the Weed Risk Assessment (WRA) system. Biosecurity Australia is the government agency responsible for decisions with respect to what can enter the country through this system. The system in place today was adopted in 1997, marking a significant shift in risk management with respect to importation of species. Prior to 1990, the approach had been to allow all species to enter the country unless they featured on a prohibited list, with no systematic assessment of the weed risk of species.

Within the current system, two lists are established under the *Quarantine Proclamation 1998* - a permitted list in Schedule 5 and a prohibited list in Schedule 6. The permitted list is a list of species allowed to be imported without any assessment. The prohibited list contains species which have been assessed as of high weed risk and therefore prohibited from importation, except in some circumstances where species can be imported “with a permit and used under strict quarantine conditions.”¹¹ All non-listed species (ie those that do not appear on either list) are prohibited from importation until they satisfy the WRA.¹² The WRA is a scientific assessment of the weed potential of a species, on the basis of existing data with respect to plant

6 Agriculture and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council & Forestry Ministers, *The National Weeds Strategy a strategic approach to weed problems of national significance* (rev ed, March 1999), p 30

7 Agriculture and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council & Forestry Ministers, *The National Weeds Strategy a strategic approach to weed problems of national significance* (rev ed, March 1999), p 32

8 Agriculture and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council & Forestry Ministers, *The National Weeds Strategy a strategic approach to weed problems of national significance* (rev ed, March 1999), p 31

9 *Quarantine Act 1908* (Cth), s 4

10 *Quarantine Act 1908* (Cth), s 5D

11 Senate, *Turning Back to Tide – the invasive species challenge* (2004), p165, quoting the Department of Agriculture, Fisheries and Forestry, *Submission 62*, p 4

12 *Quarantine Proclamation 1998*, cl 63, 65

attributes that contribute to weediness. Once an assessment has been conducted on a species, it will either be allowed for import and placed on the permitted list or rejected and placed on the prohibited list.

Therefore, the general approach with respect to importation is to conduct an analysis of weed potential and, in general, only if the species is deemed to be of low weed risk is it allowed into the country. This approach is mirrored by provisions in the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ('EPBC Act') with respect to the movement of live specimens. Part 13A of the EPBC Act implements Australia's obligations with respect to the *Convention on International Trade In Endangered Species*¹³ and the *Biodiversity Convention*.¹⁴ It sets up a system whereby importation of live plant (and a animal) species is regulated and the effects of proposed importation, including environmental impacts, are considered prior to approval being given.¹⁵ The Commonwealth Departments of Environment and Heritage and Agriculture, Forestry and Fisheries work together to integrate the system under the *Quarantine Act* and the process under the EPBC Act, so that "agreement of both [Departments of Environment and Heritage and Agriculture, Fisheries and Forestry] is required before a live specimen can be imported."¹⁶

A Gap in the WRA and a Way Forward

This precautionary approach seems a reasonable one – a balance between an absolute ban on all foreign species and unrestricted importation. However, there are problems with the system that have led to calls for reform. The one to be addressed here is the "loophole"¹⁷ in the permitted list.

The WRA is established to ensure only species of low weed risk are allowed into the country. However, there is a major problem with the permitted list. That list sets out what can be imported without any assessment, but it includes species that were listed because they had been "historically permitted", despite a lack of weed assessment in the past.¹⁸ In addition, the list includes some genera (being a group containing a number of species) rather than only individual species, in circumstances where not all the species in the group have been assessed with respect to weed potential. Therefore, a high number of species fall within the permitted list despite having never been subject to weed risk assessment. This is obviously a hole in the system. However, it gets worse.

In addition to the lack of comprehensive assessment of all species on the permitted list, there are inconsistencies between the two lists (permitted and prohibited). These issues lead to the absurd situation whereby some species that are on the prohibited list, species identified as Weeds of National Significance, or species which are either known to be weedy or to have weedy characteristics, can all be imported because they fall within "synonyms of permitted genera".¹⁹ That is, the broad genera listed include species which not only have not been subject to the WRA, but have already been identified elsewhere as individual species or plants of a general type that pose a weed risk and should not be allowed into Australia. It should be remembered that once the genera or species is listed in the permitted list, importation is automatically allowed and no weed risk assessment takes place. Analysis of the current permitted list has led to the conclusion that "thousands of known weedy plant species" are permitted without assessment.²⁰

13 *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

14 *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

15 See EPBC Act, Div 1 Part 3, s 303EE(2) This environmental impact assessment was intended to be additional to the assessment under the *Quarantine Act 1908* (Cth) see Commonwealth of Australia, *Parliamentary Debates (Hansard)* Senate 24 May 2001, p 24271 (Ian Campbell, second reading speech, *Environment Protection and Biodiversity Conservation Amendment (Wildlife Protection) Bill 2001*)

16 Senate, *Turning Back to Tide – the invasive species challenge* (2004), p158, quoting the Department of Environment and Heritage, *Submission 61*, p 7

17 Helen Jacob, Roderick Randall, Sandra Lloyd, Chrystal King, "Quarantine law loophole an examination of the known weed species permitted for import without weed risk assessment", *Fourteenth Australian Weeds Conference* (2004), 684, Andreas Glanzmg, *Closing Australia's Quarantine Loophole to New Weeds* (2005)

18 Helen Jacob, Roderick Randall, Sandra Lloyd, Chrystal King, "Quarantine law loophole an examination of the known weed species permitted for import without weed risk assessment", *Fourteenth Australian Weeds Conference* (2004), 684 at 685

19 Helen Jacob, Roderick Randall, Sandra Lloyd, Chrystal King, "Quarantine law loophole an examination of the known weed species permitted for import without weed risk assessment", *Fourteenth Australian Weeds Conference* (2004), 684 at 688

20 Andreas Glanzmg, *Closing Australia's Quarantine Loophole to New Weeds* (2005), p 6, on the basis of research conducted by the Cooperative Research Centre for Australian Weed Management

The problem has been raised with the Commonwealth government by the Australian Weeds Committee (which oversees the National Weeds Strategy), published in a Senate Committee report and publicised in the context of the Fourteenth Australian Weeds Conference in 2004. In 2001 the government agreed to address the problem in the context of its *National Objectives and Targets for Biodiversity Conservation*.²¹ However, despite statements that a “complete review of the permitted list” is “part of AQIS’s ongoing activities”,²² that review has not yet been completed. The delay has been described as “inexcusable”,²³ considering the potential impact of allowing weedy species into the country.

Recommendations have been made to give some direction as to how to fix these problems. The Australian Weeds Committee have contacted Biosecurity Australia “requesting an assessment of the feasibility of adopting” them.²⁴ Those recommendations include the following, many of which have been supported through recommendations by the Senate Environment, Communications, Information Technology and the Arts References Committee, in the context of a report on “the regulation, control and management of invasive species” in December 2004:²⁵

- Biosecurity Australia publish a plan for addressing these problems, including the approach to be taken in addressing them;
- Immediate removal of all genera from the permitted list;
- Any species assessed as of low weed risk be placed onto the permitted list;
- All other species be assessed through the WRA unless a species has been well documented as having been imported (including having been naturalised or cultivated in Australia).²⁶

The government’s recent response has been as follows:²⁷

“Species identified as weeds ... will be removed from the permitted seeds list by [mid-2005]. Biosecurity Australia is also reviewing 2,916 permitted genera with the aim of only including species on the permitted ... list that are present in Australia and not under official control. ... When the project is completed, any seed not on the permitted seeds list will need to undergo a weed risk assessment to determine if it should be allowed to enter Australia. It is anticipated that the extensive review of the permitted general could be completed by the end of 2006.”

Therefore, the WRA is a system that attempts to address the potential weediness of species. Although there is a significant gap in the process due to the content and operation of the permitted list, which requires urgent action, it is a system that receives general support and is an improvement on past policy. It forms the heart of the Australian quarantine system in the ongoing battle against further introductions of weed species into Australia. However, regardless of whether or not the system is improved in accordance with the recommendations above, it is a system that may be at risk due to the interaction with international trade law.

International Trade Law

One of the biggest tensions in international trade law is to what extent does free trade override other legitimate concerns of communities across the world. The familiar slogan of ‘fair trade not free trade’ encapsulates the concern that free trade at all costs may discriminate against some countries or groups of people and cause social and economic detriment. In the context of preventing weeds entering Australia, the

21 See Environment Australia, *National Objectives and Targets for Biodiversity Conservation*, 2001-2005 (2001), p 17

22 Senate, *Turning Back to Tide – the invasive species challenge* (2004), p 171, quoting Department of Agriculture, Forestries and Fisheries’s Mr Willcocks, General Manager, Landcare and Sustainable industries

23 Senate, *Turning Back to Tide – the invasive species challenge* (2004), p 172

24 Andreas Glanznig, *Closing Australia’s Quarantine Loophole to New Weeds* (2005), p 12

25 Senate, *Turning Back to Tide – the invasive species challenge* (2004), Recommendation 16 at p vii, see also pp 175, 218-219

26 Helen Jacob, Roderick Randall, Sandra Lloyd, Chrystal King, “Quarantine law loophole – an examination of the known weed species permitted for import without weed risk assessment”, *Fourteenth Australian Weeds Conference* (2004), p688, Helen Jacob, Rod Randall, Sandy Lloyd, *Front door wide open to weeds, an examination of the weed species permitted for import without risk assessment* (2004) See also Andreas Glanznig, *Closing Australia’s Quarantine Loophole to New Weeds* (2005), p 13

27 Commonwealth Minister for Fisheries, Forestry and Conservation, Ian Macdonald, Press release, 20 January 2005, quoted in Andreas Glanznig, *Closing Australia’s Quarantine Loophole to New Weeds* (2005), p 16

main concern is whether international trade law allows for barriers to imports on the basis of the weed potential of a species which forms part or the whole of a proposed import. This falls within the broader concern of how environmental protection is taken into account within the trade rules.²⁸

Here a brief outline will be given of some of the interactions between the multilateral trade agreements to which Australia is party and the Australian quarantine system with respect to weeds. As a member of the World Trade Organisation, Australia is also party to the *Agreement on the Application of Sanitary and Phytosanitary Measures* ('SPS').²⁹ That agreement provides the guidelines for what satisfies measures that form an exception to the general rule against trade barriers in the *General Agreement on Tariffs and Trade 1994* ('GATT').³⁰ Both the GATT and the SPS allow countries to take measures to protect "human, animal or plant life or health".³¹ The SPS then establishes the requirements for legitimate measures of that kind. The measures must be:

1. only to the "extent necessary" to protect those interests;³²
2. "based on scientific principles and ... not maintained without sufficient scientific evidence";³³
3. put in place following a risk evaluation that complies with international standards, the relevant one here being those established by the International Plant Protection Convention ('IPPC');³⁴
4. established following an evaluation that includes economic factors;³⁵ and
5. determined through taking into account, inter alia, the objective of "minimizing negative trade effects."³⁶

The SPS also establishes a dispute resolution mechanism, which incorporates relevant parts of the GATT.³⁷ The difficulties with the interaction between the WRA in the Australian quarantine system and the SPS are caused by points 2, 4, and 5. The WRA does not address economic factors to determine whether a species is to be permitted or prohibited from importation, nor does it skew the result according to the objective of minimising negative trade effects. Nevertheless, there is scope within the broader quarantine system for importing some prohibited species under strict controls.

Perhaps the more fundamental difficulty with the SPS is the way in which the Australian system has a default position of prohibition *until* scientific assessment proves that the species at issue is of low weed risk. It seems that, on the face of point 2 above, Australia's precautionary approach may breach the requirement that the measure (ie the initial default prohibition) be based on scientific evidence. Alternatively, the system may comply because any addition to the prohibited *list* follows a scientific evaluation. This essentially is an argument over what constitutes the "measure" affecting imports.

The last problem to be mentioned is that, while it seems that Australia's system does comply with the international standards set by the IPPC, any specific instance of the application of the WRA is open to dispute because the nature of the scientific evaluation that is conducted is predictive. That is, the issue at the heart of Australia's quarantine system is whether or not a species will be allowed to enter the Australian environment, on the basis of the species' weediness. However, there is no way to objectively

28 The literature is extensive. For some examples see WTO Secretariat (ed), *Trade Development and the Environment* (2000), Sforza, "Trading Away the Environment" (1999) *Multinational Monitor* 14, Winter, "Reconciling the GATT and WTO with Multilateral Environmental Agreements: Can we have our Cake and Eat it too?" (2000) 11 *Colorado Journal of International Environmental Law and Policy* 223, Charnovitz, "The WTO and the Environment" (1997) 8 *Yearbook of International Environmental Law* 98, Neumayer, "Trade and the Environment: A Critical Assessment and Some Suggestions for Reconciliation" (2000) 9 *Journal of Environment and Development* 138

29 Contained in the *Marrakesh Agreement establishing World Trade Done at Marrakesh*, 15 April 1994 ATS 1995 No 8 Entered into force 1 January 1995

30 See specifically Art XX(1)(b)

31 GATT Art XX(1)(b), SPS Art 1

32 SPS Art 2

33 SPS Art 2 Note that provisional measures can be put in place where such evidence is lacking, but the country must then ensure that within a reasonable time it obtain the relevant information to conduct the necessary analysis Art 7

34 SPS Art 3(1), Annex A, cl 3(c)

35 SPS Art 5(3)

36 SPS Art 5(4)

37 See SPS Art 11(1)

ascertain whether or not a species will in fact be weedy, until it is introduced into an environment. Therefore, the decision is made on the basis of existing data and predictive systems, which could be the subject of differing interpretations.³⁸

These international issues are ongoing, with Australia taking a role in developing the international standards to be applied in relation to weed risk assessment but also being a respondent to disputes brought before the World Trade Organisation by other nations, over whether our quarantine system satisfies the trade law requirements.³⁹ In addition to the multilateral trade rules, there is now also the proliferation of bilateral trade deals. The same issue arises – to what extent do those deals allow for Australia to restrict imports on the basis of environmental concerns relating to weeds?

AUSFTA and Beyond

The most publicised recent bilateral trade deal that has been struck between Australia and another country is the Free Trade Agreement with the USA ('AUSFTA'). The AUSFTA covers a multitude of issues that affect how Australia can restrict imports from the USA. Here an outline is given of some of the main points relevant to the prevention of weeds entering Australia. To begin with, it is important to note that the AUSFTA confirms parts of the GATT and the SPS as standards applicable to restraints on trade between the two countries.⁴⁰

In addition to those existing multilateral agreements, the AUSFTA then establishes that the parties can apply a "risk management system" as long as it enables concentration on "high-risk goods" and "facilitate[s] the movement of low-risk goods".⁴¹ This seems to be consistent with the WRA, to the extent that similar wording – "high" and "low" risk – is incorporated, although disputes may inevitably arise in relation to the definition of those terms and their application in any instance of desired importation. The Agreement goes on to confirm that the parties can establish their own level of "environmental protection"⁴² and the parties recognise that "it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in their respective environmental laws."⁴³

The Agreement also establishes a range of committees in order to address barriers to trade.⁴⁴ The text of the Agreement seems to confirm principles within the Australian quarantine system, allowing Australia to set its own level of protection and establish mechanisms to restrict imports that threaten the environment. However, these committees may lead to changes or challenges to the Australian system. The argument made in respect of this possibility is that pressure will be exerted within these committees by the USA, to encourage Australia to alter its quarantine measures in order to reduce any restriction on importation of US products.⁴⁵

The AUSFTA is only one bilateral trade deal. It is almost certain that Australia will sign others in the future, perhaps including agreements with the other super economies in the Asia-Pacific region. In doing so, attention should be given to how the goal of free trade interacts with the other concerns of this country, including protecting the environment and agriculture from invasive plant species. It would be worth while observing how the AUSFTA operates in practice in relation to this issue to determine to what extent political pressure can affect quarantine measures despite positive statements in the text of an agreement.

38 See the more detailed discussion of this issue in Richard Mack, "Trade routes for commerce in plants or pathways for invasive species? The dualism of international commerce", *Fourteenth Australian Weeds Conference* (2005), pp75-76

39 The ongoing disputes before the World Trade Organisation in which Australia is a respondent include WT/DS270 – Certain measures affecting the importation of fresh fruit and vegetables, WT/DS/271 – Certain measures affecting the importation of fresh pineapple fruit, and WT/DS287 – Quarantine Regime for Imports. Details taken from the March 2005 DFAT Bulletin accessed at 222.dfat.gov.au/trade/negotiations/disputes/bulletin/wto_disputes_bulletin_march2005.html (accessed 27 April 2005)

40 See for example, AUSFTA Art 7 3, 22 1(1)

41 AUSFTA Art 6 9

42 AUSFTA Art 19 1

43 AUSFTA Art 19 2(2)

44 With respect to trade in goods Art 2 13, with respect to agriculture Art 3 2, with respect to sanitary and phytosanitary matters (being the committee that would most directly address systems such as the WRA) Art 7 4 and Annex 7-A

45 See comments (unpublished) made at *International Law Seminar Series – the Australia / US Free Trade Agreement* Faculty of Law, University of Sydney, 12 May 2004, by Professor Weiss and Dr Thurbon

Conclusion

Weeds are a major problem in Australia. Dr Traill, President of the Invasive Species Council, a non-government organisation whose sole focus is invasive species (fauna and flora), has said “with land clearing hopefully now sorted out as a destructive problem ... invasive species are probably now the no. 1 threat to nature in Australia.”⁴⁶ One obvious way to reduce the impact of weeds in this country is to prevent them arriving on our shores, in our mail and on our nursery floors. The quarantine system in Australia has moved towards a precautionary approach, assessing proposed plant imports for their weedy potential. That system obviously has some flaws, a large one being the expansive permitted list of species that have not all been subject to assessment. The other threat to the effectiveness of the system is the tension with free trade, which, although not new, is once more in the public’s consciousness due to the emergence of well-publicised bilateral trade deals. It is trite to state that prevention is better than cure. However, such platitudes often contain a good deal of truth and we should ensure that in liberalising trade in our region and across the planet, we do not sacrifice our unique environment.

The European Union’s Legislative Framework for Hazardous Waste Management

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Quantities of Waste Generated in Europe

The European Community generates approximately 2,000 million tonnes of waste each year, of which over 40 million tonnes is classified as hazardous¹. During the period 1990 to 1995, the total amount of waste generated in Europe grew by 10% a year². Major sources of waste generation in Europe are agriculture, building construction, industry, mining and municipal sectors³. The agricultural sector produces the largest amount of waste overall and the industrial sector is the largest generator of hazardous wastes.

Wastes sources vary between countries according to their economic situation. Countries in western Europe produce a greater share of industrial and municipal waste than those in central and eastern Europe, where mining is the main source of waste⁴.

Methods of Hazardous Waste Disposal in the European Union

The following methods of hazardous waste disposal are commonly available in the EU:

- (i) Landfilling – typically involves some form of pre-treatment or stabilisation prior to disposal of solid hazard wastes to multi-barrier, lined landfills; and
- (ii) Incineration – generally involves capture and reuse of the heat energy generated during incineration, with used air filters and residual ash, slag and scrap disposed at landfill.

46 Senate, *Turning Back to Tide – the invasive species challenge* (2004), p 1

1 European Commission Directorate-General Environment, Nuclear Safety and Civil Protection (1999) *EU focus on waste management*, Office for Official Publications of the European Communities, p 3

2 Ibid

3 Ibid, Note 1, p 7

4 Ibid, Note 1