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Waste Management and Extended Producer Responsibility

by

Stewart Smith

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EXECUTIVE SUMMARY

The generation and management of waste has a number of potential environmental impacts, including contamination of air or waters and contamination of land. In Australia, three distinct waste streams are recognised: municipal; commercial and industrial; and construction and demolition. Australia's per capita waste disposal rate is estimated to be 1.1 tonnes per year, the second highest among the OECD countries and surpassed only by the United States.

The principal legislation regulating the waste industry in NSW is the *Waste Avoidance and Resource Recovery Act 2001*. An important element of the legislation is the development of Waste Avoidance and Resource Recovery Strategies, the first of which was released in February 2003. It proposed four outcome areas and associated targets. The outcome areas were: preventing and avoiding waste; Increased recovery and use of secondary resources; Reducing toxic substances in products and materials; and Reducing litter and illegal dumping.

The first progress report of the Strategy, released in August 2004, found for the year 2002-03:

- Overall, the amount of waste disposed of across the state has remained constant at around 6 million tones:
- Total waste disposed of in the Sydney Metropolitan Area was down to 4.15 million tonnes, a seven percent decrease to the base year of 2000 (calendar year). This was mainly attributed to a reduction in the amount of commercial and industrial waste;
- Total waste disposed in the Hunter, Central Coast and Illawarra regions increased 8.8% since 2000;
- Per capita municipal waste disposal levels in the Greater Sydney Region have decreased to 334 kilograms per capita per year (kg/c/yr). Overall waste disposal has fallen by 6.5% from 1,124 kg to 1,051 kg per capita per year.

Another important feature of the NSW waste legislation is the adoption of the principles of extended producer responsibility (EPR). EPR can be defined as: "an environmental policy approach in which a producer's responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product's life cycle". A related policy instrument to EPR is Product Stewardship – defined as shared responsibility for the life-cycle of products including the environmental impact of the product from the extraction of virgin materials, to manufacturing, to consumption and through to and including ultimate disposal and post-disposal consequences. In the Product Stewardship model all participants in the product value chain, from raw materials suppliers to producers, retailers, consumers and waste managers share responsibility for managing environmental impacts.

The paper canvasses the application of EPR, including container deposit legislation. The National Packaging Covenant, a form of product stewardship, is also extensively discussed.

1.0 INTRODUCTION

The generation and management of waste has a number of potential environmental impacts, including contamination of air or waters and contamination of land. In Australia, three distinct waste streams are recognised: municipal; commercial and industrial; and construction and demolition. Australia's per capita waste disposal rate is estimated to be 1.1 tonnes per year, the second highest among the OECD countries and surpassed only by the United States. In NSW, the disposal of waste is expected to become an emerging issue as landfill capacity begins to be exhausted.¹

2.0 NSW WASTE MANAGEMENT LEGISLATION

In November 1995 the Carr Government's *Waste Minimisation and Management Act* was passed. It established the framework for the strategic planning and funding of waste reduction at a State and regional level and within industry sectors. The Act provided for council waste management functions to be taken over by regional waste management boards, and established the State Waste Advisory Council. The Act incorporated the Government's then per capita waste reduction target of 60% by the year 2000.

The Act included the requirement that it be reviewed after five years. The review found the following:

- The effort of waste boards has been fragmented and uncoordinated; the boards did not possess sufficient expertise in the full range of required areas;
- The State Waste Advisory Council has struggled to provide leadership, guidance, strategy or quality advice;
- Industry waste reduction plans have not met their objectives;
- The 60% waste reduction target was inappropriate, given that the baseline data was inaccurate and such a target could not take into account fluctuating economic activity;
- Using the internationally accepted standard of measuring waste reduction in terms of kilograms per unit of gross domestic product, NSW had a 26% reduction in 1999 compared to the 1990 base year.²

The review included proposals to change the Act as follows:

- The waste boards and Advisory Council to be replaced with a single government agency, *Resource NSW*, supported by a board of experts;
- Introduce extended producer responsibility as an objective of the new legislation and provide for its implementation where appropriate;
- The name of the Act to be changed from the Waste Minimisation and Management Act to the Waste Avoidance and Resource Recovery Act;
- Rather than incorporate statutory waste reduction targets in the legislation, the new act should have two new goals: use materials and resources more efficiently; and continuously reduce waste generation wastes;

Department of Environment and Conservation, New South Wales State of the Environment Report 2003, at 38.

² Environment Protection Authority, *Review Waste Minimisation and Management Act 1995*, June 2001.

• The waste hierarchy to be simplified by establishing a three level resource management hierarchy – avoiding unnecessary resource consumption; recovering resources (including reuse, reprocessing, recycling and energy recovery); and disposal – as last resort.³

On 20 June 2001 the Minister for the Environment Hon Bob Debus MP introduced the *Waste Avoidance and Resource Recovery Bill*, and the resultant Act was assented to on 17 July 2001. An outline of the main features of the Act is as follows:

The Act constituted a new statutory body named Resource NSW. In September 2003, Resource NSW was integrated into the Department of Environment and Conservation (DEC). The amending Act replaces the name Resource NSW with the Director-General of the Department of Environment and Conservation. The functions of the Director-General are as follows:

- (1)(a) to develop, implement or co-ordinate the implementation of (and evaluate strategies and programs for State-wide achievement of) government policy objectives in respect of:
 - (i) resource efficiency and waste reduction and management in relation to regions, industry sectors or material types, and
 - (ii) community education and awareness in relation to resource efficiency and waste reduction and management, and
 - (iii) programs for the prevention of litter and illegal dumping, and
 - (iv) market development for recovered resources and recycled material, and
 - (v) information dissemination,
- (b) to develop, co-ordinate and monitor the implementation of event and public space waste management codes,
- (c) to assist local communities to enter into arrangements for regionally-based secondary resource recovery from waste,
- (d) to assist in developing co-ordinated waste management services, including system and contract reform (such as contracts for waste and recycling services and system co-ordination),
- (e) to research and develop waste reduction and resource efficiency infrastructure, technologies and systems,
- (f) to develop and support training and education programs for resource efficiency, waste reduction and waste and litter management,
- (g) to monitor, report on and evaluate the regional implementation of State-wide policies and strategies with respect to waste,
- (h) to advise the Minister as to the kinds of articles, materials and substances that should be prohibited from being used for landfill or from being used in connection with other treatment processes, and the resource recovery options for those articles, materials and substances.
- (i) such other functions as may be conferred or imposed on it by or under this or any other Act or law.

Environment Protection Authority, *Review Waste Minimisation and Management Act 1995*, June 2001.

- (2) The Director-General may provide advice to the Minister on matters relating to waste policy and expenditure from the Waste Fund established under section 19.
- (3) The Director-General is, in the exercise of the Director-General's functions, to have regard to the principles of ecologically sustainable development.

A major element of the Act is the development of waste strategies by the Department of Environment and Conservation. The strategies, to be developed every two years, are to include targets for: waste reduction; resource recovery; and landfill disposal.

Part 4 of the Act deals with industry waste reduction, and introduces the concept of extended producer responsibility schemes. The Act defines such schemes as:

[a scheme] for giving effect to an environmental policy in which the producer's responsibility for a product (including physical or financial responsibility) is extended to the post-consumer stage of the product's life-cycle. Any such scheme includes a scheme for product stewardship (that is, shared responsibility for the life-cycle of products including the environmental impact of the product from the extraction of virgin materials, to manufacturing, to consumption and through to and including ultimate disposal and post-disposal consequences).

The Act also details the circumstances in which extended producer responsibility schemes may be implemented. The Minister is not to recommend the making of a regulation to implement such a scheme unless the Minister is satisfied that it is necessary to do so having regard to the following matters:

- (a) the volume of waste requiring ultimate disposal or the toxicity of the waste generated,
- (b) whether there is a national scheme in place that adequately addresses waste issues in New South Wales.
- (c) whether there is an effective voluntary scheme in place (nationally or State based) that is able to achieve the desired outcomes and is being actively implemented, monitored and reported on,
- (d) whether economic analysis supports the implementation of the scheme,
- (e) whether there are any constitutional or other impediments to New South Wales acting unilaterally in implementing the scheme.

The Department of Environment and Conservation is required to publicly advertise each year a priority statement with respect to the extended producer responsibility schemes it proposes to recommend for implementation under Part 4 of the Act.

The Act also originally established a Waste Fund for waste avoidance, resource recovery and waste management purposes. With the amalgamation of Resource NSW into the Department of Environment and Conservation in 2003, the Waste Fund was abolished and all waste monies are paid into the Environmental Trust Funds.

In February 2003, the NSW Government released the first *Waste Avoidance and Resource Recovery Strategy*. It proposed four outcome areas and associated targets as follows:

Table 1: Outcome areas and targets for NSW 2003 Waste Avoidance and Resource

Recovery Strategy

Outcome Area	Target
Preventing and avoiding waste	To hold level the total waste generated for the next five years (base year 2000)
Increased recovery and use of secondary resources	 By 2014, to: Increase recovery and utilization of materials from municipal sector from the current 26% to 66%; Increase recovery and utilization of materials from the commercial and industrial sector from the current 28% to 63%; and Increase recovery and utilization of materials from the construction and demolition sector from the current 65% to 76%.
Reducing toxic substances in products and materials	By 2014 or earlier: To phase out priority substances in identified products as a first choice or if not possible to achieve maximum recovery for re-use; and Where identified products containing these priority substances require disposal as a last resort, the permitted 'leachability' of the substances will be reduced to the levels that are permitted for inert waste.
Reducing litter and illegal dumping	Reduce total volume and tonnages of litter reported annually. Reduction in total tonnages of illegally dumped material reported by regulatory agencies and RID squads annually. (Both targets benchmarked against 2003).

Source: Resource NSW, Waste Avoidance and Resource Recovery Strategy 2003, at 36.

The Department of Environment and Conservation published its first progress report of the Strategy in August 2004. Based on data for 2002-03, it found:

- Overall, the amount of waste disposed of across the state has remained constant at around 6 million tones;
- Total waste disposed of in the Sydney Metropolitan Area (SMA) was down to 4.15 million tonnes, a seven percent decrease to the base year of 2000 (calendar year). This was mainly attributed to a reduction in the amount of commercial and industrial waste;
- Total waste disposed in the Hunter, Central Coast and Illawarra regions (termed the Extended Regulated Region / Area ERA) increased 8.8% since 2000;
- Inconsistent reporting of waste disposal outside the SMA and ERA makes it difficult to determine overall trends for the state. The Department of Local Government surveys for 2000-01 to 2002-03 indicate that total rural municipal waste disposed of has remained constant at around 500,000 tonnes. When extrapolated to include commercial and construction waste the overall waste

disposed in the rural sector is around 1 million tonnes per year.⁴

Table 2: Total Waste Disposed by Waste Stream in Greater Sydney Region (GSR), 2000 to 2002-03

Year	Municipal	Commercial	Construction	Total	Change
	(tonnes &	onnes & & Industrial		(tonnes)	since 2000
	%)	(tonnes &	Demolition		
		%)	(tonnes &		
			%)		
2000	1,773,742	2,519,548	1,124,951	5,418,240	
	(33%)	(47%)	(21%)		
2001 - 02	1,695,255	2,178,511	1,118,513	4,992,280	-7.9%
	(34%)	(44%)	(22%)		
2002 - 03	1,657,111	2,358,125	1,193,233	5,208,469	-3.9%
	(32%)	(45%)	(23%)		

Source: Department of Environment and Conservation, *Waste Avoidance and Recovery in NSW. A Progress Report*, August 2004.

The municipal waste stream remained stable between 2000 and 2002-03, contributing around 32% of the total waste for the Greater Sydney Region (SMA and ERA), while the contribution of both commercial & industrial and the construction & demolition sectors have also remained constant at around 45% and 23% respectively.

The Strategy states that:

The waste prevention target will be measured in kilograms per \$100 gross state product (GSP), adjusted for inflation. This is because waste generated varies with economic activity so the most accurate measure is achieved by dividing total tonnages generated by a standard measure of economic activity, which in NSW is its GSP. We will also seek to provide information on trends per capita.⁵

However, the Progress Report provides no information on waste prevention as measured by kilograms per \$100 gross state product. It does provide information on waste per capita of the Greater Sydney Region as follows:

Table 3: Per Capita Total Waste Disposed by Waste Stream in GSR, 2000 to 2002-03

Year	Municipal (kg per capita)		Construction & Demolition	Total (kg per capita)
	(ng per cupru)	per capita)	(kg per capita)	(ing per cupitu)
2000	368	523	232	1,124
2001-02	345	444	228	1,017
2002-03	334	476	241	1,051

Source: Department of Environment and Conservation, *Waste Avoidance and Recovery in NSW. A Progress Report*, August 2004.

Department of Environment and Conservation, *Waste Avoidance and Recovery in NSW. A Progress Report*, August 2004.

⁵ Resource NSW, Waste Avoidance and Resource Recovery Strategy 2003, at 37.

Per capita municipal waste disposal levels in the Greater Sydney Region have decreased to 334 kilograms per capita per year (kg/c/yr). Overall waste disposal has fallen by 6.5% from 1,124 kg to 1,051 kg per capita per year.

Recycling performance

Recovery from households

In 2002-2003 the average participation rate in household kerbside recycling was 80% with 95% of households having access to a kerbside recycling service. This was an increase from the previous year of 2001-02, when 89% of NSW households were within a Council area where a kerbside recycling service was provided, and the average participation rate in household kerbside recycling was 78%.

Kerbside recycling collections of dry recyclables currently recover about 20% of domestic waste generated in the Sydney metropolitan area compared with 8% in 1991. There is a big difference in recovery rates across Sydney with Council recycling rates varying between 12% and 40%. In 2002-03 kerbside recycling collections recovered 22% of domestic waste generated in the Sydney Region. Recovery rates ranged from 7% to 41%. Paper accounts for about two-thirds of kerbside materials collected by weight, glass around 28%, plastic 6%, steel 1% and aluminium cans less than 1%. In 1991 each person in Sydney set aside 30 kg for recycling. This had risen to approximately 84 kg in 2000 and 91.4 kg in 2002-03.

Table 4: Comparative Recycling Rates 2000 – 2002-03

Year	Paper	Glass containers	Steel cans	Aluminium cans	Total
2000	54 kg	24 kg	5 kg	<1 kg	84 kg
2002-03	62.3 kg	22.2 kg	4.8kg	< 1 kg	91.4 kg

It can be seen that most of the increase in tonnage recycled came from increased paper recycling, and in fact glass recycling dropped significantly over the period.

Garden Organics diverted from landfill by kerbside recycling systems in the Sydney Region during 2002-03 accounted for a further 124,000 tonnes. This material was either processed by commercial reprocessing facilities or on site Council facilities at landfills. This has boosted the recovery of municipal waste in the Sydney region by a further 33.5 kg per capita per year increasing the total recovery to 125kg per capita or 26% of the overall Municipal waste generation.

Section 88 landfill reports for 2002-03 indicate that of the 239,000 tonnes of garden and vegetation waste taken to disposal facilities in the SMA/ERA only 24,000 tonnes of this went to landfill. The remaining 215,000 tonnes were reused or recycled, either by commercial or Council operated reprocessing facilities.

To gain a more complete picture the NSW Department of Environment and Conservation undertook a survey of facilities processing segregated garden organics. The 2003 Reprocessors survey covered facilities other than those operated by Councils. This has identified that in addition to the 215,000 tonnes of garden organics recycled from disposal facilities a further 335,000 tonnes (excluding wood and timber) were processed within the

SMA/ERA This material was sourced directly by those facilities from all three waste streams.

An analysis of landfill audits estimated that a further 590,000 tonnes of garden organics were disposed of in the mixed waste stream during 2002-03 resulting in a total generation of garden organics in the SMA/ERA of about 1.14 million tonnes. This would indicate that 48% of garden organics, excluding wood and timber, was recovered across the Sydney, Hunter, Central Coast and Illawarra regions. The Reprocessors survey also identified that an additional 86,000 tonnes of untreated wood and timber were being recycled within the SMA/ERA bringing the total amount of garden organics, wood and timber recovered to 635,000 tonnes or 50%. A further 99,000 tonnes of garden organics were processed outside of the Sydney, Central Coast, Hunter and Illawarra regions.

As a comparison, the State of the Environment Report 2000 stated that 680,000 tonnes of garden organics were generated in the Sydney region in 1998 and of this, 270,000 tonnes (almost 40%) was recycled. This was based on a study by Nolan ITU Pty Ltd, and included garden organics and non-treated timber disposed of and diverted from landfill but did not include tonnages received directly at processing operations (such as composters).

The data indicates that although the total generation of garden organics, wood and timber is increasing it remains stable on a per capita basis at around 130 kg/c/yr. Seventy-one Councils in NSW offer regular organics collections, covering more than 520,000 residences. Forty-eight of these are either weekly or fortnightly services, mainly with separate mobile garbage bins, with the remainder mostly on call, quarterly or annually.

Construction and Demolition waste

A 2003 survey of the construction industry identified that recovery of construction and demolition waste in the Sydney region (SMA) was approximately 2.5 million tonnes, or 70% of the total generation. Much of this material is being diverted into higher quality road making material. Other major findings of the survey were:

- 1.3 million tonnes of concrete were recycled in the 2002-03 financial year;
- reprocessors reported 900,000 tonnes of "other" materials, comprising 610,000 tonnes of brick/terracotta, 70,0000 tonnes of concrete/brick and 160,000 tonnes of asphalt were reprocessed off-site in the SMA in 2002-03.

A key factor, which has increased the diversion of bricks by 500,000 tonnes, is the incorporation of bricks recovered from deconstruction works within the *Specification for Supply of Recycled Material for Pavements, Earthworks and Drainage (the Greenspec)*. Bricks are now regarded as a valuable component of some road bases, rather than being seen as a contaminant, as was previously the case.⁶

This section adapted from: NSW Department of Environment and Conservation, *Waste Avoidance and Resource Recovery in NSW. A Progress Report. 2004.* August 2004.

	Municipal		Commerci	al and	Constructi	on and	Total	Recovery
			Industrial	Industrial		Demolition		
	Disposed	Recycled	Disposed	Recycled	Disposed	Recycled	Tonnes	%
	264500	336500	453500	427500	5000	0	1487000	51%
Paper &								
Cardboard								
Plastic	114000	24500	283500	34500	12500	0	469000	13%
Glass	81000	126000	28000	45000	0	0	280000	61%
Ferrous	42000	15000	85000	500000	55000	500000	1197000	85%
Garden	629500	650500	85000	191500	21000	0	1577500	53%
Organics								
Food	637000	0	113500	45500	0	0	796000	3%
Timber			198500	48500	116500	82500	446000	29%
Soil/Rubble					520500	956000	1476500	65%
Concrete					465500	1451000	1916500	76%
Other	7000	4000	28000	72000	32000	319000	462000	85%
recyclables								
Other ^(a)	395000	0	1558000	0	112000	0	2065000	
Total	2170000	1155500	2831000	1364500	1340000	3308500	12172500	48%

Table 5: Total Waste Generation by Waste Stream for NSW 2002-03.

(a) For Municipal and Commercial & Industrial waste, Other waste comprises mixed and contaminated waste not suitable for recycling. For Construction and Demolition waste, Other waste also comprises asbestos and contaminated soil.

Source: Department of Environment and Conservation, *Waste Avoidance and Recovery in NSW. A Progress Report*, August 2004, at 14.

3.0 EXTENDED PRODUCER RESPONSIBILITY

It is argued by some waste commentators that waste volumes will not decline until the original manufacturers of the product that becomes waste are responsible for managing it until its full life cycle is complete. Formerly termed "cradle to grave" and now called "cradle to cradle" because of the implicit eye toward resource recovery, Extended Producer Responsibility is now a feature of NSW waste management legislation.⁷

The OECD defines Extended Producer Responsibility as:

... an environmental policy approach in which a producer's responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product's life cycle. There are two related features of Extended Producer Responsibility policy: (1) the shifting of responsibility (physically and/or economically; fully or partially) upstream to the producer and away from municipalities, and (2) to provide incentives to producers to incorporate environmental considerations in the design of their products. 8

The OECD states that a primary function of Extended Producer Responsibility is the

Wright, T. Shaping the Vision and Strategy for Sustainable Waste Management in New South Wales, A background paper prepared for Resource NSW, June 2002.

Organisation for Economic Cooperation and Development, *Extended Producer Responsibility*. A Guidance Manual for Governments, 2001, at 18.

transfer of the financial and/or physical responsibility of waste management from local government authorities and the general taxpayer to the producer. Environmental costs of treatment and disposal could then be incorporated into the cost of the product. This creates the setting for a market to emerge that truly reflects the environmental impacts of the product, and in which consumers could make their selection accordingly. For these reasons, in Australia local government supports Extended Producer Responsibility programs, in an attempt to reduce the impact of waste management costs on local government finances.

The OECD identifies four principal goals for Extended Producer Responsibility programs:

- Source reduction (natural resource conservation/materials conservation).
- Waste prevention.
- Design of more environmentally compatible products.
- Closure of materials use loops to promote sustainable development.

Several kinds of instruments and measures exist for implementing Extended Producer Responsibility. The following sections outline some of the options available. These include:

Take-back requirements

Policies that require the producer and/or retailer to take back the product or its packaging after use are the clearest example of extending the producer's responsibility into the post-consumer phase of a product's life cycle. The most active use of Extended Producer Responsibility, under both voluntary and mandatory schemes, is in product take-back. Extended Producer Responsibility is applied to specific products (e.g. motor vehicles), product categories (e.g. electric and electronic products) or waste streams (e.g. packaging) that are to be taken back or returned. This type of programme is often associated with targets for collection and recycling and/or reuse.

Policy approaches to implement product take back in the OECD range from: legal requirements; negotiated industry/government agreements; to completely voluntary industry-based programmes. Often take-back is regarded as the *purest* form of Extended Producer Responsibility.

Economic instruments

Economic instruments provide a direct financial incentive for participants to implement Extended Producer Responsibility. Examples include deposit/refund schemes, advance disposal fees, and taxes and/or subsidies.

When using economic instruments for Extended Producer Responsibility policy implementation, certain conditions should generally be established to ensure that a significant degree of the physical and/or financial responsibility of the producer is allocated. For instance, if the consumer is required to pay an advance disposal fee to cover the additional costs for treating their product at its post-consumer phase, then the physical responsibility should be extended to the producer. Another example would be the earmarking of a materials tax. Earmarking the tax would ensure that moneys paid by producers are used for the treatment of the products subject to the Extended Producer

Responsibility program. Moreover, this tax could be set so that it differentiates those materials that are difficult to recycle or reuse (e.g. containing toxic chemicals or numerous types of materials) from those that are not.

The aim of material taxes is to reduce the use of virgin materials (or materials that are difficult to recycle, contain toxic properties, etc.) in favour of secondary (recycled) or less toxic materials. Special taxes may be levied on particular materials used or on materials (or chemicals) deemed to cause pollution or create a particular hazard. This instrument can be used when source reduction is the principal goal.

Standards

A target of a minimum amount of recycled content (or secondary materials) per product can be set (like a performance standard). While minimum recycled content requirements are a performance standard *per se*, they will also encourage taking back of materials for recycling or re-use of the product. The producers and intermediaries generally take on the physical responsibility (or an agreed combination thereof).

Other government measures

Other measures can be implemented that complement and support the goals and objectives of Extended Producer Responsibility policy and programs. These may be economic instruments that could help fund or reduce the cost of Extended Producer Responsibility, or they may be non-economic (often performance based) in nature. The latter include measures such as landfill bans, environmental labelling, and environmental or green procurement.

- unit based pricing (pay as you throw, waste volume charges);
- green government purchasing (especially of products with high recycled content where recycling quotas have been set);
- eco-labelling (energy consumption, environmental characteristics, etc.)
- landfill bans and taxes:
- removal of subsidies on virgin materials;
- disposal bans and restrictions;
- materials bans and restrictions; and
- product bans and restrictions.

Wright notes that Extended Producer Responsibility schemes have been used principally for packaging waste, electrical and electronic equipment, waste oil, containers, tyres, and various other products. Waste policy in Europe and North America incorporates various forms of Extended Producer Responsibility and associated policy instruments. Well known examples are the:

- German Packaging Ordinance, which mandates for manufacturers and distributors to take back packaging and organise reuse or recycling;
- Dutch Packaging Covenant, which is a voluntary, negotiated agreement with clear industry roles for responsible packaging design and recycling;
- German take-back program for white goods involves dis-assembly;

Organisation for Economic Cooperation and Development, *Extended Producer Responsibility. A Guidance Manual for Governments*, 2001, at 18.

- Swedish program for electrical and electronic equipment, in which it is mandatory
 for manufacturers and retailers to take back and recycle used products as
 replacement for new products;
- Minimum recycled content requirements in various US States;
- Bottle deposits and advance disposal fees in various US States. 10

Currently in Australia there are three notable examples of Extended Producer Responsibility. The most notable, the National Packaging Covenant is a voluntary scheme in which all relevant stakeholders have accepted roles and given undertakings to bring about sustainable packaging management. This is discussed in depth later in this paper.

The Commonwealth Government has introduced an Extended Producer Responsibility scheme for waste oil. The scheme operates on the basis of a small levy applied to all new lubricant at point of sale. This levy is collected by a regulator and used to fund directly the operations of accredited waste oil collectors and recyclers. The third main Australian Extended Production Responsibility scheme is the South Australian Container Deposit Legislation, which has been in operation for some 25 years. The scheme commenced as a litter reduction initiative, but has been successful in recovering beverage containers for recycling, and operates alongside kerbside recycling arrangements.¹¹

A related policy instrument to Extended Producer Responsibility is Product Stewardship. The *Waste Avoidance and Recovery Act 2001* includes Product Stewardship under the umbrella of Extended Producer Responsibility schemes, and defines Product Stewardship as:

...shared responsibility for the life-cycle of products including the environmental impact of the product from the extraction of virgin materials, to manufacturing, to consumption and through to and including ultimate disposal and post-disposal consequences.¹²

In the Product Stewardship model all participants in the product value chain, from raw materials suppliers to producers, retailers, consumers and waste managers share responsibility for managing environmental impacts. The arguments in favour of this approach revolve around the concept that those most efficiently able to manage impact prevention at each stage in the value chain should take the responsibility. This system has merit as long as each party is aware of its best role, and how it contributes to the total responsibility system, and is willing and able to perform its best role. ¹³

Wright, T. Shaping the Vision and Strategy for Sustainable Waste Management in New South Wales, A background paper prepared for Resource NSW, June 2002.

Wright, T. Shaping the Vision and Strategy for Sustainable Waste Management in New South Wales, A background paper prepared for Resource NSW, June 2002.

Waste Avoidance and Recovery Act 2001, Section 15.

Wright, T. Shaping the Vision and Strategy for Sustainable Waste Management in New South Wales, A background paper prepared for Resource NSW, June 2002.

3.1 The NSW Extended Producer Responsibility Statement

As noted in section one of this paper, the *Waste Avoidance and Resource Recovery Act* contains a requirement that an annual statement identifying the extended producer responsibility schemes it proposes to recommend to the Minister be published. The last such statement published was May 2004. The statement did not recommend any regulatory extended producer responsibility schemes, but identified 16 wastes of concern that are suitable for management by an extended producer responsibility scheme. These wastes were:

- computers;
- televisions;
- nickel cadmium batteries, excluding mobile phone batteries;
- used tyres;
- plastic bags;
- agricultural/veterinary chemicals;
- agricultural/veterinary chemical containers;
- mobile phones and batteries;
- packaging waste, excluding plastic bags;
- cigarette litter;
- office paper;
- polyvinyl chloride (PVC);
- electrical products, excluding computers, televisions and mobile phones;
- treated timber;
- end-of-life vehicle residuals;
- household hazardous and chemical wastes.

For the 12 month duration of the statement, the Department of Environment and Conservation identified that immediate priority would be given to the first five wastes on the list, non of which have a post-consumer management scheme currently in place. In addition, the following four wastes which do have a post-consumer management scheme in place would be evaluated: agricultural/chemical chemicals; agricultural/chemical containers; mobile phones and batteries; and packaging waste.

3.2 Container Deposit Legislation

The waste stream in NSW can be divided into two separate categories – the 'at home waste' and the 'away from home' waste. Typically, the volume of 'away from home' waste created is much greater than 'at home' waste. For instance, in 2002-03, the total waste stream for NSW was 12.172 million tonnes, of which the municipal or 'at home' component was 3.325 million tonnes. Recycling rates in the 'at home' sector are high relative to other countries. However, recycling rates in the 'away from home' sector are lacking, contributing to Australia's poor overall recycling performance on the international stage. The contribution of the international stage.

¹⁴ See Table 5

See: Institute for Sustainable Futures, Beyond Recycling, An Integrated Waste Management Framework for Local Government. Part B: Recycling in context – the current situation. University of Technology Sydney, May 2005, at 3.

In Australia there is still a strong emphasis on kerbside collection as a key solution to waste management. However, the Institute of Sustainable Futures warns that there is a risk of over reliance on a sub-system (kerbside recycling) that results in a less than optimal system for the minimization and recover of waste in total. The Institute argues that two studies (one in Australia, one in the United States) on the use of deposit/refund systems as a means of increasing recovery rates for beverage packaging found that unit costs (cents/container or \$/tonne) in deposit/refund schemes were lower than kerbside systems alone and could help to reduce the net costs of kerbside collection. ¹⁶

In a deposit/return system, a payment (the deposit) is made when the product is purchased and is fully or partially refunded when the product is returned to a dealer or specialised treatment facility. Traditionally, deposit/refund schemes have focused mainly on beverage containers. Despite the success rate of these schemes, little activity outside of beverage containers has evolved. Deposit/refund schemes can also be organised through a recycling centre or through kerbside collection. However, studies indicate the return ratio is lower under these two methods.¹⁷

Principally, the deposit should include the commercial costs of the container (or specific product), plus the environmental costs associated with the disposal or with littering. Refunds should equal the avoided environmental costs plus the scrap value of the container. Higher return rates can be achieved when the fee is set at a higher percentage of the price.

Deposit/refund schemes are often introduced as a means to encourage reuse and the reduction of material inputs (e.g. beverage containers), and/or to ascertain a reliable flow of materials for recycling and recovery operations. Recent studies indicate that the return percentage for plastic bottles within the OECD is over 60%. Beer and soft drink return percentages range from 90-100%. For wine and liquor containers, return rates are between 40-80%. In terms of percentage price of the deposit, beer and soft drinks are the highest, indicating that the higher percentage of the price for the return, the higher the return rate. For nine US states, return success rates range from 72 to 98%. 18

An independent review of container deposit legislation, commissioned by the Minister for the Environment Hon Bob Debus MP, concluded:

- Best practice container deposit legislation can achieve recovery rates of over 90 percent for aluminium, glass and plastics;
- International and Australian experience suggests that deposit-refund systems are the most effective means of achieving high return rates;
- If a best practice form of container deposit legislation were introduced in NSW, a

See: Institute for Sustainable Futures, Beyond Recycling, An Integrated Waste Management Framework for Local Government. Part B: Recycling in context – the current situation. University of Technology Sydney, May 2005, at 3.

Organisation for Economic Cooperation and Development, *Extended Producer Responsibility*. A Guidance Manual for Governments, 2001, at 42.

Organisation for Economic Cooperation and Development, *Extended Producer Responsibility. A Guidance Manual for Governments*, 2001, at 42.

- significant net economic benefit (including the economic value of environmental externalities) could be expected;
- There may be legal impediments to the introduction of container deposit legislation in NSW;
- Rather than legislating for container deposit legislation, setting significantly higher targets for the recycling rate of used container materials than those currently in place could allow industry to establish a recovery system to suit their needs while still providing the economic benefits found to result from high recycling rates;
- Based on modelling, the introduction of container deposit legislation is not expected to have negative impacts on the financial viability of kerbside recycling and is not expected to decrease the yield of paper recovered from kerbside. 19

The independent review recommended either that:

- Container deposit legislation be introduced; or
- Industry recycling targets be strengthened to achieve equivalent outcomes to those that could be expected to result from the introduction of container deposit legislation. These targets should therefore achieve recovery rates for the recycling of used container materials of 90 percent, and apply as a minimum to beverage containers, with provision for expansion to encompass other container types.²⁰

The Beverage Industry Environment Council commissioned Access Economics to evaluate the independent review of container deposit legislation. In a critical assessment, Access Economics concluded that whatever the merits of container deposit legislation for NSW, the independent review could not be regarded as having demonstrated them in a 'comprehensive, credible, balanced or transparent way'.²¹ In reply, the author of the independent review, Stuart White, maintained that the Access Economics assessment did not reveal any reasons to alter the major conclusions of the review.²²

Conservation groups and local Government have strongly supported the introduction of container deposit legislation. However, it has been vigorously opposed by industry. For instance, the Beverage Industry Environment Council commissioned in 2001 the Centre for

White,S., Independent Review of Container Deposit Legislation in New South Wales, Final Report – Volume II. Prepared for: Hon Bob Debus MP, Minister for the Environment, Institute for Sustainable Futures, University of Technology, Sydney, November 2001, at 219.

White,S., Independent Review of Container Deposit Legislation in New South Wales, Final Report – Volume II. Prepared for: Hon Bob Debus MP, Minister for the Environment, Institute for Sustainable Futures, University of Technology, Sydney, November 2001, at 220.

Access Economics, *Critical Assessment of Independent Review of Container Deposit Legislation in NSW*. Report Commissioned by Beverage Industry Environment Council on behalf of the Packaging Industry Sector. Prepared by Access Economics, 30 April 2002.

White,S. Response to: Critical Assessment of Independent Review of Container Deposit Legislation in New South Wales. Stuart White, Institute of Sustainable Futures, University of Technology Sydney. 6 May 2002.

Environmental Solutions to review the effect of container deposit legislation on recycling and litter programs. It found that:

- Where kerbside recycling systems and Container Deposit Legislation (CDL) operate together, neither system works as well as they do on their own;
- CDL could financially damage kerbside recycling systems across Australia. The net financial cost of kerbside recycling is \$26 per household, per year. A least-cost CDL system based on the South Australian model, with no return-to-retail would cost \$68 per household, per year;
- CDL infrastructure would cost an additional \$123 million to establish in NSW alone:
- Aluminium, glass and plastic beverage containers are often the most valuable and lightweight materials collected at kerbside. If CDL did effectively divert beverage containers away from kerbside, local governments would still have to pay to provide a service to collect heavy and low-value materials at kerbside.²³

The Beverage Industry Environment Council stated that a partnership of producer responsibility, consumer knowledge, effective kerbside recycling systems, improved public place recycling and effective sanctions against those who deliberately litter will deliver better environmental and community outcomes than container deposit legislation.

4.0 THE NATIONAL PACKAGING COVENANT

At its November 1996 meeting, the Australian and New Zealand Environment and Conservation Council, now the Environment Protection and Heritage Council, directed its Standing Committee to commence negotiations, encompassing local government and all parts of the packaging supply chain, on a national packaging agreement based on the principle of shared responsibility.

The agreement was also to address the question of the distribution of responsibilities and costs, and to aim to secure the kerbside recycling system. The National Packaging Covenant was the result of these negotiations and commenced in July 1999.

The Covenant is the voluntary component of a co-regulatory arrangement for managing the environmental impacts of consumer packaging in Australia, and is the leading instrument for managing packaging waste in Australia. The regulatory underpinning is provided by the National Environment Protection Measure on Used Packaging Materials, designed to deal with 'free riders' and non-signatories and applied at the jurisdictional level. This ensures that signatories to the Covenant are not exposed to unfair competition from those in the packaging chain who have chosen not to sign the Covenant. Instead, the 'free riders' will be subject to regulatory measures as implemented through the National Environment Protection Measure

The Covenant originally had a life-span of five years. It is not prescriptive, does not tell companies how to make their packaging or what type of packaging to use; nor does it

Beverage Industry Environment Council, *Container Deposits* see website: http://www.biec.com.au/containerdep.html. Accessed June 2005.

implement regulation requiring businesses to take back materials recovered from kerbside recycling collection programs. To participate in the Covenant, organisations become signatories to the Covenant, develop an Action Plan and where appropriate, contribute to the funding arrangements.

In NSW the NSW Jurisdictional Recycling Group (JRG) was created under the National Packaging Covenant to develop and deliver projects to improve kerbside recycling efficiencies in NSW. It has members from State Government and industry and observers from Local Government.

Projects are jointly funded by the NSW Government and the packaging industry. The Jurisdictional Recycling Group has developed and implemented 14 programs which include: establishment of good practice and performance measures for kerbside recycling; development of best practice glass compaction rates and systems; comparative analysis of the performance of kerbside systems; education and market development projects concentrating on glass fines; and education programs tackling contamination and use of collected recyclables. It has also developed a comprehensive data base on packaging materials which covers uses, recyclability, markets and characteristics; a transport logistics model to assist regional Councils to develop optimum delivery aggregation and systems for dry recyclables; and social research into consumer behaviour and attitudes to packaging.²⁴

The Covenant, due to expire in mid 2004, was reviewed throughout 2004 and has been extended to 14 July 2005. Three main reviews of the Covenant were undertaken, and these are outlined below.

4.1 The Review of the National Packaging Covenant

The NolanITU Review

The NolanITU report reviewed the three objectives of the Covenant, and then evaluated the Covenant according to these objectives. The objectives were:

Objective 1. To establish a framework based on the principle of shared responsibility for the lifecycle management of packaging and paper products including their recovery and utilisation.

Objective 2. To establish a collaborative approach to ensure that the management of packaging and paper throughout its lifecycle and the implementation of collection systems - including kerbside recycling schemes - produce real and sustainable environmental benefits in a cost effective manner.

Objective 3. To establish a forum for regular consultation and discussion of issues and problems affecting the recovery, utilisation and disposal of used packaging and paper, including costs.

NolanITU noted the following in relation to the objectives:

Department of Environment and Conservation, *Waste Avoidance and Recovery in NSW. A Progress Report*, August 2004.

Objective 1

• The number of companies and Governments now "in the loop" in terms of the environmental performance of consumer packaging is unprecedented. Prior to the Covenant, only a few dozen companies were actively involved in dialogue and activity toward product stewardship. Moreover, there was a great deal of inconsistency (and concern by industry) in arrangements from jurisdiction to jurisdiction.

Objective 2

- Progress has been made toward a collaborative approach. The positive dialogue that now exists between industry and State/Commonwealth Governments with regard to the environmental performance of packaging is unprecedented.
- Collaboration has however been limited by the fact that a significant number of stakeholders particularly some in local government are not currently engaged.
- Representation from local government in the Covenant process is considered to be poor. Only Victoria and Queensland have full local government representation. The southern part of Tasmania, including Greater Hobart is represented by the Southern Waste Strategy Authority. Western Australia is represented by only three rural Councils, and South Australia is represented only by a metropolitan Waste Management Authority as well as one other metropolitan Council. There are no local government signatories from NSW.
- There is only limited evidence of the "real and sustainable environmental benefits" that it is intended to result in, whether from improved company practices or in the context of the major method of managing post-consumer packaging, e.g. sustainable kerbside recycling.

Objective 3

 The Covenant Council and associated bodies (such as Jurisdictional Recycling Groups) have provided multi-stakeholder forums for deliberation of postconsumer packaging issues. At the national level, these forums have become increasingly activist over the course of the Covenant.

However, the NolanITU report continued with the following less positive observations:

- Achievement has been particularly evident in terms of "process" aspects (e.g. establishing a framework, forum, and collaborative approaches). However, there is less evidence of achievement of "outcomes" intended by these "processes" (e.g. lifecycle management of packaging, real and sustainable environmental benefits, and resolution of post-consumer packaging waste issues);
- When a more in-depth perspective is taken e.g. looking at what the Covenant has achieved the picture is less positive. There is a high degree of variability in results ranging from individual examples of superlative performance to individual examples of no performance in terms of improved product stewardship by the packaging supply chain.
- When contextually viewed, and on balance of available evidence, the Covenant has been a limited and qualified success. On the one hand, it has partially achieved its stated objectives, particularly increased engagement of the packaging supply chain in the sphere of environmental performance. On the other hand, there is limited

- quantitative evidence of achievement of its indirect objectives of increasing product stewardship and improving kerbside recycling.
- The institutional and operational arrangements of the Covenant have proved insufficient to ensure its widespread use in the pro-active and positive manner originally intended. The result has been under-performance by some within the Covenant and no performance by some (smaller number) outside of it.
- The focus of action plans and annual reports is highly variable. In general there are few companies setting measurable (numerical) targets, providing a sound system for collecting relevant data, and identifying the necessary resources to most meet product stewardship commitments.

The NolanITU report then identified and assessed four packaging policy options. These were:

- 1/ Status Quo no changes to current co-regulatory framework;
- **Continual Improvement** some improvements to operational components of current co-regulatory framework;
- 3/ Substantial Improvement broad-scale modifications to operational components of current co-regulatory framework, including introduction of substantive Key Performance Indicators, or;
- 4/ Alternative Directions development and implementation of frameworks with greater emphasis on legislation and /or regulation.

The report concluded that the substantial improvement option, which it termed 'Covenant Plus', should be pursued.²⁵

The Local Government Review of the National Packaging Covenant

The Australian Local Government Association refused to sign the National Packaing Covenant in 1999, with the following reasons:

- The Covenant definition of product stewardship is based on a principle of "shared responsibility" which is directly at odds with Local Government's view that the packaging industry should take responsibility for the waste it produces;
- The Covenant does not commit industry to paying a fair price (ie. at least a cost recovery price) for recyclables, requiring only payment of market prices; and
- The Covenant is totally reliant on kerbside collection as the means of recycling, and fails to explore other proven initiatives such as industry run collections/drop-offs and container deposit legislation. ²⁶

In 2004, the National Packaging Covenant Council funded an independent review of the Covenant from a local government perspective. This was seen as particularly pertinent due to the fact that local government in most states and nationally through ALGA did not endorse the Covenant, although two State Associations (LGAQ and Municipal Association

NolanITU, National Packaging Covenant Council. Evaluation of the Covenant, Volume 1. Executive Summary and Main Report, January 2004, at xii.

Australian Local Government Association, *National Packaging Covenant* [Environment Policy]. See ALGA website http://www.alga.asn.au/policy/environment/waste.php. Accessed June 2005.

of Victoria) did in fact become signatories. The resultant Meinhardt Report concluded:

Most Local Governments believe that a major overhaul of the current Covenant framework would be necessary before their support would be forthcoming for any post-Covenant initiatives. There is a strong view that post-Covenant initiatives should be based on Extended Producer Responsibility. Local Government believes the post-Covenant framework should embed the principle of Extended Producer Responsibility more fully than current arrangements. Local Governments wish to see a stronger commitment by industry towards the life-cycle management of used packaging material, supported by appropriate legislation and enforcement programs.

There is considerable support for the following:

- a material-based approach to used packaging material, with minimum targets for recovery and recycling of all packaging waste, together with targets for recovery and recycling of each type of packaging material;
- environmental criteria for industry signatories to promote their company or product (e.g. 'NPC approved' packaging);
- requirement for industry Action Plans to outline specific and quantifiable objectives, with appropriate penalties for non-achievement;
- greater industry accountability, including data reporting consistent with Local Government requirements; and
- detailed rationale on industry's approach to stability of commodity prices for recyclables.²⁷

The President of the Australian Local Government Association Councillor Paul Bell has commented that more work was needed before a second Covenant could gain general local government support, stating:

Whatever the achievements of the first covenant may be, the fact remains that vast quantities of waste continue to stream into our landfills, large amounts of unnecessary and non recyclable packaging are still used by industry, and Councils and ratepayers continue to bear the brunt of the cost of the nation's recycling efforts.²⁸

NSW Nature Conservation Council Review

With funding from the NSW Department of Environment and Conservation, the Nature Conservation Council commissioned the Institute of Sustainable Futures to review the National Packaging Covenant. The Institute developed ten performance criteria and assessed the Covenant against these, as follows:

Meinhardt Infrastructure & Environment Pty Ltd, *An Independent Local Government Evaluation of the National Packaging Covenant.* Prepared for: Local Government Association of Queensland, Australian Local Government Association, Municipal Association of Victoria, February 2004 at 67.

[&]quot;More work needed on NPC" in *Local Government Focus, Australia's National Local Government Newspaper Online*, April 2005. See http://www.lgfocus.com.au/editions/2005/april/npc.shtml, Accessed June 2005.

1/ Reduction in generation of packaging waste.

- Unclear and non-specific reporting requirements of the Covenant and the action plans means that it is not possible to determine from these data sources alone whether the Covenant is achieving a reduction in overall packaging waste;
- The emphasis on kerbside collection in the Covenant system means there are no adequate mechanisms or strategies to increase recovery in the away from home sector;

2/ Compliance

- The Covenant system relies on the National Environment Packaging Measure to ensure compliance, which has been successful;
- The lack of performance indicators makes it difficult for signatories to demonstrate compliance beyond signing the Covenant and preparing an action plan not in themselves meaningful in terms of packaging waste reduction;

3/ Measurability

- There is a lack of baseline data collection, coordination of data sets and standardized data collection requirements;
- The lack of a consistent, independently verified data set for the production, disposal
 and recycling of packaging waste is a major impediment to its management and
 minimization;

4/ Transparency

• Whilst the Covenant system requires signatories to produce publicly available action plans, these plans lack specificity and there is no requirement to provide transparent data on progress towards a collective goal of reducing the generation of packaging waste.

5/ Clear Objectives

• The objectives of the Covenant are not defined in practical terms, ie, in ways that suggest outcomes or lend themselves to performance monitoring;

6/ Shared Responsibility

- The focus of the Covenant has been on kerbside collection of recyclables by local government. Genuine shared responsibility has not been achieved, with local government and ratepayers still bearing the major proportion of the financial costs of kerbside recycling;
- The financial contributions by brand owners through the Covenant are insignificant (less than 2%) as a proportion of the financial costs of kerbside recycling;
- The contribution of ratepayers is estimated to be \$158 million net cost per annum to local government nationally for kerbside recycling. Estimated contributions to kerbside recycling through industry transitional payments comprise up to \$3 million annually.

7/ Cost Effectiveness

• There has been no analysis of the relative cost effectiveness of holistic strategies to reduce packaging waste. Studies performed to date have specifically ignored the collection of waste from the away from home sector – which represents half the total packaging waste generated for some major categories such as beverage packaging. There is a danger that these studies are attempting to optimise a subsystem (ie kerbside recycling) and resulting in a less than optimal system for recovery of packaging waste in total.

8/ Consultation and Participation

- There was no participatory decision-making process involving citizens in the development of the Covenant system;
- Non-government organisations (notably peak environment organisations or consumer groups) were not involved in negotiating the Covenant, and many local governments have not been involved despite their importance in the packaging chain.

9/ Education and Communication

• The Covenant system has not provided a national program or strategy on education and communication in relation to packaging waste;

10/ Administrative Simplicity

- The administrative aspects of the Covenant focus on increasing the number of and sectoral coverage of signatories, preparing and review of action plans and collecting and disbursing funds for agreed purposes. The administrative costs for these tasks are modest;
- There are a large number of organisations involved in the administration of the Covenant, none of which takes a coordination role;
- A simpler, centralised and coordinated administrative structure would achieve a smooth and effective delivery of waste policy objectives.

The Institute of Sustainable Futures review concluded that the Covenant has not been performing satisfactorily, and that the following is needed:

- A framework for effectively ensuring compliance, potentially using the National Environment Packaging Measure;
- Clear, measurable targets for reducing packaging waste generated, by industry sector and waste type (eg, 85% recovery target of used beverage containers);
- A process for public consultation and stakeholder consultation in the development of the strategy;
- A process for monitoring and data collection and reporting of progress against targets; and
- A national education and communication strategy, aimed at the community, industry and local governments.²⁹

4.2 The Strengthened National Packaging Covenant – April / June 2005

The Environment Protection and Heritage Council considered proposals for a strengthened Covenant at their meeting on 3 December 2004. Ministers made a series of recommendations they wanted to see incorporated into a strengthened Covenant proposal, including a set of overarching targets to reduce packaging waste by:

- Reducing the amount of packaging going to landfill;
- Increasing the amount of packaging recycled;
- Increasing the use of recycled packaging in new products;
- Reducing the use of non-recyclable packaging;
- Improving company performance against baseline data.

Institute for Sustainable Futures, Review of the National Packaging Covenant. Prepared for Nature Conservation Council of NSW, March 2004.

The National Packaging Covenant Council, which has overall responsibility for the implementation and management of the Covenant released a new draft Covenant proposal. The Covenant Council was given the task of consulting with stakeholders and estimating current baseline data, to develop targets. This was no easy task, with conservation and NSW local government groups joining forces to create the Boomerang Alliance. The Alliance is committed to work towards zero waste, and is supportive of stronger extended producer responsibility programs such as container deposit legislation. Equally focussed and resourced were the packaging industry peak groups. For example, the Packaging Council of Australia commissioned and published on their website reviews of the Regulatory Impact Statement of the new draft Covenant, as well as responses to various Boomerang Alliance statements and reports. Boomerang Alliance statements and reports.

On the 13 April 2005 NSW Minister for the Environment Hon Bob Debus MP, in conjunction with the Victorian Minister for the Environment, called on parties negotiating the Covenant to work towards an overall recycling rate of 65 per cent by 2010 – up from the current rate of 48 per cent. He also called for separate targets to be developed for paper/cardboard, glass, aluminium, plastic and steel. Minister Debus stated:

Some sectors, such as paper and cardboard, are performing much better than others, such as plastics. Separate targets for different material types will ensure that the poorer performing sectors can't hide behind the good efforts of other materials under one overall target.

We must also urgently tackle the growing problem of "Away from Home" packaging waste. This is a priority area for waste reduction targeting commercial office buildings and workplaces, food premises, shopping centres, entertainment and sporting venues. Packaging waste – such as food and beverage containers, cardboard boxes and plastic wrapping – is a major source of rubbish, with around one million tonnes generated each year in NSW. If industry fails under the covenant, then they face regulation and mandatory schemes under State and Federal environmental laws. 33

At the meeting of the Environment Protection and Heritage Council of 14 April 2005, the Ministers approved the release of a new strengthened draft National Packaging Covenant (sometimes referred to as the National Packaging Covenant MkII). Comments were invited by 19 May 2005, and the Ministers agreed to extend the current Covenant until 14 July 2005.³⁴ Subsequently, the Environment Protection and Heritage Council met on 1 July

See National Packaging Covenant Website: http://www.deh.gov.au/settlements/waste/covenant/whatsnew.html#consultation, Accessed June 2005.

See the Boomerang Alliance website: http://www.boomerangalliance.org/index.php, Accessed June 2005.

See Packaging Council of Australia website: http://www.packcoun.com.au/, Accessed June 2005

[&]quot;NSW Calls for Tough Packaging Waste Targets." *News Release*, Hon Bob Debus MP, Minister for the Environment, 13 April 2005.

Environment Protection and Heritage Council, Communique, Ministers Keep Environment

2005 and approved a new strengthened Covenant, to extend from 15 July 2005 to 30 June 2010 35

The Covenant has been broadened to include:

- A requirement for specific actions and quantifiable targets in relation to key performance indicators in Covenant Signatory Action Plans;
- The expansion of recovery systems and re-use of consumer packaging and paper to include material generated away from home and in workplaces commercial, industrial and government premises as well as in the home;
- An increased focus on the provision of information and education to:
 - o improve the environmental performance of packaging systems;
 - assist the packaging supply chain and consumers to make informed choices about packaging and products;
 - o assist the packaging supply chain and users to make responsible choices, including design, purchasing, recycling, reuse and disposal.
- An improvement in the efficiency of good practice recovery and waste management systems.

The objective of Covenant is to reduce environmental degradation arising from the disposal of used consumer packaging and conserve resources through:

- better product design;
- increased reduction, re-use and recycling of used packaging materials;
- reduced use of non-recyclable materials;
- reduced amount of used packaging materials going to landfill;
- reduced incidence of packaging being littered.

Covenant performance against this objective will be assessed by reference to four specific Performance Goals. These were:

- 1/ Packaging optimised to integrate considerations about resource efficiency, maximum resource re-utilisation, product protection, safety and hygiene.
- 2/ Efficient resource recovery systems for consumer packaging and paper.
- 3/ Consumers able to make informed decisions about consumption, use and disposal of packaging of products.
- 4/ Supply chain members and other signatories able to demonstrate how their actions contribute to Goals (1) (3) above.

The draft Covenant and associated Regulatory Impact Statement considered a range of recycling targets. Assuming two possible baseline recycling rates - 40% and 50% - increases in recovery were modeled as follows:

Protection Momentum Strong, 14 April 2005. See website http://www.ephc.gov.au/pdf/EPHC/Comm_14_04_05.pdf, Accessed June 2005.

Environment Protection and Heritage Council, *Communique – Ministers Act on Pollution,* Waste and Water, 1 July 2005.

- To 55%, 65% and 75% respectively by 2008; and
- To 60%, 70% and 80% respectively by 2010.

The Environment Protection and Heritage Council eventually agreed on a 65% recycling target by 2010. The details of this target, and two others, are outlined below.

Target 1: Increased recycling of post consumer packaging

Signatories will work together to increase the amount of post consumer packaging recycled from its current rate of 48% (2003 baseline data) to 65% by 2010. Packaging made from specific materials will make a contribution to the overarching target as follows:

- paper and cardboard 70-80% (currently 64%);
- glass 50-60% (currently 35%);
- steel 60-65% (currently 44%);
- aluminium 70-75% (currently 64%);
- plastics 30-35% (currently 20%).

Target 2: Non Recyclable Packaging

Industry signatories will work to increase the recycling of some specific materials that are currently either not recycled or recycled at very low rates due to their design, lack of collection/processing infrastructure or lack of markets. These materials are plastics coded 4 to 7, non-recyclable paper and cardboard packaging.

The recycling of packaging manufactured using these materials will be increased from the existing 10% recycling rate (2003 baseline data) to 25% by 2010. Composite packaging is another packaging type with very low recovery rates. No baseline data is currently available for composites and the applicability of the 25% target to these materials will be considered following analysis of baseline data at the end of 2006.

Target 3: Packaging to Landfill

It is recognized that through increased consumption and population growth the amount of packaging disposed of to landfill could still increase substantially. To address this, a target has been established of no new packaging to landfill (against 2003 baseline data). This means that any additional packaging will need to be recovered for recycling and not disposed of to landfill.

To achieve the above targets, the Packaging Council of Australia noted that, from an industry perspective, the most important requirements are as follows:

- additional collection, sorting and reprocessing infrastructure;
- substantial expansion of away from home recycling;
- continued adoption of best practice kerbside systems;
- adopt practices to discourage materials (for which recycling systems are in place) being disposed of to landfill;
- prompt application of the revised and strengthened NEPM (National Environment Protection Measure) by all jurisdictions;
- collection of comprehensive and verifiable data on a national basis on the key targets to be measured;
- waste and recycling tenders by governments to contain and be assessed on

economic, social and environmental criteria;

- governments to review the effectiveness of current labelling laws with respect to recycling;
- all parties to support public education and awareness programs to encourage and expand recycling services.³⁶

A series of Key Performance Indicators were also established in the Covenant. In addition, the Covenant Council is to develop a nationally consistent data collection methodology and key indicators to measure performance against the Key Performance Indicators and Covenant Goals.

Action Plans are again an important feature of the new Covenant. An Action Plan sets out how a signatory to the Covenant proposes to implement and measure its actions and commitments. Each Action Plan must include:

- Information about the signatory, including a description of where they reside in the packaging supply chain, any brand names owned, a summary of their size (measured in turnover or market share), their location and full contact details for an appointed Covenant officer;
- Specific actions that will be undertaken to improve environmental and waste minimisation aspects of the production, use, sale and/or reprocessing and recovery of packaging materials, including specific actions that will contribute to the environmental goals and targets of the Covenant;
- Identification of the specific Key Performance Indicators and the appropriate baseline data and targets that will be included and reported against in subsequent annual reports:
- The processes and nomination of responsibility for data collection and reporting;
- The commitments, resources and arrangements that will be put in place to address all Covenant undertakings relevant to the signatory.

The Covenant states that the packaging industry will seek to raise a minimum of \$3 million per annum over five years, matched by government contributions. This will be used to support projects that further the objectives of the Covenant, as well as cover the costs of administering the Covenant.

The Boomerang Alliance commended the Environment Protection and Heritage Council on the new Covenant. Alliance spokesman Jeff Angel stated:

Ministers have come through and delivered an important and historic shift in how Australia deals with the growing scourge of rubbish. A definite 65% target shows Ministers were prepared to resist industry attempts to weaken the agreement by making these targets only 'aspirational'. Ministers have also shown foresight in establishing a process to investigate a range of economic instruments that can be used to increase packaging recycling, with findings to be reported at the Covenant's midterm review in 2008.³⁷

Packaging Council of Australia, *Targets – Industry Position*, See website http://www.packcoun.com.au/homepage/pressRelease/Targets.doc, Accessed July 2005.

Boomerang Alliance, Media Release, Green groups commend Environment Ministers on

In response to the signing of the Covenant, the Packaging Council of Australia had this statement on their website for the information of their members:

The Covenant – Today's meeting of the EPHC approved the National Packaging Covenant with a recycling target of 65%. Strong action against companies that do not meet their obligations has been foreshadowed. The basis for the small business exemption has still to be determined. Pressure from some States and environmental groups to commence forthwith an examination of Container Deposit Legislation (CDL) was resisted by Ministers. They did however agree to examine other "economic instruments" should a mid-term review show the Covenant was failing to deliver. Such a failure will make alternative policy approaches inevitable - policy approaches which will be much less palatable for industry. All companies have a real interest in making this Covenant work. Signatories will shortly be requested to sign up to the new Covenant.³⁸

5.0 CONCLUSION

In regards to waste management, the 2003 NSW State of the Environment Report noted that the following future directions were required:

- Industry needs to examine costs, management practices and the environmental impacts of waste from their facilities and their products and services;
- The waste collection and disposal industry needs to continue to develop and actively market systems for the separation of renewable materials from the waste stream; and
- Individuals should avoid generating waste where possible, reject wasteful packaging, compost green waste at home and use recycling facilities where available.

These goals are as relevant today as they were in 2003, and emphasise that waste management is the responsibility of all sectors of the community.

waste. 1 July 2005. See website: http://www.boomerangalliance.org/000_files/54_commend_waste_decision.pdf, Accessed July 2005.

Packaging Council of Australia, *Packaging Expose*, Vol 06/05. Accessed July 2005.

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