

13 April 2012

Waste Levy Review
Office of Environment and Heritage
PO Box A290
Sydney South NSW 1232

Dear Sir

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the *Review of the Waste and Environment Levy*.

This submission was prepared with the assistance of ASBG's Recycling Group. It also supports the presentation ASBG provided on 29 March 2012.

Should you require further information or details in relation to the submission please contact Mr Andrew Doig, National Director, Australian Sustainable Business Group on 02 9453 3348.

Yours sincerely



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Australian Sustainable Business Group (ASBG)

AUSTRALIAN SUSTAINABLE BUSINESS GROUP'S

Submission on

Review of the Waste and Environment Levy

April 2012



Sydney, Brisbane

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EXECUTIVE SUMMARY

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the *Review of the Waste and Environment Levy* being undertaken on behalf of the NSW Government by KPMG. Overall waste is a highly complex issue covering all sectors of business, industry and the community. There are no simple answers, but the need for a complex strategy to combat the issues caused and progressed by the Waste and Environment Levy (waste levy).

ASBG made thirteen recommendations for this review including:

- Impact of the carbon price plus the levy increase in July can be a shock amount of up to 53%. As a consequence ASBG recommends the NSW levy increase not occur this year.
- Waste levy differences across jurisdiction borders will cause increasing and environmentally perverse outcomes. Jurisdictions should coordinate and cooperate to minimize such outcomes.
- The waste levy is driving up disposal costs for recycling residues and the level of contamination in feedstock for recyclers. This is making the recycling processes for certain recycling types, such as steel and paper uneconomic in NSW. As a consequence of this unintended outcome ASBG recommends the NSW government introduce appropriate relief from the levy for these negatively affected recycling sectors.
- ASBG provides a 3 step process in which such levy relief can be provided:
 - Step 1: Set an entry gate keeper level which signifies qualifying recycling activities, then negotiate a reasonable rate of levy relief, which is calculated by the difference between a fixed discounted levy rate and the actual levy rate.
 - Step 2: Review the discounted levy rate every 2 years, using 3rd party investigations where appropriate, to ensure contamination issues and other issues maintain a reasonable level of relief from the levy
 - Step 3: The recycler is subject to the full levy at the landfill, but receives a proportional amount back from the Government paid on the amount of product produced.

ASBG is concerned that the future efforts for efficient and cost effective waste infrastructure can be undermined at the planning level. Waste facilities are notoriously difficult to gain planning permission across the developed world. ASBG recommends funding from the levy be provided to assist the Department of Planning and the EPA establish special zones for such facilities and develop long term community liaison and consultation programs to assist with the difficulties of communities accepting such facilities. The two more difficult to site facility types are landfills and Energy from Waste. While purpose of the levy, along with other waste management initiatives from the Government, is to reduce reliance on landfill, it still is and will be an essential part of NSW's waste infrastructure. Planning for future landfills especially for putrescible landfills is necessary requirement best undertaken sooner rather than when urgent. The example of Naples where waste is still not properly managed is discussed.

ASBG also briefly discusses the unacceptable high level of illegal dumping. Its rate is estimated by ASBG to be over 10% of the Sydney's waste stream. Improved policing and better education are the two main areas in which this issue is recommended to be approached.

RECOMMENDATIONS

ASBG recommends:

- R1 The waste levy rate be kept static for the 2012-13 year to prevent shock tax increases from impacting the waste disposal market.
- R2 That jurisdictions develop a cooperative and coordinate approach to the setting of waste levies.
- R3
- Levy differences across borders requires urgent attention to avoid perverse environmental outcomes in the shipping of wastes from recycling long distances
 - The projected levy rates are considered too high and do little to discourage waste avoidance and will harm NSW businesses.
- R4 That due to the changing level of contamination and other factors under the control of the NSW Government that any waste levy relief should be reviewed regularly to consider fine tuning the rate.
- R5 The NSW accept that certain recycling processing facilities require relief from the waste levy.
- R6 The EPA set a gate keeper requirement for recyclers seeking waste levy relief to demonstrate the levy is causing a negative impact on their NSW operations.
- R7
- The level of levy relief be a negotiated outcome between the NSW Government and the recycling sector
 - Use of 3rd parties as an option can assist in the setting of a reasonable level of levy relief
 - The level of levy relief is to be indicated by a new discounted levy rate which remains fixed until reviewed.
- R8 That the fixed level of discounted levy be reviewed every 2 years.
- R9 Payment of levy relief be:
- Provided per tonne product from the recycling sector
 - Based on the ratio of product to waste times the difference between a discounted levy rate for steel recycling processes and the current levy rate
 - Be paid on a quarterly bases, subject to detailed return
- R10 The NSW Government plan for a new municipal waste landfills for the greater Sydney region.
- R11 The Department of Planning with the EPA, establish a taskforce to deal with the siting of future waste management infrastructure including: establishing special zones, community consultation programs and assistance for those willing to accept such facilities in their areas.
- R12 That because Energy from Waste is a treatment process it should not attract the waste levy.
- R13 The NSW Government greatly improve its approach to illegal dumping by increasing enforcement efforts and education to reduce its ongoing impacts financially and environmentally.

1 INTRODUCTION

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the Review of the *Waste and Environment Levy*.

ASBG is a leading environment and energy business representative body that specialises in providing the latest information, including changes to environmental legislation, regulations and policy that may impact industry, business and other organisations. We operate in NSW and Queensland and have over 150 members comprising of Australia's largest manufacturing companies.

ASBG represents businesses including large manufacturing industry and the waste sector. As a consequence, we provide more of a generator's perspective on waste issues, rather than that of the waste sector alone. As a consequence, ASBG members are concerned in relation to the current and projected trajectory of the waste levy and its cost imposts on businesses in NSW especially the Sydney, Hunter, Illawarra and north coast regions paying the levy in various forms.

ASBG supports the pursuit of environmental initiatives from businesses, but the support from the NSW Government is small even tiny compared to the collection of levy revenues from Commercial and Industrial and Construction and Demolition sectors. ASBG has made a number of submissions on the management of waste in NSW over the last few years, and as a consequence this submission builds on the past submissions and builds on these themes and recommendations ASBG has made on the *NSW Waste Avoidance and Resource Recovery Strategy, Discussion Draft: Strategic Directions and Implementation Plan 2011–2015* (the Plan), the *Reducing Waste: Implementation Strategy 2011-15*¹ and the *Review of Waste Strategy and Policy in NSW* (Richmond Review)².

This submission discusses the history of the waste levy, and its future levels currently legislation under the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Waste) Regulation 2008*.

Skewing the issue is the Federal Government's Carbon Pricing package, which will add another tax on landfill gate prices. One in which ASBG considers is a doubling up of taxes on greenhouse emissions with the NSW Waste Levy.

Also considered is how well the levy has performed in its primary role of reducing waste to landfill and encouraging resource recovery and recycling. There is no question the levy has support many recycling activities especially Construction and Demolition (C&D) wastes and Alternative Waste Technologies (AWT) and other resource recovery types. Non-levy initiatives such as the Resource Recovery Exemption (RRE) process has provided much need legal and technical avenue for waste generators to navigate the complex waste legislative requirements. While the measurement processes under the RRE process introduced a new cost on waste generators, it also for the first time provided a level of legal comfort (if such a thing exists) for environmentally sound reuses of various waste materials.

Unfortunately, the levy has displayed a perverse outcome for certain recycling activities such as steel and paper, but there may be others. ASBG has operated its Recycling Group for the specific purpose of assisting our members in the recycling sector to receive some relief from the waste levy. Steel recycling is a classic case where the levy negatively impacts on its operations. By making the disposal of floc from steel shredding operations higher in cost than in other markets, there is increasing transport of steel scrap (recyclate) out of NSW to other markets, especially to China, where shipping rates are as low as \$17/t. While steel recycling will continue in NSW, shredding processes to value add to the collected recyclate scrap will go elsewhere and soon. ASBG considers there is overwhelming evidence to support levy relief for steel, but considers paper mills also have a strong case as may other recycling activities.

¹ <http://www.environment.nsw.gov.au/resources/warr/110147implementstrat2011-15.pdf>

² <http://www.environment.nsw.gov.au/resources/warr/101034RevWasteStrat.pdf>

ASBG proposes a solution to assisting recyclers negatively impacted by the waste levy through a 3 step process. The end step is critical as it does not recommend a differentiated levy, but instead a proportional payment (as would apply if a discounted levy were applied) to the amount of product produced.

Infrastructure is also a key issue in securing an effective waste management system in NSW which is environmentally sustainable and supports the volumes of wastes being generated. Gaining planning permission is a key issue for waste infrastructure as it is commonly opposed by the local community. Landfills and Energy from Waste facilities are rather unfashionable in Australia, and suffer the consequences of finding it very difficult to gain planning permission. ASBG considers levy money can be used to assist in the long term planning for such facilities including creating special zones and progressing long term community engagement practices with suitable rewards for the local communities accepting such developments in their areas. While the EPA has prepared its Waste Strategy 2011-15, ASBG considers it does not appear to offer enough certainty for business.

ASBG also comments on the high level of illegal disposal being conducted in the greater Sydney region. It is poorly measured and communicated to the public, but the problem is vast and requires urgent and considerable effort to reduce and manage this problem.

To clarify ASBG's position on waste our 2011 Waste Policy for NSW is attached.

2 WASTE LEVY ISSUES

2.1 Impact of the High Levy Rate

The points of this section are:

- *The waste levy has proven a moderately effective, but blunt instrument to drive resource recovery, which comes at a very high cost to the people of NSW compared with other states.*
- *ASBG supports the Richmond report that an economic assessment of the levy is required.*
- *ASBG welcomes the NSW Government's initiative of undertaking both the CIE and KPMG reviews relating to the NSW Waste levy*
- *Issues of the impact of the levy and some solutions to these problems are discussed.*

In NSW waste management is a complex and highly regulated affair. Use of the waste levy to drive increased waste diversions away from landfill to reuse and recycling has been, in part, effective. But the levy has been a blunt tool and a number of perverse environmental and economic outcomes are being generated. It also generated a poor value for money waste service for the people of NSW.

ASBG agrees with the Richmond Review's statement:

There needs to be an analysis involving an economic assessment of the levy, and the likely market responses along the current levy trajectory, to show us where the levy settings need to be. There is also a need for a retrospective analysis of the actual market responses to past levy settings to show where the market failures are – places where analysis indicates that the levy should have been sufficient but the market has not responded. A specific analysis needs to be done for each waste stream, and, potentially, each significant waste type.

Lack of market response to the levy is considered due to a lack of specific waste management initiatives that have been used in other states, which have achieved similar and even better resource recovery outcomes even when no levy exists. (See section 2.1.5 for more details)

Essentially, ASBG considers the waste levy requires to be tuned to deliver better outcomes for waste management in NSW. However the impending large increase in landfill taxes from both the levy increase and from the Carbon Pricing system will make for shock price increases, especially for putrescible wastes.

Rebates for recycling is also promoted in the Richmond Review, which also promoted the payment of any rebates or relief on the products made rather than on the waste generated.

This section reviews some of the issues the waste levy is creating and provides ASBG's perspective on these and appropriate corrective measures.

These measures are largely incorporated into the terms of reference for the Levy Review.

2.1.1 History of the Waste Levy

The points of this section are:

- *The history of the levy is one based on funding a Government agency to assist Local Government and the waste industry manages NSW's wastes effectively.*
- *It moved from an assistance program to one of regulation in the 1990s.*
- *Later it moved to a program of raising revenue for other environmental programs and other internal revenue, with little allocated to waste management.*

The commencement of the waste levy was set up to fund what was then called the Metropolitan Waste and Disposal Authority, now through various name changes and legislative responsibility changes it is called WSN Environmental Services, which is being sold.

Chronological events regarding the levy include:

- 1980's: In the early 1980's the levy applied only to Sydney Wastes, and was set at 51 cents per tonne to fund the Metropolitan Waste Disposal Authority in the 1970s.
- 1992: After the formation of the Environment Protection Authority in 1992, the regulatory functions that covered the levy was passed to the EPA.
- 1996: the EPA published RIS on the Waste Minimisation and Management Regulation 1996 – this proposed the levy be set at a maximum of \$27.50/t over time based on 50% greenhouse emissions from methane and transport and amenity costs.
- 2001: the levy was again reviewed under the Review of the *Waste Minimisation and Management Act 1995*, with the proposal being to increase the:
- Sydney Metropolitan Area (SMA) from \$17/t in 2001 to \$25/t by 2010 then capped with CPI increases included.
- Extended Regulated Area (ERA) (Hunter and Illawarra) to go from \$8/t to \$25/t by 2013 then capped with CPI increases included.
- 2005: The RIS On the Protection of the Environment Operations (Waste) Regulation 2005 proposed to continue to maintain increases in the levy at \$1/t in the Sydney Region and \$1.50/t in the ERA.
- 2006: Using a pre-election promise the Government, with no further consultation increased the levy rate of the Sydney area from \$1/t pa to \$6/t pa and the ERA to increase to \$7/t.
- The Liquid Waste levy was introduced in October 2007 commencing at the SMA rate, but applies to any waste generated across NSW.
- 2009: The SMA to increase by \$10/t plus CPI until 2016, ERA to commence at \$10.50/t plus CPI until 2011, where it will increase to \$11.50/t plus CPI up to mid 2013. It is not legally clear that the levy continues after this date. (Note there is an error in the Richmond Review as it assumes \$10/t + CPI for the ERA.)
- 2009: The waste and environment levy was extended to include local government areas along the coast north of Port Stephens to the Queensland border and the Blue Mountains and Wollondilly local government areas. This extended area is known as the 'Regional Regulated Area'. The RRA commenced at \$10/t and increase by \$10/t plus CPI.
- 2009: from 1 September 2009 a \$15/t for coal washery wastes applies.
- In 2010 The Richmond Review was undertaken which recommended analysis of the waste levy and its impacts.
- In 2011 the OEHL commissioned the Centre for International Economics to undertake the Review of Levy Impacts on Recycling.

2.1.2 Overview and Purpose

The points of this section are:

- *The main official purpose of the levy is to drive resource efficiency, though this is achieved in a blunt and inefficient manner.*
- *NSW's budget for the levy is in part driven by the allocation of grant moneys available.*
- *In 1996 the levy was justified on external costs with 50% representing methane and greenhouse emissions. When the CPRS comes into effect landfill will be in effect paying a double greenhouse tax.*

- *On 1 July 2012 the total taxes, levy plus the carbon price will increase 53% on putrescible landfills*

The purpose of the waste levy according to EPA³:

The waste and environment levy is designed to encourage resource recovery and recycling of waste. It is generally added to the disposal charges set by landfills. It provides businesses, councils and individuals with an incentive to reduce the amount of waste they generate and encourages them to seek legitimate alternatives to landfill disposal (consistent with the 'Objects of the Act' in Section 3 of the POEO Act).

The POEO Act s3 Objects of the Act state:

(a)(iii) the reduction in the use of materials and the re-use, recovery or recycling of materials

This objective in itself imposes a limit to recovery or recycling of materials. To recycle materials back to their original form or close to it requires a separation process. Such processes require energy and some means of separation, such as washing or heating etc. At some point where the input stream contains too high a level of other materials (contaminants) the net environmental cost of recovery becomes less than the environmental costs of energy in and other natural resources. The end point being is that landfilling must be a part of the waste management infrastructure.

According to EPA the waste and environmental levy is there to provide an incentive to reduce and divert waste away from landfill. Importantly, the levy's priority is to raise revenue, but to reduce waste generation and avoid landfill. However, in practice it comprises a significant proportion to NSW's State budget and is estimated to reach 2%. Waste in NSW funds many environmental projects, which tend to be based on which tend to be based on non-waste issues with the biological side of environmental issues (flora, fauna and riparian zones) featuring.

Expenditure of levy moneys is budgeted for up to 2013-14, with virtually all the environmental programs dealing with non-waste issues. Given the forward expenditure programs there is concern the revenue from the levy is a necessary part of budget income and Treasury will expect such income levels despite the level of resource recovery achieved in NSW. This also imposes a conflict with other programs to improve resource recovery. If lower cost approaches are used (see s5.4) this will lead to lower amounts of wastes requiring paying for the levy, threatening expected income to Treasury. Though it is noted that the 2010–10 budget did consider levy revenue would be affected by lower volumes of waste paying for it as its rate increases.

2.1.2.1 Basis For the Levy

In the *Environment Protection Authorities Regulatory Impact Statement: Proposed Waste Minimisation and Management Regulation 1996*, it established the breakdown of the external costs for Sydney and Regional landfills. Sydney landfill external costs were estimated to be in the range of \$13.10 to \$33.20 per tonne and comprised of :

- Greenhouse gas emissions cost, based on methane emissions from landfill and estimating an external environmental (greenhouse) cost of between \$7.80 to \$14.60 per tonne of waste in the landfill.
- Local Amenity Costs based on a landfills lowering of property values in its vicinity and costed at between \$0 to \$3.70 per tonne of waste.
- Transport Corridor Costs from environmental harm, noise and air pollution and congestion and accident costs caused by transporting wastes at between \$2.30 to \$2.90 per tonne.

³ [Waste and Environment Levy an Operational Guide](#)

Given this calculations were used to justify increasing the levy. However, there is an issue with the levy also applying to methane emissions as these are to be covered under the Carbon Pollution Reduction Scheme (CPRS). As a result of the introduction of the CPRS to landfills there may be an argument that these are being double taxed for methane emissions under the levy and the CPRS.

2.1.3 Impact of the Carbon Price

For Sydney business, the landfill levies and carbon taxes will increase to be around \$100 to 125/t from 1 July 2012 when including the carbon price on landfill gate rates. This range reflects the differences between individual landfills that the carbon pricing scheme will introduce.

This tax rate will be the combination of the current waste levy increases, which is estimated to advance to \$95/t plus the impact of the carbon pricing scheme on 1 July 2012. Landfill operators will have variable carbon tax rates depending on the types of wastes accepted. As a consequence, the increase in gate fees as a result of the carbon tax will vary from as low as \$5/t to over \$30/t. It is expected that putrescible landfills in NSW will be closer to the upper end of this range.

This also means by 2015-16 the waste levy and the carbon tax will take the total tax bill on landfill gate fees to around \$160/t. .

The carbon price will increase putrescible landfill gate fees by \$30/t which added to the expected \$13/t increase in the levy represents a 53% increase in total taxes.

2.1.4 Future Levy Prices and Revenues

The points of this section are:

- *The waste levy is legislated to increase considerably until 2015-16.*
- *NSW's 2010–11 budget has already spent most of its projected income from the levy until 2014.*
- *ASBG estimates the NSW budget over estimates the fall in revenue from the levy from 2014 onwards, and predicts that a \$120m p.a. surplus will be available at this time.*
- *NSW will continue to have the highest priced waste management program in Australia detracting from business profitability and future investments.*
- *The levy has a detrimental impact on many waste recycling facilities which requires rectification to avoid perverse environmental outcomes and economic harm to the industry.*

Currently the levy comprises of 3 areas and 2 waste stream types, which are described in table 1. Note that from 1 July 2013 the ERA rate will equal the SMA rate.

Table 1 NSW Waste and Environmental Levy Current and Future Predicted Rates (Future rates are based on an average 3% CPI rate)

Year	Sydney Metro SMA	Hunter/ Illawarra ERA	Extension to Qld boarder RRA	Liquid Waste Levy TLW	Coal Washery Levy
2009-10	\$58.40	\$51.50	\$10.00	\$55.00	\$15.00
2010-11	\$70.30	\$65.30	\$20.40	\$63.00	\$15.30
2011-12	\$82.20	\$78.60	\$31.00	\$64.50	\$15.76
2012-13	\$95.00	\$92.80	\$42.30	\$66.40	\$16.23
2013-14	\$108.65	\$108.65	\$54.40	\$68.40	\$16.72
2014-15	\$122.21	\$122.21	\$65.80	\$70.50	\$17.22
2015-16	\$136.18	\$136.18	\$78.10	\$72.60	\$17.74

+ ERA assumed to increase at \$10/t + CPI from 2104-15 on wards

ASBG has estimated the future revenues from the levy, based on a number of assumptions and compared these to the budgeted figure used in NSW's last budget papers in May 2010 and 2011. This compilation has been placed in Table 2.

These assumptions include:

- The rate of wastes attracting the landfill levy remain static over this period. This reflects the expected inelastic effect of price on waste disposal tonnages to be in proportion to the increase in population numbers over this time period.
- Estimations on the quantities of solid, liquid and coal washery wastes were made using EPA reported amounts adjusted to 2009 figures.

Table 2 Estimated Revenue from Waste Levy – Assumes Constant Waste Stream Mass (\$millions)				
Year	Total Revenue \$m	Budget \$m	% diff	Difference \$m
2009	\$245	\$245	0	0
2010	\$321	\$305	5	\$16.9
2011	\$393 ^{est}	\$385	2	\$7.5
2012	\$464 ^{est}	\$447	4	\$16.9
2013	\$537 ^{est}	\$472	14	\$65.5
2014	\$613 ^{est}	\$489	25	\$124.2

The NSW's Budget estimates the levy will result in a 25% diversion away from landfills and other levy attracting deposits. ASBG considers these rates of diversion optimistic. This is based on OECD compilation of the elasticity of demand reported ranges⁴ from -0.12 to -0.36, with most measurements under -0.2. Basically put a -0.2 elasticity means a doubling of price will generate only at best a 20% fall in demand.

2.1.4.1 Calculation of Levy Diversions by 2014-15

ASBG used the OECD elasticity of demand at its larger rate of -0.2 and calculated the decrease in waste to landfill by 2014-15.

⁴ [The Political Economy of Environmentally Related Taxes](#) By OECD, p 55 extracted from Table 38

Assumptions:

- NSW has a waste disposal to price elasticity range of -0.12 to -0.2 based on the OECD data. For this exercise the more conservative -0.2 is used
- Increase in landfill prices: Currently at \$200.15 per tonne plus \$52/t levy increase plus CPI @ 3% p.a. = 288.80/t . Percentage increase = 42% by 2014-15.
- If price increases 42% demand should drop by $0.42 \times -0.2 = -8.4\%$ over the 4 years.
- According to NSW Planning⁵ an expected increase in Sydney population rate is about 1.26% p.a. Therefore from 2010-11 to 2014-15 the population increase is 5.13%. The volume of waste is assumed proportional to population.
- The levy price impact is -8.4% but is countered by a 5.13% population increase, resulting in a 3.27% decrease in waste volumes.

If projected onto the 2014-15 budgeted income for the levy this would result in a \$120 million surplus in the waste levy revenues. Taking some diversion, reduction and increased recycling into account the excess, ASBG estimates, would be at least \$80m if not higher.

Two outcomes can arise if the expected fall in waste volumes are not realised including:

- Provision to lower the levy rate
- Additional funds being available for other waste management activities.

The Plan states it will be '*Making it easier*' for both households and businesses to manage their wastes. Making it easier to most will mean making it cheaper. ASBG doubts if this will be the outcome considering the levy's increases are locked in place along with a suite of non-waste related expenditure programs. So it is expected that the second option will be more realistic, despite this meaning that waste management for all in NSW will become more expensive, at least the additional income from the levy can be largely directed to waste management issues, from generation to disposal and all in between.

ASBG's position is that business should be provided the same level of waste management funding as provided to Local Government in NSW from the waste levy's revenues.

2.1.5 How well has the Levy Performed?

The points of this section are:

- *NSW's performances on resource recovery are of middle range.*
- *Despite NSW having the most expensive levy program, other jurisdictions perform better even when no levy is present.*
- *Other incentive and specialist waste agencies provide some of the best result at a much lower cost to the tax (levy) payer.*
- *NSW needs to consider supporting the waste sector by similar actions and not rely so heavily on the blunt instrument of the levy.*

While the levy is designed to deliver a diversion of waste its performance is poor compared to other jurisdictions which have much lower levy rates, for example in 2006-07⁶:

- South Australia has the highest municipal diversion rate of 54%; NSW achieved 38% (SA had no waste levy at the time)

⁵ [New South Wales State and Regional Population Projections](#), 2006-2036; 2008 release p xii

⁶ NSW Parliamentary Briefing Paper: [Waste: Comparative Data and Management Frameworks 2010](#)

- Victoria had Australia's highest Commercial and Industrial waste diversion rate at (69%) where NSW has the lowest at 44%; Victoria had a levy rate of \$15/t and NSW had a levy rate of \$30.80/t.
- Construction and demolition waste in NSW was 67%, and South Australia achieved 79% with no levy.

Reasons for this given are that other jurisdictions which use special waste agencies appear to have achieved better waste diversion performance outcomes.

Other reasons the levy has not performed well considering its revenue, is its detrimental impact on the local recycling industry, in particular as paper, metal, glass and cardboard. The levy drives up these recycling industry costs by its impact on their wastes and increasing the level of contamination in their feed stock.

These reasons are supported by the Richmond Review document some of which have been acted since upon and which provides a number of improvements which EPA can undertake including:

- *Enhancement 4 EPA's waste management capability*
- *Enhancement 12 Funding better waste outcomes*
- *Enhancement 16 Waste Infrastructure and Sustainability Fund*
- *Enhancement 18 Coordination of EPA's waste responsibilities*

ASBG also supports the thrust of these enhancements from the Richmond Review report, though they appear not to have been incorporated into the Plan document. The conclusion is clear that the levy alone is not effective as it could be and other Government lead initiatives are required.

2.1.6 Levy has an Upper Limit

The points of this section are:

- *All recycling processes have their uses determined by market prices and their processes be recognised as to their function and role in waste management infrastructure.*
- *The waste levy can skew the economics to favour recycling to a limit.*
- *The waste levy if set too high can result in environmental harm, but driving recycling beyond its environmental benefits. (Zero waste to landfill polices are idealistic and run counter to the second law of thermodynamics.)*
- *Recycling has its limits where it is better for the environment to landfill certain highly contaminated waste streams.*
- *Innovative recycling systems are not well supported in NSW, but should be.*

There is an upper limit to the levy both economically and environmentally. If the levy is set too high it can require the treatment of waste streams to absorb more energy and other raw materials, than it is trying to avoid resulting in a negative environmental outcome. Little research has been done in this area, and it would vary considerably from materials to locational issues. ASBG also recognises most recycling is limited by economic issues rather than environmental ones. However, the point is that there is a limit to a levy amount and we have little idea where this lies.

While the levy has an environmental limit, it should also consider the economic limits and where it should sit in terms of cost impacts.

2.1.7 Recycling For Purification

To view the limits to the levy first consider recycling for purification. Purification recycling processes means the product from the recyclate is close to its original form. For example, metal and plastic recycling. Here the process, put simply is one of separation. Recyclate goes in with a purified product resulting plus a reject waste stream. Energy and resources are required as these processes must follow the second law of thermodynamics and must decrease the [entropy](#) of the final product. In turn the process must increase by a greater amount, the entropy of other resources used, largely showing up in energy consumption, but also in contamination of water or other ‘washing’ substances.

Diagram 1 Cost vs Contamination Levels for Purification Recycling

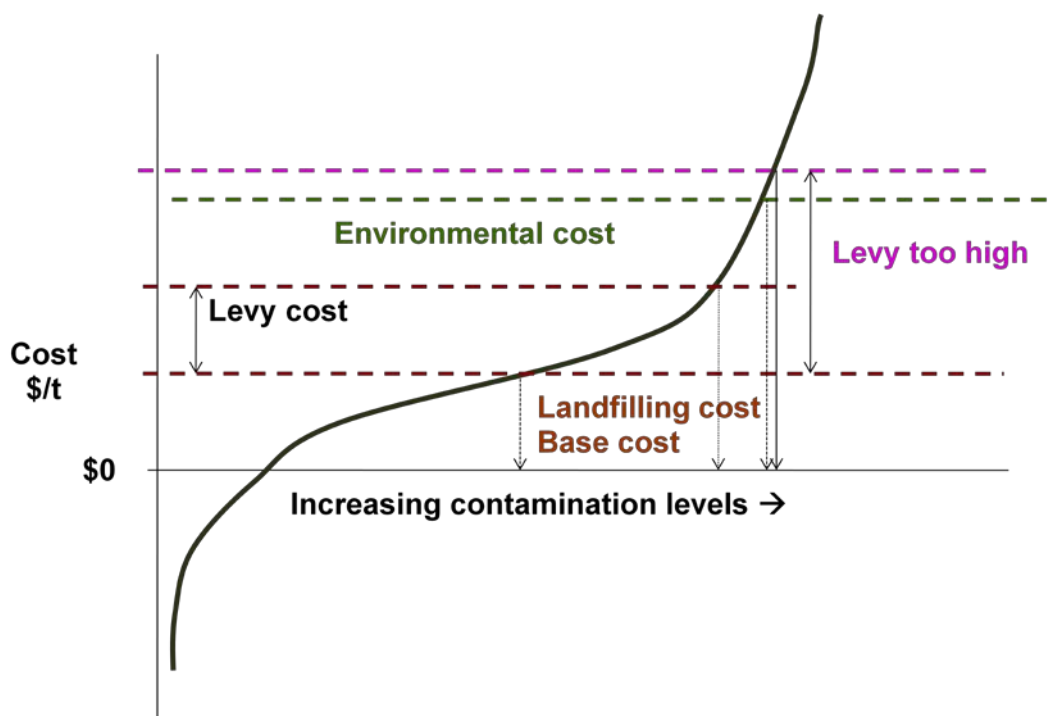


Diagram 1 shows a typical recycling cost curve for a material vs its level of contamination. At the left hand side of the diagram, the material has low contamination levels and has negative costs (positive value). Conversely, at the right side of the diagram the material for extraction has a high level of contamination and has a high cost (negative value). At a certain point of contamination level, determined by many issues, its value becomes negative. As a consequence, the owner has to pay to have it managed. Recycling, for purification purposes generally will follow an exponential cost growth curve.

Recycling to recovery this material will be a more attractive option if its price is under the landfill gate fees. Use of a waste levy can artificially raise the price of landfilling. As the purification process deals with higher contamination levels the volume of waste per unit input also increases. This shows up as waste disposal costs which rapidly increases the unit costs of the recycling process. This cost escalation is accelerated as the levy rate increases. However, diminishing economic returns steeply rise as contamination levels and cost exponentially rise despite levy rises. Raising the levy too high, results in driving recycling facilities to accept only marginally higher contamination input levels. Noting that the exponentially increasing costs are also driven by the recycling facilities levy payments on its disposal costs.

Recycling for purification requires its own natural resources, in terms of water, electricity, plant and equipment and other environmental emissions. There will be a point where the environmental costs of these resources will exceed the environmental benefits of treating above a level of contamination in the recycle. As a consequence recycle at this level of contamination are better off being landfilled than being treated.

This sets a maximum level to the waste levy for such recycling processes.

3.1.1 Recycling using Blending or Energy Extraction

This section covers recycling using blending which generates a new product, which is not the original material/s or energy recovery. Whiles some separation is commonly used, the level of

contamination in the extracted product is higher than for a purification process. The resulting product material can then be used as another product or blended to make a new product.

For example, plastic PET bottles can be recycled for purification or for blending. Purification recycling example is the triplicate PET bottles are made from three layers, with the internal layer made from recycled PET and the outside layers from virgin PET, required by food laws.

Recycling for blending PET does not require the substantial washing and separation processes of the purification process. An example is where the PET and other mixed plastics are blended with bitumen⁷ prior to its use in the manufacture of asphalt. Dirt, micro-organism growths on old beverages, glass from comingled collections and other contaminations are generally not a problem, unless at high levels for recycling the PET into asphalt. It is normal practice to blend plastic with bitumen to improve its wearing, strength and adherence properties. Blending simply treated plastics with asphalt is commonly practiced in many other countries.

Blending lightly treated recyclates with other products like, asphalt, portland cement concrete, compost even paper to cardboard, requires much less energy for separation/ purification and goes with the flow of entropy. As purification is not the main purpose of the process there is less need to decrease the entropy for natural resources required for such blending processes.

Waste to energy is even further down the path of entropy as the wastes are combusted or oxidized substantially increasing their entropy. Converting wastes to flue gases increases the entropy of the end products of the process, meaning it flows with the second law of thermodynamics and does not require increasing other natural materials entropy to decrease entropy in the final product, energy.

Diagram 2 Cost vs Contamination Levels for Blending and Waste to Energy

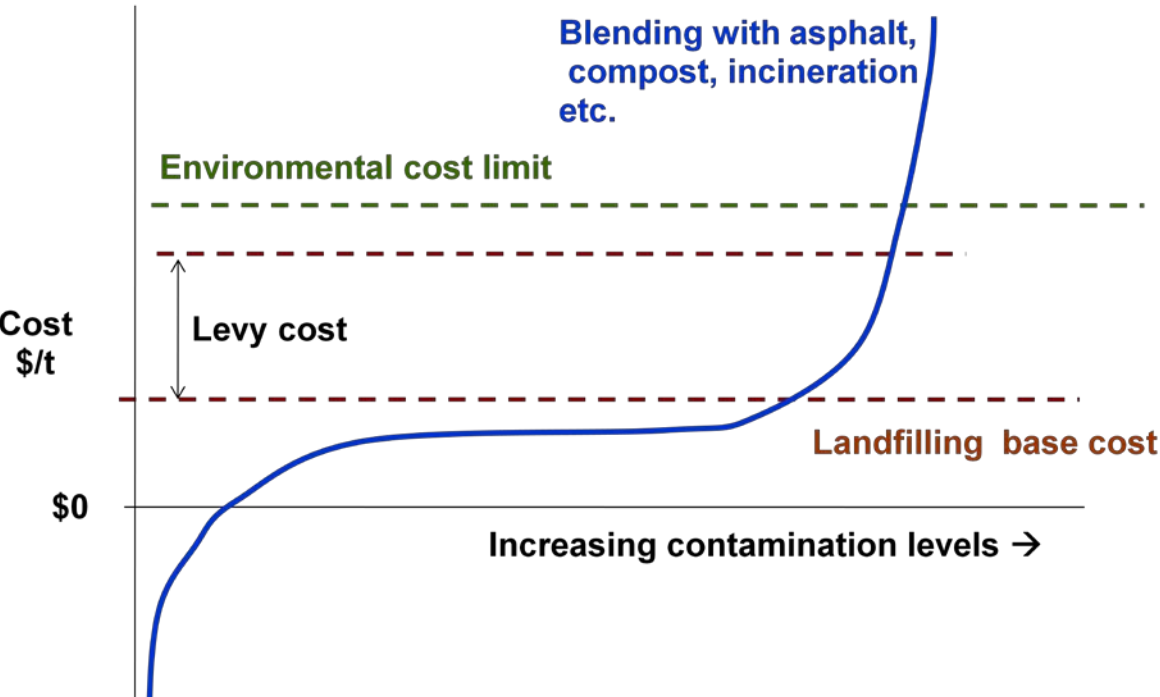


Diagram 2 is similar to diagram 1, but with the flatter exponential curve for resource recovery costs vs contamination. The point of this graph is the level of contamination which can be economically and environmentally is higher than for purification recycling processes.

Nevertheless, there still exists an upper level, where environmental costs outweigh the benefits, due to the increasing need to remove more contaminants prior to blending or the increasing waste levels

⁷ See [Roads from Plastic Waste](#)

generated from the processes. For combustion or oxidation processes contaminants also comprise of non-combustible or energy consuming substances, e.g. water.

R1 ASBG recommends the waste levy rate for the 2012-13 year be kept static to prevent shock tax increases from impacting the waste disposal market.

2.2 Distribution of Levy Funds

The main points of this section are:

- *Financial support for C&I and C&D wastes have been tiny over many years.*
- *NSW is falling behind on other states in funding innovative waste solutions.*
- *A portion of the levy should be allocated to waste management activities.*
- *Allocation of funding should be in proportion to the waste types contribution to levy revenue including: C&I, C&D, municipal, coal washery and liquid wastes.*
- *Hazardous (liquid) wastes to attract at least the prior promised \$2m per annum fund to reduce such wastes.*

Support for Commercial and Industrial (C&I) and Construction and Demolition (C&D) waste by the NSW Government has been tiny over many years, despite these areas paying 68% of the waste levy. A punitive levy only approach has achieved modest performance in resource recovery, even when compared to jurisdictions which have no levy, but use alternative means including considerable support for these waste sectors .

Revenue from NSW's levy is largely used to fund Local Government, water, parks, biodiversity and other non-waste environmental activities. Waste management overall has received only a small portion of the levy revenue, usually less than 5%, though this has increased to about 10% recently, with Local Government receiving the vast bulk of this. The Richmond review is also in agreement that this requires changing and supports a shift of more funding.

Understandably, the Richmond Review supports an economic review of the expenditure of levy money and the establishment of a *Waste Infrastructure and Sustainability Fund (WISF)*. A grant program primarily aimed at supporting waste management. ASBG supports the economic assessment of the levy should also be used to set the percentage allocation of the levy income to the WISF or a similar funding arrangement.

If NSW does not start to include support to the C&I and C&D areas NSW will fall further behind in waste management outcomes and generate increased perverse environmental outcomes. As the NSW is the most expensive across Australia, in terms of revenue raised, NSW will have the most expensive waste management systems, operating at much lower efficiencies per tax dollar collected and spent on it. NSW businesses are already suffering from the highest waste utility costs in Australia which undermines business investment and NSW's future economic growth.

Victoria can claim to be already far in front of NSW with its [HazWastefund](#)⁸. In addition the Victorian Government pledged \$54 million over 5 years back to waste management from its recent increase in its waste levy. This is on top of the funding from the prescribed waste levies to Sustainability Victoria.

As a consequence, Victoria has many claims of innovative and effective programs dealing with hazardous wastes. NSW lacks these programs.

Queensland's \$35/t proposed levy on C&I will be almost fully hypothecated into two funds:

⁸ The HazWastefund is financed by the prescribed waste levies on Cat B and Cat C wastes.

- The Waste Avoidance and Resource Efficiency Fund, \$159 million over 4 years allocated to ‘targeted programs to assist business, industry and local governments.’⁹
- Sustainability Future Fund, \$120m over 4 years, which is only for Local Government.

When these funds commence next financial year Queensland will have perhaps the most generous waste grant program in Australia.

In NSW the only allocation of grant moneys back to waste management directly has been to Local Government, which was not even performance based until the last 3 years.

ASBG also notes the position put forward by Local Government and Shires Association in Appendix H Part 2. Put simply the argument put forward is that more funding is required to assist the Municipal waste sector improve its poor performance, where upon a schedule of grant payments is provided.

ASBG considers that just because a waste sector performs far better does not mean it cannot achieve even larger improvements. On this basis C&I wastes and C&D waste streams should at least be provided a similar proportional funding arrangements to that suggest as to supporting municipal waste streams.

R2 *ASBG recommends that a waste management fund supporting the non-government C&D and C&I sectors be established and its size should be proportional to the contribution these sectors contribute to the levy.*

2.2.1 Industrial Ecology

The points of this section are:

- *Industrial ecology is not well supported.*
- *Overseas programs have proved very effective in reducing wastes and improving the efficiencies of resource use.*
- *NSW Government should consider the introduction of similar schemes.*

The Plan covers C&I wastes in a number of ways, but these tend to focus on small businesses. Much work has already been undertaken by companies to pursue industrial ecology strategies. Apart from some support from the Sustainable Advantage program, internal issues within EPA have resulted in lengthy and complex processes to obtain approval for innovative reuse of wastes. The regulatory conditions and cautious approach from EPA add to the delays and uncertainty in pursuing effective waste exchange programs being implemented.

What is required are programs and forums which cut through the red tape and encourage and permit businesses to identify innovative means to reuse wastes and improve efficiency.

An example of which is the [National Industrial Symbiosis Program](#) is funded by the United Kingdom Government is program which:

- Engages traditionally separate industries in network to foster innovative strategies for more sustainable resource use
 - not just material flows: also energy, water, logistics, assets, experts, knowledge transfer

⁹ It is noted that the new Queensland Government has ended these funds and has indicated the legislation supporting its waste levy will be repealed in July 2012. However, there was indication that other funding for business waste management may be established in replacement of such funding.

- Business opportunities identified for mutually profitable transactions for:
 - innovative sourcing of required inputs and
 - value added destinations for non-product outputs
 - exposure to best practice/knowledge transfer

2.3 Borders and Transport

The main points of this section are:

- *Differences between levy rates within NSW regions will be exploited to minimise costs even against levy operational rules.*
- *Avoidance of such exploitation requires substantial policing.*
- *Waste disposal and recycling are in part being directed outside their regional of generation via the increasing introduction of levies.*
- *Differences between State levies rate will also be exploited to minimise costs*
- *States are increasing levies to counter other states levies and diversion of wastes across borders.*
- *Boarder control of waste transport is complexed by the Constitution's guarantee of free trade between states.*
- *Coordination of waste levies should be arranged between state jurisdictions to minimise perverse market distortions and avoid a potential constitutional challenge on levies as excise taxes.*

Disparity between regions and state jurisdictions levy rates can create perverse environmental outcomes if not carefully managed. In addition, if the basis for any levy exceeds the environmental costs there is a danger that the levy could be considered an excise and legally challenged under the Australian constitution.

Differences in levy rates within NSW regions are controlled by the requirement that the higher levy applies on its source or where it is received¹⁰. For certain waste deliveries this can be well policed, but there is doubt this requirement can be effectively applies across all waste transports to landfills in non-levied areas. As a consequence, where profitable enough, wastes will be transported to disposal facilities where no or a lower levy applies.

Waste disposal is seen in the market place as a uniform service. Even more uniform than petrol types and brands. As such even small differential in prices between two or more disposal services can result in large shifts of customers to the cheaper supplier.

For example, in 1999 Brisbane had two waste transfer stations operating at similar prices. When one lowered it price by \$2/t (about 5% drop) an 80% shift of customers resulted.

The waste industry is like most businesses sensitive to prices and variations will quickly be exploited. This also affects the recycling industry where recycle is transported interstate for recycling as the waste disposal costs have no or little levy.

The end result is that unless heavily policed opportunities and criminal action will flourish.

Diagram 3 shows the regional divisions of NSW's levy. Note the RRA area commenced last financial year at \$10/t and will reach \$31.50 est. by 1 July 2011.

¹⁰ See Waste and Environmental Levy Operational Guidance Notes.

Diagram 3 NSW's Waste Levy Regions

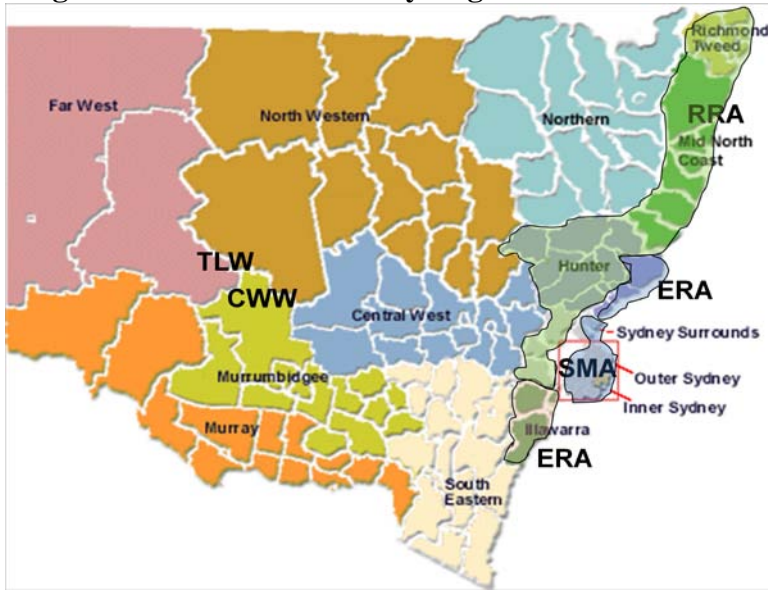


Diagram 4 - Queensland's Levy's application area

A tipping point will be met where it is lower cost to ship wastes out of NSW to Victoria or Queensland, even the ACT.

Landfill gate fee comparisons are provided in Table 3 which shows that the Sydney area has the most expensive landfill prices in Australia for municipal and C&I waste streams.

Table 3 – Waste Levy Comparisons Across Australia

Jurisdiction	Area Covered	Waste Levy 2011-12 \$/t	Waste Levy 2012-13 \$/t	Forecast levy Increase	Typical Gate Fee 2011-12
NSW	Sydney Metro	\$82.20 applies to all landfilled wastes generated in a levy area or transported to a levy area	\$95	\$135.60 by 2015-16 + CPI. Circa \$400m/yr directed largely to non-waste environmental projects	\$150/t non-putrescible \$224/t putrescible
	Extended Regulated area	\$78.60	\$78.60	\$135.60 by 2015-16 + CPI	\$192.50/t ¹¹
	Regional Regulated Area	\$31.10	\$42.30	\$78.10 by 2015-16 + CPI	\$110/t to \$140/t
Queensland	Levy zones largely SE Qld and coastal regions up to Cairns	\$35.00 commencing in December 2012, applies to C&I ^a and C&D ^b wastes	New QLD Government has pledged to remove the levy. However, another levy may be possible	Note: there is no levy on municipal solid waste. The introduction of the levy was delayed due to the 2011 floods.	\$116.60/t including the \$35/t levy Gold coast ¹² ~\$144.30/t ¹³ Brisbane CC
Victoria	Metro areas	\$44 Municipal \$44 Industrial	\$44 Municipal \$44 Industrial	Increasing by ~\$4.40 p.a reaching \$58.50/t in 2014-15 metro and \$51.30/t rural ¹⁴	\$120/t non-putrescible ¹⁵
	Rural	\$20 Municipal \$38.50 Industrial	\$24.20 Municipal \$42.40 Industrial		\$150/t Latrobe putrescible
SA	Metro area	\$25.20	\$25.20	No forecast increases – funding goes to environment and waste programs	\$96/t ¹⁶
	Non-metro	\$12.90	\$12.90		
WA	Metro	\$28 Putrescible waste \$12/m ³ inert	\$28 Putrescible waste \$12/m ³ inert	No forecast increases -	\$106/t ¹⁷
Tasmania	All State	Voluntary council run landfill charge of \$2	Voluntary council run landfill charge of \$2	No forecast increases -	\$50/t
NT	All Territory	None	None	NA	
ACT¹⁸	All Territory	\$68.67 – Household ACT 109.70 non ACT waste \$121.90 - C&I ^a	Not known – assume 4.2% increase \$71.55/t \$127/t	Note this is the gate fee of the government run landfill incorporating a levy style charge.	\$121.90/t If considered recyclable → \$166.25/t

¹¹ <http://www.wollongong.nsw.gov.au/factsheets/Waste%20Management%20Fees%20and%20Charges%202011-2012.pdf>

¹² <http://www.greengc.com.au/find-a-service/Council-commercial-waste-disposal-and-recycling-facilities>

¹³ <http://www.brisbane.qld.gov.au/environment-waste/rubbish-tips-and-bins/rubbish-tips/index.htm>

¹⁴ http://www.epa.vic.gov.au/waste/landfill_levies.asp

¹⁵ <http://www.hansonlandfill.com.au/Pricing.aspx>

¹⁶ http://www.sawaste.com.au/html/tip_fees_rubbish_dump_fees_ade.html

¹⁷ <http://www.emrc.org.au/fees-and-charges-page.html>

¹⁸ <http://www.legislation.act.gov.au/di/2011-122/current/rtf/2011-122.rtf>

Most of NSW has no waste levy, but adopts a policy where either the source of the waste or the landfill disposal point of the waste will determine the levy rate, and the largest levy rate will apply. So while there is some control of intrastate levy regions it is at state borders where the levy becomes less able to be controlled subject to state discretion.

ASBG has calculated the price difference between Sydney and landfills in Victoria, Queensland and the ACT. The rates chosen were based on the price of a typical non-putrescible landfill in the Sydney area. Landfill prices for the rest of NSW are irrelevant for this price comparison as the NSW Waste Levy applies at the generation source or the disposal source, whichever is the greater.

Table 4 shows Landfill Gate fee differences for Victorian, Queensland and ACT and Sydney rates

Table 4 Landfill Gate fee differences for Victorian, Queensland and ACT and Sydney rates (\$/t)							
Year	Sydney	Vic Rural	Difference	Queensland	Difference (without \$35/t levy)	ACT	Difference
2011-12	170.00	120.00	50.00	116.60	53.40	121.90	48.10
2012-13	187.80	123.90	63.90	121.60	66.20 (101.20)	127.02	60.78
2013-14	200.80	128.10	72.70	121.60	79.20 (114.20)	132.35	68.45
2014-15	213.80	132.80	81.00	121.60	92.20 (127.20)	137.91	75.89
2015-16	227.80	138.50	89.30	121.60	106.20 (141.20)	143.71	84.09

Key = Possibly economic with back loading, Possibly economic one way, Likely economic one way

ASBG estimates that it will become economically attractive to export waste from the NSW levied areas to either Queensland, Victoria or even the ACT. Costs for such transport include¹⁹:

- Back loading of trucks to Queensland is around \$60/t and about \$50/t to Victoria with the ACT being as low as \$30/t
- One way transport to Queensland is around \$110/t and about \$85/t to Victoria with the ACT being as low as \$50/t

On levy difference alone the tipping points for transporting wastes out of NSW occur:

- Currently for Sydney to Brisbane if Queensland abandons its \$35/t levy
- 2012-13 for Sydney to Brisbane if Queensland keeps its \$35/t levy
- 2013-14 for Sydney to Victoria

2.3.1.1 Victorian Border Issues

A reverse impact is being felt by NSW where there is now a \$15/t levy on the Victorian side of the boarder, but not in NSW. Albury's landfill is feeling the increased volumes of wastes crossing the border.

As shown in table 3 the main attraction are the Victorian rural landfills as they are closer and have a lower levy rate than metropolitan areas.

2.3.1.2 Queensland Border issues

As can be seen in table 2 the waste levy difference is the clear driving force behind the differences in the levies across borders. The table above include a \$35/t levy for Queensland for C&I and C&D wastes. It also includes the new state Government pledge to remove the current levy with the figures in brackets. It is unclear what will replace it, nothing or another levy.

¹⁹ Anecdotal information from the waste sector

NSW's waste levy is causing knock on effects into interstate policy as boarder issues continue to multiply. The most recent example of this is Queensland's proposed levy, specifically made to prevent the cross boarder wastes from NSW going to Queensland landfills.

Queensland has directly indicated that it was NSW's actions to impose a levy at its boarder that lead it to introduce its own levy. The reasons behind Queensland's levy are clear; quote: *"Furthermore, other mainland states not only have a waste levy but are actually increasing theirs, exposing Queensland as an even cheaper place for interstate companies to dump their waste."*

The choice of \$35/t is well thought through as it will make for only a few dollars difference between NSW and Queensland border. The question is will the new Queensland Government introduce a new levy or have no levy, which will attract wastes as far away as Sydney given the levy differences which will occur over the next 4 years.

2.3.1.3 ACT boarder Issues

Even if a levy was adopted across NSW there is the ACT jurisdiction border. Currently the ACT Government has no landfill levy, but employs a zero waste to landfill target and vigorously enforces the management of wastes. Nevertheless, the price differences due to the levy will either require ACT in impose considerable policing or implement a levy. The ACT landfill fee does not have a levy per say, but an effectual one is represented in the gate fee set by the ACT Government which owns the landfill. Landfills also can place bans on certain types of wastes. However, non-acceptance of a waste type from outside the ACT would be considered unconstitutional if that waste type is accepted from within the ACT. Bans on acceptance must be made with no bias to the jurisdiction of generation. (see Constitutional issues with the Levy)

The problems which Victoria, NSW and Queensland governments will experience is the levy difference, reflected in gate fees will make it commercially attractive to ship Sydney's wastes to other states.

R3 ASBG recommends that :

- *Levy differences across borders requires urgent attention to avoid perverse environmental outcomes in the shipping of wastes from recycling long distances.*
- *The projected levy rates are considered too high and do little to discourage waste avoidance and will harm NSW businesses.*

2.4 Constitutional Issues and Action

A problem state jurisdictions have with waste crossing state boarders is that there are limited options for stopping it other than to match or exceed the levy driving the transported diversions. While state governments can require to some degree that wastes should be managed in each region they are generated in, the free trade between jurisdictions as established under the Australian Constitution counters this significantly. Environmental factors can be argued to counter the free trade argument.

This is used to some degree of success when using the Movement of Controlled Wastes between States and Territories NEPM. Control under the NEPM can be far better managed than for other wastes as the waste generator must first obtain permission from the environmental agencies governing both the generation and treatment/disposal of that controlled waste. Many applications are refused, largely due to the ability of the jurisdiction of the origin of the waste to have a facility in which it can be treated.

Economic arguments are generally not accepted. Nevertheless, some 156,779 tonnes²⁰ of controlled wastes were moved between jurisdictions.

Use of the NEPM is limited and other waste types including recyclates cannot be policed to the same level. Local Governments have some control in the issuing of contracts, but is paying a levy when they can turn a blind eye to it serving their rate payers best interests?

ASBG fear is that a one-up-man ship of levy increases between jurisdictions will occur. If the levies become too high as a result, constitutional challenge of the levies becomes more likely. A similar situation exists with mining royalties where there could be a constitution challenge²¹ if pursued, but it appears that is not in the interests of the mining companies and certainly not the state governments.

If such a High Court challenge is successful the result will that levies are considered at least in part to be an excise and the revenue raising powers devolve to the Commonwealth Government. How this may play out is speculation, but an Australia wide single levy/tax may result with State Premiers arguing for their share back, like the tobacco and fuel taxes have previously done.

A constitutional challenge to waste levies can occur from any jurisdiction which uses a waste levy. For example, a court challenge is underway in Western Australia²² which may lead to a high court challenge with considerable potential consequences.

2.4.1.1 Possible Spilt Levy?

ASBG does not wish to see such a constitutional challenge as the outcomes can be rather unpredictable. For example, there is a possible split levy where the Federal Government sets a certain rate, but there is a level of environmental costs which can be allocated to state governments. The NSW EPA has already calculated these rates and ASBG estimates the maximum environmental cost based on the NSW data is now around \$40/t²³. Clearly the current levy at \$82.20/t exceeds this rate.

Also concerning is the double tax that applies with the introduction of the carbon price. The 2006 EPA justification for the levy based 50% of its price on the emissions of greenhouse gases from landfills — landfill gas which comprises ~ 60% methane.¹⁹

2.4.1.2 Need for Interstate / National Coordination

ASBG considers there is need for better coordination between jurisdictions on the impacts and border issues surrounding waste levies. A well coordinate waste levy approach between jurisdictions has many advantages including:

- Prevention of long haulage of waste to take advantage of border differences
- Improved environmental outcomes in lower greenhouse emissions and management of wastes in local districts
- Minimisation of the chances of constitutional challenges of the waste levies being considered, even in part, excises.

R2 *ASBG recommends that jurisdictions develop a cooperative and coordinate approach to the setting of waste levies.*

²⁰ [NEPC Report 2008–09 Movement of Controlled Waste Between State and Territories NEPM](#) p 56

²¹ See: State Government Mining Royalties: Required Taxes or Duties of Excise? Murdoch Uni- Electronic Journal of Law

²² <http://au.news.yahoo.com/thewest/business/a/-/business/10196968/premier-challenged-on-landfill-levy/>

²³ See RIS on the Waste Minimisation and Management Regulation 2006, NSW EPA

Coordinated approaches could be handled as part of the National Waste Policy and be part of COAG agreements on environmental harmonisation of regulation.

3 RECYCLING AND THE WASTE LEVY

Following the Centre for International Economics findings from its Review of the Waste Levy Impacts on Recycling, there is now overwhelming evidence and conclusion that the levy is having negative impacts on certain type of recycling. Steel recycling is the most prominent in its claim for relief of the waste levy. Paper recycling is not as clear, but ASBG considers the CIE report was lacking in detail to identify the true cost of the levy on this sector.

This part of ASBG's submission briefly covers some of the evidence that the waste levy is harming certain types of recycling. It then discusses an appropriate mechanism to provide an appropriate level of relief from the waste levy for the recycling sectors so affected.

3.1 Waste Levy is Harming Certain Recycling Activities

ASBG briefly discusses the supporting evidence and independent conclusions that the waste levy causes economic harm to certain recycling sectors in NSW.

The following are a collection of extracts from the CIE paper which supports the argument for a levy rebate or off-set.

Levy Negative impacts

The waste levy is having negative impacts on metal recyclers, with the waste levy for 2010-11 plausibly reducing margins by up to 1.8 percentage points relative to what would have otherwise been the case. Additional increases in the levy to 2015-16 could reduce margins by an additional 1.3 percentage points. (p73)

and

Where landfill is not in practice a viable alternative for waste materials, the waste levy will tend to have negative impacts on recyclers. Where waste material suppliers have more options for selling material outside of NSW (or storing material), these negative impacts will tend to be larger because there will a reduction in the volume of feedstock material available for recyclers. (p8)

These are a powerful statements as they supports the argument the levy is harming steel recycling. It also acknowledges that recycling activities require economies of scale in order to overcome their generally slim profit margins on turnover. In essence to remain profitable a purification recycling activity requires good volumes of feedstock. However, the waste levy works against this profitability in two ways:

- By placing additional costs on the waste residual streams of recycling purification activities it permits alternative recycling processors in other jurisdictions to pay increased prices for poor quality feed stock.
- Encouraging higher levels of diversion of wastes, places economic pressures on waste generators, collectors and first stage source separation systems to increase their levels of contamination sent to downstream recyclers.

R5 *ASBG recommends the NSW accept that certain recycling processing facilities require relief from the waste levy.*

3.1.1 Contamination Levels Rising with The Levy

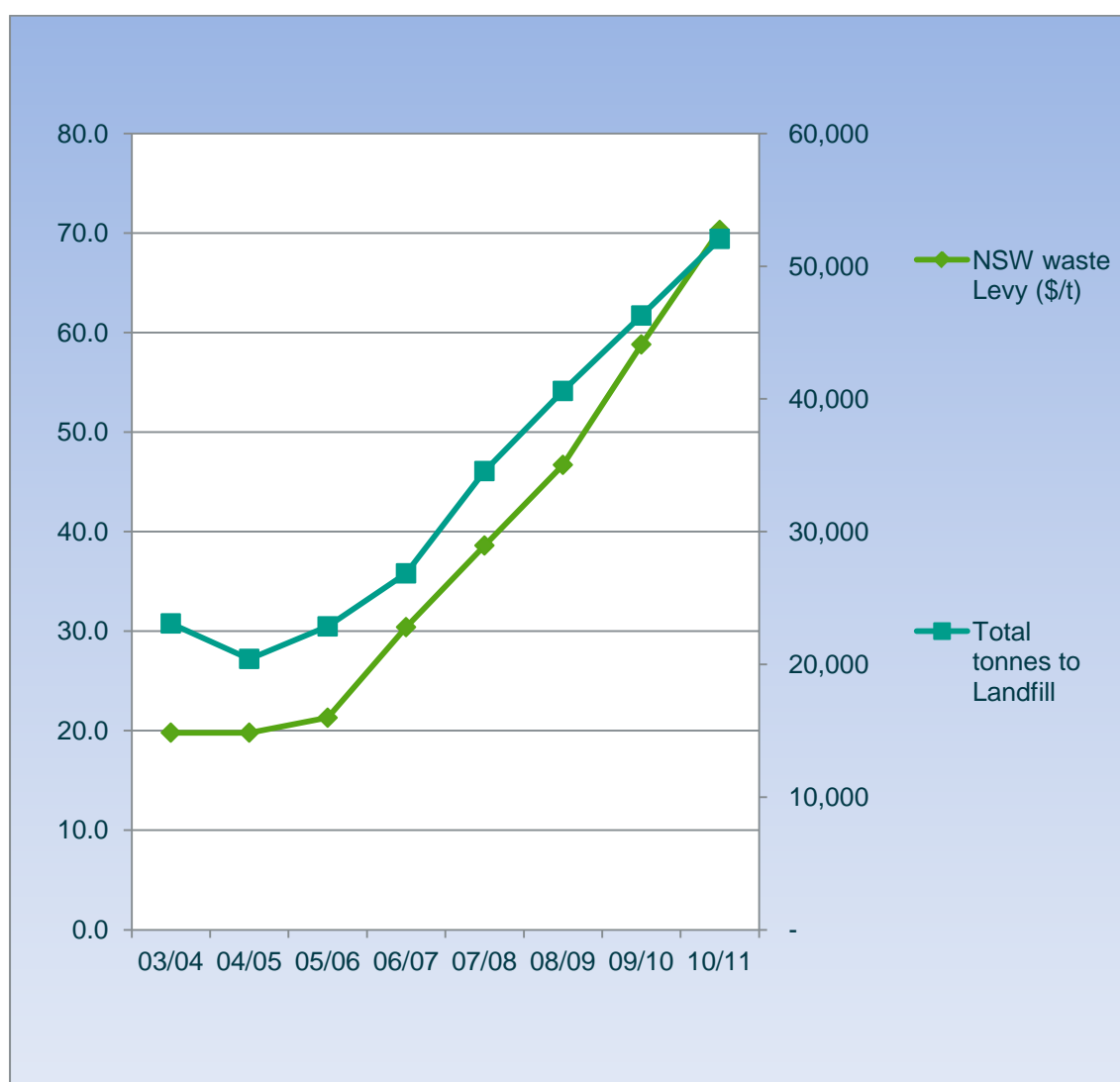
Chart 3 (below) provided by Amcor²⁴ provides an overview on how the levy is driving increased levels of contamination in feed stock. While this graph is representative of the Amcor Botany Mill it is a good example of how both paper and steel recycling is feeling the effects of the levy.

As more waste is diverted away from landfill the quality of stock becomes increasingly of poor quality. Steel recyclers are forced to accept increasing levels of contamination to ensure throughput.

Considerable effort is provided to police the quality of feed stock by recyclers, but as demonstrated by Chart 1, Amcor's Botany Mills' waste generation levels, are forced to accept poorer quality feed stock.

This affects both paper and metal recyclers. While the recyclers can provide lower prices for more contaminated feed stock, there is a limit where the exporters of feed stock will provide a higher price. If too much is diverted from a shredder then its economies of scale drop and it can fall quickly into a loss making operation.

Chart 1 Course Solids Disposal to Landfill vs Waste Levy rate – Amcor Botany Mill



²⁴ Provided at ASBG's NSW Waste Reform Conference 27 March 2012

R4 ASBG recommends that due to the changing level of contamination and other factors under the control of the NSW Government that any waste levy relief should be reviewed regularly to consider fine tuning the rate.

3.2 ASBG's 3 Step Approach to Levy Relief

As discussed ASBG considers the argument that some recyclers require relief from the levy is compelling. If action is not taken to provide relief then NSW will lose its advanced recycling processors. Jobs, environmental infrastructure, waste levy income and harm to NSW's economy will follow. Basically, there will be no winners in the end. Just closed businesses and an intractable levy process denying future investment, which itself will lose its current level of income from those affected recycling sectors.

To rectify the impact of the levy on such affected recycling processors ASBG proposes its 3 Step approach. In developing the 3 step approach ASBG was mindful of many factors including:

- The need to keep the regulatory process as simple as possible
- A means to set a gate keeper role, where only recycling processors truly affected by the levy can start the next step of setting a reasonable level of levy relief
- The need to keep the waste levy as simple as possible to avoid loopholes and avoidance practices

ASBG's 3 Step Levy Discounting Method for Recyclers

Applies to bona fide recycling facilities only, affected by the waste levy

(e.g. Levy affected steel and recycled paper mills and other qualifying recyclers)

1. An initial fixed waste levy discount rate is set by analysis and negotiation.

2. The waste levy discount rate is reviewed every 2 years.

This will be to correct any increased contamination levels and other issues as levy rate increases.

3. Payment of the rebate on the waste levy is proportioned and paid on the amount of product produced.

3.2.1 Step 1 Setting the Levy Relief Level

As discussed above Step 1 has in fact two parts to it:

- Establishing those recycling processors which are truly harmed by the waste levy – a gate keeping requirement
- Setting a reasonable level of relief from the levy.

3.2.1.1 Gate Keeping

Each recycled product sector is affected differently by the waste levy. Steel recycling and paper mills using recycling fibers are considered impacted, but others may also. As a consequence, ASBG considers the EPA has an obligation to permit other recycling sectors to demonstrate their claims that the waste levy is negatively impacting on their NSW sector.

Recycling sectors that are not significantly affected by the levy should not qualify for levy relief. In fact many recycling sectors benefit from the levy. The CIE report concluded the AWT sector greatly benefited from the waste levy. In ASBG's 3 step process where a negative impact cannot be demonstrated, that recycling sector cannot proceed to the next step.

To ensure those recycling activities, which are truly adversely affected by the waste levy, are provided with relief from the waste levy, a set of qualifying gate keeping criteria is required. A proposed set of criteria for establishing qualifying recycling sector for levy relief would include:

- It produces a product, from a recyclate stream, which has a demonstrable market and can be sold to multiple end users. (Note the product can be sold internally within a corporate entity, but it must demonstrate that the product has market value.)
- Produces a product, which has a long term positive value (i.e. > than the transport costs to the nearest true purchaser)
- Produces a product which complies with a market recognised standard or equivalent.
- The NSW levy cannot be fully passed on fully to its recyclate suppliers (customers) through gate prices due to:
 - competition from other markets for the recyclates used (interstate and international markets); or
 - attracting economically viable volumes to the facility; or
 - the waste levy is driving up contamination levels and hence cost in comparison to similar recyclers in other market area not as affected by a waste levy
- Operates in NSW and holds an appropriate Environment Protection Licence (this will weed out smaller sites)
- The end users include Australian manufactures which use the product to manufacture a good listed under the Australian customs schedules.

Overall this criteria or similar may not need to be published by the EPA, but used as a reference to set a gate keeping role. All the EPA has to say is that a recycling processor which wishes to claim relief from the waste levy must demonstrate that it is negatively impacted by the levy. EPA can also suggest that such an application would be strengthened by the use of a 3rd party review of the impact of the levy on its operations.

R6 ASBG recommends the EPA set a gate keeper requirement for recyclers seeking waste levy relief to demonstrate the levy is causing a negative impact on their NSW operations.

3.2.1.2 Negotiating a New Levy Rate

Once the EPA has accepted that the recycling sector has a case, the negotiation process can commence on what is a reasonable level of levy relief. This process will need to be conducted on a recycling sector which passes the gate keeping requirements.

Given the individual nature of each recycling sector this process will have to be conducted on a one-on-one negotiation. ASBG considers that only a few recycling sectors will get through the gate keeping role, so the number of negotiations will be small.

3rd parties can also play a role in the establishment of a reasonable level of levy relief. Such assistance is to be paid for by the applying recycling sector where the EPA considers this is necessary.

The end level of relief from the levy will be accepted by the NSW Government with assistance from the 3rd party report, if necessary.

In outcome Step 1 requires that a new reduced levy amount be set. This new levy rate for that recycling sector will be used to calculate the final levy relief amount. It is important that this amount remain fixed. Hence the relief amount will increase as the difference between it and the actual levy increases with the levy's trajectory.

R7 *ASBG recommends that:*

- *The level of levy relief be a negotiated outcome between the NSW Government and the recycling sector*
- *Use of 3rd parties as an option can assist in the setting of a reasonable level of levy relief*
- *The level of levy relief is to be indicated by a new discounted levy rate which remains fixed until reviewed.*

3.2.2 Step 2 Biannual Review

Step 1 sets a fixed discounted levy rate for residue wastes from the qualifying recycling sector. As circumstances for the recycler change due to the levy's on going impacts this fixed rate will need to be reviewed from time to time. ASBG's Recycling Group considers that a two year period at least in during the continuing increasing level of the waste levy rates will be necessary.

If there is a need to reassess the efficiency and efficacy of the performance of the recycling sector this two year review can also be reassessed by 3rd parties. Again the ASBG Recycling Group have indicated they would accept the costs of such biannual reviews.

R8 *ASBG recommends that the fixed level of discounted levy be reviewed every 2 years.*

3.2.3 Step 3 Payment on Product Not Waste Generated

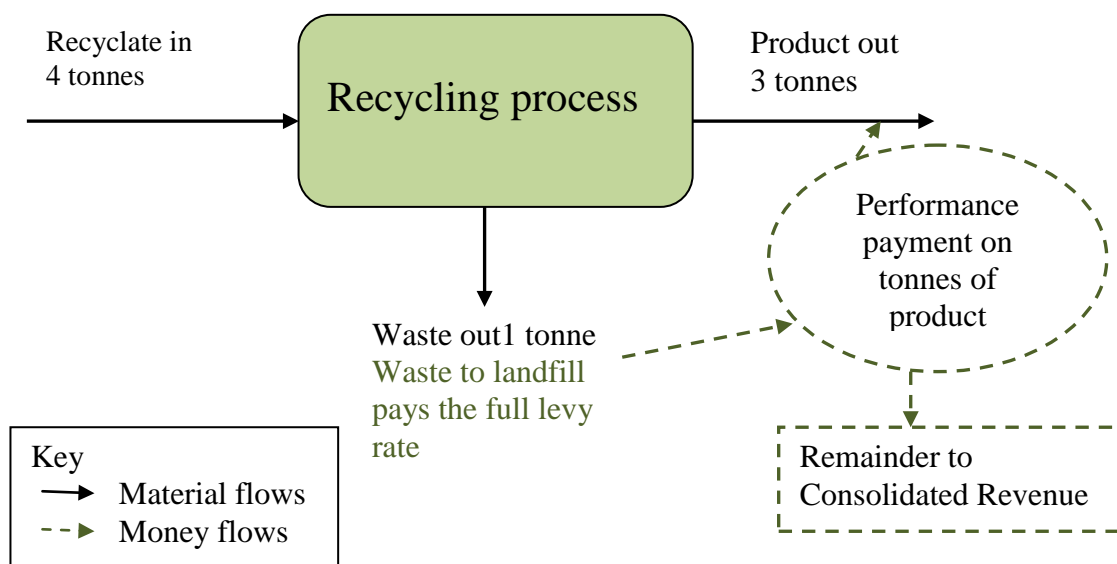
A key part of ASBG's 3 step is to not pay the relief at the landfill gate. A directly differentiated levy will permit too many loopholes and avenues to abuse the system. The levy is already difficult enough in its measurement to add another complicated layer to it. Such an approach also alleviates the concerns and positions of ASBG's members from the waste industry who also consider a differentiated levy is prone abuse and measurement difficulties.

ASBG's approach is to simply apply the discounted amount per tonne from recycling residues to the amount of product the recycling process generates.

Product from steel shredders and paper mills are already closely monitored and subjected to quality controls. ASBG considers that similar quality controls for product from recycling sectors will also be in place. Measurement of the product and its quality is subject to considerable market controls and can be easily audited by 3rd parties.

A payment on product approach is where a payment is provided for each tonne of salable product produced from a recycling process. A simple schematic, figure 1 shows how such a scheme would work.

Figure 1 Payment of Levy Relief on Product Produced



Looking at Figure 1, the scenario is that this recycling processor generates approximately 3 tonnes of product for every one tonne of waste. For example:

- The landfill levy rate is \$100/t
- The discounted levy rate negotiated in Step 1 is \$25 per tonne of waste
- The rebate payable is \$75 per tonne of waste
- The ratio of product to waste is 3:1
- The rebate payable on the product is therefore \$25 per tonne of product

Under this scheme a performance payment would be calculated based on the performance of extraction of the product out of the recyclate stream.

Payment of the levy relief on the amount of product made rather than the waste has many advantages. Payment on product also generates an efficiency pull to further maximize the efficiency of extraction of the metals from the feedstock. Regulatory wise the process is set for 2 years then reviewed.

R9 ASBG recommends payment of levy relief be:

- ***Provided per tonne product from the recycling sector***
- ***Based on the ratio of product to waste times the difference between a discounted levy rate for steel recycling processes and the current levy rate***
- ***Be paid on a quarterly bases, subject to detailed return***

The advantages with this scheme include:

- The process by-passes the problem of salting the waste stream as it pays on product produced not the amount of waste generated
- Can incorporate the performance based approach and adjusted each year according to the recyclers performance
- Auditing and policing of this system are lower in costs as the measurement of product, quality and quantities are undertaken as part of normal business
- The ratio of product to waste is set when the recycler is exposed to the full levy, therefore driving the recycler to minimise waste to landfill where possible
- Payment on product provides a recycled product pull rather than a waste push to maximize product and minimise waste.

3.3 Possible Regulatory Structure for Levy Relief

In discussions with the EPA, the clear message is to keep the legislative outcome simple. ASBG has taken this into account and from its 3 step process a simple legislative amendment to the POEO (Waste) Regulation 2008 is all that may be required.

ASBG's 3 step process does required an assessment of each recycling sector's circumstances which can be initially complex and take some time to prepare. However, ASBG considers the use of 3rd party assessment will remove the resource burden from the EPA and place it onto the recycling sector requesting levy relief. This also provides a sharp regulatory outcome tailor made for each qualifying recycling sector.

In regulatory terms changes to waste legislation could simply be an inserted table under a new section:

Sxx Payments for the following recycling facilities based on the quantity of product produced will be made in accordance to the following table:

Facility (licence number)	Paid on	Amount	Frequency
Steel recycler #zzzz	Tonnes of scrap steel accepted at market	\$XX/t	Every 3 months
Paper recycler #vvvv	Tonnes of finished paper accepted at down stream processor	\$YY/t	Every 3 months
Other #aaaaa	Tonnes of ****	\$KK/t	Every 3 months

Overall the payment on the quantity of product produced in proportion to the amount of waste levy rebate calculated per tonne, will provide the most easily auditable, measureable system for provision of levy relief. It also provides a recycled product pull incentive. Payment on the product does not split the waste levy which remain the same as for all wastes including those from the recycling facility receiving relief from the levy.

4 SECURITY OF WASTE INFRASTRUCTURE

The points of this section are:

- *The Plan has support for the development of resource recovery infrastructure which is supported.*
- *There is overall lack of planning support for new landfills, EfW or other essential but unpopular waste infrastructure.*
- *Support for a EPA and Dept of Planning assistance for waste infrastructure should be included.*
- *Recycling and other waste management systems should be supported by Energy-from-Waste infrastructure or they become a very expensive and inefficient means of waste management.*
- *Nationally standardized measurement and reporting of waste data to be supported.*

ASBG commends *NSW Waste Avoidance and Resource Recovery Strategy, Discussion Draft: Strategic Directions and Implementation Plan 2011–2015* (the Plan) approach to facilitating investment in waste infrastructure and supports the drive to support more recycling facilities. Nevertheless, ASBG is concerned that the Plan misses the most important issue in this focus area. No proper analysis has been made on landfill capacities and future requirement. As discussed above in s2.1.3 Future Levy Prices and Revenues the waste levy alone will not deliver the waste reduction target of 25% to landfill it is budgeted to expect.

NSW's waste infrastructure has been largely left to market forces, with the NSW Government using regulatory mechanisms to manage waste within the state. There is concern that without government intervention, especially at the planning level, a shortage of waste management infrastructure could result.

Centre to the difficulties in provision of the proper and cost effective management of waste is difficulties in siting new facilities. Unfashionable, but necessary developments such as landfills, recycling facilities and especially hazardous waste and waste to energy facilities attracts considerable local and at times ideologically opposition. A result of such planning conflict is reflected in the location of the Woodlawn landfill which is now Sydney's main depository for municipal waste, even though it is located east of Lake George some 230 kilometers from Sydney.

Double standards appear to apply to the generation of waste – which should be minimised through efficiency and other measures—compared to the management of wastes after generation including:

- Where long transport distances are a consequence of planning and siting issues
- Promotion of separation processes at the end of pipe rather than at source. Also the promotion of intermediate processes such as AWTs and MRFs to which shifts separation from source, especially domestic and C&I downstream resulting in increased contamination levels.
- Alternative management practices such as energy-from-waste and others have ideologically opposition, which tends to make Government shy away from such necessary development
- Imposition of the levy with proportional tiny support funding is a punitive and inefficient approach to waste management.
- Other regulatory mechanisms, such as the planning system and environmental red tape encourage, via economic analysis, the generation of large quantities of waste. (e.g. contaminated soil generation, product liability and safety requirements, environment protection licence requirements.)

ASBG has considered various areas for waste infrastructure needs including landfills, support for recycling activities, Waste to Energy and Measurement of Waste.

3.2 Landfills

The points of this section are:

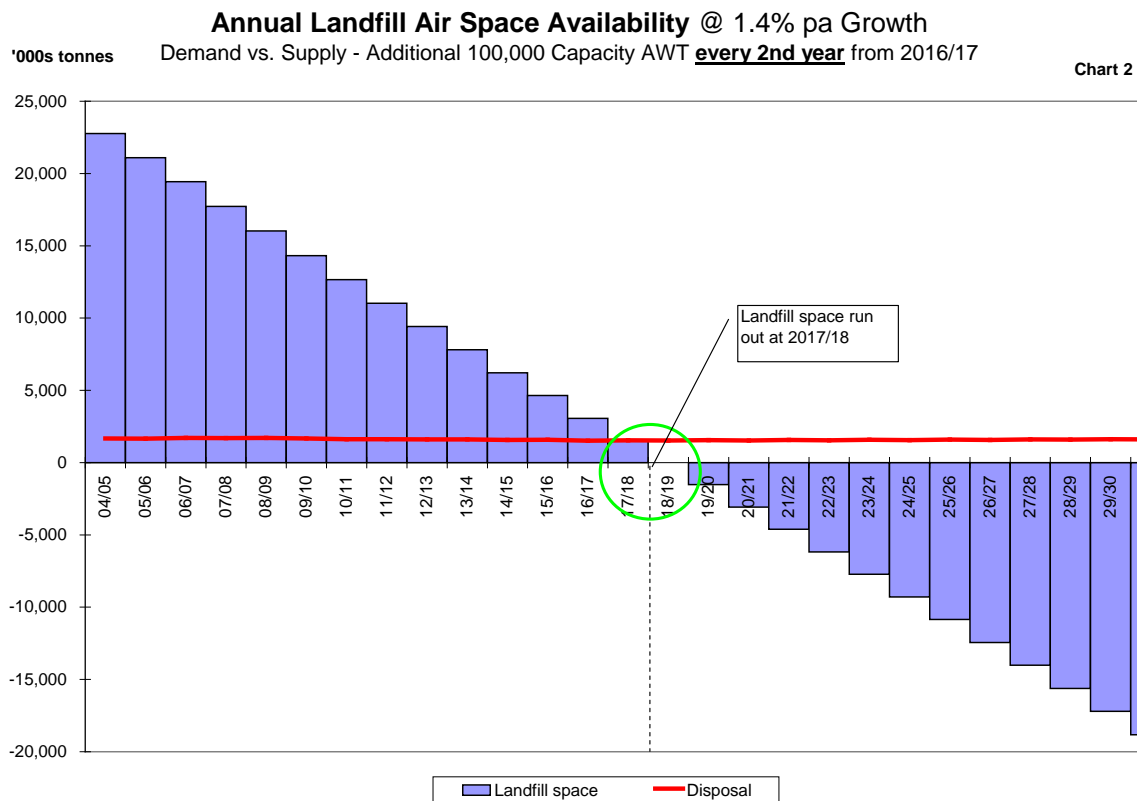
- *Landfills are a necessary and essential part of the waste management infrastructure.*
- *Lack of planning permission is a major cause of inadequate waste infrastructure, especially affecting landfills.*
- *The approved capacity of landfills servicing the greater Sydney area has an estimated 8 to 10 years capacity left, after which Sydney area will be reliant on one landfill for municipal waste.*
- *There appears little time left to develop alternative waste solutions, hence planning for new landfill capacity/sites is required.*
- *Provision of excess landfill capacity is a (health) insurance against failure of AWTs and other resource recovery options.*
- *Excess landfill capacity can always be capped if made available and will be used over time.*
- *ASBG considers SEPP Infrastructure s123 (1)(a) flawed and recommends it be omitted.*

Landfills are a necessary and essential part of waste management infrastructure and they have no viable replacement. ASBG agrees that currently too much waste is going to landfill and diversion rates can be increased. Whatever post waste stream management (e.g. recycling or AWT technologies) are provided these will also generate a waste stream and require the need for landfilling of such residues.

Analysis of landfill capacities for Sydney's municipal wastes is expected to run out by 2017-18, based on current approved acceptance levels, excepting waste going to Woodlawn. This outcome is reached even if one AWT, with a capacity of 100,000 tpa, is installed every 2 years. Graph 1 shows the current Annual Landfill Air Space Availability plus the impact of new AWTs.

Woodlawn landfill has a considerable capacity, but will soon become a monopoly for municipal waste. As all waste to Woodlawn are rail hauled this may cause bottle neck in its ability to accept all municipal waste from the Sydney area.

Chart 1 – Sydney Landfill Capacity Over Time²⁵



Given that a new landfill will require at least 5 years if not 10 to site and gain planning approval there is little time available. If the use of AWTs fail, as they continue to do, there will be less time to secure new landfill capacity to meet Sydney regions needs. As a consequence, there is an urgent need to site new landfill sites especially around the greater Sydney region.

Having one other municipal landfill is an insurance against inadequate waste management capacity and will provide some competition in the management of this waste stream, despite the waste levy reaching \$135/t by 2015-16.

In addition, there is an immediate legal issue. Clause 123 (1)(a) of the Infrastructure SEPP places yet more responsibility on recovery at the landfill disposal end. Quote:

- (a) *whether there is a suitable level of recovery of waste, such as by using alternative waste treatment or the composting of food and garden waste, so that the amount of waste is minimised before it is placed in the landfill.*

ASBG considers this as a flawed Government promotion of AWTs despite its poor performance. It also imposes end of pipe treatment on waste going to new landfills. No economic or environmental assessment or justification appears to support this approach. Upstream programs would achieve far better results in provision of value for waste services provided to the people of NSW than regulating inefficient and poorly performing pre-separation systems on landfill directed wastes.

R10 *ASBG recommends the NSW Government plan for a new municipal waste landfill for the greater Sydney region.*

²⁵ Graph provided by Warwick Giblin at ASBG's NSW's Waste Laws: Seminar – 3 December 2010.

4.1.1 Difficulties in Gaining Planning Permission for Waste Management Facilities

ASBG is concerned that the difficulties in gaining planning permission from local communities will undermine good and essential waste management infrastructure in the future.

International examples show what can happen if the planning process for waste infrastructure fails. Naples, Italy had a major waste crisis²⁶ as it had closed its last municipal waste landfill, yet considerable protests by locals across the region prevented a new landfill or waste management system from gaining planning permission. Hundreds of thousands of tonnes of waste were left in the streets or dumped along roads outlying areas with no controls. The solution was to force the siting of a new waste incinerator and to ship excess wastes to Germany and to the Netherlands. Essentially the solution has not been solved and continuing opposition to the siting of new waste management facilities to deal with the waste in Naples is preventing the issue from being solved at the regional level.

ASBG considers that a similar level of opposition to siting waste facilities can occur in NSW. The solution is one of long term planning, community education and rewards for the local area which accepts these highly necessary but unfashionable developments.

The old adage is that supply is essential, then we can argue price. Supply of landfill space can then controlled either or both by price and quotas can be then negotiated and set. So Sydney can still run a restricted waste to landfill policy, but at least have emergency capacity to deal with failure of various other waste policies.

ASBG notes the EPA's Reducing Waste: Implementation Strategy 2011-15 does in part address these issues as a strategy:

- 4.1 *developing a resource recovery infrastructure needs assessment by 31 December 2011 to outline NSW resource recovery requirements and projections and the necessary lead times for the building of infrastructure*
- 4.2 *developing clearer land-use planning guidelines for waste and resource recovery facilities by 31 December 2011*
- 4.3 *actively promoting and assisting waste and resource recovery infrastructure operators, as is done for other major developments – taking a 'case management' approach should help industry to understand and negotiate government regulations and planning processes and promote innovative infrastructure solutions.*

While the above part of the strategy is welcomed, ASBG has not seen the outcomes from them, and is concerned they do not go deep enough or provide enough certainty to ensure required waste infrastructure will not be blocked at the planning approval stage. Waste infrastructure is essential for both environmental and health reasons. As a consequence, the obstacles likely to be encountered at the planning stage must be solved.

Use of special planning zones is urgently required to permit new landfill development and improve better resource recovery, preferably close to the main points of waste generation. There is no doubt this will be a challenging exercise, but landfills are a necessary, but unfashionable development. Better planning can also encourage the development of zones and improved resource recovery by new facilities and a network of waste exchange for complementary industries.

²⁶ http://en.wikipedia.org/wiki/Naples_waste_management_issue

R11 *ASBG recommends the Department of Planning with the EPA, establish a taskforce to deal with the siting of future waste management infrastructure including: establishing special zones, community consultation programs and assistance for those willing to accept such facilities in their areas.*

3.3 Waste to Energy

The points of this section are:

- *Energy-from-waste (EfW) methods are used extensively in Europe, China and North America.*
- *China is importing a number of high energy waste streams for energy recovery (e.g. tyres) from Australia as the economics justifies this.*
- *AWTs and other recycling systems future require EfW infrastructure to operate effectively.*
- *Linked with the siting of landfills EfW plants should also be assisted in their siting.*

Many developed countries widely use energy-from-waste (EfW) methods to deal with certain waste streams, which are currently landfilled in NSW. During the 2001-2007 period, the EfW capacity increased by about four million metric tons per annum. Japan and [China](#) built several plants that were based on direct smelting or on fluid bed combustion of solid waste. In [China](#) there are about 50 EfW plants. Japan is the largest user in thermal treatment of MSW in the world with 40 million tons.²⁷

A major difference between AWTs in NSW and in Europe is the supplies of waste to energy plants are abundant in Europe. However, there is an ideological opposition to incineration in Australia. This position is not justified on environmental or efficiency grounds, considering the very strict conditions imposed on modern waste to energy systems in Europe.

Waste to energy facilities need to be included to the list of waste infrastructure to be considered to cater for future waste management infrastructure.

There are many high energy waste streams produced from recycling facilities which could benefit from a NSW EfW facility.

Many waste types are being shipped to Victoria to use the cement kilns. In addition China and other countries are importing high energy wastes from Australia for use in their processes. Tyres are a recent new market where China can easily accept all of Australia's waste tyre production. Export of waste materials is somewhat controlled under the Federal Hazardous Wastes (Imports Exports) Act, but this covers the Basel convention wastes considering the end use of the wastes in other countries. It does not consider the environmental and local market and regulatory issues driving the export of wastes. It also does not consider the greenhouse emission differences between local and exported waste management.

Overall, waste-to-energy facilities do require being part of the mix of waste facilities to ensure NSW runs an efficient waste management program.

ASBG supports the Richmond review *Enhancement 15 Energy from waste*. The Plan does take up the establishment of a draft public policy on EfW. Will a draft public policy be enough to drive the siting and operation of an effective EfW plant? ASBG considers more is required.

²⁷ Extracted from [Wikipedia](#)

EfW are also not final disposal facilities for wastes and do not directly expose waste to the environment like a landfill does. They are a treatment process and should be treated similarly to other treatment processes such as recycling facilities.

R12 ASBG recommends that because Energy from Waste is a treatment process it should not attract the waste levy.

EfW must also be recognized as an important end point for wastes from various recycling and treatment technologies. As a consequence, they must not be disadvantaged in competition from landfilling. For example, if a waste from a recycling facility is to attract relief from the waste levy, this relief should be paid on the product made from the recycling process and independent on where the waste stream is sent, either to landfill or EfW or elsewhere.

3.4 Measurement

The points of this section are:

- *Waste data is inconsistently collected across Australia and internally within jurisdictions.*
- *Costs associated with inconsistent and repetitive and duplicative reporting has been estimated at \$5.7m per annum.*
- *ASBG recommends a national one-stop-shop on standard waste definitions, measurement, collection, compilation and reporting, which provides a national waste data base.*

No consistent national waste measurement or collection system is in effect across Australia. This contrasts to the [US EPA's](#) long established waste data collection system and reports. Each jurisdiction, has if at all, established its own waste data measurement systems, varying in types, definitions and analytical approach. Both the 2006 [Productivity Commission's report on waste](#) and the 2008 [Senate Inquiry into the Management of Australia's Waste](#) Streams report raised concerns and made recommendations about the need to improve information about waste and resource recovery. Attempts in the past to standardize waste measurement methods failed due to lack of agreement between jurisdictions. At least the National Waste Policy program has included tackling this issue. For example the Plan refers to recovery rates, but there appears no formal means in which these are measured.

Standardisation of waste environmental reporting has been cited by the Waste Management Association of Australia (WMAA). Current costs of the participation in the current fragmented and duplicative arrangements run at almost \$9 million per year. A more coordinated national approach may be able to reduce the cost to \$5.7 million per year to these stakeholders, or a saving of 35 per cent.

What is required is an agreed set of national standards covering:

- Definitions of wastes and waste types
- Measurement methods and methodologies for various waste streams
- Standard data collection and compilation methods
- A one-stop-shop on waste data environmental reporting across all jurisdictions.
- A national database on waste data developed with appropriate access

Again this is similarly supported by the Richmond review. However, the NSW Government, apart from its general commitments to the National Waste Policy, have not specifically supported the development of a nationally consistent set of waste definitions, standard types and measurement parameters to assist in the betterment of waste management across Australia.

3.5 C&I Waste Education

The points of this section are:

- *ASBG has a long history in delivering waste educational courses focusing on classification and exemption processes and hazardous waste management.*
- *ASBG looks forward to assisting the NSW Government in supplying educational and technical assistance to improve waste management.*

ASBG has been a long term educator in the management of waste. It works closely with EPAs waste policy section, largely concentrating on training and topical issue discussion on waste classification and resource recovery.

ASBG looks forward to continued support from the NSW Government in the continuation of training, education and discussion on NSW waste management issues.

5 ILLEGAL DISPOSAL

ASBG is concerned over the large volumes of illegally disposed waste reported by the EPA. On the EPA website it states:

From 1 July 2010 to 30 June 2011 the Western Sydney RID Squad investigated 4645 illegal dumping incidents.

This statement was modified in February 2012 to remove the words “*identified 220,000 tonnes and*”...

ASBG is concerned because this was the figure provided by the Western Sydney RID Squad. Given that they cover 25% of the Sydney area. This suggests that the total figure of illegal dumping is roughly four times higher around 880,000 tonnes per annum.

Regardless of whether the waste levy is causing this figure to increase or not, illegal dumping represents 10% + of Sydney’s waste stream. This means in this financial year the NSW Government is losing up to \$72 million or more in lost levy payments.

ASBG is also concerned over the apparent lack of attention this problem is receiving by the NSW Government. There is a paucity of data on the performances of other RID Squads, and a decrease in the information so far provided. This indicates this problem is being covered up to some extent.

From an environmentally sustainable point this is a very poor outcome and must be addressed. Actions to deal with the illegal dumping are limited, but require appropriate resourcing and support from the Government and its regulators to ensure it is better controlled. Actions which can be used to reduce illegal dumping include:

- Increased enforcement by both Local Councils, the EPA and perhaps the Police.
- Education on at community and trade levels to signify the environmental impacts and legal consequences of such action.

R13 *ASBG recommends the NSW Government greatly improve its approach to illegal dumping by increasing enforcement efforts and education to reduce its ongoing impacts financially and environmentally.*

AUSTRALIAN SUSTAINABLE BUSINESS GROUP'S WASTE POLICY FOR NSW

OVERVIEW

The Australian Sustainable Business Group (ASBG) believes that waste should be managed in a holistic manner, based on strong science and economics. Efficiency is the cornerstone to minimising wastes from the processes from which they are formed. ASBG strongly encourages efficient management of raw materials and energy, with the aim of maximising the conversion of raw materials and energy into final products. Overall, waste policy should maximise net community benefit where externalities of waste management are considered in a holistic manner.

Resource recovery is and should remain a major component of NSW waste policy, but this should be secondary to net community benefit. Resource recovery has its place, but is limited both environmental and economically and should not be dogmatically pursued, especially just to divert waste from landfill, without the consideration of these impacts. ASBG, nevertheless, considers there are many opportunities for improving current rates of resource recovery to benefit economic and environmental outcomes of waste management in NSW.

Where waste materials are generated there are number of options for its management. Options for resource recovery should be driven by economics and can include the following approaches:

- Purify the recycled materials back to their original form
- Purify the recycled materials to a new form, but at a lower purity (down cycling)
- Blend the recycled materials, generally after some separation, with other materials (E.g. soils, concrete, asphalt compost, etc.)
- Extract energy from the waste materials²⁸.

Higher: additional resources, energy, raw materials requirements, potentially more wastes.
Lower: contamination levels of feed, entropy of product.

Opposite of above

Where the level of contaminants and difficulty of (further) separation exceed an economic or an environmental limit, the waste should be free to consider other forms of beneficial reuse or disposal where these options are not economically or environmentally justified.

NSW's waste levy rates are the highest for general solid waste²⁹ in Australia and probably globally. After many years the levy has become entrenched within the budget and NSW environmental expenditure programs. ASBG has taken the realistic position that revenues from the levy will continue at the 2010–11 NSW budget forecast levels. On this basis this policy is a short to medium term in outlook, with larger changes being introduced over the longer term. Overall waste management policy from a business's end user's perspective needs to:

- Provide suitable infrastructure, including beneficial re-use, to cater for all wastes (not just disposed of) being generated.
- Pricing and levy and subsidies be used only where there are clear environmental benefits – resource recovery as a means to itself can result in consuming more resources and energy.
- Market forces should be used to develop new innovative methods to improve resource recovery.

²⁸ See WMAA's [Sustainability Guide Energy from Waste \(EfW\) Projects and Proposals](#)

²⁹ Victoria has the highest levy rate of \$250/t for Category B solid waste, and \$80/t for Cat C wastes which are specialised small volume waste types largely represented by contaminated soils. Most of this levy is hypothecated to waste management funding programs.

- Other efficiency mechanisms and product stewardship initiative be also supported in assisting in waste avoidance, rather than the current skewed reliance on the punitive levy process.
- Provision of grants and funding to the NSW waste management sector and its generators is out of step with other states imposing levies and requires to be brought into line.
- Efficiency of managing wastes in NSW to be optimised terms of costs to businesses and the environmental outcomes achieved — the waste levy has poor efficiency and outcomes compared to other jurisdictions.

Waste is an inevitable outcome of any process. As no process or system is 100% efficient, there will be wastes generated. Hence Zero Waste policies are idealistic not realistic and will lead to inefficient use of funds to manage wastes.

Given the large revenue stream generated from NSW's waste by the levy of around \$320 m, and NSW's mediocre performance on waste diversion in comparison to other states, the efficiency of the levy to reduce waste has to be questioned³⁰.

ASBG ISSUES WITH CURRENT WASTE POLICY

ASBG considers there is much which can be done to improve and secure the efficiency and certainty of waste management practices in NSW. Waste management costs are high and are legislated to increase to promote further increases in resource recovery and recycling. Currently, the NSW Government's waste policy position is based on arbitrary targets, lacking a scientific and economic basis.

Governments must recognise:

- That waste generation will continue – zero waste policies are scientifically, technologically fantasy — some waste will always require landfilling.
- More can be done to improve the efficient use of resources resulting in less waste largely from encouraging internal efficiency within businesses.
- That recycling back to original materials has environmental limits.
- Innovative thinking and action is required to deliver the objectives of a more efficient society. Though many innovative methods conflict with strongly held beliefs.

Targeting just waste is not the answer, the whole cycle of materials to manufactured goods to recycling and waste disposal requires to be considered. Many mechanisms available upstream are under commonwealth or national jurisdiction. NSW must work with these national mechanisms, incorporating them into its waste policy strategies as they develop.

Efficient use of resources will result in the generation of less wastes is a common approach. Energy and greenhouse emissions programs have far greater upstream focus and stands out as an alternative means in which to manage a waste stream – energy. When it comes to solid wastes the end of pipe focus is where most policy attention is placed.³¹

Use of waste avoidance minimisation strategies, led by other states' waste focused agencies, have produced better waste reduction and diversion outcomes than NSW's heavy use of the waste levy. A new approach using a mix of punitive and supportive measures are required to lift NSW's waste performance levels.

NSW can make substantial inroads into efficient management of waste streams. ASBG looks forward to assisting the NSW Government in moving ahead to a more efficient waste regulation and management framework.

³⁰ NSW Parliamentary Briefing Paper: [Waste: Comparative Data and Management Frameworks 2010](#) comparison of NSW's waste diversions to other states is mediocre even with a very high levy rate.

³¹ For example, the recent change to Clause 123 of the Infrastructure SEPP places yet more responsibility on recovery at the landfill disposal end. The attention should be right up the line at where the waste is generated.

POLICY ACTION POSITIONS

1. Funding and Support for Business

1.1 Stimulate business to adopt more efficient processes

Lack of funding and government support has left NSW (*see 2.3*) far behind other states in waste avoidance actions. Targeting waste from an efficiency perspective, like energy is, will deliver better outcomes in terms of efficient use of resources and lowering costs to business and the people of NSW.

1.2 Consultation with business waste generators to better determine waste management options

Consultation with business generators of waste has been poor. Most consultation has been with the waste industry, but not with non-residential waste generators. Many examples of missed opportunities to remove regulatory and other barriers, which undermine resource recovery and other good waste management options. (*see 1.5*) A formal ongoing consultation program with business in the development of waste management policy is required.

1.3 Development of a one-stop-shop for national waste measurement, compiling and reporting.

Australia has disjointed and disparate systems for waste measurement and reporting. This undermines the collection and review of good data and the making of good decision making and regulation of wastes across Australia. Having a one-stop-shop to waste data reporting based on agreed national waste definitions and measurement standards should be a key priority. NSW should champion the development of this system.

1.4 Increase resources for the development and assessment of waste exemptions for beneficial use of wastes.

Waste exemptions have been an effective means for the regulatory to assess innovative means in which to beneficially use wastes. However, their pace of development for generic waste streams has been slow. This appears due to internal conflicts of interest within DECCW and the need for additional resources to process applications. Clearer policy is required to cut through internal conflicts of which issues have the higher environmental priority.

1.5 Review the regulatory structure to remove loop holes and other obstacles promoting waste to landfill.

There are many examples including the planning and environment protection licence systems which promotes waste to landfill. For example, construction of a major building can by-pass the requirements for an Environment Protection Licence Extractive Industry if it sends its excavated materials to landfill, but if it re-uses these wastes then it requires to be licensed.

2. Provision of Effective Waste Infrastructure

2.1 Ensure there is adequate landfill capacity, putrescible and non-putrescible, for NSW's future needs.

Landfills are an essential part of waste infrastructure. They should be assessed by scientific environmental performance and not as an unfashionable development. Importantly the amount of waste going to landfills can be controlled and limited e.g. by quotas, to cater for lumpy transitions to new waste management practices. Having excess landfill capacity, and the ability to control its input levels, will provide certainty to businesses that NSW and Sydney region will have a means to deal with waste if other resource recovery strategies fail to deliver.³²

2.2 Assist in the siting of new waste infrastructure to meet NSW and Sydney's needs

Planning process for new waste infrastructure is lengthy and commonly results in considerable opposition. Planning approvals for essential waste infrastructure will requires State Government intervention to ensure suitable facilities are provided. This may extend to waste-to-energy facilities if waste diversion from landfills is to be pursued, otherwise landfilling will be required to play a major and ongoing role in waste management infrastructure in NSW. Beneficial reuse of waste also suffers from strong opposition at the planning approval level. Allocation of special planning zone areas for eco-parks and integrated waste facilities is required.

³² Alternative Waste Technologies (AWTs) have a track record of failure, such as the SWERF at Whyte Gully near Wollongong. Many AWTs initially operate at 70% recovery, but this quickly falls to around 50%, with much of this due to moisture losses. Hence 50% of input becomes waste to landfill and subject to the levy.

2.3 Assess the future needs of waste infrastructure

Use an independent assessment of the future needs of NSW's, especially Sydney's waste infrastructure requirements. This would need to consider all options including transport distances, greenhouse emissions, waste to energy, soil reuse banks and other innovative resource recovery options based on a scientific and economic foundation.

3. Tune the Waste Levy

Review the structure of the waste levy to remove perverse outcomes such as undermining recycling, minimise transport of waste and drive resource recovery by increased grant funding.

3.1 Resource recovery processes be considered for levy rebates based on recovery efficiency.

As recycling is largely a separation process, recycling systems generate a waste stream to landfill. This attracts the waste levy. As NSW's levy is by far the highest in Australia, if not globally, this has generated market distortions for certain wastes. The levy is close to making certain recycling in NSW uneconomic. It can be cheaper to ship unsorted materials interstate or even overseas. Support for the recycling industry is required or sectors may collapse. One approach is to provide an increasing rebate, based on separation efficiency. This would assist in maintaining improving resource recovery and not just diversion from landfill. It should also prevent perverse environmental outcomes such as shipping wastes long distances to other markets. Such a mechanism should also take into consideration national product stewardship programs, though these are at least 3 years away.

3.2 Waste management processes be considered for levy rebates based on environmental integrity and other environmental factors.

There are grounds to provide incentives for quality waste management processes, even landfills, due to a number of factors, such as the location of the facility – closer to market means less greenhouse gas emissions. Integrity of the facility in terms of environmental protection and long term liability also needs to be recognised to drive new developments forward to achieve higher standards. Use of rebates on the levy based on these and other criteria should be considered. Such rebates do not need to be large, as a small change can result in considerable investment and operational changes.

3.3 Provide for a reasonable reallocation back to the waste management sector to stimulate the waste sector.

Allocation of waste levy funding back to the waste sector has been very low in NSW for many years. Outside of local government waste programs, NSW has offered very little to business. This is completely out of step with Victoria and Queensland who provide well over \$10 million pa (Queensland will supply near \$40 m in 2011-12). ASBG considers \$30 million p.a. in grant funding being made available from the levy to businesses should be made available.

3.4 Reassess the impact of the levy on boarder areas

The NSW waste levy in its forms is causing perverse environmental outcomes by promoting the shipping of wastes to areas with lower or no levy applying. This is particularly acute across State boundaries including:

- Victoria which has levies applying and southern NSW which has no levy – Albury's landfill is the state's second largest feed by Victorian wastes.
- Recyclates and other waste streams are being set long haul distances to avoid levy payments with perverse environmental outcomes and increased risks of spills.

In the longer term the recommended option is to re-evaluate the waste levy across NSW and the impacts of boarder states levy policies.