

20 November 2017

Waste and Resource Recovery Infrastructure Strategy  
Waste and Resource Recovery Branch  
Environment Protection Authority  
PO BOX 668  
PARRAMATTA NSW 2124

---

The Australian Sustainable Business Group (ASBG) is pleased to comment on the NSW EPA's: [Draft Waste and Resource Recovery Infrastructure Strategy](#) (Waste Strategy).

The [Australian Sustainable Business Group](#) (ASBG) is a leading environment and energy business representative body that specializes 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 120 members comprising of Australia's largest manufacturing companies.

The Waste Strategy is a good infrastructure gap analysis of current and projected waste facilities up to 2021. A 75% landfill diversion is a clear goal set by *Waste Avoidance and Resource Recovery (WARR) Strategy 2014–21*, is the basis for estimating the gap in waste facilities required. What is lacking is a clear strategy in filling the gaps it forecasts. While the Strategy looks at the grant programs but does not consider their effectiveness, nor what changes are needed to improve recycling rates. It also ignores the impact of the waste levy and other future impacts that could change the current projections.

ASBG comments on the strategy are largely on:

- Better ways to encourage recycling, including new grant programs and use of demand pull approaches
- Support for waste infrastructure identified is required, such as Energy from Waste and planning support issues
- Impact of the waste levy and failure to invest in local waste infrastructure and need for future landfill capacities for the Greater Sydney Area , as current landfills are likely to fill faster than forecast.

Preparation of this submission was undertaken using the resources of ASBG's Policy Reference Group.

## 1 ENCOURAGING RECYCLING

Use of the waste levy is the primary supply push approach used by the NSW Government to support recycling. However, the waste levy is a blunt instrument that has generated considerable consolidated revenues— \$704m from last budget— but blunt in encourage recycling. For some recycling the levy has negative impacts. Victoria has lower landfill levies, but achieved higher recycling rates, [67%](#) compared to NSW's 63%, due to targeted Government programs, generally sourced from Sustainability Victoria. Consequently, there is opportunity for NSW to do much better.

Sustainability Victoria also publishes far better recycling data and information regarding waste management than in NSW, creating the impression that NSW is not measuring this issue as well and consequently is another reason it is falling behind. Curiously, the EPA collects considerable data via its *Waste and Resource Reporting Portal*, however, this data is not publically available.

The design of the recycling regulatory framework pushes the source separation and contamination problems and responsibilities on to the waste facilities. However, unlicensed sites are the main generators of recycle and are generally encouraged to improve their source separation. Hence, it falls on the recycling facilities to do the heavy lifting in policing the quality of their inputs. If a load fails, it is generally rejected often required to be sent to landfill. Better education and community attitudes have shown improvement in this area, but there is room for light enforcement, such as, on-site inspections or other means to send price signals to poorly performing waste generators to lift the quality of their recycle.

Impact of the waste levy is having an increasingly negative economic outcome on many sectors within the recycling industry. All recycling facilities must removed and dispose or manage the contaminate stream generated from their process. Dealing with this contaminant stream generally results in disposal to landfill and exposure to waste levies. Waste composition is continuously changing, subject to changes in consumer choice; hence, recycling is always playing catch up with new contaminants and at variable concentrations. This is the reason Alternative Waste Technologies (AWT) have not become the success they were designed to be. AWTs have a history of only achieving high diversion rates for a limited time, where upon the waste input stream changes resulting in poorer performance potentially leading to poorer economics.

Recycling is also a diverse sector covering a range of different materials and generating separate products. Some are and have been generally profitable and viable such as paper, aluminum, steel and construction and demolition. Others are more marginal, such as non-lead acid batteries, wood, plastics, glass e-waste and green waste. Each needs to be considered based on their waste streams and products produced.

There are major threats to recycling including:

- Local waste levies which impact on the sites' costs on its reject streams, for example:

Metal shredders in NSW have been given a 50% reduction in their waste levy as they would simply close otherwise. Their main competition was to overseas markets competing for their input scrap stream. The KPMG report<sup>1</sup> recommended this action, which if not taken would result in a loss of levy revenue and damage to NSW's steel sector. NSW EPA offered \$5m to assist the 3 metal shredders to find alternative methods to deal with their floc, the non-metal components from old cars, white goods and other input waste streams. The only economically viable solution was Energy from Waste (EfW).

---

<sup>1</sup> Review of the NSW Waste and Environment Levy KPMG 2015  
<http://www.epa.nsw.gov.au/resources/wasteregulation/waste-levy-review-report.pdf>

However, the very high environmental standards<sup>2</sup> and the uncertainty of gaining approval under the planning process rendered this option unusable in NSW.

- Contamination issues within products

Western Australia's construction and demolition (C&D) recycling sector has suffered from the rejection of their product by WA Government agencies—they refuse to use it—due to possible and perceived asbestos contamination concerns. This is despite some sites doing hundreds of tests on their product demonstrating there it is asbestos free<sup>3</sup>. WA has an asbestos concentration limit of 0.001%, which is against zero calls from the asbestos lobby. This emotional response led to enough pressure for WA Government agencies to ban its use<sup>4</sup>. This perceived threat is resulting in major stockpiling issues and landfilling for the C&D recycling sector. It also has led to a collapse in the WA recycling rates and increased illegal dumping<sup>5</sup>. Perversely the fear about asbestos contamination by association and the hike in the waste levy from \$12/t to \$90 over 3 years has increased illegal asbestos waste dumping and illegal activity creating more health issues than the C&D product purchase ban was to solve.

Recycled products are facing increasing fear based rejections based on trace amounts or perceived amounts in the recycled product. This is not limited to asbestos contamination, but can easily spread based on the flavor-of-the-month media toxic chemical focus. Currently this includes PFAS, with lead, bromated plastics and mercury not far behind. Such fears need to be nipped in the bud and environmental agencies need to provide appropriate advice focusing on the low level of risk that trace concentrations pose. They should also include comparative and context risks. Agencies should avoid the term *Not safe* or *toxic* as these are emotional value labels and not scientific. Stating there is no safe level also signals that any level of a pollutant is dangerous. It would be more responsible to place such substances in a risk based perspective with appropriate contextual information. Such an approach is adopted for more socially acceptable carcinogens. For example, alcohol is a known human carcinogen<sup>6</sup>, but is commonly and wilfully consumed. To place this issue into a risk based perspective the UK's Chief Medical officer Prof Dame Sally Davis said<sup>7</sup>:

*Drinking any level of alcohol regularly carries a health risk for anyone, but if men and women limit their intake to no more than 14 units a week it keeps the risk of illness like cancer and liver disease low."*

Similar risk based messages from Government is required to provide a balanced and less emotive messages.

If large scale rejection of recycled products occurs due to misguided fears the knock-on effects will be severe. Recycling rates will plummet, landfills will fill far more quickly requiring new ones to be sited, and illegal dumping and stockpiling will increase. Such a scenario leads to worse environmental and health outcomes.

---

<sup>2</sup> NSW EPA's Energy from Waste Policy: <http://www.epa.nsw.gov.au/resources/epa/150011enfromwasteps.pdf>

<sup>3</sup> Perth Now The problems Perth Business face recycling asbestos construction waste. <http://www.perthnow.com.au/news/western-australia/the-problems-perth-businesses-face-recycling-asbestos-construction-waste/news-story/dc50a4f707771eeb7f736b4117858b3a>

<sup>4</sup> Perth Now: Asbestos Fears create stockpiles of rubble. <http://www.perthnow.com.au/news/western-australia/asbestos-fears-create-stockpiles-of-rubble/news-story/5fbcc0a892edb5971fa13036e3449b8c>

<sup>5</sup> Perth News WA's broken waste policy triggers dumping and stockpiling <http://www.perthnow.com.au/news/western-australia/asbestos-fears-create-stockpiles-of-rubble/news-story/5fbcc0a892edb5971fa13036e3449b8c>

<sup>6</sup> IARC, Consumption of Alcoholic Beverages <http://monographs.iarc.fr/ENG/Monographs/vol100E/mono100E-11.pdf>

<sup>7</sup> UK Department of Health: Updated alcohol consumption guidelines give new advice on limits for men and pregnant women, <https://www.gov.uk/government/news/new-alcohol-guidelines-show-increased-risk-of-cancer>

Added to the above is the ongoing changing composition of waste, which requires adaptive recycling methods if mixed recyclates are used. Either the process can down cycle resulting in mixtures of different input materials such as blending with asphalt or further down the hierarchy to Energy from Waste, which is more flexible in taking a far wider scope of input streams.

- International pricing

Collected used materials for recycling (recyclate) are internationally traded. Consequently, prices for recyclate are set internationally according to demand and supply. Government actions in the largest markets can result in high volatility in these prices. China recently announced ban<sup>8</sup> on 24 recycled materials at the end of 2017 will have considerable downward impacts on the price of recyclates in Australia. While some recyclers will welcome a drop in their inputs, those collecting recyclate for export will find major problems with their business model. These bans will likely lead to stockpiling increased flows to landfills and potentially illegal dumping activities. Governments need to permit flexible arrangements in sight of this, such as permit increases in stockpile limits temporarily.

Recycling is plagued by lack of abilities of governments to improve the quality and separation of collected recycled materials. As a result China has recently introduced it ban on 24 recyclate products citing contamination issues. This and an oversupply of collected recycled materials of marginal quality has lead to decreasing prices paid for such commodities<sup>9</sup>.

- Government bans or forced recycling

There is a drive in other states and in Europe to cut waste to landfill using government led ban, such as for e-wastes and organics. A ban in principle is a means to extend the life of landfills and force recycling of the banned material. Discussed in section 6 there is a problem with contamination in recyclate which would be exacerbated using a complete ban, some leakage of highly contaminated material should be permitted.

A ban must be carefully thought through as it will generate large volumes of recyclate that recyclers must take, even at high contamination levels, levels which would otherwise be rightly rejected. So expect high levels of waste to be generated from such recycling processes. Even if the recyclate is destined for overseas it must be cleaned up to meet the international standard or it will be simply rejected and sent back. Gate fees can be added to the recycling sites, but this becomes simply a waste processing facility.

A ban or push for increased recycling will also generate far more recycled product. If there is a limited market for this material the price will drop and can even go negative. That is paying users to accept the recycled product. This has occurred numerous times with green waste. However, even this will not be enough and there can be too much product made with no one willing to accept the excess material causing another stockpiling issue. Hence, design of bans to landfills requires careful planning from considering the increased supply to assistance with demand management for the recycled product generated. Funding for collection systems, education to reduce contamination and market development for products made should form part of the package.

---

<sup>8</sup> World Trade Organization: China's import ban on solid waste queried at import licensing meeting.

[https://www.wto.org/english/news\\_e/news17\\_e/impl\\_03oct17\\_e.htm](https://www.wto.org/english/news_e/news17_e/impl_03oct17_e.htm)

<sup>9</sup> See Visy Industries Submission to the Senate Inquiry last 2 pages – Waste and Recycling industry in Australia:

[https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Environment\\_and\\_Communications/WasteandRecycling/Submissions](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/WasteandRecycling/Submissions)

ASBG does not support such bans as they offer not future technological solution and are considered a harsh action for Government.

As a consequence, ASBG considers the NSW EPA could:

- Learn from the systems and programs used by Sustainability Victoria.
- Develop demand management pull strategies to encourage the development and growth of recycled products.

*For example, removing the barriers to the use of glass in road abase, asphalt and other engineering products. There is a strong reluctance from Government agencies, especially Local Government to permit many recycled products for infrastructural purposes. Local Government has a circular responsibility as it is a major source of waste glass, but price pressures to keep collection and recycling prices low, generates poor and unreliable recycled glass quality. A closed loop method is required involving both local government's waste and construction sections working together. Such schemes may place higher pressures on residents, but will generate a reliable and usable engineering material.*

*Example 2: Specify in Government procurement policy a 'buy recycled product' with minimum recycled content.*

- Review the current waste grant program and develop new grant programs to support demand pull.
- Encourage increased source separation at both commercial and residential levels via various means such as educational programs, on-site inspections and other approaches.
- Consider levy rebate schemes based on recycled product sold to remove the high cost imposed on underflow streams from recycling processors.
- Develop grant programs to further assist in innovative processes to increase the extraction and product range from recycling processes and reduce the underflow from recycling processes.

**R1 ASBG recommends the Waste Strategy:**

- ***Investigate and develop methods and policies to increase the use of recycled products, such as demand pull methods***
- ***Consider treats to recycling and its products***
- ***Improve approaches and policies to reduce contamination in collected recyclates using for example Government procurement policy and linked with better management of waste contracts.***

## 2 WASTE INFRASTRUCTURE

Due to the market distortion generated by the waste levy, ASBG estimates that nearly 2 million tonnes of Sydney Metropolitan Area (SMA) waste has been shipped to south eastern Queensland since 2012. Once, landfill gate fee differences exceed the transport cost threshold, long haulage of waste will not be economic. The distance of the long haul can set by the gate price differences, negating the need for other regulatory controls. For the SMA there is about a \$50/t advantage to this waste going to Queensland.

This long haulage of waste out of the SMA has also had a detrimental effect on the development of waste infrastructure. Added to this the difficult planning approval processes that apply to waste infrastructure, some areas more than others, means NSW will face a deficit in waste infrastructure in 2021 of roughly 2 MT as reflected in the Strategy.

ASBG has long argued the waste levy is set far beyond the amenity costs of landfills. It is in effect a revenue raising mechanism to support the NSW budget first with diversion from landfill as a secondary process. Given less than 15% of the levy revenue is earmarked for the Waste Less Recycle More grant program demonstrates the poor level of levy recycling back to the waste sector.

High environmental standards imposed by attention to trace levels of contamination, high monitoring costs and high costs of licence compliance also detract from the economics of setting up recycling facilities in NSW.

The waste levy along with the high and increasing environmental standards, regulatory controls and licence conditions, required by the EPA, are undermining the diversion from landfill. Environmental protection accompanied by a risk-averse approach in this area from the EPA can tend to drive more waste to landfill, rather than support recycling and other diversion measures. As discussed above asbestos contamination of waste is resulting in very high cost and difficult to work standards for C&D waste recycling<sup>10</sup>. Key areas where such issue above are occurring includes:

- Extremely costly planning requirements, acceptance and operating conditions for Energy from Waste facilities.

The Strategy cited only two EfW sites, which are the Blue Circle Cement Plant in Berrima and Vales Point Power station. Both have very restrictive acceptance conditions and hold EfW licences as a secondary action. Currently there is one proposal to site a new EfW in Western Sydney, but this project is not supported by the EPA, due to lack of certainty and variations in its input streams. However, the need for a EfW in the Sydney area is called for under this strategy. Consequently, the issue should be on assisting such EfW facilities to get up and running and focusing more on outcomes rather than too heavily on processes and inputs.

- Environmental operating costs from monitoring, minimum standards and other licence conditions undermines the commercial viability of various recycling sectors.

In addition to the discussion in section 1, regarding contamination concerns, the draft standards out for both C&D and scrap metal recycling facilities, are cost onerous and may simply drive these types of recycling facilities out of the SMA. Careful analysis of the cost impacts of high environmental standards

---

<sup>10</sup> EPA's draft Standards for Managing Construction Waste In NSW <http://www.epa.nsw.gov.au/-/media/EPA/Corporate-Site/Resources/wasteregulation/17p0189-standards-managing-construction-waste.ashx> See ASBG submission from prior discussion paper 2014: [http://www.asbg.net.au/attachments/article/336/ASBG%20Asbestos%20for%20CD%20Waste%20sub2014%20\(2\).pdf](http://www.asbg.net.au/attachments/article/336/ASBG%20Asbestos%20for%20CD%20Waste%20sub2014%20(2).pdf)

need to be balanced with the commercial reality of the market bearing these costs. If set too high such standards will simply make the local recycling sector for that product unviable.

- Waste levy set too high, where it is lower in cost to send recycle to South East Queensland for landfill or for lower cost recycling.

ASBG has long recommended setting the waste levy at below the long haul cost advantage of around \$90/t. However, given the higher compliance costs in NSW this amount may still be too high. ASBG notes this is why the Liquid Waste Levy is set at \$74/t to increase by CPI annually. It was deliberately set to ensure the liquid waste treatment market did not move from Sydney to Victoria. It is a shame the Waste Levy was not thought through in a similar manner when the \$130/t+ cap —end of the \$10/ p.a. cap— was introduced.

***R2 ASBG Recommends the Waste Strategy review and consider the impact of waste regulation on recycling and consider methods in which it can be made more flexible to support both waste facilities and recycled product market.***

### 3 FUTURE LANDFILLS AND INFRASTRUCTURE

Due to the diversion of waste from the Sydney Metropolitan Area (SMA) to South East Queensland and economic advantages of this brings, a lack of waste infrastructure expenditure has also occurred within the SMA as identified in the Strategy. Marginal recyclable materials will end up in landfills where there is an economic advantage. As a consequence, investment into further recycling infrastructure is not being appropriately undertaken by the market due to competitive forces. The issue here is that if SMA wastes and recycle now being sent to Queensland landfills were stopped, where would this waste material go? Until new recycling infrastructure, including EfW facilities, are developed such wastes will simply go to landfill. Establishment of such infrastructure costly, take about 3 to 5 years and is risky, especially where waste planning approvals are rejected. The high environmental standards such facilities will also mean they will have costs which cannot be passed on. Consequently they face considerable pressures from other market forces, such as international competition or worse low prices of the recycled products. If the prices are too low that recycled material sector could face considerable shrinkage.

As a result of this lack of recycling infrastructure and the difficulties involved in siting new facilities along with high operational costs and volatile market prices, much of this marginal recyclable material will end up in landfill. If long haul transport to Queensland landfill is stopped, then this diverted quantity, which ASBG estimates will easily exceed 1 million tonnes p.a. and likely to exceed 1.3 million tonnes pa, will simply go to local landfills in the SMA area. Such large flows into the limited landfills in the SMA will need to be carefully considered due to limited capacities. As a consequence, early filling of existing landfills will require the planning for future landfills in the SMA earlier. However, this is a problem as the main thrust of the Waste Strategy is to avoid landfills, especially siting of new ones as they are generally highly unpopular and negative political campaigns generally win out.

Nevertheless, careful planning approaches that manage and reward communities for accepting new landfills and waste facilities can avoid the above.

*For example, the expansion of Lucas Heights landfill in the late 1990s used \$1.50/t to support the development of sporting facilities. After lengthy negotiations with the sporting community in the area, a plan was reached. Consequently, at the planning stage the sporting community out supported the opponents to the landfill.*

A clear long term planning strategy for landfills and other waste facilities is required to ensure a smooth transition of new waste infrastructure to replace the old and manage growth.

#### **R3 ASBG Recommends the**

- **NSW Government avoid shock impacts associated with sudden reduction in wastes going to Queensland.**
- **Need for new landfills be forecast as part of the Waste Strategy and that future potential landfill sites be earmarked for future planning purposes.**

Should further details and explanation of the above points be required please contact ASBG.

**Yours Sincerely**



*Andrew Doig*

**Andrew Doig**

**CEO**

**Australian Sustainable Business Group (ASBG)**

T. +612 9453 3348

A. (PO Box 326, Willoughby NSW 2068)