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Senate Standing Committees on Environment and Communications Inquiry into:
WASTE AND RECYCLING INDUSTRY IN AUSTRALIA

19 October 2017

Dear Committee Secretary

Thank you for the opportunity to submit comments to the Senates inquiry into the waste and recycling industry in Australia. These comments will be restricted to the fourth term of reference of the inquiry (reproduced at Appendix A) namely:

- the role of landfill levies in determining the end destination of material, including the hypothecation of collected levies for enforcement and waste diversion purposes;

focusing particularly on the level of the landfill levies in NSW. This submission will briefly look at:

1. financial overview of Waste Levy
2. impact of the Waste Levy on waste generation and recycling
3. export of waste from NSW as a consequence of the Waste Levy
4. the justification for the levy
5. the consequences for NSW taxpayers and businesses

and then relate the consequences of the current NSW levy rate to the key issues identified in the 4-Corners program, namely:

1. illegal dumping;
2. interstate disposal;
3. recycling rates.

We feel that the lessons from NSW are instructive in terms of illustrating a path that other Australian jurisdictions may choose not to follow. The consequences of the extremely high NSW levy rates are now clearly evident and provide a useful case study for the Inquiry of a well-intentioned policy initiative gone wrong.

Yours sincerely

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19 October 2017

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Contents

Introduction - Financial Overview of NSW Waste Levy 4
Effect of the NSW Waste Levy 4
Waste Generation and Recycling 4
Export of Waste 6
Economic Impact on Households and Industry 8
The Waste Levy as a policy tool 10
Implementation of the NSW Waste Levy 10
Risk of illegal dumping recognised 11
Risk of system leakages ignored 11
Duplicate regulatory mechanism ignored 11
Shifting policy objectives 12
Inconsistent levy application 12
Conclusion and Recommendations 13
Appendix A: Qualification of GCS Consulting 14
Appendix B: Inquiry Terms of Reference 15

Figure 1 - National Landfill Levies (excluding ACT, TAS and NT). (Source: MRA Consulting Group, October 2015) 4
Figure 2 NSW waste generation, recycled and disposed on a per capita basis (Source: NSW EPA SOE Report 2015) 5
Figure 3 - Three-year trend in general wastes received by Queensland landfill operators from interstate sources (Source: Recycling and Waste in Queensland report 2016) 7
Figure 4 – NSW Ferrous Containerised Exports: 2006-2011 (Source: ABS purchased data based on NSW international exports of Ferrous Waste and Scrap). 8

Table 1 – NSW Recycling rates by waste stream with C&D recycling rates highlighted (Source: NSW EPA SOE Report 2015) 5

Introduction - Financial Overview of NSW Waste Levy

The NSW waste levy rate for 2016/17 was $134.70 per tonne of waste disposed for the Metropolitan Levy Area.[1] A further CPI-based increase occurred in July 2017 to $138.20 per tonne[2]. The change in the waste levy for the 10-year period in NSW and other jurisdictions is shown in Figure 1 below. The figure highlights the levy differential between NSW and Qld (currently the full $138.20 amount) that has been the driving force for the diversion of NSW waste to Queensland.

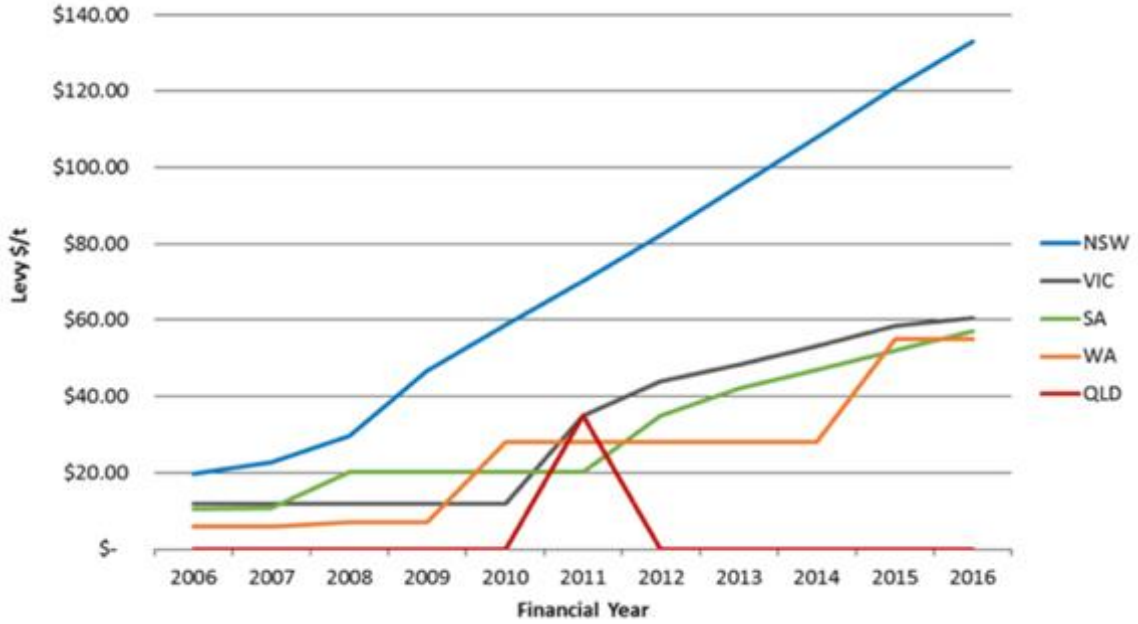

Figure 1 - National Landfill Levies (excluding ACT, TAS and NT). (Source: MRA Consulting Group, October 2015)[3]

In 2015-2016, the waste levy collected $704 million in taxation revenue for the NSW government, up from an original budget figure of $565 million and a revised budget figure of $641 million.[4]

Effect of the NSW Waste Levy

This section examines the effect of the levy on the movement of materials and the upstream/ downstream economic impacts.

Waste Generation and Recycling

Data published by the NSW Environment Protection Authority (NSW EPA) indicates that the levy increases did have an effect in reducing total waste generation per capita until about 2008-2009

[1] https://www.insidewaste.com.au/general/news/1008173/nsw-waste-levy-rates-2016
[2] Sustainable Business Weekly, ASBG Newsletter, 12 September 2017
[3] https://blog.mraconsulting.com.au/2016/04/20/state-of-waste-2016-current-and-future-australian-trends/
[4] https://www.treasury.nsw.gov.au/sites/default/files/2017-09/2017-18%20Budget%20Paper%201%20-%20Budget%20Statement-1_0.pdf

when waste generation peaked at just over 2500kg/person/year. Recycling rates also increased through the 2002-2011 period shown (Figure 2). Some of the decline in overall waste generation may have been impacted by a trend for waste generators to export wastes from NSW which began in earnest after 2010 when the levy rate exceeded $60 per tonne (refer the section on Waste Export).

Figure 2 NSW waste generation, recycled and disposed on a per capita basis (Source: NSW EPA SOE Report 2015)[5]

Source: EPA data 2015
Note: MLA = Metropolitan Levy Area.

Recycling rates have also increased during the same period with increasing recycling in the Municipal and Commercial & Industrial (C&I) sectors but the data also shows a decline in the Construction & Demolition (C&D) sector between the 2010-2013 period during which the levy rate increased from approximately $60 per tonne to $120 per tonne (Table 1).

Table 1 – NSW Recycling rates by waste stream with C&D recycling rates highlighted (Source: NSW EPA SOE Report 2015)[6]

Waste stream	2002–03*	2004–05	2006–07	2008–09	2010–11	2012–13	2014 recycling target
Municipal	31%	33%	38%	44%	52%	55%	66%
C&I	34%	38%	44 %	52%	57%	61%	63%
C&D	64%	62%	67%	73%	75%	69%	76%

Source: EPA data 2015
Notes: *Waste Avoidance and Resource Recovery Strategy targets first established. C&D = construction and demolition. C&I = commercial and industrial.

The fact that the most price-sensitive waste generating sector reduced its recycling rate during a period in which the levy doubled is exactly the opposite outcome expected from that sector. The 2012 KPMG review of the waste levy explains the expected behaviour of the C&D sector:

[5] http://www.epa.nsw.gov.au/-/media/EPA/Corporate-Site/Resources/soe2015/150817-soe-7-waste-recycling.ashx pg58
[6] http://www.epa.nsw.gov.au/-/media/EPA/Corporate-Site/Resources/soe2015/150817-soe-7-waste-recycling.ashx pg59

> *The impact in the C&D stream is reflective of the relatively high total cost of waste for the sector, which is mainly due to the high bulk density of the waste produced and therefore higher waste volumes sent to landfill. Consequently, there is a large incentive for the C&D sector to reduce waste through resource recovery and use as much material as possible on site before generating waste.*[7]

It also contradicts the NSW Government's own 2010 review of the waste levy reports:

> *In the C&D sector, by contrast, the waste and environment levy has had a dramatic impact, and is working very effectively to minimise waste going to landfill.*[8]

It was becoming apparent that by 2012-13 the continual increases in the waste levy were possibly having a negative effect on C&D recycling rates and certainly were not encouraging further recycling in the NSW market. It is notable that the C&D sector was already recycling 64% of all material as early as 2002-03 when the levy rate was around $25 per tonne[9] suggesting that the efficacy of the levy as a pricing mechanism may have already had a majority of its effect at much lower levels and well before the dramatic increases from 2006 onward.

One explanation for the decline in C&D recycling could be that the costs to recyclers of disposing of residual waste is now so high, and the risk to the business of receiving contaminated waste is so great, that business is choosing to undertake recycling and/or disposal of waste material outside of NSW rather than within the state. This trend for exporting of waste materials was clearly evident in the metal recycling industry (refer next section) and could account for at least some of the decline in recycling rates.

Export of Waste

The quantity of waste material exported from NSW to Queensland was reported by the Queensland Government as 566,000 tonnes in 2015-16, an increase from 353,000 tonnes in the previous year.[10] Figure 3 shows a breakup of the waste types received with C&D waste forming the majority of material received (87%). The report estimated that of the 494,000 tonnes of C&D waste received, 370,000 tonnes was landfilled (75%) while 124,000 tonnes (25%) were recovered/recycled.

The 'leakage' of C&D material to Queensland represents a small but growing portion of the NSW market. Estimated C&D generation in NSW during 2012-2013 was approximately 7 million tonnes

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[7] KPMG Review of the NSW Waste and Environment Levy – Final Report – June 2012. Retrieved from: www.epa.nsw.gov.au/resources/wasteregulation/waste-levy-review-report.pdf

[8] Review of Waste Strategy and Policy in New South Wales, 2010. Report by the Steering Committee for the Review of NSW Waste Strategy and Policy. www.epa.nsw.gov.au/resources/wastestrategy/101034-rev-waste-strat.pdf

[9] Review of Waste Strategy and Policy in New South Wales, 2010. Report by the Steering Committee for the Review of NSW Waste Strategy and Policy. www.epa.nsw.gov.au/resources/wastestrategy/101034-rev-waste-strat.pdf

[10] Recycling and Waste in Queensland Report 2016. Interstate sources of waste are assumed to be primarily from NSW. Retrieved from: https://www.ehp.qld.gov.au/waste/pdf/recycling-waste-qld-report2016.pdf

per annum with around 4.8 million tonnes recycled and 2.2 million tonnes disposed of a landfill.[11] The half-million tonnes of C&D waste moving to Queensland therefore represent approximately 7% of the total C&D waste generation in NSW.

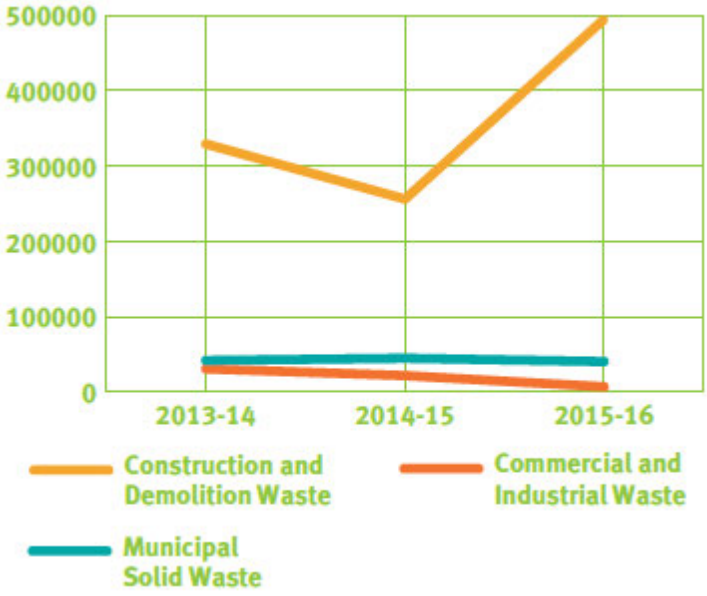

Figure 3 - Three-year trend in general wastes received by Queensland landfill operators from interstate sources (Source: Recycling and Waste in Queensland report 2016)[12]

Exporting of material is not just limited to C&D materials. For example, the metal recycling industry has been heavily impacted by the waste levy increases and several economic analyses have previously confirmed the negative impact of the levy on NSW operators. The Centre of International Economics (CIE) report into the impacts of the waste levy on recyclers in 2011 found that at $120 a tonne, the levy would reduce profit margins of metal recyclers by 3 per cent relative to no levy.[13] While this impact on profits sounds somewhat minor, the levy placed existing recyclers with major capital infrastructure in hammer mills at a competitive disadvantage to other operators who exported unprocessed scrap metal directly to international markets. This is evidenced by the growth in unprocessed metal recycling exports from NSW during the 2006-2011 period (Figure 4).

[11] Estimates from Figure 7.2 on pg59 of the SOE report. Retrieved from: http://www.epa.nsw.gov.au/-/media/EPA/Corporate-Site/Resources/soe2015/150817-soe-7-waste-recycling.ashx
[12] Recycling and Waste in Queensland Report 2016. Retrieved from: https://www.ehp.qld.gov.au/waste/pdf/recycling-waste-qld-report2016.pdf
[13] CIE, Impacts of the waste levy on recyclers, August 2011. Retrieved from: www.epa.nsw.gov.au/resources/wasteregulation/CIE-waste-levy-comm-recycling.pdf

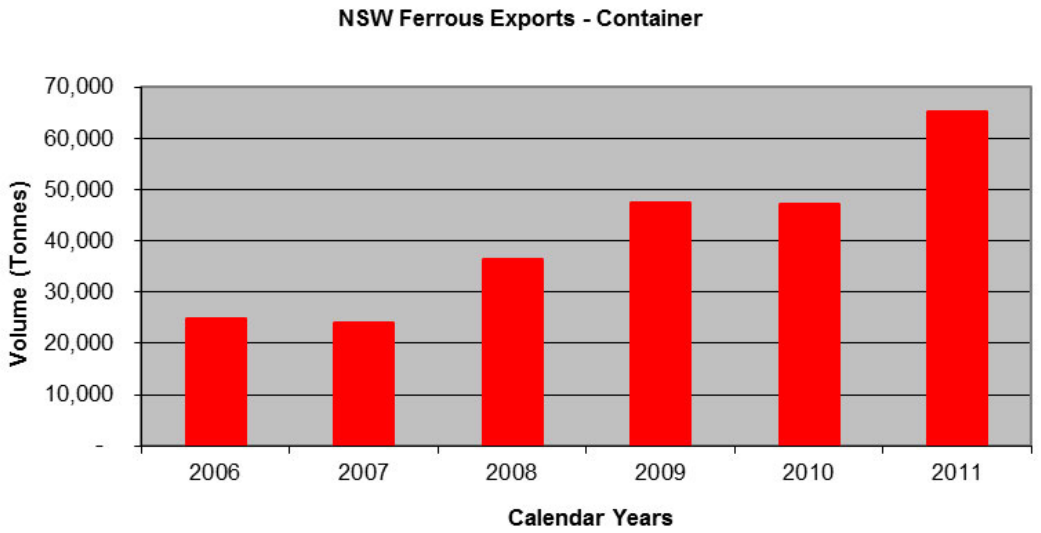

Figure 4 – NSW Ferrous Containerised Exports: 2006-2011 (Source: ABS purchased data based on NSW international exports of Ferrous Waste and Scrap).[14]

The quantity of ferrous container exports leaving NSW more than doubled over a 5-year period during the period of the levy increase. While minor in terms of the overall waste tonnages, this 'leakage' from the metal recycling system is symptomatic of broader pressures on all material recyclers operating in the NSW market and the potential commercial penalties that the levy can impose on existing industry players.

Economic Impact on Households and Industry

NSW EPA data indicates that waste disposal quantities giving rise the $700 million levy income (approximately 5 million tonnes) is fairly evenly split between Municipal; C&I and C&D sectors.[15] The ABS estimates the number of households in the Greater Sydney Region at 1,521,398 [16] suggesting that households contribute something between $130-$140 per annum towards the NSW waste levy through their rate payments. Approximately 60% of housing in the Greater Sydney Region is detached with households paying rates ranging between $600 - $1300 per annum.[17] The estimated household contribution to the NSW levy payment is something between 10% and 20% of the total rates liability.

The 2012 KPMG report makes the following relevant comments relating to the imposition of the waste levy on households under the heading "Effectiveness of the Levy":

[14] Data presented at the AEBN Waste Levy Conference, March 2012.
[15] Figure 7.2 SOE Report 2015 - based on 2012-13 data. Retrieved from: http://www.epa.nsw.gov.au/-/media/EPA/Corporate-Site/Resources/soe2015/150817-soe-7-waste-recycling.ashx
[16] ABS Region Summary at a glance. Retrieved from: http://stat.abs.gov.au/itt/r.jsp?RegionSummary&region=1GSYD&dataset=ABS_REGIONAL_ASGS&geoconcept=REGION&datasetASGS=ABS_REGIONAL_ASGS&datasetLGA=ABS_NRP9_LGA&regionLGA=REGION&regionASGS=REGION
[17] IPART 2016 Review of the Local Government Rating System. Retrieved from: https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-section-9-legislative-review-of-the-local-government-rating-system/draft_report_-_review_of_the_local_government_rating_system_-_august_2016.pdf

> *Although households pay for the waste levy in full via a general collection by councils, there is no transparent and direct financial incentive for households to reduce their waste. Local councils are responsible for paying the levy on behalf of ratepayers, and this is then recovered from households through rate notices. Because home owners are charged a flat fee for their waste, they do not receive any financial benefit from reducing the amount of waste they produce at the individual household level, even though all households would benefit if they collectively reduced waste. Similarly, while landlords may incorporate the cost of the levy in rental charges, this is not seen by tenants.*[18]

In relation to industry, there is little published documentation identified for this study on the impact of the waste levy on NSW industry although there is anecdotal evidence that industries which have the potential to generate or manage large amounts of waste materials are choosing to establish in other Australian jurisdictions.[19] The Australian Sustainable Business Group (ASBG) submission on the Load Based Licensing review also noted that fees received by the NSW EPA declined from $70 million in 2003 to $20.85 million in 2014.[20] The ASBG submission concludes that "*these reductions are due to, in the vast majority of cases to industry closure. Only a small amount is due to actual reductions in real emissions.*"

The 2012 KPMG report also identifies price elasticity of landfill demand as the key determinant of the effectiveness of the levy. As part of the KPMG waste levy review in 2012, metal recyclers presented information showing minimal improvement in recovery rates during a period of escalating levy (Figure 5). This sector showed virtually inelastic demand for landfill in response to the increased cost of landfill at a facility level.

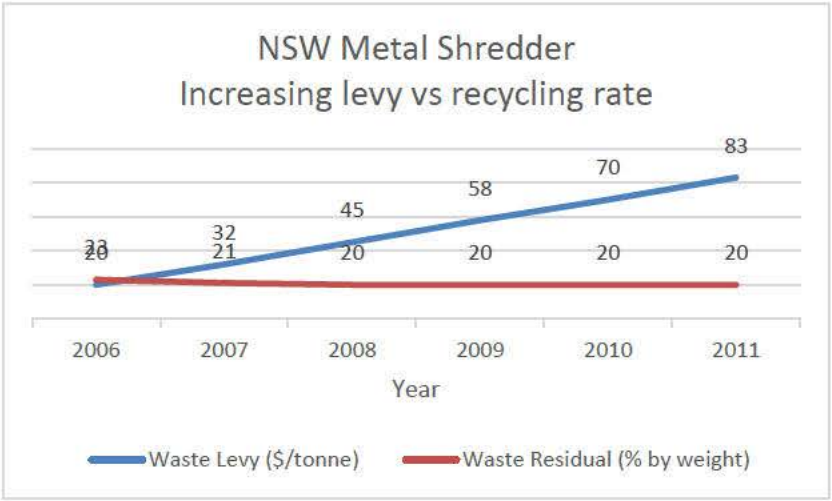

Figure 5: Residual waste vs waste levy for a NSW metal shredder operator, 2006-2011.[21]

[18] pg18 in KPMG Review of the NSW Waste and Environment Levy – Final Report – June 2012. Retrieved from: www.epa.nsw.gov.au/resources/wasteregulation/waste-levy-review-report.pdf
[19] Australian Sustainable Business Group – Policy Reference Group.
[20] Australian Sustainable Business Group's Submission on the Review of the Load-Based Licensing Scheme December 2016. Retrieved from: http://www.epa.nsw.gov.au/-/media/8F161084DDE342C9963BB6EDBE01EB46.ashx?la=en
[21] Data presented at the AEBN Waste Levy Conference, March 2012.

The Waste Levy as a policy tool

This section examines the waste policy implications of the NSW Waste Levy from a best-practice perspective, looking at its introduction in NSW and its current application.

Implementation of the NSW Waste Levy

Evaluation of government policy can very much a matter of opinion and the perspective of the reader. Taxing an environmental "bad" such as waste is on principal a good policy position to take in capturing the environmental externalities associated with waste disposal (i.e. the loss of the resource to the system, the environmental impacts associated with disposal, aesthetic impacts etc). This sort of taxation is very much in the same category as taxation on cigarettes which are known to have health risks and result in an externality cost on other taxpayers as the smoker enters the health system.

Unlike the consequence of over-taxing cigarettes which results in illegal importation of cigarettes, the over-taxing of landfill disposal can result in far greater environmental impacts that the levy was originally attempting to ameliorate in the form of:

- illegal waste dumping/landfilling;
- transport of waste between jurisdictions.

The levy, as outlined in the previous section, can also act as a disincentive for a recycling business to establish or remain within the jurisdiction. As an end-of-pipe market mechanism, the levy appears to be a very blunt policy tool to influence market behaviour towards the goal of waste minimisation and risks a number of unwanted consequences.

One of the submissions to the 2006 Productivity Commission Inquiry into a National Waste Management Policy Framework was prepared by BDA Group on behalf of the Business Roundtable on Sustainable Development.[22] This report was critical of the NSW Government for the lack of economic rigour accompanying the introduction of the enabling legislation[23] as well as identifying key consequences likely to be associated with the increases in the levy rate. Specifically, the BDA report critiques specific aspects of the Regulatory Impact Statement (2005 RIS) accompanying the enabling legislation under the following headings.[24]

[22] Business Roundtable on Sustainable Development submission to the Productivity Commissions inquiry into a national waste management policy framework. Retrieved from: https://www.pc.gov.au/__data/assets/pdf_file/0020/22349/sub070.pdf

[23] Protection of the Environment Operations (Waste) Regulation 2005. Retrieved from: https://www.legislation.nsw.gov.au/inforce/15937bef-eef8-c8ed-d2c1-dd4c148cc79c/2005-497.pdf

[24] NSW Department of Environment and Conservation, 2005, Protection of the Environment Operations (Waste) regulation 2005: Regulatory Impact Statement. (unavailable online).

Risk of illegal dumping recognised

The 2005 RIS noted that local councils spent approximately $10 million a year on measures to address illegal dumping and landfilling. In addition, the DEC also spent $1,185,000 in 2003–04 on measures such as enforcement campaigns, RID Squads and clean-up of littering and dumping sites. Other agencies also incurred costs in cleaning up dumped waste on their premises (BDA pg 41-42).

In 2015, the NSW EPA Illegal Dumping Research Report[25] enabled calculation of a conservative estimate for illegal dumping expenditure by local government in the order of $20-$30 million per annum.[26] At the same time the NSW EPA program expenditure to tackle illegal dumping announced in 2013 identified $58 million over 5 years for illegal dumping initiatives in NSW[27].

Risk of system leakages ignored

The 2005 RIS assumed that the upstream benefits are realised merely because a tonne of waste is diverted from landfill but ignored the many leakages and substitution possibilities in supply chains that mean resource use patterns may change very little. (BDA pg 42). More recently, NSW has experienced system leakages on an unprecedented scale with waste transfers to Queensland that are likely to now to have exceeded 500,000 tonnes per annum and an unquantified amount of other waste materials exported to other jurisdictions or sent internationally.

Duplicate regulatory mechanism ignored

The 2005 RIS failed to recognise that many upstream externalities are already subject to 'correcting' interventions such as the NSW Load Based Licensing Scheme. In NSW, industrial premises pay pollution discharge fees which the RIS ignored in postulating upstream benefits (BDA pg 42). The Australian Sustainable Business Group estimated Load Based Licensing fees in 2003 were approximately $70 million which were completely ignored in the original analysis.[28]

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[25] Illegal Dumping Research Report, NSW EPA, 2015. Retrieved from: http://www.epa.nsw.gov.au/-/media/A55297130BE045D48FDC7AC5B28D30C9.ashx?la=en

[26] This figure is derived from the following statistics provided in the report: 10% of NSW Local Government Areas spend more than $500,000 per annum on illegal dumping while a further 30% spent up to $50,000 per annum on illegal dumping/landfilling. A total of 61% of LGAs were also spending up to $250,000 per annum on clean-up contractors. The total number of Council areas in NSW is currently reported to be 129 on the Department of Local Governments website.

[27] NSW EPA Waste Less, Recycle More. A five-year $465.7 million Waste and Resource Recovery Initiative, February 2013.

[28] Australian Sustainable Business Group's Submission on the Review of the Load-Based Licensing Scheme December 2016. Retrieved from: http://www.epa.nsw.gov.au/-/media/8F161084DDE342C9963BB6EDBE01EB46.ashx?la=en

Shifting policy objectives

The NSW Government's policy position has evolved from an original environmental objective to one that has a revenue-orientated objective with a lower environmental priority. [29] The evolution of the Government's environmental objectives from the mid-1990s to the mid-2000s can be characterised as going through three phases:

- Phase 1 policy objective (1995-2000): internalising 'downstream' landfill externalities (levy rates capturing externality cost of up to $25 per tonne);

- Phase 2 policy objective (2001-2005): promoting 'upstream' benefits, with revenue streams assisting waste program funding (levy rates effective in maximising the C&D recycling rates of up to $60 per tonne);

- Phase 3 policy objective (2005 onward) - general State revenue generation, with any loss in revenues from lower landfill disposal offset by potential upstream benefits (levy rates in excess of $60 per tonne are taxation for the purpose of general revenue).

Waste levy income has grown from $76 million in the 2001 Budget[30] to $704 million in the most recent 2017-18 budget. We can therefore conclude that the third objective of general State revenue has been well and truly realised.

Inconsistent levy application

The enacting legislation for the waste levy (the *Protection of the Environment Operations [Waste] Regulation 2014*) [31] contains a number of anomalies that sees it inconsistently applied across industry. This reinforces the impression that the implementation of this particular policy has not been consistent with NSW Government's taxation principals of *efficiency, equity, simplicity, sustainability and competitive neutrality.*[32] A number of industrial activities are exempt from the levy [33] while the three metal recyclers currently enjoy a 50% reduction on the current levy rate for no

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[29] Business Roundtable on Sustainable Development submission to the Productivity Commissions inquiry into a national waste management policy framework. Retrieved from: https://www.pc.gov.au/__data/assets/pdf_file/0020/22349/sub070.pdf

[30] Waste Management in New South Wales: A Review, 2001. Retrieved from: https://www.parliament.nsw.gov.au/researchpapers/Pages/waste-management-in-new-south-wales-a-review.aspx

[31] Retrieved from http://www.austlii.edu.au/cgi-bin/viewdoc/au/legis/nsw/consol_reg/poteor2014609/s12.html?context=1;query=metal

[32] IPART 2016 Review of the Local Government Rating System. Retrieved from: https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-section-9-legislative-review-of-the-local-government-rating-system/draft_report_-_review_of_the_local_government_rating_system_-_august_2016.pdf

[33] "prescribed scheduled activity" means a scheduled activity listed in any of the following provisions of Schedule 1 to the Act:
(a) clause 7 (Ceramic works),
(b) clause 12 (Composting),
(c) clause 14 (Container reconditioning),

apparent reason other than they generate significant quantities of residual waste that are particularly difficult to reprocess further.

Conclusion and Recommendations

The current push by the NSW EPA and the Minister seeking some degree of harmonisation of levy rates between jurisdictions to limit interstate waste transfers is commendable, however the explicit presumption of NSW is that other jurisdictions need to increase their levy rates while NSW maintains its rate. This approach was recently reinforced the NSW Minister for Environment who was quoted as saying *"All she* [the Queensland Premier] *has to do is reintroduce the waste levy and this issue would go away*".[34] This position by the Minister is not fair given that this is NSW waste, traveling north primarily on NSW roads and is a result of NSW legislation that has been poorly conceived and implemented.

We consider that most households in the Greater Sydney Region would be surprised to find some 10-20% of their Council rates were going directly into consolidated revenue which has been estimate at between $130-$140 per household per year. Any jurisdiction adopting such a tax collection system should do so with proper public consultation and at a minimum, require local governments to introduce weight-based charging to permit its ratepayers to reduce their rate liability. This is based on the user-pays principle where the more a household throws out, the more they contribute to disposal charges and the state government tax.

Should the Commonwealth seek to assist in the harmonisation of state-based levy rates, this report recommends that:

- NSW lower its waste levy to a level which will discourage any further transfers to Queensland, irrespective of any decision by the Queensland government;[35]
- where other jurisdictions are considering implementing or increasing waste levies in excess of $60 per tonne:
    - they are transparent with their communities that the purpose of the levy is revenue generation in addition to promoting recycling and capturing externality costs;
    - that they closely monitor the impact of the levy on materials flows and design the scheme to reduce commercial risks for legitimate material recyclers.

(d) clause 15 (Contaminated soil treatment),
(e) clause 30 (Paper or pulp production).

[34]Environment Minister Gabrielle Upton, 9 August 2017. http://www.abc.net.au/news/2017-08-09/waste-dumping-allegations-referred-to-icac/8790414

[35] Industry discussions have centred around a figure of $80 per tonne would eliminate further transfers to Queensland from NSW.

Appendix A: Qualification of GCS Consulting

Gregor Riese is the principal consultant with GCS Consulting with over 20 years work experience in the Australian waste and recycling sectors including:

- 3 years with the waste policy division of the NSW EPA (Senior Policy Officer 1997-2000)
- 5 years with NSW Waste Management Authority (Regulatory Manager 2001-2005)
- 10 years with in the metal recycling business (Smorgon Steel then OneSteel Recycling 2006-2016).

He was awarded a Master of Public Policy from Sydney University in 2001. GCS Consulting has no former or current commercial interest in the NSW Resource Recovery Fund grants or subsidies.

GCS Consulting expresses its appreciation for the work of Andrew Doig of the Australian Sustainable Business Group supporting and sponsoring policy discussions concerning waste management and environmental protection.

Appendix B: Inquiry Terms of Reference

The waste and recycling industry in Australia, with particular reference to:

- the quantity of solid waste generated and the rate of diversion of solid waste for recycling;
- the accreditation and management of landfills;
- the extent of illegal landfilling;
- the role of landfill levies in determining the end destination of material, including the hypothecation of collected levies for enforcement and waste diversion purposes;
- the role of different incentives and collection methods in determining the quality and quantity of material collected for recycling;
- the destination of material collected for recycling, including the extent of material reprocessing and the stockpiling of collected material;
- the current economic conditions in the industry, including the market for material collected for recycling;
- the transportation of solid waste across state boundaries;
- the role of the Australian Government in providing a coherent, efficient and environmentally responsible approach to solid waste management, including by facilitating a federal approach; and
- any other related matters.