RE: Draft Waste Action Plan

The Tasmanian Chapter of the Australian Institute of Architects (the Institute) has reviewed the Tasmanian Government’s Draft Waste Action Plan and would like to make the following comments, specifically around the areas of construction and demolition waste, as relating to the practice of architecture and the built environment.

Construction and demolition (C&D) waste is mentioned on page 10 and recognised as having a significantly lower than the overall average material recovery rate for Tasmania. However, C&D is not specifically addressed in the list of waste reduction and resource recovery targets on p.10. We presume C&D is included in the target ‘Achieve a 40% average recovery rate from all waste streams by 2025 and 80% by 2030’.

Globally, the construction industry plays a huge part in our energy and resource consumption, environmental depletion and waste, accounting for nearly 40% of greenhouse gas (CO2) emissions. The Australian Institute of Architects has recently endorsed the ‘Architects Declare’ global movement, declaring a climate and biodiversity emergency. This declaration includes a commitment to taking action for positive change in our industry and community.

We recognise that the move to a Circular Economy is a huge undertaking and acknowledge that change will need to occur across the different industries and sectors. As such, we encourage the Tasmanian Government to create a policy dedicated to addressing the construction and demolition waste stream. We will be happy to provide input on this, drawing from innovative national and international precedents.

Initiatives may include:

- collecting data on the current C&D waste stream;
- setting targets that meet, if not exceed, those of other Australian states so that Tasmania can be seen as a leader;
- encouraging and supporting the adaption of existing buildings instead of demolishing and building new;
targeting the recovery of up to 95% of existing building materials through a process of ‘deconstruction’ rather than ‘demolition’, through services such as the Resource Work Cooperative; materials include metal, bricks, doors, windows, timber, roofing, electrical fittings;

- incentivising private developer’s adoption of the above initiatives in both demolition and construction;

- establishing a centralised data bank with mandatory requirement for government projects including buildings marked for demolition or adaptive re-use to audit, report and demolish in the appropriate manner any materials for acquisition and re-use by others where not utilised on the project.

The Institute would like to thank the Tasmanian Government for the opportunity to provide comment on this Draft, and we would be happy to discuss any issues mentioned in further detail if required.

Yours sincerely,

Jennifer Nichols
Tasmanian Executive Director,
Australian Institute of Architects

Shamus Mulcahy
Tasmanian President,
Australian Institute of Architects

The Australian Institute of Architects is the peak body for the architectural profession, representing 11,500 members across Australia and overseas. The Institute actively works to improve the quality of our built environment by promoting quality, responsible and sustainable design. Learn more about the Institute, log on to www.architecture.com.au.
Tasmanian Draft Waste Action Plan Consultation Draft June 2019

Submission by the Australian Packaging Covenant Organisation (APCO)

Introduction

The Australian Packaging Covenant Organisation (APCO) welcomes the Tasmanian Government’s commitment to working with stakeholders to improve waste management and resource recovery in Tasmania, and the opportunity to provide a submission on the Draft Waste Action Plan.

APCO is a not-for-profit company established to administer the Australian Packaging Covenant on behalf of the Australian, State and Territory Governments, and its industry signatories. The Australian Packaging Covenant is part of a co-regulatory product stewardship framework established under the National Environment Protection Council Act 1994 and the National Environment Protection (Used Packaging Materials) Measure 2011 (the NEPM) to reduce the harmful impact of packaging on the Australian environment.

As noted in the Draft Waste Action Plan, in April 2018 Australia’s Environment Ministers announced a historic target to make 100 percent of packaging in Australia reusable, recyclable or compostable by 2025 or earlier. Ministers also committed governments to working with APCO to achieve this. Industry has taken this commitment further through the adoption of additional 2025 National Packaging Targets. The four targets, to be achieved by 2025, are:

- 100% of packaging to be reusable, recyclable or compostable
- 70% of plastic packaging recycled or composted
- 30% average recycled content across all packaging
- Phase out problematic and unnecessary single-use plastic packaging through redesign, innovation or alternative delivery methods.

Each target will cover all packaging made, used or sold in Australia, including business-to-business and imported packaging.

The delivery of the 2025 National Packaging Targets requires the collaboration of many stakeholders and has a range of interdependencies. The role of APCO, as the administrator of the Australian Packaging Covenant, can be summarised as:

- Fostering and strengthening whole-of-supply chain collaboration, to deliver better outcomes through shared knowledge, expertise, networks and actions
- Undertaking and supporting work to identify and address technical and knowledge barriers
• Empowering, enabling and influencing individual companies and industry sectors to do better than they otherwise would.

APCO is confident that our work towards achieving the 2025 National Packaging Targets will enable APCO and its members to play a significant role in supporting the Tasmanian Government’s waste management and circular economy objectives outlined in the Draft Waste Action Plan.

The remainder of this submission will address the questions posed in the Draft Waste Action Plan.

1. Moving to a Circular Economy: Government Priorities and Key Sectors

What are the key opportunities for reducing waste, developing our resource recovery industry and shifting to a Circular Economy?

In relation to packaging, APCO welcomes a number of the focus areas highlighted in the draft action plan, including:

• Tourism and the development of the Tasmanian brand:
  o Tasmania has an opportunity to lead the transition to more sustainable packaging, for example through the phase-out of problematic and unnecessary single use plastic packaging and the use and end-of-life recovery of high-performing, sustainable food service packaging.
  o APCO notes the consideration being given to these opportunities by organisations including the University of Tasmania and Hobart City Council, and the potential of this work to contribute to national progress on these issues.

• Regional investment and job creation:
  o The recovery and local reuse of agricultural plastics by Environex highlights the potential for local businesses to be built around reuse of waste streams in Tasmania.
  o Like the RedCycle program nationally, this initiative also shows the benefit of establishing markets for products with recycled content, driven by sustainable procurement policies and practices.
  o Attention could be given to identifying further opportunities where there are significant waste streams and the opportunity to collect and process them.
  o APCO would welcome the opportunity to support with the Tasmanian Government in this effort.

2. Governance

What are the primary waste management and resource recovery roles and responsibilities of governments, industry and the wider community?

No single organisation or stakeholder group holds all of the levers necessary to deliver a circular economy. Rather, all stakeholder groups need to work together in a coordinated way.

Figure 1 below, taken from APCO’s Strategic Plan 2017-2022, illustrates the importance of all stakeholders working together, in relation to the packaging supply chain. It is necessary to recognise that APCO does not hold all the levers needed to meet the 2025 Targets. Rather, APCO has a coordinating, strategy-setting and administration role to drive collaboration throughout the supply chain between all three tiers of government, APCO’s Members, the waste and recycling sector and
other stakeholders. The diagram sets out an overview of some of the areas of influence of the key six stakeholder groups: APCO, APCO’s Members, local government, state government, federal government, and the recycling industry.

Figure 1: Sustainable Packaging Pathway and Stakeholder Activities.

3. Data, Innovation Networks and Resource Recovery Targets

**What are your key data and information needs on waste and resource recovery?**

As part of its work in delivering the 2025 National Packaging Targets, APCO is developing a range of waste and resource recovery data and information in relation to packaging materials. The APCO Packaging Material Flow Analysis 2018 (available at [https://www.packagingcovenant.org.au/documents/item/2171](https://www.packagingcovenant.org.au/documents/item/2171)) combines data from government, industry and academic sources, expert interviews and peer review, to help build understanding of the lifecycle of Australia’s post-consumer packaging. APCO is building on this knowledge through several projects that will establish more granular and robust data on packaging consumption and recycling, and collection, sorting and recycling capacity, as well as economic analysis of a range of potential strategies and pathways. This data and research will all be made available to the Tasmanian Government.

A further area where greater data and information will be needed to underpin outcomes on waste and resource recovery is in relation to the traceability and transparency of waste as it moves through the value chain from collection to certified secondary materials. In order to build public and
business confidence in the resource recovery industry, and to enable businesses to utilise recycled materials in their supply chains, robust processes will need to be put in place to provide assurance with regard to:

- Recycling of waste, and downstream destinations for recycling and recyclate
- Provenance of secondary materials, including assurance of recycled content and processes (e.g. with regard to modern slavery).

**How can we best use existing research and innovation networks, or establish new networks, to help address our waste and resource recovery challenges?**

As a participating jurisdiction in the Australian Packaging Covenant, the Tasmanian Government has access to the resources and networks established by APCO.

For example, throughout 2018 APCO facilitated a series of five, year-long industry working groups attended by more than 80 industry members from across the value chain and government to explore solutions to problematic packaging types (including glass, polymer coated paperboard (PCPB), soft plastics, biodegradable and compostable packaging, and expanded polystyrene). The reports are available at https://www.packagingcovenant.org.au/news/2018-working-groups-key-findings-now-available.

In 2019 APCO is co-ordinating 24 projects that are building on the findings of APCO’s Material Flow Analysis and the 2018 Working Groups. These include further detailed research into packaging consumption and recycling to establish baselines for the 2025 targets, developing targeted design resources to improve packaging recyclability, and developing strategies to address problematic packaging.

A number of these projects will come to fruition between September and December 2019, including substantial data and analysis projects. APCO will provide these reports to the Tasmanian Government as they become available. We are also planning out APCO’s work program for 2020 and beyond, and welcome the Tasmanian Government’s engagement in this work through the Government Officials Group and other avenues.

More broadly, we encourage the Tasmanian Government to seek opportunities to work with other states and territories, both to leverage the efforts of national networks and to mitigate the risk of incompatible approaches between jurisdictions impacting adversely on the functioning of national markets and supply chains. As a national body accountable to all governments, APCO is very willing to facilitate national dialogue in relation to packaging, for example by convening a national workshop on single use plastic packaging in Adelaide in October 2019.

**What are your views and suggestions on the targets presented above?**

APCO welcomes the Tasmanian Government’s intention to establish ambitious targets, and encourages these to be consistent with national targets to be established through the National Waste Policy Action Plan, including the 2025 National Packaging Targets. APCO also encourages the Tasmanian Government to consider where one or more targets relating to procurement of recycled content would help to drive the transition to a circular economy in Tasmania.
Which waste streams would provide the best opportunities to make some early progress on the proposed targets?

APCO is currently undertaking detailed analysis of material flows and transition pathways for packaging materials and will be able to provide a detailed response to this question by the end of 2019.

4. Infrastructure Planning

What do you consider are the highest priority infrastructure requirements for waste management and resource recovery in Tasmania?

In relation to packaging, APCO encourages the Tasmanian Government to consider investment in collection, sortation and processing infrastructure for plastics. Establishing systems for collection and processing of food and other organic waste may also support a transition to compostable food service packaging where appropriate.

5. Support Resource Recovery across Industry

How can governments, businesses and the community best support the development of the resource recovery industry in Tasmania?

APCO encourages consideration of the following strategies:

- Taking a circular economic approach that incentivises:
  - developing and applying standards and business models that increase the lifespan of products and infrastructure
  - use of secondary materials in construction and manufacturing
  - procurement of recycled materials by governments, business and consumers.

- Specifically with regard to packaging, the shift to a circular economy for packaging includes supporting the phase out of problematic and unnecessary single use plastic packaging, including by:
  - Shifting to reuse models where possible
  - Redesigning packaging to eliminate problematic characteristics or components, including materials and formats that present challenges for collection, sortation and processing by the resource recovery industry.

- A major education campaign is needed to shift public thinking on waste, and to encourage businesses to make the shift to more circular approaches, including with regard to:
  - Recycling behaviour – this should focus on the Australasian Recycling Label, as the only national, evidence-based recycling labelling program
  - Acceptance and uptake of reuse models – we have already seen behaviour changes in relation to coffee cups (e.g. KeepCup) and light weight supermarket shopping bags.
6. Education and Community Engagement

Are you aware of any existing education materials that could be adapted for the Tasmanian context? (Please provide examples).

To help achieve the 2025 National Packaging Targets, APCO has in place a number of education and capability building resources and initiatives, that are available and relevant to Tasmanian consumers and businesses.

A key resource is the Australasian Recycling Label Program (ARL). The ARL is an evidence based, nationwide labelling scheme that provides clear, consistent on-pack recycling information to inform consumers of the correct disposal method and designed to be used in conjunction with the Packaging Recyclability Evaluation Portal (PREP). PREP is a tool for brand owners or packaging designers and manufacturers to assess whether an item of packaging could be classified as 'recyclable' in Australia through kerbside collection. PREP considers how widespread the collection services are for the item, as well as how the item will behave at the Materials Recovery Facility (MRF) and processing facilities. It produces a report for each project that is assessed.

Following the analysis of packaging through PREP, the packaging recyclability assessment informs the use of the corresponding ARL logo on-pack. The ARL provides clear instructions for consumers on whether or not the specific packaging item is recyclable through kerbside or other recycling systems (e.g. the RedCycle program). A range of ARL information kits are available for specific stakeholder groups, these kits provide the key facts regarding the program, social media information and directions on how stakeholders can engage with the program.

Capability amongst APCO’s Members is also being developed through APCO’s Packaging Sustainability Frameworks (PSF). The PSF aims to provide a consistent and transparent framework for assessing and tracking packaging sustainability. The Framework consists of thirteen independent criteria in three categories: Leadership, Outcomes and Operations.

The performance and alignment of APCO Members with the PSF is measured through an annual reporting process called the ART (Annual Reporting Tool), a centralised online resource for self-assessment that promotes continuous improvement and capacity-building. The ART monitors and tracks Member progress towards packaging sustainability over time. It allows Members to:

- Access information on the Packaging Sustainability Framework, the basis for evaluation
- Complete and submit annual reports
- Access reporting scoring and feedback
- Monitor and benchmark Members’ performance against other APCO Members
- Submit 1 to 3 year customised Member action plans
- Review and track packaging sustainability performance over time.
7. State and National Policy and Regulatory settings

Which policy or regulatory settings will help us achieve the targets in this Plan and help stimulate the resource recovery industry?

APCO considers that the shift to a circular economy will be most effective if the policy is developed through a whole-of-government process, and whole-of-supply chain engagement with industry. APCO considers that the Australian Packaging Covenant is an effective measure to drive the shift to a circular economy for packaging, and would welcome the opportunity to speak with the Tasmanian Government about how we can work together to better support this work in Tasmania.

Specific measure that will help drive the transition include:

- Innovation support programs that go beyond provision of grant funding, to include longer-term support for networking and relationship building between government, industry and researchers
- Intensive engagement of industry and academic stakeholders in rapid co-design of policy and programs
- Establishing and supporting platforms for knowledge and information transfer, for example the Circular Economy Hub being developed by Planet Ark and APCO
- Strengthening measures and initiatives, e.g. product stewardship and extended producer responsibility schemes
- Reviewing and updating and establishing new standards & guidelines
- Financial and other support for supply chain transition.
Please find outlined below Plastic Free Launceston’s (a volunteer working group of Tamar NRM) submission to the Waste Draft Action Plan.

Thank you for the opportunity to provide some feedback and information which we hope will be useful.

6. Education and Community Engagement  (Page 16)

Local government in Tasmania has indicated that the State's kerbside recycling system is not as effective as other states, despite similar collection arrangements being in place. Community engagement and education can achieve waste avoidance, improve landfill diversion and change community behaviour. Boosting the resources available for community education will also help to decrease contamination levels in our kerbside recycling. The private sector also has a large role to play by marketing products with recycled content and making them attractive and acceptable to consumers. The introduction of a waste levy will require a program of targeted engagement with waste facility operators, businesses and non-government organisations, such as charities and the community.

ACTIONS

* Provide support to local government and the regional waste groups to continue their targeted education and grant programs for schools, businesses, householders and other stakeholders such as charitable recycling organisations.

What do you think?

* Are you aware of any existing education materials that could be adapted for the Tasmanian context? (Please provide examples).

Plastic Free Launceston (PFL)  https://www.facebook.com/plasticfreelaunceston is aware of the value of highly engaging educational programs suitable for delivering to schools, (aligned to the national curriculum) businesses and community-based groups. PFL has responded to meet the growing demand for information relating to reducing plastic pollution, particularly single use plastics.

Plastic Free Launceston, which commenced in March 2017, has been delivering workshops to complement the recycling education programs already being delivered by local Councils. Our point of difference to recycling education is our strong focus on messaging that supports a reduction in waste. This is being done by providing useful and practical information about
how to avoid or replace waste generating materials - the most obvious being single use plastics and disposable plastic items.

Plastic Free Launceston delivers community education through its workshops, presentations, information stalls and displays, as well as making use of social media and accessing local media agencies. Plastic Free July [https://www.plasticfreejuly.org](https://www.plasticfreejuly.org) is our busiest time and again this year we arranged for the broadcasting of plastic free tips by local school children. This successfully helped to increase the awareness and participation about this campaign in our community and it highlighted the local and global responses needed to plastic pollution. PFL delivers educational workshops to local schools, businesses, clubs and groups, as well as being at events such as World Wetlands Day, World Environment Day, The Peace Festival, The Children's University, Science Week, The Sustainability Expo, film screenings, markets, open days at UTAS, and conferences. This year we became the North East Hub for AUSMAP - a citizen science activity that identifies and maps the distribution of microplastics along Australian coastlines. [https://www.ausmap.org](https://www.ausmap.org). PFL constantly receive invitations to deliver talks/workshop and we believe the demand for this information is growing.

Many plastics, in particular single use plastics, can be avoided or replaced with more sustainable options. Since our conception in 2017, we have witnessed a significant increase in the community's awareness of the problem of waste, in particular, regarding single use plastics. The most common feedback we receive is the request for practical ways to reduce plastic waste and how to influence business to provide more waste-free product choices and a reduction in packaging.

Regarding educational materials, Plastic Free Launceston has been developing resources for local schools and community engagement events and businesses. We have made good use of resources from the Plastic Free July Campaign, as well as forming a strong relationship with Anthony Hill from Plastic Pollution Solutions. We have tapped into his plastic pollution education expertise and experience and this has been immense in informing our methodologies to successfully communicate this issue. [http://www.plasticpollutionsolutions.com.au/](http://www.plasticpollutionsolutions.com.au/)

Plastic Pollution Solutions (PPS) has been delivered into hundreds of communities in Australia and overseas. They partner and collaborate with many local councils, institutions and organisations to broaden their impact. PPS has a full program of creative and engaging presentations, activities and initiatives which are designed to shift the culture around single-use plastic and waste in schools and communities and have achieved fantastic outcomes over the past 10 years. We, and several other Tasmanian organisations and local councils, were fortunate to be able to gain the services of PPS in 2018/19 via community grants and sponsorship and were very happy with the outcomes and feedback. PPS has also created a range of Facilitator Courses which trains others to carry out the education program and to competently support the plastic/waste projects and initiatives implemented in schools and communities. This is, in our opinion, is the ideal solution and one we hope to tap into further in the future.

Unfortunately, the funding for such programs and training is quite limited, and it has been difficult to follow up and support the momentum created by our workshops and Plastic Pollution Solutions educational programs, even though the demand is there, not only from schools but also businesses.
Plastic Free Launceston is supportive of the State Governments Draft Waste Action Plan to boost funding for education and community engagement and is pleased to see avoidance has been identified as being an important part of this community waste management education and engagement. We are particularly pleased to see reference to the circular economy principles mentioned, as it is often referred to in our presentations as an important shift we believe needs to be adopted to benefit our economy, society and environment. We hope that some time in the future waste will only be referred to as a resource.

Submitted by Trish Haeusler on behalf of Plastic Free Launceston - A voluntary working group of Tamar NRM

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5. SUMMARY
1. AFGC OVERVIEW

The Australian Food and Grocery Council (AFGC) is the leading national organisation representing Australia’s food, drink and grocery manufacturing industry.

The membership of AFGC comprises more than 180 companies, subsidiaries and associates which constitutes in the order of 80 per cent of the gross dollar value of the processed food, beverage and grocery products sectors.

*Figure 1.1: Composition of the defined industry’s turnover ($2016-17) (million)*

With an annual turnover in the 2016-17 financial year of $131.3 billion, Australia’s food and grocery manufacturing industry makes a substantial contribution to the Australian economy and is vital to the nation’s future prosperity.

The diverse and sustainable industry is made up of over 36,086 businesses and accounts for over $72.5 billion of the nation’s international trade. These businesses range from some of the largest globally significant multinational companies to small and medium enterprises. Industry made $2.9 billion in capital investment in 2016-17 on research and development.

Food, beverage and grocery manufacturing together forms Australia’s largest manufacturing sector, representing 36 per cent of total manufacturing turnover in Australia.

The food and grocery manufacturing sector employs more than 324,450 Australians, representing almost 40 per cent of total manufacturing employment in Australia.

Many food manufacturing plants are located outside the metropolitan regions. The industry makes a large contribution to rural and regional Australia economies, with almost 42 per cent of the total persons employed being in rural and regional Australia.

It is essential to the economic and social development of Australia, and particularly rural and regional Australia, that the magnitude, significance and contribution of this industry is recognised and factored into the Government’s economic, industrial and trade policies.
2. AFGC COMMITMENTS

COMMITMENT TO DEVELOPING A CIRCULAR ECONOMY

The Australian Food and Grocery Council (AFGC) believes the grocery industry’s largest contribution to achieving the aims set out in the circular economy discussion paper are in the areas of food waste avoidance and packaging recycling within the municipal solid waste sector. To further increase diversion of waste from landfill, the AFGC will continue its collaborative working partnerships with the Commonwealth Department of Environment and Energy Food Waste Steering Committee, The Fight Food waste CRC, APCO and the Waste and Resource Recovery Industry with the aim of contributing to a local circular economy.

COMMITMENT TO THE NATIONAL PACKAGING TARGETS

In recent months, many of our members have made commitments to the National Packaging Targets as well as New Plastics Economy Global Commitment\(^1\) supporting the Ellen MacArthur Foundation (EMF) in collaboration with the United Nations Environment Programme. We believe this highlights the food and grocery industry’s commitment to increased recyclability and recycled content of packaging to stimulate a circular economy. While these larger companies take a global leadership position we understand that not all local manufacturers have the product mix, financial capability or resources to move as quickly and urge the Government to take this into consideration in the development of the circular economy policy.

COMMITMENT TO INCREASING LANDFILL DIVERSION

Further to supporting the development a circular economy, food and grocery manufacturers have implemented strategies and action plans to increase the landfill diversion at manufacturing facilities across the nation. The results published in manufacturer Annual Sustainability Reports highlight companies are achieving national diversion rates up to 96.5\(^2\) per cent, with many individual facilities achieving 100 per cent diversion in 2017.

COMMITMENT TO PRODUCT SAFETY AND REDUCING FOOD WASTE

Members advise that a barrier to increasing the recycled content of packaging to create demand in a circular economy is partially due to a current lack of availability of fit for purpose food grade recycled packaging material. As recycled material has been exported to Asia for processing over the last 10-20 years, there are few remaining local packaging companies providing material with high recycled content. In short, demand for fit for purpose recycled packaging material currently exceeds supply and we believe investment in local secondary recycling processing should be prioritised over EfW infrastructure to avoid recyclable material be used as fuel versus supplying a circular economy.

COMMITMENT TO LOCAL MANUFACTURING AND EMPLOYMENT

As local food and grocery manufacturers are facing unprecedented rising electricity, gas and trade spend costs in a market where it is difficult to pass on cost increases to the retail sector, our members caution the Government on implementing policies that may result in negative unintended consequences. Securing the supply and local processing of recyclable material will increase supply to meet demand and minimise prices for industry and the community in the long term.


\(^{2}\) Confidential information available upon request
3. EXECUTIVE SUMMARY

The AFGC appreciates the opportunity to provide input to the Tasmanian Draft Waste Action Plan (DWAP) and supports the long-term vision of reducing litter and waste, increasing recovery and recycling while creating a circular economy.

While food waste causes the greatest environmental impact and therefore remains the greatest environmental priority, the recent reduction of Asian recycling markets and the pending plastics, glass, rubber and paper COAG export bans are now urgent. Therefore the AFGC recommends that particular focus and investment be made on plastics secondary processing. Specifically, we believe that local processing infrastructure is required to produce food grade rPET, rHDPE and chemically recycle plastics #3-7 and/or increased usage of soft plastics and glass in roads. This investment would increase recycling rates, recycled content in packaging driving a circular economy.

Additionally, the AFGC recommends the Tasmanian Government consider introducing separate glass or paper kerbside collections. As glass fragments embed in paper and cardboard and MRF glass contains paper fragments, the quality of both commodities is downgraded and devalued. As together they account for 70-75% of commingled collection material, separating glass or paper will dramatically increase the quality and value of the material and reduce pressure to stockpile low grade materials. Again, this will increase recycling rates, enable increased recycled content in packaging and drive a circular economy.

To support the implementation of the above infrastructure the AFGC believes the following key enablers are required. Firstly, a whole of supply chain approach is required, with collaboration between all levels of government and jurisdictions, APCO, and all stakeholders along the packaging supply chain from packaging companies, brand owners, retailers, collectors, MRF’s to secondary processors. This will ensure that a coordinated action plan is agreed and supported by complementary investments in infrastructure, versus separate industries moving in opposing directions.

Secondly, minimum MRF standards are required to establish a national acceptable product list so that brand owners can confidently design products that can be recycled in all MRF’s. Similarly, minimum quality standards for sorted MRF material would produce consistently high quality outputs from all MRF’s for recycling in secondary processing facilities, again reducing stockpiling pressures.

Thirdly, community education to reduce contamination is essential; however, we recognise considerable behaviour change is required in this space. As brand owners have expertise in developing marketing and educational campaigns designed to change consumer behaviour we wish to collaborate and share our industries consumer behaviour expertise.

Finally, to provide industry with the confidence to invest in recycling infrastructure, the AFGC believes a waste to energy policy framework must be developed. Industry is unlikely to invest while there is risk waste to energy facilities may be built in the future consuming recycling feedstock. A waste to energy policy framework would eliminate this risk and provide industry with confidence to invest in recycling infrastructure.
4. RESPONSE TO DISCUSSION PAPER

4.1 MOVING TO A CIRCULAR ECONOMY

What are the key opportunities for reducing waste, developing our resource recovery industry and shifting to a circular economy?

The AFGC supports the development of a local circular economy and the implementation of the Prime Ministers and Premiers commitment to ban the export of unprocessed and contaminated post-consumer plastic, paper, rubber and glass. However, as stated in the Executive Summary, the AFGC understands that globally, food waste has a greater environmental impact and therefore should also be prioritised. Recent international studies indicate that if global food waste was a country it would consume:

- 32% of global food supply by weight, at a cost of circa A$1.8 trillion a year,
- 25% of all water used in agriculture,
- 1 in 4 of all food calories available on the planet

And it would be:
- The world’s third largest carbon emitter after the USA and China (generating 8% of total global greenhouse gas emissions)
- Utilising a cropland area the size of China.

The National Food Waste Baseline published by the Commonwealth Department of Environment and Energy in March 2019 reports that Australian food manufacturers currently have the highest landfill diversion of food waste of all supply chain stakeholders. As indicated below in diagram 4.11, food manufacturers are currently achieving landfill diversion rates of 95% versus 8% for Australian households. Therefore, the AFGC recommends prioritising the implementation of food waste collection and processing service for households.

Diagram 4.11 – Food waste landfill Diversion

<table>
<thead>
<tr>
<th>Prevention &amp; Reuse</th>
<th>Primary Producers</th>
<th>Manuf</th>
<th>Wholesale</th>
<th>Retail</th>
<th>Hospitality</th>
<th>Institutions</th>
<th>Households</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Total Prevention &amp; Reuse</td>
<td>348</td>
<td>3,456</td>
<td>26</td>
<td>152</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,982</td>
</tr>
<tr>
<td>Prevention &amp; Reuse Rate</td>
<td>13%</td>
<td>66%</td>
<td>49%</td>
<td>40%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>35%</td>
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<table>
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<tr>
<th>Recycling &amp; Recovery</th>
<th>Total Recovery &amp; Recycling</th>
<th>2,270</th>
<th>1,503</th>
<th>14</th>
<th>55</th>
<th>17</th>
<th>-</th>
<th>198</th>
<th>4,057</th>
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</thead>
<tbody>
<tr>
<td>Total Recovery &amp; Recycling Rate</td>
<td>87%</td>
<td>29%</td>
<td>26%</td>
<td>14%</td>
<td>5%</td>
<td>0%</td>
<td>8%</td>
<td>36%</td>
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</table>

<table>
<thead>
<tr>
<th>Food waste to landfill, sewer &amp; water</th>
<th>Total Food waste to landfill, sewer, etc</th>
<th>-</th>
<th>256</th>
<th>13</th>
<th>177</th>
<th>307</th>
<th>209</th>
<th>2,302</th>
<th>3,264</th>
</tr>
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<tbody>
<tr>
<td>Total Food waste to landfill, sewer, rate</td>
<td>0%</td>
<td>5%</td>
<td>25%</td>
<td>46%</td>
<td>95%</td>
<td>100%</td>
<td>92%</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>

| Total Generation | 2,618 | 5,215 | 53 | 384 | 324 | 209 | 2,500 | 11,303 |
| Total Diversion | 2,618 | 4,959 | 40 | 207 | 17 | - | 198 | 8,039 |
| Diversion rate | 100% | 95% | 75% | 54% | 5% | 0% | 8% | 71% |

3 Champions 12.3 – SDG Target 12.3 on Food Loss and Waste – 2018 Progress Report; and WRI Creating a Sustainable Food Future Instalment Paper 2: Reducing Food Loss and Waste (calorie statistic)
The commitment from food manufacturers to driving food waste diversion extends to increasing landfill diversion rates for packaging and to developing a circular economy. To assist in this process brand owners are currently reviewing and redesigning their product packaging in order to achieve the National Packaging Targets. However, several barriers have been identified that are currently impeding brand owners initiatives to achieve the national packaging targets and develop a circular economy. These include:

1. Mandating material specifications for:
   a. mandatory minimum list of items/materials that are accepted by all MRF’s nationally to provide a national standard brand owners can design to. This will increase recycling and lower contamination rates simultaneously.
   b. minimum quality standard of sorted materials to maximise the quality and value of recyclate produced and marketed by MRF’s

2. Source separate paper or glass to reduce cross contamination to maximise the quality and value of recyclate. For more details see section 4.4 below.

3. Due to the severe lack of availability invest in local plastic recycling processing for:
   a. Food grade rPET, and
   b. Food grade rHDPE, and
   c. Alternate recycling options including chemical recycling and/or civil construction uses for end of life plastics and plastics 3-7.

4. Mandatory traceability of all recyclate to enable brand owners to procure recycled packaging and be assured of:
   a. Recycled content percentages,
   b. Food grade processing standards to ensure food safety, food quality and allergy controls are not compromised, and
   c. Modern slavery being identified and eliminated in the supply chain

5. Phased incentives. Due to the current lack of availability of local packaging with high levels of recycled content, demand far exceeds supply, creating a sellers’ market with high pricing.

The high pricing creates a barrier for brand owners to purchase local materials, especially in the duopoly controlled retail market where price rises are difficult/rare to obtain. In the case where a price rise is accepted and it is passed onto the consumer as a higher retail price, this presents a barrier to consumer purchase, hence limiting product demand through the entire supply chain. In short, the imbalance between supply and demand is a critical barrier to developing a circular economy.

To overcome the barriers created by the supply and demand imbalance, the AFGC recommends the introduction of 3 phases of incentives:

   a. R&D incentives to assist brand owners covers costs incurred in redesigning packaging and/or packaging plant and equipment
   b. Capital incentives for brand owners who need to modify or replace existing packaging plant and equipment to facilitate a change in packaging materials.
   c. Price subsidies to reduce the inflated cost of recycled packaging to parity with standard packaging until supply and demand are in balance.

If the above barriers are addressed, the AGFC believes product manufacturers will achieve the national packaging targets and stimulate the demand necessary to driving a circular economy.
4.2 GOVERNANCE

What are the primary waste management and resource recovery roles and responsibilities of governments, industry and the wider community?

The AFGC supports the introduction of a waste levy in Tasmania to support the development of a circular economy, investment in waste and recycling infrastructure and collection services for community and industry.

The AFGC supports the statements made on page 8 of the consultation paper which states, The Tasmanian Government will also develop legislation that indicates how the revenue collected from the levy will be directed to waste management and resource recovery initiatives, while ensuring regional authorities continue to derive a revenue stream from the new levy.

The AFGC believes this is a critical step to ensure that the revenue generated by the levy is invested in infrastructure and services that achieve the original aims and objectives of the strategy rather than being incorporated into general revenue. The AFGC recommends that a governance committee is created to ensure the following:

1. **Clarity of strategic aims and objectives.** Establishing clarity of the aims and objectives will allow the governance committee to develop grant funding and expenditure criteria that are consistent with the overall strategic aims; ensuring revenue is only invested in projects aligned with the waste strategy.

2. **Funding process.** Subject to clarifying the aims of the strategy, the funding process can be established with approval criteria that align with the waste strategy aims and objectives.

3. **Transparency of expenditure.** Once funding is approved, transparent reporting of investment activity and associated diversion results will provide community confidence in the program.
4.3 DATA, INNOVATION NETWORKS AND RESOURCE RECOVERY TARGETS

What are your key data and information needs on waste and resource recovery?

Currently, there is limited traceability of post-consumer recyclate once it is exported. This provides a major barrier for brand owners to purchase recycled material due to risks of:

1. Child labour in foreign sorting facilities that contravene the Modern Slavery Act, and
2. Lack of confidence in reported recycled content percentages. Therefore, if brand owners are unable to trace and substantiate the recycled content claims reported against the National Packaging Targets or on pack, they will be unable to procure material.

As it is compulsory for brand owners to be able to trace food ingredients from the packet back to the source of supply (farm), tracing recyclate from MRF to new packet must also be compulsory.

Without this traceability, the local utilisation of recycled content will be stifled, hindering brand owner demand and ultimately the development of a circular economy.

Similarly, under the National Packaging Targets, the recycling rate of plastics must increase to 70%. Currently, only the recovery rate is recorded by the tonnage shipped locally or internationally from MRF’s. Once material is overseas there is currently no visibility and hence the recycling rate cannot be recorded. Once again, mandatory traceability through the supply chain will resolve this issue.

What are your views and suggestions on the targets presented above??

The AFGC supports the targets contained in the DWAP as they align with the National Waste Policy and the National Packaging Targets. In reference to the target, Work at the national level and with local government and businesses in Tasmania to help phase out problematic and unnecessary plastic by 2030, we wish to make two points:

1. The AFGC supports the Tasmanian Governments intention to collaborate with/work at the national level. As AFGC member companies operate national supply chains, we would encourage all jurisdictions to collaborate with the Commonwealth, APCO and Green Industries South Australia as they identify problematic and unnecessary products and environmentally beneficial substitutes, develop guidelines, policy and timelines to phase out problematic and unnecessary plastics. This will provide national consistency, facilitate economies of scale and enable expedited outcomes.

2. In the line with the above collaborative approach, the AFGC recommends the target be amended to Work at the national level and with local government and businesses in Tasmania to help phase out problematic and unnecessary single-use plastics by 2030. As Green Industries South Australia and APCO are both focusing solely on single-use plastics, this will promote a harmonised national outcome for industry and the community.
Furthermore, the AFGC is supportive of the plan to implement a Container Refund Scheme (CRS) and its impact on reducing litter and increasing the quality of recyclate. As the scheme will be funded by many of our members we wish to ensure the scheme is well run to reduce the cost to the community avoiding unnecessary inflation. From experience with other CRS across Australia, areas we believe could be reviewed to increase the positive community outcomes include:

a. Maximising collection point format choice for the community. E.g. Drop off centres, reverse vending machines, etc.

b. Separated collections of materials to maximise quality and value

c. Allowing the exportation of CRS material as it is sorted, uncontaminated, high quality, high value and manufacturing input ready.

d. Scheme harmonisation including:
   i. Aim of scheme – Litter or litter and recycling
   ii. Product range
   iii. Rules & regulations – First supplier definition, MRF protocols, Interstate Export protocols, Audit protocols
   iv. Payment options for consumers. Accounts and invoicing for brand owners
   v. Single national product database
   vi. Scheme management, auditing, accounting, invoicing
   vii. Marketing of collected materials
   viii. Scheme name to enable national promotion and advertising

e. Inclusion of a Retailer Protocol to ensure First Suppliers costs are recognised and reimbursed by retailers

Which waste streams would provide the best opportunities to make some early progress on the proposed targets?

As stated above, the AFGC believes the most important environmental priority is to reduce food waste across the supply chain. In terms of urgency however, the AFGC recommends plastics and glass be prioritised due to the current levels of stockpiling nationwide and the pending export bans.

The AFGC concurs with the Australian Council of Recyclers (ACOR) that glass fines, end of life plastics and problematic plastics could be used in bitumen, and in doing so, end the need for stockpiling. It must be stated however, that this initiative effectively ‘down-cycles’ the material and should only be pursued until other high value uses are available.
4.4 INFRASTRUCTURE PLANNING

What do you consider are the highest priority infrastructure requirements for waste management and resource recovery in Tasmania?

Based on their environment impacts, the AFGC recommends the following waste streams be prioritised:

1. Food waste collection and processing
2. Plastic Recycling
3. Source separation of glass and paper

1. Food waste collection and processing

The AFGC is a supportive member of the Commonwealth Department of Environment and Energy’s Food Waste Steering Committee and the Fight Food Waste CRC. Brand owners continue to support the reduction of food waste through donations to food charity, such as Foodbank, and through reducing waste during the manufacturing process. As detailed above in section 4.1, food manufacturers currently divert 95% of food waste from landfill.

The AFGC is currently working with alternate waste technology providers to investigate the application of technology, such as on-site anaerobic digesters, to further reduce food waste during the manufacturing process.

To reduce food waste in the home, packaging plays an important role by providing air and moisture barriers hence extending product shelf life. In many cases plastic packaging provides a environmentally superior packaging solution due to its durability, flexibility, barrier properties, light weight and low carbon footprint as highlighted in diagram 4.4.1 below, when disposed of responsibly and recycled.

Diagram 4.4.1: University of Cambridge - Manufacturing Energy Efficiency by Material Type

Therefore, due to the food waste benefits of plastic packaging, the AFGC recommends (1) the development of organics processing facilities, (2) the implementation of household and business food organics (FOGO) waste collection services, and (3) considering the construction of chemical recycling facilities to increase plastic recycling rates, increase recycled content and stimulate a plastics circular economy.
2. Increase local secondary plastic processing capacity

As stated above, brand owners are unable to buy local recycled content if it is not available locally, therefore, the AFGC believes the following secondary recycling infrastructure is required to firstly, increase recycling rates, and secondly, to increase recycled content in packaging:

a) Food grade rPET recycling infrastructure  
b) Food grade rHDPE recycling infrastructure  
c) Alternate waste technology for processing plastics #3-7  

According to the APCO Material Flow Analysis published in February 2019, the plastic packaging recycling rate is 32% with the plastics #3-7 representing the greatest opportunity for recycling at 48.5% of plastic packaging as summarised below in diagram 4.4.2:

![Diagram 4.4.2 Plastic packaging recycling rates](chart.png)

a) Food Grade rPET

The recent announcement by Coca Cola that it will introduce 100% recycled content on all products <600ml in their Coca Cola, Sprite, Fanta, Mount Franklin and Pump 750ml brands by the end of 2019 has signalled the opportunity to invest in increased local capacity to produce food grade rPET. It must however be stressed that the recycled material must food grade and fit for purpose to avoid any food safety, quality or food waste issues. This must be assessed on a case by case basis as chemical migration from packaging varies by food type.

b) rHDPE

There is also a growing need for infrastructure to produce recycled HDPE packaging. As recently announced, Unilever Australia will move to introduce Australian sourced post-consumer recycled plastic for bottles of locally made and well-known Home and Personal Care brands such as OMO, Dove, Surf, Sunsilk and TRESemmé.

Again, caution must be exercised due to concerns of taint from recycled HDPE contaminating food or grocery items causing food and product safety, quality or waste issues. Some brand owners are currently pursuing food safety testing or investigating the installation of multi-layered HPDE packaging where virgin material is used internally for product/food contact and recycled content is used on the outer layer. Due to the high cost of upgrading manufacturing production lines, government support in the form of grants would be required as detailed in section 5.1.
c) Alternate waste technology for processing plastics #3-7

Alternate waste technology for plastics #3-7 could include expanding the use of plastic in road making such as Downers recent trials in partnership with Close the Loop and REDcycle. Alternatively, consideration should be given to emerging chemical processing technologies that aim to convert end of life plastics to oil or oil based products such as diesel, petrol, kerosene, LPG or wax.

Several technologies exist, including gasification, pyrolysis or the Australian hydrothermal upgrading platform, the Cat-HTR™ innovation developed by Licella.

The benefit of chemical processing is that end of life plastics are returned to oil and can therefore be reprocessed into new virgin packaging without the concerns of chemical migration or taint that may cause health and safety issues for the community, creating a true plastics circular economy.

3. Source separated collections

The AFGC has recently been in discussions with secondary glass processors who have indicated that the recycled content of glass used in Australian furnaces is approximately half of that used in New Zealand furnaces due to the high levels of contamination found in Australian MRF cullet. It was stated that New Zealand furnaces contain approximately 60-75% recycled glass, versus Australian furnaces accepting approximately 20-30% recycled glass.

Further environmental benefits were also mentioned. Firstly, as recycled glass melts at a lower temperature energy use is reduced, and secondly, recycled glass produces lower carbon emissions during processing than virgin materials as carbon is only released when virgin materials are processed.

The reason New Zealand furnaces can process double the recycled content / tonne of Australia is due to the New Zealand source separating kerbside glass, and in doing so dramatically reducing the contamination. The AFGC therefore, supports trials such as Yarra City Council where glass is being collected separately, and the APCO Project 1.3: Economic analysis of alternative collection systems and end markets, assessing the economic sustainability of alternate collection systems.

The New Zealand experience not only reduces the contamination of glass but also eliminates glass fragments being embedded in paper and cardboard. The flow on impact is that the value of both glass and paper is increased exponentially. As glass and paper represent approximately 70-75% of MRF feedstock, the resultant increased income for MRF operators could be used to offset processing costs and ultimately reduce the cost burden on Councils and the ratepayer. Opinions from MRF operators and collectors have varied relating to whether it is preferable/optimal to collect glass separately or paper separately (as in Northern Beaches Councils in NSW). Views expressed inferred that it would be preferable to collect paper separately due to the expected increased value of paper exceeding the expected increased value of glass.
The AFGC also recommends consideration of the following kerbside collection frequencies to minimise the impact on collection costs. As source separation will not impact the generation rate of household materials, an additional paper or glass bin could be provided to households with it being collected on alternate monthly cycles to the commingled recycling bin as summarised in diagram 4 below:

Diagram 4.4.3: Recommended recycling bins collection schedule

<table>
<thead>
<tr>
<th>Stream</th>
<th>Current</th>
<th>Proposed short to medium term</th>
<th>Proposed long term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garbage</td>
<td>Weekly</td>
<td>Weekly</td>
<td>Fortnightly</td>
</tr>
<tr>
<td>Recycling – commingled</td>
<td>Fortnightly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling – paper or glass</td>
<td>Monthly</td>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td>Recycling – remaining materials</td>
<td>Monthly</td>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td>Organics</td>
<td>Fortnightly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Organics</td>
<td>Fortnightly</td>
<td>Fortnightly</td>
<td>Weekly</td>
</tr>
<tr>
<td><strong>Total Collections / Week</strong></td>
<td><strong>2 Bins</strong></td>
<td><strong>2 Bins</strong></td>
<td><strong>2 Bins</strong></td>
</tr>
</tbody>
</table>

From prior experience in the waste industry and discussions with Councils that have implemented weekly food organics collection services, the AFGC recommends food organics collections be implemented in a staged approach. The experience of many Councils implementing weekly food organics collections was a substantial rise in contamination of the food organics bin and/or the recycling bin in the week the general waste bin was not collected. Anecdotal evidence and bin audits suggest that food organics bins and recycling bins have been used for putrescible waste, such as nappies, on the week the general waste bin was not collected. This has the impact of further devaluing the materials contained in the food organics and recycling bins and ultimately increases costs to Councils and ratepayers. It is therefore recommended that food organics collections are implemented on a fortnightly basis (as offered in South Australia with resultant leading diversion rates) and transitioned to weekly collections over time once community has engaged with, and understands the benefits of food organics collections.

If the above collection frequency proved successful, the additional cost to Councils and ratepayers would be limited to the cost of a bin. At approximately $45.00 / bin over a 20 year period, this equates to $2.25 per property per annum, a cost surely to be offset by the increase in glass and paper values.

Should the New Zealand system of source separating glass be replicated in Australia, not only would the recycling rate of glass packaging double, the recycled content rate of packaging would also double over night stimulating a circular economy.
4.5 SUPPORT RESOURCE RECOVERY ACROSS INDUSTRY

How can governments, businesses and the community best support the development of the resource recovery industry in Tasmania?

To assist Tasmania develop a strong resource recovery culture, the AFGC recommends the following two enablers:

1. **Whole of supply chain collaboration**

   a. **Government**: State Government harmonisation to increase industry confidence, reduce barriers, provide scale and optimise triple bottom line outcomes, and

   b. **Industry**: All Industry sectors including packaging, brand owners, retailers, collectors, MRFs and secondary processors, to collaborate with APCO to develop evidence based implementation action plans to support the National Waste Policy targets and milestones and to deliver beneficial triple bottom line outcomes.

   The AFGC supports the current APCO projects which are assessing the current usage of packaging materials and mapping infrastructure capacity (Project 1.1 and 1.2) and assessing alternate collection systems and their impact on end markets (Project 1.3). Importantly, all developments in problematic packaging and processing need to be evaluated through a life cycle assessment (LCA) to ensure positive environmental outcomes (Project 9 and 11).

2. **Waste to energy**

   The AFGC believes a national waste to energy framework is necessary to provide industry with confidence to invest in waste and recycling infrastructure. With doubt and a lack of certainty surrounding the future of waste to energy in Australia, industry is uncertain of the supply of the future feedstock that is required to underpin long-term investment in recycling infrastructure. Clear guidelines confirming the waste to energy approved feedstocks would provide long-term certainty of recycling feedstock supply that is necessary for industry to invest in new recycling infrastructure.

4.6 EDUCATION AND COMMUNITY ENGAGEMENT

Are you aware of any existing education materials that could be adapted for the Tasmanian context? (Please provide examples).

1. **Build perceived value prior to driving behaviour change:**

   The AFGC believes it is necessary to move from binary messaging (good and bad actions) to aspirational messaging to build perceived value and drive community behaviour change. As understanding consumer behaviour is a core skillset of brand owner marketing departments, the sector understands that to change consumer or community behaviour, you must first create perceived value of an item or, in this case, recycling. Simply informing householders of ‘correct’ and ‘incorrect’ actions (correct product in correct bin) does not build the perceived value of recycling and food waste. The AFGC is keen to collaborate with local governments, Sustainability Victoria and the waste sector and share marketing expertise.
2. **National approach:**

The AFGC recommends a national education campaign, like *Life be in it*, or *Slip, slop, slap* is required to build the community’s perceived value of recycling and therefore drive community behaviour change. These campaigns were simple, consistent, memorable, and aspirational, hence increasing the community’s perceived value and driving behaviour change.

### 4.7 STATE AND NATIONAL POLICY AND REGULATORY SETTINGS

Which policy or regulatory settings will help us achieve the targets in this Plan and help stimulate the resource recovery industry?

As detailed above in section 4.1 the AFGC believes it is essential for the following regulatory and policy settings to be in place to stimulate demand necessary to develop a circular economy:

1. **Product standards:** By ensuring there are product quality and contamination standards and specifications at all stages around the circular economy, all stakeholders will have confidence to purchase material from others stakeholders without fear of product failure, contamination issues, food safety or allergy concerns.

2. **Recyclate Traceability:** Without traceability of recyclate, brand owners will not be able to purchase recycled packaging due to an inability to validate the recycled content claims made by the packaging supplier. Without this, it is illegal for brand owners to make recycled content claims and therefore consumer demand will be stifled. Furthermore, mandated modern slavery reporting requires traceability so that slavery can be identified and reported on in the supply chain.

3. **Phased incentives.** Due to the current lack of availability of local packaging with high levels of recycled content, demand far exceeds supply, creating a sellers’ market with high pricing. Again, this has the impact of stifling retailer and/or consumer demand.

To overcome the barriers created by the supply and demand imbalance, the AFGC recommends the introduction of 3 phases of incentives:

i. R&D incentives to assist brand owners covers costs incurred in redesigning packaging and/or packaging plant and equipment

ii. Capital incentives for brand owners who need to modify or replace existing packaging plant and equipment to facilitate a change in packaging materials.

iii. Price subsidies to reduce the inflated cost of recycled packaging to parity with standard packaging until supply and demand are in balance.
5. SUMMARY

The AFGC appreciates the opportunity to provide input to the Tasmanian Draft Waste Action Plan (DWAP) and supports the long-term vision of reducing litter and waste, increasing recovery and recycling while creating a circular economy.

As AFGC members support the development of a circular economy and have embraced the National Packaging Targets, securing high quality food grade recycled packaging must be prioritised over EfW. We believe an efficient and cost effective CDS supports a local circular economy by providing clean uncontaminated recyclate while simultaneously minimising litter. Similarly, phasing out problematic and unnecessary single use plastics will reduce the impact of irresponsible littering.

Thanks again for the opportunity to contribute and I look forward to collaborating the Department in the future. Should you require any additional information, please do not hesitate to contact me on [contact info] or [email]@afgc.org.au

Regards

Barry Cosier
Director, Sustainability
Tasmanian Government

*Draft Waste Action Plan*

Submission from RDA Tasmania

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Level of Which Submission Has Been Authorised: Chief Executive Officer
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Phone Number: 03 6334 9822
Date: 7 October 2019
Executive Summary

Thank you for the opportunity to make a submission to the Tasmanian Government’s Draft Waste Action Plan.

The Regional Development Australia (RDA) Tasmania Committee commends the Tasmanian Government on the development of Tasmania’s Waste Action Plan. The Draft Waste Action Plan aligns with the RDA Tasmania Regional Plan’s priorities to expand and grow economic activity and to increase collaboration and efficiencies between governments and with the private sector.

To understand the region, the RDA Tasmania Committee regularly speaks with industry and government representatives about where the next opportunities are going to come from. In recent years waste has become a focus and Tasmania has the potential to build on our brand of being clean and pristine by innovating and creating value from waste. Following the example of other regions around the world, there can be economic development and comparative advantage to our region from progressive policies and investment in waste reduction, re-use and innovation.

Regional Development Australia (RDA) Tasmania supports the broad framework for waste management and resource recovery outlined in the Draft Waste Action Plan and supports the proposed key actions and targets:

- Introduce a waste levy by 2021 to fund waste management and resource recovery activities;
- Introduce a Container Refund Scheme in Tasmania by the end of 2022;
- Ensure 100% of packaging is reusable, recyclable or compostable by 2025;
- Reduce waste generated in Tasmania by 5% per person by 2025 and 10% by 2030;
- Achieve a 40% average recovery rate from all waste streams by 2025 and 80% by 2030;
- Have the lowest incidence of littering in the country by 2023;
- Work at the national level and with local government and businesses in Tasmania to phase out problematic and unnecessary plastics by 2030; and
- Reduce the volume of organic waste sent to landfill by 25% by 2025 and 50% by 2030.

This submission has made recommendations in relation to the Focus Areas and Actions presented in the Consultation Draft (June 2019). The recommendations are intended to improve the efficacy of the Waste Action Plan, based on our understanding of place-based approaches to regional challenges. In consideration of these recommendations, the ideal goal for Tasmania is to maximise economic, social and environmental value from waste.

RDA Tasmania is happy to be contacted for more information or to be involved in further exploration of the issues.

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Summary of Recommendations:

RDA Tasmania offers the following recommendations regarding the Draft Waste Action Plan. The justification for these recommendations is presented in the main body of this submission:

- Outsource a professional education campaign with practical hints about waste and recycling, targeting work, school and home environments.

- Lead from within government by implementing departmental and whole-of-government Circular Economy projects.

- Link with Brand Tasmania and Tasmania’s image for the quiet pursuit of the extraordinary.

- Resource an Industry Liaison Officer to answer industry inquiries regarding waste, collecting information and facilitating connections across industry, the waste sector and government.

- Review progressive waste measures from other jurisdictions in Australia and overseas, apply them in Tasmania and support development of national standards.

- Develop a state-wide governance model with Local Government in line with the work currently being coordinated by LGAT with support from the EPA.

- Allow for input from the three tiers of government, industry and community through mechanisms such as a steering group and input from regional and sub-regional groups to feed into actions and decisions at a State level.

- Resource compliance and enforcement as part of the plan implementation.

- Set clear policy and regulations (with implementation lead time as necessary) to provide certainty for businesses to invest in changing processes or operations.

- Develop a standardised data management system to capture waste data.

- Map waste and residues, processing facilities and potential re-use locations to enable effective investment and economies of scale.

- Create a Waste and Resource Recovery Investment Plan that includes non-infrastructure investments required such as supply mapping and skill development.

- Standardise procedures for waste across the state, providing clear and easy to follow instructions for households and Industry and make community an integral part of designing education programs so collection is easier and more efficient.

- Introduce a grant program in place of the proposed loan scheme to support innovative projects for waste value-adding, re-use or recycling.
Regional Development Australia – Tasmania

RDA Tasmania Priorities

- Expand and grow economic activity in Tasmania
- Increase collaboration and efficiencies between federal, state and local government; and between government and the private sector
- Improve educational attainment and employability skills
- Address the needs of Tasmania’s changing demographic profile

Regional Development Australia (RDA) is a national network of committees fostering regional economic development. RDA Tasmania works with all three tiers of government, regional business and the wider community to boost the economic capability and performance of their region.

RDA Tasmania facilitates policies, programs and projects designed to strengthen human capital, productivity, infrastructure, access to markets, regional comparative advantage and business competitiveness; leading to increased economic activity and the creation of new jobs, along with improved standards of living and working conditions.

RDA Tasmania:

- Engages with stakeholders to identify initiatives that will deliver economic outcomes that grow and strengthen their communities.

- Builds partnerships, harnesses local leadership, marshals’ support, and encourages cooperation between stakeholders to drive regional priorities.

RDA Tasmania is able to work with all levels of government, industry and community to pursue challenges and opportunities relevant to our region.
Responses to actions under the 7 Focus Areas:

1. Moving to a Circular Economy: Government Priorities and Key Sectors

- What are the key opportunities for reducing waste, developing our resource recovery industry and shifting to a Circular Economy?

The National Waste Policy is based on circular economy principles and it is appropriate that the State and Local Government strategies and actions align with the seven priority themes or Focus Areas. The Draft Action Plan does not state clear actions under this first focus area; however, there are a number of opportunities that could support this including:

- Outsource a professional education campaign with practical hints about waste and recycling, targeting work, school and home environments.
- Lead from within government by implementing departmental and whole-of-government Circular Economy projects.
- Link with Brand Tasmania and Tasmania’s image for the quiet pursuit of the extraordinary
- Resource an Industry Liaison Officer to answer industry inquiries regarding waste, collecting information and facilitating connections across industry, the waste sector and government
- Review progressive waste measures from other jurisdictions in Australia and overseas, apply them in Tasmania and support development of national standards

2. Governance

- What are the primary waste management and resource recovery roles and responsibilities of governments, industry and the wider community?

RDA Tasmania strongly supports the development of a state-wide governance model with Local Government in line with the work currently being coordinated by LGAT with support from the EPA. The model has already gained support from local councils and positive feedback from the resource recovery industry.

- Develop a state-wide governance model with Local Government in line with the work currently being coordinated by LGAT with support from the EPA.

The Tasmanian Government has a number of existing structures for enabling industry and community input into policy development and implementation. A Circular Economy equivalent of government and partner coalitions like B4 Early Years, Tourism Industry Council Tasmania, 26TEN or the Premier’s Health and Wellbeing Council could be established. Implementation could
include an approach like State Growth’s Trade Strategy which focuses on the Tasmanian Government’s role in achieving trade targets.

RDA Tasmania currently Chairs the Circular Economy Industry Network in the Huon Valley and supports the Tasmanian Food Cluster initiative. Our experience is that business and industry are already investing and changing in response to consumer demand for more sustainable production and packaging.

- Allow for input from the three tiers of government, industry and community through mechanisms such as a steering group and input from regional and sub-regional groups to feed into actions and decisions at a State level

Another role for State Government is to set clear policy and regulations (with implementation lead time as necessary) to provide certainty for businesses to invest in changing processes or operations. For instance, a ban on unnecessary plastics or non-compostable packaging would provide a structure within which the business can source alternative products and innovate on process change or solutions. If the change is not regulated, individual businesses face the risk of changing, while their competitors chose not to. Regulatory certainty creates a common playing field for all.

RDA Tasmania considers it very important that effective compliance and enforcement is resourced as part of this plan implementation. The introduction of a waste levy and actions to phase out unnecessary plastics will not only need to be measured but also monitored and enforced to be successful.

- Resourcing of compliance as part of the plan implementation
- Set clear policy and regulations (with implementation lead time as necessary) to provide certainty for businesses to invest in changing processes or operations

3. Data, Innovation Networks and Resource Recovery Targets

- **What are your key data and information needs on waste and resource recovery?**

The establishment of a standardised data management system to capture waste data is strongly supported. There will be challenges in gaining data from non-regulated or informal waste and recycling treatment and on issues such as littering. State Government will require a collaborative relationship with local councils who are responsible for waste collection services, landfill and recycling facilities.

- Develop a standardised data management system to capture waste data

RDA Tasmania strongly supports the mapping of current waste and residues; processing facilities and potential re-use locations to enable effective investment and economies of scale.
- Map waste and residues, processing facilities and potential re-use locations to enable effective investment and economies of scale.

- **How can we best use existing research and innovation networks, or establish new networks, to help address our waste and resource recovery challenges?**

It is important to collaborate with existing activities and networks and not to just provide another layer of bureaucracy. State Government can play a facilitation and networking role amongst the tiers of government, industry and community to ensure where possible that resources and activities are not duplicated. Active innovation networks include:

- Huon Valley Circular Economy Industry Network
  - Circular Economy Huon
- Education for Sustainability Tasmania
- Tasmanian Food Cluster (a partnership between the Tasmanian Fruit & Vegetable Export Facilitation Group, Eat Well Tasmania, Optimum Standard, RDS Partners and MacTavish-West Pty Ltd.
- Launceston Institute of Applied Science and Design (a University of Tasmania initiative)
- Shaping our food and waste system (a partnership between LGAT, Eat Well Tasmania, The Tasmanian Way, Global Island Partnerships, the Tasmanian Government and the University of Tasmania
- Australian Fresh Produce Alliance (AFPA) that is made up of Australia’s key fresh produce growers and suppliers (September 2019 commitment to minimise packaging waste, and to work with government and industry to increase recycling)

A steering group or reference panel with broad representation across government and industry should be established to help guide and inform implementation of the plan and minimise duplication.

- Allow for input from the three tiers of government, industry and community through mechanisms such as a steering group and input from regional and sub-regional groups to feed into actions and decisions at a State level

**What are your views and suggestions on the targets presented (in the Draft Waste Action Plan)?**

RDA Tasmania supports the targets presented in the Draft Waste Action Plan, noting that monitoring and enforcement of targets is required and potentially regulatory or legislative change. RDA Tasmania also commends that these targets are broadly in line with national targets and priorities.

- Resource compliance and enforcement as part of the plan implementation
• Which waste streams would provide the best opportunities to make some early progress on the proposed targets?

As identified in the targets for waste and resource recovery in the Draft Waste Action Plan, food waste and organics (FOGO) already has momentum at a local council level and reusable or compostable packaging and banning unnecessary plastics has general public and industry support and has been successfully implemented by Hobart City Council.

RDA Tasmania strongly supports evidence based decision making, supported by the mapping of current waste origins, processing facilities and potential re-use locations to enable effective investment and economies of scale. Organic waste stream sources should be mapped along with industry inputs such as fertilizer, heat and energy that could potentially be produced through organic waste. This can then be considered at a sub-regional, regional or state-wide scale to inform decisions on the potential locations and efficiencies of value-adding and processing such as FOGO facilities and waste to energy systems.

• Map waste and residues, processing facilities and potential re-use locations to enable effective investment and economies of scale.

4. Infrastructure Planning

• What do you consider are the highest priority infrastructure requirements for waste management and resource recovery in Tasmania?

RDA Tasmania supports the development of a Waste and Resource Recovery Infrastructure Plan; however, we recommend that it be an Investment Plan instead to include non-infrastructure investments required such as supply mapping and skill development. This will assist with delivering state and/or regional facilities and generate benefits from economies of scale. There are significant opportunities for rationalisation of infrastructure investment and long term planning that isn’t defined by municipal boundaries.

• Create a Waste and Resource Recovery Investment Plan that includes non-infrastructure investments required such as supply mapping and skill development

Any plan should include detailed mapping of infrastructure and supply of services across government, private business, and community groups.

Regional facilities recover and treat waste items such as organics, construction and demolition waste, and commercial and industrial waste. Investment by the State in this infrastructure is welcomed.
5. Support Resource Recovery Across Industry

• How can governments, businesses and the community best support the development of the resource recovery industry in Tasmania?

More needs to be known about what waste is being produced, where and when to support decisions on recovery, value-adding or re-use.

For instance, residues of softwood stockpiles are building with no purpose yet; is there an opportunity for it? A large restaurant in Hobart has invested in a glass crusher and takes the time to sort and clean restaurant waste – but are now unable to find a use of the crushed glass and it is going to landfill.

Recommendations to support resource recovery:

Standardise procedures: Plant and equipment is needed to make it easier to consolidate, crush/shred and package waste material so it is easier to collect and unload. Standardised processes for collecting and processing waste should be developed, so all industry participants can bundle/process their waste so collection is easier and more efficient. This will help reduce the first and last mile unit cost for the transportation of waste.

- Standardise procedures for waste across the state, providing clear and easy to follow instructions for households and Industry and make community an integral part of designing education programs so collection is easier and more efficient

Processing infrastructure: Leadership from the Tasmanian Government is needed to get new processing infrastructure built and operational. One example is the proposed bioenergy plant at Valley Central industrial precinct; another is composting facilities in the south and north-west. Like with the City Deal process, the Tasmanian Government needs to be an active participant in making investment happen and providing certainty that policy levers support private investment.

- Create a Waste and Resource Recovery Investment Plan that includes non-infrastructure investments required such as supply mapping and skill development

Industry Liaison Officers: Funding staff or at minimum providing an email and phone point of contact to answer industry inquiries regarding waste, collecting information and facilitating connections across industry, the waste sector and government could have a significant impact on the capacity to implement actions successfully. There is momentum at a business level to be seen to manage waste and be more sustainable, but they have limited time to research and find alternative suppliers, expertise and markets to value-add waste streams.

- Resource an Industry Liaison Officer to answer industry inquiries regarding waste, collecting information and facilitating connections across industry, the waste sector and government

Waste Resource Innovation Fund: A grant program in place of the proposed loan scheme would support innovative projects for waste value-adding, re-use or recycling. Waste innovation is by
nature largely at a cost to council or industry or at best breakeven or low return. Given this, it is hard to see how a loan scheme will be applicable, whereas a capital grant that offset a portion of set-up costs could activate innovative projects that meet the aims of the Draft Plan.

- Introduce a grant program in place of the proposed loan scheme to support innovative projects for waste value-adding, re-use or recycling.

6. Education and Community Engagement

- Are you aware of any existing education materials that could be adapted for the Tasmanian context? (Please provide examples).

Education and engagement is vital to success, particularly around recycling and re-use potential and for community and industry to engage with the introduction of the waste levy and container deposit scheme. This awareness should be professional and adequately resourced.

- Outsource a professional education campaign with practical hints about waste and recycling, targeting work, school and home environments.

7. State and National Policy and Regulatory Settings

- Which policy or regulatory settings will help us achieve the targets in this Plan and help stimulate the resource recovery industry?

As mentioned under point 2. Governance, regulation and policy should be clear and enforced to provide certainty for business and council investment in new systems and infrastructure.

- Set clear policy and regulations (with implementation lead time as necessary) to provide certainty for businesses to invest in changing processes or operations

- Do you have other comments on the Draft Waste Action Plan

RDA Tasmania commends the State Government on the Draft Waste Action Plan and recommends adequate resourcing and funding of the plan’s implementation.
To whom it may concern,

Re: Response to Tasmanian Draft Action Plan, June 2019


A Circular Economy Blue Print for Tasmania

In September 2018 Brad Mashman, Recovery Managing Director received a Churchill Fellowship to study the circular economy and waste innovation in the European Union – the study was undertaken in April, May, June & July of this year. Part of the response to this draft action plan has been formulated from the study’s report - Circular Economy Blue Print, an investigation of innovative waste reduction models for dissemination in Tasmania – Belgium, Sweden and the UK.

The report has been accepted by the Churchill Trust and will be publicly released shortly thereafter. The report has substantial recommendations for the State & Commonwealth Governments as realised from the successful circular economic transitioning and waste reduction achievements in the EU and UK. The most relevant recommendations for this submission to:

- Establish a Circular Economy Commission with Departments or units in each state and territory, which engages all sectors, design, manufacturing, consumer and waste management.
- This Commission and Departments to be over-sighted by Treasury, and Treasury to guide economic structural reforms.
- The Tasmanian government and other important stakeholders lobby for the establishment of a Commonwealth Circular Economy Commission.
Recovery TAS Pty Ltd very much looks forward to presenting its report to the Tasmanian Government, and the Department as soon as practical.

**European Union Circular Economic Transition**

The current Australian waste crisis is an economic opportunity for effective and long-term reform. **In 2016, the European Commission reported circular economic activities such as repair, reuse & recycling generated €147 billion in value added while standing for around €17.5 billion worth of investments.**

The economic transition occurred due to a range of complex values being restored to sophisticated products and materials in circulation; waste became materials that have economic, commercial, aesthetic and social values.

Critically, the European Union (EU) provided strong leadership in releasing Circular Economic Packages integrated into a directives framework, providing a solid policy foundation to enable transition from a linear to a circular economy.

The EU transition when focused through the lens of the circular economic principle of restore through design, clearly relied on the restoration of relationships between civil society, government, manufacturers, producers, and the environment. The relationships were re-established through EU structural reform requiring all stakeholders to participate; and allows for environmental, economic and social agendas to be delivered simultaneously.

New beginnings are precious, and this is our message to all practitioners wanting to work in this space: the circular economy is a new, young idea, and like all young it must be nurtured, authentically attended to, and cared for.

It was the EU’s care and attention to detail through the structural reform processes including ongoing and timely feedback from actors and practitioners that has made the European Circular Economic transition so successful to date.

The overall conclusion of our Churchill study is that increasing circular economic activity presents an extraordinary waste reduction opportunity for Tasmania, and Australia.

**Tasmania is already very well positioned having pioneered this marketplace, with many current exemplary examples of circular economics – such as the Tip Shop model developed by Brad Mashman and Rena Dare and Environex in George Town, what is missing is a whole of government framework that all practitioners and actors can follow.**
**Structural Reform**

Economic incentives, changing consumer behaviour through eco-design requirements and labelling, and restricting material by type from entering the waste stream are all key success factors in moving from linear to circular economics.

Our Churchill Fellowship learnings can inform *The Draft Action Plan* and future waste policy reforms. We can detail the mechanics of how this policy transition would occur, and we have the network in the EU, UK and Australia to access leading and concurrent information.

Listed below are specific recommendations relating to structural reform that have been implemented by whole of government in the EU:

- Remove or decrease GST [VAT] on goods that are second hand, and or repair and restoration services, and or comprise secondary materials
- Increase the GST [VAT] on goods & products that are linear and short life by design
- Establish a company tax sliding scale for producers of circular products and materials, to pay a lower company tax for a period no less 3 years; companies must demonstrate ongoing innovative investment and authenticate waste reduction rather than profit extraction to be eligible
- Require Government to aid industry: minimum contribution provisions of buildings/land that is fit for purpose; and commercially appropriate guided by waste reduction experts
- Provide incentive payments for business, manufacturers and producers based on volume of secondary materials put back in circulation
- Set a high base price for landfill & incineration, charge by volume, and increase price if loads are mixed waste with high level of contamination

**Circularity through Design – the need to rethink!**

*The Circular Economy is actually about changing how we think, which starts with design* - the Action Plan needs to answer the following important questions:

1. What is the relationship between sustainability and the circular economy?
2. What will the design of material recovery facilities of the future look like?
3. What are the design requirements for the re-use sector?
4. What are the design requirements for the community?
5. What are the design requirements for businesses?
6. Where is the highest economic gain in the waste stream?
7. Who are the current best performers?
8. What is the re-use and repair sectors capacity?
9. What are the current issues affecting the repair economy?
10. Why have no specific targets for re-use been set?
11. Why no aim of growing the re-use economy when Tasmania already has a thriving one
12. What is current economic contribution of the re-use sector?
13. Is there a need to consider fair contractor legislation as part of design and planning?
14. Which Tasmanian producers and manufacturers will be targeted to shift their focus from linear to circular?
15. Where are the incentives and rewards for the community or business when they ‘do the right thing’?
16. What is the overall social vision?
17. What secondary raw materials are in circulation right now?
18. Do we need a critical raw materials strategy, and can we process secondary critical raw materials in Tasmania? *In the EU waste reduction and products and materials recovery is now a national security matter*
19. What is the funding strategy? *Polluter pays principles and producer pay principles do actually underpin circular economics*
20. What will the future design of products and materials look like?
21. What will be required of Tasmanian producers or importers to the State?

A key finding from our Churchill Fellowship study in the EU and UK is the determination of transfer stations being re-designed as ‘materials recovery facilities’.
The facilities are designed to ensure the capture of all products and materials entering with management for disposal through landfilling and incineration regarded as the least economic or beneficial outcome.

**The Re-use Economy Needs**

To realise the full economic value of the reuse economy and sector in Tasmania requires:

- Full unfettered access to reuse products and materials in the waste stream managed by waste reduction experts whom can economically determine market value
- Re-use facilities designed by waste reduction experts to meet the needs of business, government and community to ensure products and materials collected and or managed at drop off points realise full economic value
- Adequate parking for the effective and timely diversion, and on selling back into the market of sophisticated products and materials
- Storage and materials processing facilities to ensure maximum value capture of products and materials
- Attractive retail systems and environs to ensure level playing field competition with other retailers
- Reuse facility based auditing to measure products and materials recovered, data is linked to market analysis, which in turn will identify projected infrastructure growth requirements
- Trained waste reduction experts through TAFE

**The Action Plan must recognise Tasmania’s existing and thriving re-use economy, and provide for its growth in a more detailed and systematic manner.**

**Opportunity World Leaders in the Re-use Economy**

Our Glenorchy Tipshop model (the one on which all others are based) exemplifies the current and future practice for products and materials recovery underway in the EU and UK. The Tasmanian Draft Waste Action Plan is an opportunity to build on the learnings brought back to Tasmania as part of the Churchill Fellowship study tour.
Recovery TAS would like to work directly with the Tasmanian Government to take our very successful 26 year old circular economic re-use model to the next level. Together we can deliver world leadership in circular economics through the re-use and repair economy.

Also is attached is the paper titled ‘Re-use to Wealth Creation’ authored by Ms Rena Dare originally presented at a Waste Management and Resource Recovery Association of Australia Conference, Hobart in May 2015.

In closing, we look forward to organising a meeting in the coming month to discuss action plans and our report in more detail.

Yours Sincerely,

Rena Dare
Director

Brad Mashman
Managing Director

Zac Mashman
Operations Manager
Re-use and Wealth Generation

An Overview of Recovery Tas operation
Recovery Tas is a private family company that owns and operates The Recovery Centre, the best and original Tip Shop in Glenorchy; it is the largest operation of its kind in Tasmania. Under the leadership of Brad Mashman it has been operating for twenty two years, and for the past twenty one has been operating as a stand-alone business. Recovery Tas is recognised by the Australian Business Council for its focus on, and ability to deliver regional economic outcomes.

The longevity and success of its operating model is unpinned by micro-economics - it has always been profit driven, and operates as a good corporate citizen. As a good corporate citizen, Recovery delivers triple bottom line outcomes – that is social, economic and environmental benefits in equal measure.

Recovery is 100% committed to ensuring the resource recovery sector realises its true economic potential, because with this realisation comes substantial decreases in valuable materials and commodities being destroyed in the landfill, extraordinary public participation rates in best practice, and full time permanent employment.

Because Jackson Street is a commercial, industrial and residential landfill - The Recovery Centre manages residential, industrial, construction and demolition and commercial re-use products from the waste stream, through its two material retrieval facilities – internally known as top and bottom; it has the only re-use focussed, legally compliant eWaste facility in the state, it offers twenty three departments of sale, and is best described as second hand department and hardware store. It sells products, materials and services into over thirty three different markets, it’s open to the public three hundred and sixty two days of the year; and on average Recovery crews manage two – three point five tonnes, per day, of incoming re-use materials from the waste stream.

In 2014, Recovery delivered its best triple bottom line performance results.

Economic Benefits: income generated from business activities provided fourteen permanent positions and three casual positions, ongoing contribution was made to the nation’s wealth base through collection and payment of taxes, revenue was increased and directly reinvested back into the Centre and the local economy, a wage rise was implemented, better than ever savings to the rate payer were delivered through reduction in landfill volume and extension to landfill life, new
expanded sale spaces were opened to increase business revenue, other small businesses continued to rely upon The Recovery Centre for their supply, and the Glenorchy community continued to have access to affordable goods that change quality of life.

**Environmental Benefits:** a second generation of Glenorchy residents were provided with reliable, safe access to opportunities to participate in the waste minimisation best practice of re-use, four new sale spaces were created to maximise product recovery from the waste stream, awareness of alternatives to disposal continued to rise, another five hundred thousand plus products and parts were put back into circulation, and available landfill space increased.

**Social Benefits:** over sixty discounts and donations were made, *the feel good factor* continued to radiate from the Centre – with community members feeling good when they dropped something useful off rather than throwing it away, or on any given day happy customers were heard to say *I always wanted one of those*, the second annual b’day celebration was funded and held in recognition of outstanding community results in public participation in waste minimisation best practice; and the positively unique sustainability education trail was enhanced much to the pleasure and delight of adults and children alike.

Recovery Tas exceeded its performance requirements in 2014:

- Over 138,000 customers visited the site
- Recovery crews received and processed over 8,000 drop offs from residential and commercial sources, directly deferring an estimated 527 tonne of re-use products from landfill
- Recovery salvage operations retrieved in excess of 300 tonne from landfill
- Recovery managed the deferral of 70 tonne of televisions for free on behalf of Glenorchy City Council and Mission Australia
- Estimated annual total saving to GCC from reduction in landfill volume of $165,000.

What these 21st century figures clearly illustrate is that the community and players in the commercial sector are no longer stuck in the 20th century mentality of bash it, bury it and then burn it for good measure, they are ready and willing to utilise resource recovery facilities.
In the context of the South, Recovery Centre customer base hail from eight municipal areas.

It is important to highlight, and for decision makers to understand there has been dramatic behavioural shift in the south from disposers over the past two decades. The tonnage of materials dropped off to the Recovery Centre, now exceed the tonnage rates of our landfill based salvaged activities.

I was having a chat with a customer the other day – he frequents the landfill daily as part of his business activities, he goes so far as to put stuff aside on the landfill during our salvage shift swaps.

There has been a complete reversal in the community’s behaviour and expectations toward waste minimisation services since the 1990’s – it’s an extraordinary social outcome. This is why both myself and Brad Mashman as originators of the Tip Shop concept way back in the last century now find ourselves (and our customer base) so far ahead conceptually that it is a bit lonely.

We are no longer a Tip Shop – we are a Recovery Centre that operates under ISO systems.

For the first few years of operation we received two thousand customers per month, now we receive eleven thousand per month, we are part of the communities shopping & social routine; Joan an eighty year old, long term customer, came up the other day, I said how are you Joan?, I’m not
feeling very well today Rena, so I came up here and now I'm feeling better, replied Joan.

We use received three drop offs per day, now we receive twenty five on average weekdays, and sixty on average, at weekends.

Tip Shops were viewed a novelty – will give them a contact and see if they succeed, now we are essential front end infrastructure in the waste management mix.

Wages were initially paid through the New Enterprise Incentive Scheme - NEIS scheme, now they are generated through shop sales and excellent performance.

In the 1990's we were pioneers in an emerging sector, now we view it as profession that has its own discrete set of required professional skills; our employment preference is for the majority of our workforce to comprise mature people, they have better people skills, broader materials knowledge, and a better attitude towards customer service and encouraging behaviour change.

And now in the 21st Century, Recovery as a private company is subject to collection of GST and payment of company tax, it contributes to both the micro economy through direct employment and goods & services purchases, and it contributes to the macro economy through the collection and payment of taxes.

Recovery is proud of its wealth contribution and has no interest in changing its corporate structure to avoid its good corporate citizen responsibilities to society through economic contribution.

So What Drives Our Performance
As a good corporate citizen Recovery Tas focuses on economics, social outcomes, and environmental benefits in equal measure - our reason for existence is to provide waste minimisation services (social & environmental), and our first priority is to reduce waste entering landfill (environmental). However due to relationship between volume deferred, income generated less expense of management, our best overall performance measure is in economic terms.

So what are our economic indicators – that continue to drive performance?
• Generation of income to meet cost of running the business (turnover & trends)
• Increasing recovery rates of materials, products and commodities (productivity)
• Increasing customer numbers & transactions (sales growth)
• Provision of excellence in customer services to deliver repeat visitation and new generation of tip shoppers and waste defers (customer life time value & net promoter score)
• Managing stock levels to meet market demand (supply & demand)
• Number of permanent jobs created, people performance and staff retention
• Secure access to materials representing highest average retail spend, and highest market return for material and products (market share)
• Expansion into new markets that generate new income

It is important to state here from a sustainability perspective, the waste management sector is one of the limited few that is able to deliver exceptional environmental outcomes through economics – or in other words through the generation of wealth.

The economic outcomes deliver the following environmental outcomes:
• resources deferred and put back into circulation
• reduction in pollution – air, water, land
• effective land use
• expression of love of place ( reduction in littering rates, unlawful disposal) through behaviour change
• limited carry capacity of a finite planet
• preservation of natural heritage
• carbon footprint reduction
• energy conservation

And the Economic & Environmental outcomes deliver the following social outcomes:
• maintaining and increasing customer (community and business ) access to goods at affordable price
• empowerment of community through providing a cheaper alternative
• generational behaviour change
• building relationships – between crew and customer, community member and community member
• improvement of socio economic status delivered through permanent full time employment
• Waste Education
• Place for community groups, family groups and individuals to visits
• Wages that are high enough to support a family, and that provide a disposable income for other purchases such as homes, leading to change in socio-economic status
• Protection and preservation of cultural heritage

So let’s explore the interrelationship of economic and social outcomes leading to better waste minimisation outcomes. Please do not accept that a short term social benefit of people being forced to show up to work for six to twelve months, as part of a wage subsidy programme is the best social outcome or measure that can be delivered from the waste management sector – it’s the short end of the carrot. Socio economic status can only improve through long term, full time, permanent employment, which is the real capacity of the sector, and it’s the long term macro-economic outcome that should be delivered for Tasmania if the policy settings are right.

Why is full time employment so important? – its economics Put simply full time/permanent employment contracts enable people to get bank loans so they can purchase homes etc. – this then flows into broader economic benefits and the wealth of a nation.

**A WARNING** - a limited view of social benefit as the key driver for the sector is wrong. If this is the prime performance outcome the government is seeking from the waste management sector then the implementation of this policy will actually will constrain, and eventually economically destroy the re-use industry, and actually put people out of work who are gainfully employed.
Recovery Tas Business Growth Cycle

Innovation in Solid Waste Management Delivered Through Investment in Infrastructure - eWaste Case Study

So let’s apply Recovery Tas business cycle in a real world case study of investment in infrastructure leading to new markets, new income, new employment and increased deferral results of solid waste.

In 2005 Recovery eWaste project manager Brad Mashman undertook a eWaste audit for the State Government determining the volume and value of eWaste in Tasmania.

The audit informed the Recovery tender for the State Governments Living Environment Program (2008) to design, build and operate the first integrated eWaste processing facility in Australia. Funding: $110,000 invested by Recovery

$55,000 invested by State Government
$8,000 invested by Glenorchy City Council,
The Recovery eWaste Facility (hence REF) opened to the public in June 2009, comprising a tag & test workshop area, warehousing, display systems, sales point, new plant & equipment, and a AS/NZS 5377/2013 compliant operating manual, employing one eWaste Technician part time one.

**Performance Results 2014**

Currently the REF processes 98% of eWaste it manages; selling re-use computers, lighting & heating, white-goods, audio video equipment, games console, kitchen electric, cables & power packs, parts & motor switches –it’s a great environmental and economic outcome. Even better Glenorchy kids get access to cheap computers, and families benefit from cheap essential house hold items such as a refrigerator.

Processing by-products are sold to the recyclables market.

Our three-year eWaste income trend of 2012 - 2014, demonstrates steady growth in the number of purchases and revenue generated by eWaste sales. In 2014 - REF sales contributed $128,000 to Recovery income, 7,800 purchase transactions were made, and Four eWaste technicians were/are permanently employed – this is a social, economic and environmental outcome.

**What Are the Barriers?**

Perception is driving waste policy not economics. Tip Shops are not perceived by government as real businesses that have potential for ongoing business growth or expansion into new markets. It’s a bit like sex discrimination Tip Shops are viewed as feminine – caring, dealing with the soft stuff, whereas the masculine stuff like steel, timber only belongs to the boys - the real businesses. Another way of putting is the social enterprise (feminine) deal with the soft stuff, and real businesses (masculine) deal with the most valuable stuff that generates enough economic activity to make them independent.

Recovery Centres have enormous potential for business growth - over the past five years Recovery Tas income has grown at an average of 6% per annum – what actually limits growth is lack of infrastructure that can handle the volumes of materials that both the public and the commercial sector want to see deferred from landfill – our operating experience tells us both want to participate, but it does appear that collectively government has been operating with a policy of dis-encouragement of public participation, strengthened by a policy of non-action, compounded by what appears to be an aversion to 'girly soft' business.
So what’s a tonne worth?
At the time of writing a tonne of clean plastic is worth around $300 in the recycling market.
A tonne of steel is worth $9.00 in the recycling market.
A tonne of re-use materials is worth $715 per tonne in the tip shop market.
A tonne of waste is worth $125 per tonne to landfill operators at the tip gate.

Eighty tonne of re-use materials sold = one full time equivalent staff member

For Recovery Tas materials that generate the highest average sale prices are also those that are in the highest demand from the re-use customer base, as follows:
timber, steel, masonry, eWaste, furniture, bric-a-brac & carpet – it’s a mix of masculine and feminine.

Let’s look at the Recovery Shop three year income trends for construction and demolition reuse products:
This income growth trend is not an accident – it is because Recovery Tas is profit driven - we invested heavily in infrastructure and increased our staff levels in 2012. The performance result is an increase income. The lesson is simple – investment in infrastructure leads to wealth generation. Please note timber sales spike in 2012 was because Recovery Tas received large volumes of framing timber from a Fair Brothers work site.

Now let’s see if market demand matches Recovery’s reuse supply of construction and demolition material

This three purchasing trend indicates that market demand is matching increase in supply – the perfect business outcome. The Recovery Centre – as stated previously sells in to thirty three different markets and generates income from those markets – the market is not the issue, increasing supply and the associated infrastructure is the issue.

We Re-use specialists are left wondering:
What is wrong with delivering the best possible outcome for the Tasmanian economy?
What is wrong with business generating income?
What is wrong with the payment of tax as a contribution to the nation’s wealth?
And most importantly why has permanent full time employment been excluded from policy settings as they relate to economic performance of the waste management sector?
Is a $9.00 return per tonne, better than a $715 return per tonne from a macroeconomic perspective?

**The Potential for Broader Economic Benefit to other Businesses & Agencies**

I expect you have noticed that I keep referring to 21st Century thinking, as opposed to 20th Century thinking. Regardless of our personal opinion, sustainability will become increasingly important in the 21st Century - businesses that can attend to and deliver triple bottom line outcomes will have a competitive edge in their market place, measureable and reportable performance results, less social resistance to their proposals, and happier shareholders.

And for business, apart from an environmental performance measure & outcome, waste reduction, deferral policies and procedures also provide the added benefit of an economic incentive as well – a decrease in operating expenses from a decrease in disposal charges.

Hmmm – so it appears if innovative Tasmanian businesses are to move into the 21st Century, with new ideas to solve old 20th Century problems then expanded waste deferral infrastructure & services is also essential for them. There is no point in business or any other agency for that matter making the conceptual transition from waste to useful to someone else, without government ensuring the policy settings are right to deliver the infrastructure needed, that will enable all of the economic, social and environment sustainability benefits to flow.

All the re-use sector needs is access to investment funds to improve infrastructure, and long term secure contracts. At $715 per tonne it is a sector that can and should stand alone economically – it does not need more subsidised wage programmes in whatever form (it takes us 12 months to train a crew member so they can work independently and take innovative), and it certainly does not need to compete with Councils over access to supply

**Can we make the conceptual and economic transition together?**

Decision makers - can you assist us please, can we work together and provide genuine and courageous leadership that will enable macro-economic reform to the waste management sector? What do I mean? Well it’s easy to hide behind the old cost of living chest nut – but we as Tasmanians and Australians must realise the provision of services and associated infrastructure costs money, it may be political unpalatable – but for business this is day to day operating reality. When compared to OECD economies, we all know Australia has one of the lowest tax rates (and highest living stds).
I find in times of confusion its usually best to try and bring matters back down to their most simple level -so simply a compulsory (economically determined) levy will create an investment pool that can be accessed by those with the highest waste deferral performance results, and investment levels. This will in-turn facilitate a dramatic increase in the supply of affordable materials & products in the market place, that will actually off-set some of the pressure of rises in cost of living.

And if not mistaken - hasn't the higher dollar value waste levy contribution in the North and Northwest of Tasmania (and for the record yes it’s Tasmania, and no the North and Northwest are not part of Victoria at this point in our geographical history) already delivered better waste management outcomes for the sector?

We ask for a level playing field that provides an economic incentive of an investment pool to continue to drive waste deferral results, and deliver all the associated benefits.
To whom it may concern,
I am an architect, builder and carpenter. Across my professional career I have worked on and been responsible for commercial, residential and heritage projects. Many of the projects entailed the scheduled recovery of products and materials for reuse either within the project scope or for storage and on selling into a distinct market (2nd hand building materials).

In 2015 I commenced working with Recovery (Tas) Pty Ltd trading as the Glenorchy Tipshop and particularly WMRRA secretary and Churchill Fellow Brad Mashman to develop my concept through operational activities to develop systems and divert construction and demolition materials presenting in the waste stream for on selling back into the regional market place. An authentic circular economic model.

In 2016 I was invited by the Waste Management and Resource Recovery Association of Australia (WMRRA) to join the Tasmanian Committee.

In 2017 I was a key speaker at the annual WMRRA conference in Hobart, my paper examines the hierarchy within the construction/waste industry with the architect to be the key arbitrators of product and material recovery in the building sector.

In 2018 I was invited to speak in America, expanding my concept and initiating a proposal to where it was well received, and I realised a new network of leaders from government to private industry in commercial waste reduction programs.

Later in 2018 I was invited to Belgium to explore my proposal with RotorDC, architectural deconstruction experts. Rotor DC are innovators and creators in delivering programs for materials recovery of C and D for a second market across the European Union.

My family in Europe has been active delivering demolition practices working with policy makers particularly heritage and preservation of government buildings and sites including the Royal Family Glass Houses in Belgium.

In 2019 WMRRA has funded a new National resource recovery executive to focus on delivering authentic circular economic outcomes. I have been invited to Chair the committee in Tasmania.
The Draft Waste Action Plan released in June 2019 by the Tasmanian Government realises the need for greater targeted and planned interception of products and materials from the C and D sector.

The C and D sector is often limited to masonry and timber, when in fact the stream carries with in its high volumes of eWaste, furniture and fittings and landscaping residuals (gardens).

Recovery and I have undertaken a number of proofs of concept products, identifying and returning commercial, household and heritage products and materials back to the market through the Glenorchy Tipshop materials recovery centre and retail sales, now reaching 150,000 customers per annum.

To achieve reduction in construction and demolition waste State and regional management of such materials needs to be harmonised within the construction process integrated with material recovery directives thus creating new markets for secondary use of products and materials.

Waste directives reform should include a framework that’s complimentary to roles in construction in the procurement process to meet recovery material programs and targets.

To achieve the economic reduction of construction and demolition materials we need:
- An innovation fund (waste levy)
- Authentic circular economic guidelines
- Direct funding for meritorious and measured projects
- A single waste auditing methodology in Tasmania for all practitioners
- Time lines developed from learnings from leading overseas practitioners and actors
- Transparent and authentic access to all products and materials currently disposed of at waste transfer stations and landfills.
- Work with the State government to develop secondary markets determined by economic achievement, knowledge and practical capabilities to deliver reductions

We can innovatively facilitate and proof programs to help reform current industry practices to capture economic value embedded carbon by the recovery of materials.

I am looking forward to meeting with government to develop new and innovative programs to reduce waste.

Regards

Patrick Denell | Architect
Building industry capability to participate in a circular economy in Tasmania

A RESPONSE TO THE TASMANIAN DRAFT WASTE ACTION PLAN

Business Action Learning Tasmania
Supporting self-reliant industry development, with diverse companies cooperating to improve their profitability, develop their people and grow the Tasmanian economy.
Introduction

Since 2010, Business Action Learning Tasmania (BALT) Ltd has initiated over 30 successful business improvement projects in a range of industry sectors in Tasmania. The award winning Lean Action Learning program has delivered significant sustainability outcomes for participating business, applying principles of product lifecycle analysis and using a collaborative approach to develop solutions.

This response to the Tasmanian draft Waste Action Plan focuses on the critical role of industry, particularly the manufacturing industry, as the driver of a circular economy. The draft Waste Action Plan proposes to develop capacity to support the establishment of recycling and reuse businesses, pursuing external markets. It is BALT’s view that this support would be better directed toward developing the capability of existing businesses to ‘close the loop’, with support from the local manufacturing industry.

In 2018, BALT launched the Business Resource Efficiency Program (BREP), in partnership with the Tasmanian Climate Change Office. BREP is a key action of Climate Action 21: Tasmania’s Climate Change Action Plan 2017-2021. Throughout 2019, eleven businesses in the north and north-western regions of Tasmania have been working together, learning with and from each other, to reduce their consumption of resources and minimise waste streams. Concepts of sustainable design, including product lifecycle assessment and closed loop manufacturing, have been applied across a relevant cross-section of industries contributing to Commercial & Industrial (C&I) waste streams in Tasmania; agriculture, hospitality and tourism, food and beverage production, service industries (engineering), pharmaceutical goods, and general manufacturing in a range of materials (ie. visual communication, metal products, fibre composites). The outcomes will be presented at a Review Forum in Launceston in December 2019.

BALT has undertaken independent research over the past decade to inform the development of strategies for regional, economic and workforce development in Tasmania. Lean Action Learning and BREP have attracted international attention and BALT has been invited to contribute to a special issue of an international peer-reviewed journal, Action Learning Research and Practice, titled Action Learning and Social Change.

This response to the Tasmanian government’s draft Waste Action Plan is based on this body of research and the early outcomes of BREP.

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1 Bell Bay Aluminium, 2013 Sustainable Development Report, page 12
1. Moving to a Circular Economy: Government Priorities and Key Sectors

What are the key opportunities for reducing waste, developing our resource recovery industry and shifting to a Circular Economy?

In early 2018, as the first stage in the BALT Business Resource Efficiency Program (BREP), BALT prepared a program mapping and gap analysis report for the Tasmanian Climate Change Office. The analysis sought to identify:

- Key resource efficiency strategies and opportunities that SMEs want to achieve;
- Sectors where the greatest resource efficiencies can be realised;
- At least two suitable regions in which to hold the the Business Resource Efficiency Program;
- An identified network of eligible SMEs in each region.

The report concluded that the key resource efficiency strategies and opportunities that SMEs want to achieve are directly related to reductions in operational costs. Therefore the strategies put forward should focus on opportunities for cost reductions achievable through improved operations, as waste diverted from landfill is unlikely to generate significant cost savings.

The recommended target industries included major producers of Commercial & Industrial (C&I) waste, particularly organic waste, ie. hospitality, food retailers, food production and processing.

In December 2019, the outcomes of BREP will be presented and an evaluation report prepared for the Tasmanian government. Early results show that there are significant opportunities for industry, particularly the manufacturing industry, to support the development of a circular economy in Tasmania. All types of manufacturing and associated industries are well placed to modify, extend and diversify their current offerings, to access and/or create new markets in secondary products.

Examples include:

- Disassembly of organic and technical waste streams for secondary product manufacturing
- Substitution of virgin materials to utilise technical waste streams produced in-house or by other industries in the region
- Processing of organic and technical waste streams to increase material value, as defined by the customer, and create efficiencies, eg. reduce volume or weight for transport
- Application of principles of sustainable design for new product development, eg. dematerialisation, servitisation, and design for disassembly, repair and/or reuse
- Conversion of organic waste to compost or bio-fuel products

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3 SMEs in this case are defined as small to medium enterprises with less than 200 full-time equivalent employees
A number of recommendations will be put forward in the final evaluation, however key issues and barriers emerging for Tasmanian companies to realise these opportunities include:

- Low volumes of waste produced are less attractive to potential buyers
- Transport availability and cost, particularly for sensitive wastes
- Lack of influence on overseas suppliers due to relatively low purchase volumes
- Availability/prioritisation of capital budget for dedicated equipment
- Availability/prioritisation of resources for research and development
- Lack of incentive and slow returns on investment
- Limited influence on and capability in product and manufacturing design

2. Governance

What are the primary waste management and resource recovery roles and responsibilities of governments, industry and the wider community?

Government

BALT consulted widely with all levels of government during the program mapping and gap analysis stage of BREP and has formed a view based on the needs of industry.

Local government needs to engage directly with industry to ensure that businesses are made aware of the options available in their region and provide customised advice and strategies to achieve zero waste. Industry relies heavily on the advice of commercial waste management providers, contracted by local government, which can cause conflicts of interest and knowledge gaps. The intelligence collected through local industry engagement can be fed back to other levels of government to inform research and development initiatives, policy development and funding design. The regional waste management groups, formed by local government is well placed to perform this role.

While the nature of Tasmania’s political landscape supports the idea of regional governance, greater cooperation across the state would enhance this approach considerably for industry. State government has a role to play in:

- Adjudicating a state-wide strategy that promotes efficient waste management across the three regions
- Developing specific policy instruments and economic levers to influence the behaviour of the waste management industry, local government, the community and general industry
- Advocating at a federal level for specialised programs to meet the needs of Tasmanian industry
- Educating consumers and supporting industry workforce development in sustainable design and operations

All levels of government have a role to play in demonstrating leadership through procurement policies and promotion of good practice. As a customer of industry, government has considerable purchasing power to influence both internal and external suppliers.
Preference should be given to local products and services that utilise recycled materials and suppliers that meet international standards for sustainable practice.

**Industry**

The role of industry is to develop innovative products and services that facilitate a circular economy, influence customers and supply chains to participate, and provide feedback to government on policy instruments and economic levers.

Concepts of life cycle assessment and product stewardship are not widely understood or practiced by manufacturers in Tasmania. However, there is one notable exception. Envorinex has established vertically integrated plastics recycling facilities in George Town. The system developed is unique in the world, in that there are few, if any, examples of manufacturers recycling recovered materials and making secondary products of equal or higher value than the original product. Envorinex have invested heavily in infrastructure and research and development to build upon their existing knowledge and experience in plastic injection moulding. As demonstrated by Envorinex, it is the role of the manufacturing industry to use their expertise in materials and processes to lead the transition to a circular economy.

**Community**

The wider community has a role to play in a circular economy as end consumers and primary contributors to municipal waste streams. Preferencing sustainable products and services creates demand and increases returns for manufacturers applying sustainable design principles. Correct separation and preparation of waste at points of use increases the value of materials and decreases required downstream processing. Community activism, such as returning packaging to retailers and manufacturers, can change cultural expectations of waste and influence the supply chain.

3. Data, Innovation Networks and Resource Recovery Targets

*What are your key data and information needs on waste and resource recovery?*

A state-wide Material Register, including types and volumes of input and output materials and their location would assist industry to understand the secondary market and target their offerings to suit. The register could include virgin material inputs, recycled material available for substitution, and waste streams available for recycling. Manufacturers can search for substitute recycled materials, or identify potential uses for waste streams. Analysis of virgin material use can identify the size and value of potential markets and stimulate investment in the development of new materials from waste.

The register could be cross-referenced with granular data from landfill operators, including material types and origin, current recovery rates and ‘problem’ wastes.

The Material Register could be populated directly by industry and function as a virtual ‘marketplace’ or exchange for the Tasmanian circular economy.
How can we best use existing research and innovation networks, or establish new networks, to help address our waste and resource recovery challenges?

Research in network development suggests that it is better to build upon existing networks and encourage collaboration and knowledge sharing rather than establish entirely new networks. In cluster theory, this is referred to as *antecedence*\(^4\). Rewarding and strengthening early adopters at a local level will reinforce difficult work already done, eg. socialising the concept of waste levies. Attempting to create new networks will disaffect key stakeholders, who have undertaken this work.

Local government, particularly in the north of the state, is driving change in waste management at a regional level, through the initiatives of the regional waste management groups (Northern Tasmanian Waste Management Group, Cradle Coast waste Management Group, Waste Strategy South). The introduction of regional waste levies has been well accepted by industry and indicates that there is an appetite for leadership from these networks.

BALT enhances and promotes existing networks by connecting key individuals and sharing information directly with industry. BALT is a world-first learning cluster with nearly 10 years of experience connecting diverse organisations across all regions of Tasmania. The knowledge flows created have produced significant results for the businesses involved. Early outcomes of BREP demonstrate the value of these connections in driving a circular economy and BALT has in-house expertise in network development, sustainable design and innovation management. The BALT framework for collaboration through action learning and BREP can be applied to activate existing networks and further develop relationships across industries, supply chains and regional areas.

*What are your views and suggestions on the targets presented above?*

BALT supports the targets presented however the strategies for achievement of these targets need to be clearly defined and communicated to key stakeholders.

The Government priorities and industry sectors identified in the Focus Areas and Actions do not explicitly include the manufacturing industry and yet it is this industry that makes many of the products used in the priority industries identified (eg. tourism, agriculture, aquaculture, etc.).

It is critical that the manufacturing industry is included in developing a strategy for transition to a circular economy. Any investment in R&D and technology transfer must include direct investment into industry-led solutions, or the end result will be a highly sophisticated theoretical model, with very limited implementation or measurable results against the targets set.

For example, eliminating single use and problematic plastics has been the focus of a number of BREP projects. Contaminated plastics from food processing, composite materials and inherited single-use packaging waste from imported components are all going to landfill.

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\(^4\) The Cluster Initiative Green Book, Sölvell 2003, page 17
range of potential solutions have been investigated, some of which have been implemented, and a deeper understanding of the problem has been formed. This work cannot be undertaken, and therefore these targets cannot be met, without direct input and cooperation from industry.

*Which waste streams would provide the best opportunities to make some early progress on the proposed targets?*

Commercial & Industrial (C&I) waste is still by far the greatest contributor to landfill in Tasmania. In 2016, the recovery rate of 59% in this category was significantly lower than that for the best state (South Australia) at 85%. Based on this data, industry will be the greatest contributor to waste levies. Moreover, given that the key resource efficiency strategies and opportunities that Tasmanian businesses want to achieve are directly related to reductions in operational costs, the originators of this waste stream can be influenced by economic levers. Reinvesting funds collected into industry-led solutions will counteract increased costs to business and incentivise rapid innovation.

### 4. Infrastructure Planning

*What do you consider are the highest priority infrastructure requirements for waste management and resource recovery in Tasmania?*

An opportunity exists to achieve zero waste by following the South Australian example and assisting Cement Australia at Railton to convert to alternative fuels. Forestry residues and agricultural waste combined with aggregated residual wastes from recycling (i.e. “problem” wastes such as fibre composites and highly contaminated waste) could be transformed into Processed Engineered Fuel (PEF) and substituted for coal. This would require significant investment however supporting infrastructure such as rail access are already in place and establishing a PEF facility will create new employment opportunities to offset future job losses in the Tasmanian coal industry.

For smaller businesses, a key inhibitor in pursuing zero waste is the need for capital investment in infrastructure to process waste streams into higher value materials, or develop new products to eliminate or repurpose waste.

 Crushers, shredders and perforators are available for purchase off-the-shelf and capital costs range from $3,000 to $30,000. BREP participants have chosen to invest in this equipment, in one case using funding made available under a Northern Tasmanian Waste Management Group grant, however returns on these investments are slow and the cost-benefit is low. In NSW, local governments have established fleets of equipment for lease to local businesses at very low cost, which can be easily offset by reduced waste disposal costs.

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5 Blue Environment and Randell Environmental Consulting, 2018, National Waste Report 2018, p.23, Table 4
Innovative technology solutions developed in Tasmania, and considered by BREP participants, include a dehumidifier to dry sawdust for bio-fuel and drone swarms to eliminate plastic bird nets. Estimated costs are between $100,000 and $1m. Funding directed to reduce financial risk, such as low cost loans or subsidies, would encourage industry to invest in the development of this type of new infrastructure to support a circular economy.

5. Support Resource Recovery across Industry

How can governments, businesses and the community best support the development of the resource recovery industry in Tasmania?

Everyone has a role to play (see Section 2) in developing a circular economy in Tasmania. The resource recovery industry must include all stakeholders when developing solutions. It is important to remember that the resource recovery industry has a vested interest in maintaining profits and much of this is derived from the transport and on-selling of waste. Eliminating waste, or finding more cost effective methods for dealing with waste in-house, may not be in the best interests of commercial operators. The resource recovery industry must be viewed as a servant of general industry and would serve better as a partner or ‘broker’ of materials, rather than a solutions provider.

6. Education and Community Engagement

Are you aware of any existing education materials that could be adapted for the Tasmanian context? (Please provide examples).

Business Resource Efficiency Program, BALT & TCCO

The Tasmanian Climate Change Office has partnered with BALT to develop BREP, specifically for the Tasmanian context, applying an action learning approach. Action learning builds the capability of participating businesses to develop their own solutions to ‘wicked problems’. Collaboration creates knowledge flows across diverse industries, promoting innovation.

In December 2019, BREP will conclude with a Review Forum in Launceston. At the Review Forum, BREP participants will present the outcomes of their individual projects and share the lessons learnt with a wider industry group. Early results are significant and demonstrate the importance of acquiring a deep understanding of the barriers for businesses to achieve zero waste, in order to develop practical solutions to overcome them.

In many cases, shining a light on current practice and facilitating business to business connections has resulted in immediate action. For example, a poultry processor has been sending large volumes of organic waste to deep burial disposal. A BREP site visit to Dulverton Waste Management Centre and conversation directly with the facility manager resulted in the diversion of this waste to compost.

The final stages of BREP include the development of educational tools and resources, which will be made available via the web, these will include:

- A series of videos explaining concepts of resource efficiency
- Case studies of BREP projects
- Waste auditing tools
- A nonconformance reporting tool for capturing waste from rework

BALT education partner, The Action Learning Institute (RTO Provider no. 40676) has undertaken independent research to map BREP activities to Units of Competency from the MSS Sustainability Training Package. Future programs may include nationally recognised vocational qualifications in Sustainable Operations, or a skills set leading to a Certificate IV or Diploma.

**BinTrim, NSW EPA**

During the waste audit stage of BREP, the facilitator utilised a tool developed by the NSW EPA, called Bin Trim. Bin Trim is an Excel tool, which allows the user to enter estimated waste volumes for various materials and automatically generate an analysis of current and potential recycling.


The outputs of BinTrim are simplistic and not customised to the Tasmanian context. However, the tool was invaluable in establishing a starting point for businesses to quantify their current waste volumes by material and investigate opportunities for diversion.

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7 Source: NSW EPA website, accessed 7/10/19
7. State and National Policy and Regulatory settings

Which policy or regulatory settings will help us achieve the targets in this Plan and help stimulate the resource recovery industry?

Any policy or regulatory settings adopted must be accompanied by compliance auditing and corrective action. Any unintended consequences must be addressed from a position of continuous improvement. Nonconformance must result in consequences, preferably constructive assistance, such as education or technical advice.

Under these conditions BALT supports the following initiatives:

- **A state waste levy** will have a significant impact on industry prioritisation of waste diversion. There is no stronger incentive for small to medium waste producers to seek alternatives at present. As stated previously, if funds are returned to industry to stimulate activity and pursue the opportunities outlined in Section 1, solutions will quickly emerge. SMEs in Tasmania are entrepreneurial and resourceful but the cost benefits must be clear or they will not be prioritised. Dumping and littering have been identified as unintended consequences of the levy but controls should also be put in place to prevent stockpiling on industrial sites.

- **Government procurement policies** preferencing local products and services that include minimum recycled content or support the circular economy will demonstrate commitment and create demand.

- **Merit criteria for funding grants** should include weighting for recycled content, ISO 14001 certification and/or other substantive contributions to the circular economy.

Do you have other comments on the Draft Waste Action Plan?

BALT welcomes the draft Waste Action Plan and congratulates the Tasmanian government for starting this important conversation.

The draft Waste Action Plan is ostensibly based on the principles of a circular economy. However, the lack of focus on industry and, in particular, the manufacturing industry’s critical role in facilitating a circular economy, is a serious omission. BALT is embedded in the manufacturing industry and brings together a diverse cross-section of key sectors, identified in the draft Waste Action Plan, in collaborative projects solving real problems of vital importance.

The lessons learnt through BREP place BALT as a lead organisation promoting a circular economy in Tasmania. There is a clear role for our organisation in education and network development to support the Tasmanian government in delivering a plan for real action.
About BALT

Business Action Learning Tasmania Ltd is a not-for-profit company and a listed charity. BALT’s mission is to support self-reliant industry development, with diverse companies cooperating to improve their profitability, develop their people and grow the Tasmanian economy. This mission is built on three pillars; collaborative action learning, achieving important business outcomes, and the awarding of nationally recognised qualifications. The group seeks to achieve this through running programs to implement real business improvement projects with groups of local companies.

Contact: Genevieve Cother at @actionlearning.edu.au
Circular Economy Huon


This response follows the layout of the Draft Waste Action Plan making comment on nine specific topics and ten recommendations. Circular Economy Huon is a community group formed in 2017 that promotes the circular economy to enable the better use of resources and reduce emissions. We support moving to regenerative systems that provide benefits to the environment, business and lead to a better quality of life for all.

A. Circular Economy
Circular Economy Huon agrees with the broad intent of the Draft Strategy of moving the State away from being a ‘linear’ and ‘recycling’ economy towards a circular economy. It is great to see that the State Government recognises the importance of embracing circularity principals. Finland, other Nordic countries and the EU in particular are well underway with moving in this direction. Our nearest neighbour, Victoria is developing a circular economy framework and action plan which it is planning to launch in late 2019 or early 2020. It is now important that Tasmania not only recognises the importance of the circular economy to reduce waste but also ensures that business and industry are part of this move for the future. It’s a long journey ahead and this is a good time to progress it.

The Ellen Macarthur Foundation, a leading proponent of the circular economy describes the Circular Economy as being based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. They go on to say that:

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\text{Waste and pollution are not accidents, but the consequences of decisions made at the design stage, where around 80\% of environmental impacts are determined. By changing our mindset to view waste as a design flaw and harnessing new materials and technologies, we can ensure that waste and pollution are not created in the first place.}^1
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If Tasmania is to reduce waste it needs to embrace the principles of circularity through rethinking design and assist industry towards achieving these goals. This will yield jobs and prosperity for the state, but it requires a reappraisal of many of our current practices.

To proceed with the Draft Waste Action Plan will go so far to reduce waste in Tasmania but to do so without planning how a meaningful circular economy is to be developed, is to not take the issue seriously. Without establishing a Circular Economy reform agenda Tasmania will be underperforming and disadvantaging Tasmanians.
Recommendation
1. Commit to developing a circular economy policy and action plan for Tasmania as a matter of urgency.

B. Statewide Waste Levy
CEH supports the introduction of a Statewide Waste Levy. We understand that under the existing arrangements in Tasmania there is a voluntary levy adopted by regional groups and this ranges from $0 to $7.50 per ton. (In addition to this there are municipal waste fees.) In NSW, SA, and Vic there is a lower levy applied to regional than metropolitan areas; this would be hard to implement in Tasmania so a flat rate for all areas should be adopted. The rate charged in other states varies according to the type of waste being disposed of. The rate varies from around $30 per ton up to $250² for particular hazardous waste.

The proposed Tasmanian levy would need to be sufficient to send a price signal to encourage households and businesses to reduce waste to landfill, meet the cost of waste collection, and fund future initiatives to reduce waste. It is hard to pick the exact amount for the levy but it is unlikely to be under $75 per ton. CEH would expect that the levy would be at the mid range, say $75 - $100 per ton and increase in subsequent years. In 2017 Tasmania was responsible for 938 Kt of waste going to landfill. This would yield over $70 million that could be spent on waste removal and more progressive activities. Strategic thinking needs to go into the management of these funds so that it leads to greater environmental benefits and the money is not directed to consolidated revenue. Community representation through groups like CEH need be an integral part in this process.

If the cost of disposing of waste to landfill is to be a price mechanism for reducing household waste it will be necessary to introduce vehicles that can weigh bins during collection and electronically record waste for each household. The cost of the new vehicles could in part be met by the new state wide waste levy. It could also fund organics and food waste collection for all households not already processing this waste.

There are many of other programs that could be run with the waste levy revenue.

Recommendation
2. Strike a whole of Tasmania waste levy that is sufficient to facilitate essential activities for the meaningful reduction of waste.

C. Container Refund Scheme
CEH supports the introduction of a Container Refund Scheme (CRS). Several members of CEH have expressed concern about the length of time it is planned to take to introduce the scheme. Discussion about introducing a scheme has been underway for 15 years and three significant reports have been commissioned. The current initiative was announced in 2018 with an introduction in 2022. Four years seems like a very long time to get a scheme operating. South Australia was the first state in Australia to introduce a scheme over 40 years ago and it has the highest level of recycling in the country; about 30% better than Tasmania.

It will be good to have a CRS for beverages but there is no apparent reason to limit it only to beverages. It would be excellent to extend the scheme to all other containers. This would include
containers for foodstuff such as margarine, ice-cream and yoghurt; cleaning material, and gardening and vehicle products. If the Government could extend the scheme to all containers, members of CEH might forgive the long time delay in the introduction of the scheme!

One other aspect of the CRS is that it has been suggested that the Tasmanian Government should be funding the scheme. Circular Economy Huon rejects this notion and strongly believes that packaging companies, product manufacturers, wholesalers, distributors and retailers should be underwriting the scheme. This will mean that a component of the price of the product to the consumers will include the cost of returning and reprocessing the container.

**Recommendation**

3. Speed up the introduction of the CRS and extend its reach to include all non reusable containers bought by households and industry.

**Recommendation**

4. Ensure that those businesses that are responsible for selling and distributing products in containers pay for the CRS to operate effectively.

**D. Waste reduction and resource recovery targets**

CEH supports the introduction of targets for waste reduction and recovery. But to look after the environment and reduce emissions the targets in the draft submission need to be more ambitious. As the draft report points out, Tasmania’s recycling achievements are very poor compared to many other jurisdictions. The recycling rate for Tasmania was 49%, the national average was 58% but South Australia, the best in the country achieved 78%. If we follow the draft plan it will take us 11 years to reach the rate of South Australia today. This is not being progressive!

- The aim to reduce waste generated in Tasmania by 5% per person by 2025 and 10% by 2030 is too slow. In fact such a small reduction could be met by a statistical blip! It is suggested that a 20% target could be set by 2025 and 35% by 2030.

- The target of ensuring 100% resusable, recyclable or compostable packaging by 2025 is supported by CEH. And it is important to work out the process through which this outcome will be delivered and monitored. It is anticipated that considerable work will be needed to assist businesses in Tasmania achieve the target with assistance from Government and research and development initiatives provided through UTAS.

- The target to achieve a 40% average recovery rate from all waste streams by 2025 and 80% by 2030 is a good target. If Recommendation 3. above is followed, and Tasmania goes ahead with developing a circular economy, these targets should be achievable – and maybe better. It will also be necessary to have special programs to deal with some key areas such as construction and demolition waste.

There are many industry sections that have become very wasteful; health is a particular example of this. In the UK the National Health Service has a sustainability unit to foster circularity and reduce waste; Tasmania should do the same. Likewise, the packaging around pharmaceuticals needs to be rethought so that various levels of packaging and methods of dispensing items can be collected and reprocessed. It’s ironical that health products and practices in Tasmania are contributing to negative health outcomes for the environment.
- It will be good to have the ‘lowest incidence of littering in the country by 2023’ but not if we fail to deal with organic waste, waste to landfill, and plastic waste as otherwise it sounds rather like window dressing to make the place look attractive for tourists.

- Circular Economy Huon fully supports the state government working with government and business at the national and local level to phase out problematic and unnecessary plastics.

- Reducing organic waste is important to reduce methane gas volumes. Improving the processing of organic waste will cost money but has the potential to yield some good outcomes. This needs to be done on a systematic basis so there is a full assessment of organic waste on a regional basis for the whole of Tasmania.

Over the last year there has been a group meeting under the title of Circular Economy Industry Network centred on the Huon Valley. This group, initially formed by the Tasmanian Institute of Agriculture with Circular Economy Huon, now includes representation from the aquaculture and orchard industry in the Huon Valley, the Department of State Growth, Regional Development Australia, Huon Valley Council staff and councillors, and two independent (management) consultants, has been looking at the opportunities for organic waste in the region. A specific project is yet to commence but it is anticipated that, with a little further research a composting program could be developed that would reprocess organic waste into compost and fertilizer material. There is the potential to produce a product that would be a beneficial for growers in the Valley and elsewhere. This would be a new industry for the area adding value to waste and providing employment.

It is also anticipated that there scope for a plastics repurposing project looking at using plastics from the aquaculture and agriculture industry. The progress with the Circular Economy Industry Network so far has been made through the good will of participants, without formal funding. With a funded secretariat to do the legwork for the group there could be a range of projects that could be commenced. The benefit of such a broadly based group is that it is possible to identify and evaluate larger projects and identify waste from one sector/business can become a valuable input to another sector/business. It is suggested that by assembling broadly based groups such as Circular Economy Industry Network, projects could be identified in other regions across the state.

In October and November 2019 Circular Economy Huon is running two composting workshops in the Huon Valley for households and small scale farmers. These workshops are being financially supported by Huon Valley Council and it is recommended that this type of community based education should be supported either by state or local government.

Recommendations
5. Review all of the targets listed in the draft action plan so that they reflect world’s best practice and adopt circular principles to facilitate these targets.
6. Form regional groups with wide representation (similar to Circular Industry Network in the Huon Valley) to identify broadly based waste to input opportunities.
E. Clean energy opportunities
The Draft Waste Action Plan, page 12 discusses the benefits of clean energy to the circular economy. Unfortunately it fails to mention the great opportunity to clean up one of the States major causes of waste and pollution: transport. The electrification of transport should happen before another Bass Link project.

Many countries are now well advanced with converting from internal combustion engines (ICE) to electrical vehicles (EVs), particularly passenger vehicles. In 2017 passenger vehicles in Tasmania were responsible for over a million tons of CO2 pollution. In Norway around 50% of new cars are EVs; the EU has progressive targets for phasing out ICE vehicles, and in Korea, the tourism island of Jeju have hire companies that operate exclusively with EVs. What is interesting is that Jeju is replacing its old polluting power sources with new green power, whereas Tasmania has the power but just lacks the initiative for greening up its tourism industry! Circular Economy Huon is running an EV seminar for tourism operators in Southern Tasmania in November. The seminar will provide details about the practicalities, costs and benefits of having EV charging points at tourism venues. The move from ICE to EV will create jobs in metropolitan and regional areas and is an ideal match for the brand.

Circular Economy Huon is also in the initial stages of investigating a bulk purchase of EVs to reduce the cost of buying new electric vehicles. Bulk purchase agreements have been implemented in some Nordic countries and the United States.

Recommendation
7. That the State Government prioritises the introduction of establishing a quality EV network including examining ways to make EVs more affordable for Tasmanians before entering into an agreement with the Federal Government to establish a second Bass Link.

F. Governance
State and local governments hold key positions for reducing waste in Tasmania but there are direct benefits of business and the community being involved. There is a tendency, possibly because of pressure of work, for different levels of government to be one step removed from waste and circular economy issues. Often the administrators of a municipality do not live in that municipality. That makes it most important for business and community organisations to be involved in governance.

Recommendation
8. That regional waste reduction advisory bodies are established with representation from government, business and community, to improve the flow of information and encourage practical, grass roots ideas.

G. Data Innovation networks and resource recovery targets
Circular Economy Huon fully supports the collection of data in a standardised format to reduce waste. It is essential when setting targets and knowing when they have been reached. Paragraph D above provided a thumbnail sketch of the make up of importance of the Circular Economy Industry Network which is a network for exploring better resource recovery.
H. Education and community engagement
Just as the broader community needs to be included in the governance structure of waste initiatives (F above), so too do they need to be involved in the design of education programs. It is likely that schools, neighbourhood houses and workplaces will also be able to assist.

In recent years there has been confusion about the collection of waste and recyclables because of frequent changes. If processes can be set and then left it will help the households and businesses to work with authorities on sorting waste correctly. It will help if there are common regulations for the whole state instead of individual municipality dealing with waste differently. If waste and recycling practices are the same across the state it is likely that higher standard, more easily understood instructions can be distributed. It is most important that information provided to households is clear and easy to understand. Even people that are keen to ‘do the right thing’ often find it hard to know what can and cannot be recycled.

Recommendation
9. Aim to have standardised procedures for waste across the state, provide clear and easy to follow instructions for households and make community an integral part of designing education programs.

I. State and national policy and regulatory settings
CEH agrees with the actions of introducing a Statewide Waste Levy and a Container Refund Scheme and have commented on these in paragraphs C and D above. It would be preferable if both of these could be introduced sooner; Tasmania is keen to champion ‘clean and green’, but can be tardy in facilitating it.

It is important that the state government apply pressure on the Australian Government where necessary to reduce waste. Recently Australia has a less than impressive record on waste with our Asian neighbours and this is a good opportunity to demonstrate that we can clean up our own mess. Tasmania should be looking at progressive waste policies adopted elsewhere in the world and in other states in Australia and pressing the Australian Government to make them the standard for the country. For example, Victoria has banned e-waste from landfill, and we should be doing the same. European examples of good practice are contained a recent report from the Clean Energy Centre, Cork Institute of Technology3.

Recommendation
10. That the State Government reviews progressive waste measures from other jurisdictions in Australia and overseas, applies them in Tasmania and recommends they become standards to be followed throughout the country.

References
7 October 2019

Dear Sir/Madam

TASMANIAN DRAFT WASTE ACTION PLAN

Thank you for the opportunity to provide a submission on behalf of the Central Coast Council on the Draft Waste Action Plan.

Firstly, the Council endorses both the Local Government of Tasmania and the Cradle Coast Waste Management Group responses.

The Council is pleased that the State Government is taking an interest in the Waste Management area. The State attempts to sell the clean green image of Tasmania but where the minimisation of waste is concerned, there has been little leadership shown to date.

The Draft Waste Action Plan is a high-level document but lacks a framework and detail on what the principles and objectives are of the plan. The below comments are prefaced on the high-level key actions and targets, noting the lack of detail.

This Council, in principle supports the introduction of a Statewide Waste Levy. Before giving full support to the introduction of a Levy, Local Government needs to be sitting around the table to discuss the application of the Levy and how the levy received would be distributed. The Levy should be looked at hand-in-hand with the important objective of reducing the volume of organic waste sent to landfill. This is an important environmental issue that needs to be addressed sooner than 2025. The Statewide Waste Levy could be a pricing signal to encourage diversion from landfill.

The proposed governance arrangements in relation to the Waste Action Plan have not been identified at this stage but in order for the Waste Action Plan to be successfully implemented, it will need the inclusion of industry, Local Government...
(including the existing waste management groups) and the State Government around the table. Waste Management issues are a national issue and we need to ensure that the Waste Action Plan principles fall out of the national waste management initiatives.

The Local Government Association of Tasmania has produced a document titled ‘Statewide Waste Arrangements Feasibility Study’ which identifies a Waste Governance formal shared collaboration structure, co-owned by and accountable to State and Local Governments as the preferred option to deliver the Statewide Waste Management arrangement. The Council fully supports this model.

There is concern that there does not appear to be a level of urgency with the introduction of the Waste Action Plan, as the target dates appear to be very attainable. We would like to see more work around reducing the target dates.

As this is such a high-level document that does not have a clear governance framework around it, we need to ensure that we further develop the priorities into identifiable actions to ensure we reach our targets by the end of March 2020 so that actions can be brought forward into the new financial year.

In closing, we wish to congratulate the State Government for taking leadership around the waste issues pertaining to our State, including the Waste Levy, recyclables, reduction of organics to landfill and packaging.

We look forward to working with you in implementing the Waste Action Plan.

Yours sincerely

Sandra Ayton
GENERAL MANAGER