

Advice on recycling and resource recovery infrastructure in Victoria

Submission by Planet Ark Environmental Foundation

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[Planet Ark](#) welcomes the opportunity to provide a submission to Infrastructure Victoria on its advice on recycling and resource recovery infrastructure in Victoria.

Planet Ark Environmental Foundation is an Australian not-for-profit organisation with a vision of a world where people live in balance with nature. Established in 1992, we are one of Australia's leading environmental behaviour change organisations with a focus on working collaboratively and positively.

We help people, governments and businesses reduce their impact on the environment in three key areas: sustainable resource use; low carbon lifestyles; and connecting people with nature. We promote and create simple, positive environmental actions - for everyone.

Our campaigns and programs build on our positive and action-based philosophy to work with a broad range of individuals, schools, councils and workplaces. Planet Ark is well known for its role in educating Australians how to improve their recycling with information services such as [Recycling Near You](#) and [Business Recycling](#) and behaviour change campaigns such as [National Recycling Week](#).

Planet Ark has worked closely with The Australian Packaging Covenant Organisation (APCO) and PREP Design in the development of the Australasian Recycling Label (ARL) and more recently has been involved in driving the Circular Economy within Australia via instigating the [National Circular Economy Hub](#). Planet Ark continues to work closely with APCO to improve recycling within Australia to deliver a range of activities including the 2025 National Packaging Targets of;

- 100% of packaging to be reusable, recyclable or compostable
- 70% of plastic packaging recycled or composted
- 30% average recycled content across all packaging (note that APCO's analysis in 2019 indicates that this target has already been achieved, and a higher target is in development)
- Phase out problematic and unnecessary single-use plastic packaging through redesign, innovation or alternative delivery methods.

The remainder of this document provides Planet Ark's responses to the questions posed by Infrastructure Victoria.

Infrastructure Victoria has produced a well thought through and structured review of the waste issues facing Victoria and the potential options for improvement. It is critical that substantial improvements are made to Victoria's management of waste and that these are designed to create long lasting change and implemented soon.



Q1: Have we identified the right outcomes for Victoria to aim for?

Yes. The overarching strategic objective is defined well; to reduce the amount of material going to landfill and increase the recovery and recycling rate of materials in Victoria. Figure 3 on page 13 of the paper provides a useful breakdown of desirable outcomes in relation to different stakeholder groups, and the objectives in relation to the waste. This in turn is articulated well in the interventions required and the key actions defined in section 5 of the report.

Q2: Have we identified the most effective potential actions for government to take?

The potential actions outlined in section 5 of the paper, if well designed and implemented with sufficient resources are likely to be effective. It is also important that due consideration is given to the challenges and opportunities identified in section 6 of the paper.

We make the following comments in relation to the design and implementation of these actions.

Section 5.1 of the Evidence Base Report (the report), *Sector wide improvements*, notes that there is strong support for recovery and recycling by Victorians but some confusion as how to do it properly, and that a consistent and ongoing education campaign would be beneficial to increase recycling and organics diversion from landfill and avoid contamination.

The level of contamination in waste streams is one of the key challenges to the viability Australia's kerbside recycling system, and the level of confusion amongst consumers on what can be collected for recycling through the kerbside system and scepticism about the integrity of recycling outcomes are key drivers of this. The [Australasian Recycling Label](#) (ARL), which has been developed and delivered by Planet Ark and APCO and is being used by an increasing number of brand owners and retailers, is the only on-pack labelling system that provides the correct, evidence-based information on the recyclability of specific packaging.

The ARL is underpinned by 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. APCO's Strategic Plan 2017-2022 establishes an objective of having 50% of APCO Members using PREP by 2020, and states that mandatory uptake of PREP by Members is a critical success factor for achieving the 2025 Targets.

As the only national, evidence-based on pack label for recyclability, the ARL should be an integral part of any public education program on recycling.

As noted in the report, there are other important steps to reduce confusion and contamination in Victoria's recycling system.

Across Victoria's councils a whole range of bin colours exist. For example, in at least one metropolitan council, bins are bright blue for recycling, green for landfill and green with a bright green lid for green waste. The latter was green with a red lid until recently and in some public areas the recycling bin has a yellow lid. Compare and contrast with the normal standard which aligns with AS 4123.7.

- General Waste – Dark Green or Black body with **Red lid**
- Mixed (Commingled) recycling (glass, plastic, metal and paper combined) – Dark Green or Black body with **Yellow lid**
- Green Waste/Organics – Dark Green or Black body with **Lime Green lid**

The success of councils working with MWRRG in aligning with the Australian Standard shows how this can be achieved, and we encourage the Victorian Government to build on this success.

It will also be important to work with councils and MRF operators to ensure that there is a consistent approach to what can and can't be included in kerbside recycling bins across the state. Indeed, we strongly encourage the Victorian Government to work with other jurisdictions to develop a nationally consistent approach to kerbside recycling, and to work with APCO and Planet Ark to ensure that the ARL and the public and business education and messaging that supports it, align with this approach.

A universal bin colour system and a baseline minimum requirement for what can be accepted in MRFs are minimum standards that need to be set before progressing to other activities. Only when these are achieved can an education programme be truly effective, and this should align with national activities such as those provided by Planet Ark and APCO through the ARL and Recycling Near You.

The baseline minimum standard also needs to be applied to any public transfer station with the site including mechanisms for recycling a range of materials free of charge. Within Victoria the quality of transfer station is highly variable, the knowledge of the consumer of what can be recycled is limited and the charging to dispose a hurdle to change. Again, a consistency of approach and the development of a provision for greater source separation on these sites would be a considerable bonus for the consumer. The benefits may even extend to the reduction of illegal dumping and litter.

The technical report on Victorian waste flows highlights the potential for targeted collection of clean waste streams, for example through supplier 'take-back' arrangements, drop-off facilities and business to business recycling. More granular material flow analysis would help to identify opportunities to develop collection, processing and material reuse based on such waste streams at a local and regional level.

Consideration of further source separation is supported by Planet Ark, either through additional bins, collection sites or a container deposit system (CDS). The CDS in other states has demonstrated the benefits of clean waste streams to reprocessors and should be pursued by Victoria at the earliest opportunity. It is also critical that this aligns with the activities of neighbouring states where the potential issues have been managed well. An additional benefit of a CDS is the reduction of litter, placing a value on waste as a resource drives better behaviour.

Again, the implementation of extra collection sites for further source separation should be consistent with standards across the state. The elimination of confusion is critical, providing a simple and easy to use system will only increase acceptance and trust. Glass as an example can be source separated by colour and dropped off at community sites as done overseas or through a separate bin linked to the existing collection mechanism. Both options would integrate well with a CDS to drive higher quality glass collection with reduced contamination and colour mixing.

Once the system has been standardised then education can commence. Although the mechanism of education is not outlined in this review there is clearly a need for this to be well resourced, funded and planned. Waste education programmes within Victoria have at best been piecemeal and sporadic and at worst limited and ineffectual. A consistent, uniform, agreed, planned, extensive and well-funded education programme will be required to drive the necessary changes for recycling and organics recovery. Ideally it would be done in conjunction with other state and federal governments as outlined in the National Waste Policy.

Q3: Which, if any, of the initiatives implemented in Wales would you like to see applied in Victoria?

While we encourage Victoria to learn from overseas models, we note that Australia has in place a compulsory product stewardship scheme for packaging, through the National Environment Protection (Used Packaging Materials) Measure 2011 and the Australian Packaging Covenant, which has a number of world leading elements. These include the PREP and ARL, as well as the comprehensive engagement of businesses on sustainable packaging through the Packaging Sustainability Framework. We are now looking at opportunities to support the adoption of these resources by a number of product stewardship organisations around the world, including WRAP UK.

The UK Plastics Pact, which is an agreement between governments and industry across the UK administered by WRAP UK, is an excellent example of a shared responsibility approach to improving waste and recycling outcomes. The targets and actions being taken under the plastics pact are similar to those being delivered in Australia through the Australian Packaging Covenant, which is a co-regulatory approach being delivered by APCO on behalf of the Commonwealth, state and territory governments and industry. However, it should be noted that the UK Plastics Pact does not have the breadth of industry participation, nor government engagement of the Australian Packaging Covenant, being limited to large organisations in the retail sector only. One particular initiative in Wales that could be considered for implementation in Victoria is the [WRAP Public sector guide on procurement of plastics](#).

Much of what is highlighted as activities in Wales are discussed through this submission, however the setting of targets is an area that merits discussion. Targets are important but should not focus just on the recycling outcomes, but rather across a range of measures. This could potentially include education, access to facilities, and contamination rates. High rates of recycling with problematic contamination is not a desirable outcome, especially for organics. Targets need to be considered across a range of measures that drive the required outcomes. Setting baselines is fundamental to the achievement of targets.

Some of the other actions such as procurement by government is all part of the development of a Circular Economy and can be key to delivering end markets.

Q4: What do you think of the market design opportunities proposed to improve waste sector outcomes and efficiency?

Important considerations in relation to market design will include:

- Balancing economies of scale with target interventions that may produce cleaner, more valuable waste streams
- Ensuring an appropriate level of competition
- Incentives and direct support for innovation and market development

- The need for targeted intervention such as preferred procurement for recycled content
- The role of Product Stewardship schemes.

Q5: Where do you think government should focus their efforts to increase recycling and resource recovery? (for example, through setting targets, promoting consistency or funding local councils?)

Waste has no borders within Australia, so we encourage the Victorian Government to work closely with other jurisdictions to ensure that every opportunity is taken to develop nationally consistent and integrated approaches to waste management in Australia, in line with the National Waste Policy. Further the development of a local and national circular economy program requires a level of co-ordination in the way we manage and process our waste back into use.

Key areas for government leadership are detailed below.

Packaging product stewardship

Table 1 in the evidence base report states that the Australian Packaging Covenant is the responsibility of the Commonwealth Government and not of the Victorian Government. This is not correct. The Australian Packaging Covenant Organisation is accountable to the Victorian Environment Minister through the National Environment Protection Council, and the Victorian Government is responsible for enforcing the National Environment Protection Measure for companies operating in Victoria.

As noted in the introduction to this submission, in Victoria the NEPM is currently implemented through the Waste Management Policy (Used Packaging Materials) 2012, which from 1 July 2020, this will be replaced by provisions in new Environment Protection Regulations. Companies in Victoria that are not Signatories to the Covenant are required under these provisions to achieve a 70% recycling target for all packaging materials. The NEPM also provides for the Victorian Government to enable these companies to be charged a fee to recover the costs of kerbside recycling of their packaging.

There are also opportunities for the Victorian Government to work more closely with APCO to ensure that the actions of APCO and its Members are aligned with the objectives of the Victorian Government, including encouraging a more rapid take up of PREP and ARL by businesses, increasing business to business recycling and improving monitoring, reporting, diversion and reuse of waste streams.

Public education and building trust

As noted under question 2 above, public education is of vital importance. We encourage the Victorian Government, through agencies such as DELWP and Sustainability Victoria, to prioritise public education on recycling. This should integrate the ARL for the reasons outlined above. Over time, as more APCO Members use the ARL on more products, the ARL will become ubiquitous on Australia's retail packaging, and it will be important to increase public awareness of it. APCO and Planet Ark will also be working towards evidence-based labelling approaches for recycled content in packaging.

Building trust in recycling and the associated systems is a critical element of any developments in Victoria. Planet Ark commissioned research by Pollinate in 2018 and 2019 which found the level of trust in kerbside recycling has declined dramatically in the last 12 months across the country.

Answer	2018	2019
Most of it goes to landfill	21%	36%
Most of it is stockpiled	10%	12%
Most of it is recycled	42%	33%
I am unsure	27%	19%

The decline is even sharper in Victoria where 42% think most kerbside recycling goes to landfill and only 30% think most of it is recycled. This is reflected in the research provided to Infrastructure Victoria by Quantum Market Research

Organics

Food makes up around 35% of household waste going to landfill, creating environmental problems and wasting a chance to use this type of organic material. There are success stories across Victoria of the take up of food and garden organic collection. We could learn from these, promote food-waste reduction activities, and develop a consistent approach for the collection of organics to minimise this waste going into landfill.

Organics recovery is underway in some councils with FOGO collection but once again a consistent state-wide approach needs to be taken to reduce confusion and drive quality outputs. Further education is required to provide the consumer an understanding of what is acceptable and what is not. Contamination will remain a barrier to the development of any quality recovery system be it for conversion to energy or compost. Plastic contamination remains a barrier to the development of acceptable composts and fertilisers.

The potential for bio-based compostable packaging inclusion in the organics stream remains an option providing that it is correctly labelled and certified to the Australian Standards AS4736 or AS5810. Compostable packaging is suited to niche applications, particularly food service, where food organics collections are available.

Opportunities exist to invest in mechanisms to consolidate and organic waste such as dehydrators where materials can be collected from cafés, restaurants and offices. This will certainly reduce transport costs and traffic movements in already crowded urban sites. Financial support for this type of infrastructure may help drive great efficiencies in collection.

Problematic packaging

There is a need to drive out problematic packaging products from use within Australia. Much of this is in hand being driven by APCO working with organisations like Planet Ark. However, there still remains the opportunity to regulate certain packaging items that are either associated with litter or carry the risk of being coated with unsafe chemicals for e.g. BPA or PFAS.

Processing infrastructure

There is a definite need for investment in processing infrastructure within Victoria. As mentioned previously there is a need for a minimum standard for MRFs which will need investment and regulation. The MRF only provides the initial separation of materials, there is a further need to provide the secondary processing / refinement capabilities for example for PET within the state.

Conversations with packaging companies within the state have indicated a desire to use more locally sourced recycled plastic but been unable to source it or secure investment for processing facilities.

There is already a desire for recycled materials, but the state and local government can further support this with the implementation of minimum procurement requirements for recycled content within products.

Within Victoria we have a world class soft plastic reprocessing capability with Replas and Close the Loop. These companies and the purchase of their products by state and local governments are great examples of why the synergy has driven a growth in the diversion of soft plastics from landfill through the RedCycle channels. The use of soft plastics in roads is a good example of what can be achieved with the appropriate investment and passion for change.

Waste to Energy Policy

The lack of a state policy for waste to energy technologies is delaying their implementation as a method to divert the base residue of our wastes from landfill. Improvements in reuse and recycling will reduce the levels of waste generate but there will still remain a considerable level of waste that needs to be diverted from landfill.

Technologies exist for extraction of energy from organics for example in the form of anaerobic digestion and for other wastes sophisticated waste to energy technologies have been developed. A level of misunderstanding and distrust exists behind these technologies so a policy with appropriate evaluation, regulation and education will open up opportunities for investment. Providing that the implementation is done in line with the waste hierarchy, with the highest safety standards and in a measured way so as not to create too much capacity then waste to energy has a definite role within Victoria.

The Circular Economy

Planet Ark and APCO are both driving the development of a [Circular Economy](#) within Australia. Much of what is described above has a role to drive its development within Australia. The waste export bans proposed by COAG would further drive the need for the development of a Circular Economy within Victoria. The ARUP scenario analysis also supports the need to develop towards a Circular Economy and the actions cited within their report are in line with the commentary in this document. As cited in the ARUP report there are many interdependencies in changes to improve Victoria's waste/resource management.

Within the Circular Economy scenario there is a need to pursue product stewardship as it an important implementation tool. Planet Ark and APCO encourage the state of Victoria to work with the Federal government and other states to implement a range of new programmes, for example for photovoltaic systems.

Collaboration is a vital component of the Circular Economy and both Planet Ark and APCO encourage Victoria to collaborate nationally to deliver the needed outcomes.

Q6: Which materials or infrastructure types present the most opportunity in your region?

APCO's Australian Packaging Consumption and Resource Recovery Data report shows that there is work needed in relation to all packaging materials, including plastics, glass, paper and metal. It will be important to ensure that the work to improve recovery of these materials maximises the

retention of value and contributes where possible to sustainable local markets and business development. The greatest challenges are in dealing with plastics, particularly soft plastics. Victoria has in place a number of plastics reprocessors already leading in this field, and Victoria is also among the leaders in the use of waste-derived materials in civil construction, including road construction. These reprocessing and construction industries could play a major role in improving outcomes on soft plastics amongst other materials and providing regional waste solutions and business development.

Q7: What is a legislative barrier or enabler that you have encountered when trying to use recycled materials?

The Victorian Government may wish to consider undertaking a systematic review of standards that could address recycled materials, for example, standards for construction materials, and products such as plastic rainwater tanks.