

<https://www.infrastructurevictoria.com.au/project/advice-on-waste-infrastructure-in-victoria/>

Advice on recycling and resource recovery infrastructure in Victoria

We welcome feedback on all aspect of the report, but in particular we invite responses to these specific questions:

Infrastructure Victoria's role is to look at the sector through an infrastructure lens.

To make a submission visit [infrastructurevictoria.com.au](https://www.infrastructurevictoria.com.au). **We will accept submissions in response to the report and these questions via our website until Friday 13 December 2019.**

Late submissions cannot be accepted.

Food Waste Collection Guidance WRAP UK (2009) NB *Cymru* is the *Welsh* name for *Wales*. *Cymru* is pronounced come-ree. Hence WRAP *Cymru*.

Recycling and resource recovery infrastructure Evidence base report October 2019 - Alan COUCHMAN (alan.couchmanhd@gmail.com, 0406487442)

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

Your report draws from your supporting documents; the Alphbeta report, the Blue Environment report, the ARUP scenario report, the CMD advice and the Legislative-and-regulatory-review-Infrastructure-Victoria report are non-conflicting. Alphbeta: (alphaβeta page 39 UTS) Infrastructure and technology in Victoria is fit for purpose but outdated in parts, and is not geared to end market quality requirements. (Blue Environment report explores this mismatch on greater detail.). Alphbeta: (alphaβeta page 40 UTS) Major challenges in mixed plastic and paper and cardboard. While end market exists, the value of mixed recycled glass is very low. Organics market is underdeveloped. This consistent with the assessment of Blue Environment report etc. So yes, Infrastructure Victoria's outcomes are based on valid premises.

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

I still use BI-LO green bags [Re-branding BI-LO stores began later in 2006 and had been expected to be completed by mid-2007.], so I am heartened to see Woolworths resuming the sale of green bags. The Coles, ALDI and Woolworth's heavy plastic (thickness greater than 0.035 mm) reusable plastic bags are essentially a loop-hole. They may not be picked up and blown around in the wind and get carried out to sea, but they do wind-up being in our garage. The green bags do not wind-up in the garbage because unlike the new heavy plastic bags, they are not a substitute for kitchen bin liners. (see photos). [NB Schedule received 12/12/2019 from the City of Monash states that, as of mid-2020 will introduce fortnightly FOGO (new), but keep weekly general waste (unchanged). Furthermore, general waste MUST be **bagged**. So, plastic bags are still be going to go to landfill.]

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

These are initiatives that are relevant: Alphbeta case study: WALES: (1) Strong organics markets, development of **brokerage services** for end markets and funding programs for businesses. [NB Parallels with unimelb CMD advice to use an auction system to contract out waste recyclings.](2) Local authorities have been supported to form consortiums to more effectively negotiate deals with private sector and **mission driven organisations** such as WRAP *Cymru* have been established. [Mission driven organisations need to be funded.] Targets are relevant; Wise about Waste set targets for Welsh local authorities

to reach 40% recycling of MSW by 2009/10, including at least 15% composting. In 2010, a new waste strategy – Towards Zero Waste – was introduced, with new targets that apply to all waste streams and an aspiration to reach 100% recycling rate by 2050. Victoria's current recovers 40% municipal solid waste (MSW). Alphabeta: (alphaβeta page 18 UTS) The experience of Wales demonstrates that targets can be useful in maintaining long-term focus, but they **need to be accompanied by funding streams** and detailed sector planning to ensure targets can be met.

However, the Romaquip Kerb-Sort truck looks way too costly and manual loading too labour intensive. Separating recyclables into {glass, steel and aluminium} and {plastic, paper and cardboard} would be sufficient. However, glass is inert as a pollutant, essentially worthless as a recyclable (unless we prefer sintered glass bricks over other building materials and insulation) and insidious as a contaminant. As a contaminant it seriously devalues the worth of other recyclables; so we should follow that lead given by City of Ballarat and cease, rather than creating a separate bin for glass, glass should go straight to landfill. [Though if plentiful, solar electricity arrays may enable us to profitably sintered glass bricks.] [Blue Environment report: There is likely to be increased pressure on recycling collections that exclude glass contamination, either through separate glass collection services, centralised street-based collection systems (as used in Europe) or the implementation in Victoria of a container deposit scheme.]

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

The Blue Environment report makes it clear that, due to stricter contamination standards for our export of recovered raw materials, that we are left with many stockpiles of materials that have little or no value, or that we lack the infrastructure to utilise them, compared to virgin materials. The Blue Environment report is a valuable assessment of our current situation (abet with many unquantified areas) that will serve as a baseline going forward. We will need to mobilise all our resources to close the waste economy. A recurrent theme is the need for money. Repurposing, recycling, pollution prevention and habitat and wildlife preservation are not madly profitable. Raising the GST by 10 percent would provide a wealth fund to do the 20 percent of things, aerobic digesters etc, that will make the 80 percent of the difference (Pareto Principle applied repeatedly). This money would be understood as our compensation for the damage we do to the environment. Biologists, environmental science monitoring and conservation would receive a share of this money.

Alphabeta: The waste-to-energy (energy from waste) sector is under-developed compared to those of leading nations. [However, the EU has had second thoughts and moving away from incinerators.] Victoria's WtE (EfW) sector is constrained by uncertainty about investment return, the security of feedstock, potential issues around social license and unintended effects on re-use and recycling, [My guess is WtE (EfW) incinerators are attractive to the private sector as they are big facilities that can be monopolised. However, incinerators pollute the atmosphere of the entire planet Earth and emitter toxic gases as well as greenhouse gases; much like coal fired power stations. In contrast anaerobic digesters are a WtE (EfW) technology that is environmentally sustainable and scalable.

[Blue Environment report: A growing trend for councils to provide FOGO services and in some instances to extend this to ratepaying businesses for food recovery. Blue Environment report: Product quality and contamination risks may restrict markets for recycled organic products. In particular persistent organic pollutants, heavy metals, plastics and glass may reduce the applications and markets for products including composts and biosolids.] [Blue Environment report: **EPA requirements for 'in-vessel'**

pasteurisation and **composting of FOGO** and other higher odour risk inputs, resulting in large volumes of lower market value immature pasteurised materials being put onto the market.] NB The EPA requirements are therefore similar to the UK 'catering waste' requirements that underpin the collection of food waste separately from garden waste, re Food Waste Collection Guidance WRAP UK (2009) door-step caddy food waste collection. So this supports the case for bespoke 'food waste only' collection. The WRAP (2012) 'food waste only' is mentioned in the extensive report of municipal food waste recycling initiative in the Commonwealth (2012) FOGO collection-manual.

*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?)*

Planning, constructing, managing recovery or recycling infrastructure, legislating, controlling and monitoring it, ultimately require money.

The Victorian Government should in advocating to the Australian Government on behalf of Victorians for a 10 increase in the GST, to ensure the right policy settings are in place to deliver the best outcomes for Victorians and the Victorian recycling and resource recovery sector, and by extension, Australians in all states and territories. Achievement of the goals of minimise litter and waste disposal, promote waste reduction, resource recovery and resource efficiency, and minimise the impact on human health and the environment from waste generation and waste disposal, requires a major closure of our waste economy. A consumption tax on all goods and services (apart from those, like fresh food, which are exempted) is logically the right source of money for the recovery, recycling or other responsible disposal of the waste and environmental impacts of these goods and services, hence the financing of the closure. Given the Australian community's high level of support for recovery and recycling, increasing the GST to cover the closure of our economy should be popular enough to be politically achievable, as it addresses the reality that every part of our economy - the thing that employs us - needs to be environmentally sustainable. It will create a new economy. It will create new responsibilities and therefore new jobs. If raising the GST by 10 percent means Galápagos Island iguanas do not eat plastic bags and Cocos Island crabs do not die trapped in glass and plastic bottles etc. it is worth it.

Plastic in paradise: the battle for the Galápagos Islands' future

<https://www.youtube.com/watch?v=aS8IBxi2xJE>

Guardian Cocos Island crabs

<https://www.theguardian.com/environment/2019/dec/05/plastic-pollution-hermit-crabs-species-decline-henderson-cocos-islands>

Alphabeta: (alpha&beta page 36 and 40 UTS) (In Victoria there is) Strong support for recycling practices for environmental and waste reduction reasons. 95 percent of Victorians (surveyed) agree that recycling is important. 75 percent (surveyed) of Victorians think landfills are the worst option for managing waste. High proportion of C&I (67%) and C&D (82%) waste is recycled. 8 in 10 small medium enterprises (SMEs) view reducing waste and increasing recycling as key to being a sustainable and **ethical business**.

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

Methane a global warming potency 25 times that of carbon dioxide, however a well aerated home compost pile results in carbon dioxide, not methane - provided the brown-to-green ratio is around three to one. However, the advice is, don't include dairy, meat, bones, oils, or pet poop, as your compost won't (does not) get hot enough to destroy any pathogens in them <https://grist.org/living/ask-umbra-is-my-compost-pile->

[contributing-to-climate-change/](#) .

An example is the Leichhardt City Council area, in Sydney's inner west food organics service for multi-unit dwellings (MUDs) only, while households in single dwellings continue to be encouraged to reduce food disposal through composting and worm farming [1].

[1] Source: Commonwealth (2012) FOGO collection-manual (Hyder Consulting was commissioned in February 2012 to produce this guidance.

While I appreciate commercial composting businesses are currently reluctant to process nappies, in Shoalhaven City Council – 'Wet and Dry' Collection Trial, the white-lidded bin used for 'wet' organic materials included food, garden vegetation, seafood, earth-based materials, animal manure, pet bedding and nappies. An audit of the wet bins found 94% of the collected material was compostable while 6% was residual waste. The compost product complied with AS4454 standards. So, nappies can be recycled by municipal composting [1]. Lismore Council in northern NSW was one of the first Australian councils to introduce a domestic collection of food organics. The service was rolled out in 1999–2000. In 2012, the council began to accept compostable nappies in the organics service [1].

Recycling of nappies should not be stopped by 'not in my backyard' obstacles (as evidenced by Knowaste's failed attempt to set up in nappies recycling plant at Hayes in the London borough of Hillingdon). Land use planning needs to ensure that buffers surround future reprocessing sites, as emphasised throughout the Legislative-and-regulatory-review-Infrastructure-Victoria-October-2019-FINAL-REPORT. [MyPlanet Recycling recycling plant for disposable nappy at Noble Park in Victoria, Australia closed on September 29, 2006 and never reopened.]

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

To reiterate, that land use planning needs to ensure that buffers surround reprocessing sites for nappy recycle facilities etc.



