

Recycling Myths Fact Sheet

September 2018



At a Glance

The Creation of Recycling Myths

The last 30 years has seen the development of Council's recycling collections in Australia, giving householders a convenient way to return materials for use in new products. Initially, the recycling industry had teething problems, as can be expected with emerging industries. The industry of today is relatively mature and consolidated, with far greater experience. The trial and error of early years, coupled with lack of education and degrees of reluctance to change from the community, have seen misconceptions of recycling grow in Australia.

By removing the myths that weaken public confidence in recycling programs, we will see better public participation, an increase in recycling rates, and establish a better partnership with the community for a more environmentally friendly East Gippsland.

Myth 1: 'Australia has abundant space to bury our waste, so I don't need to recycle'

Fact: Concentrating on landfill space misses the point and ignores the fact that burying household waste in landfill has many environmental and economic impacts.

Myth 2: 'All recyclables go into one truck and are sent to landfill'

Fact: False. Contractors in East Gippsland are required to take waste to landfill and recyclables to the Materials Recovery Facility (MRF).

Myth 3: 'I don't need to recycle – everything biodegrades in landfill'

Fact: The anaerobic (without air) conditions in landfill slow down the process of biodegradation of organic materials, and increase the production of methane gas - a greenhouse gas responsible for global warming. Complex products such as plastics and alloys are likely to remain in landfills for over hundreds of years.

Myth 4: 'I can put anything into the recycling bin – someone else will sort it for me at the recycling plant'

Fact: Putting inappropriate waste in your recycling bin causes contamination which can damage or destroy other recyclables and machinery, affect the quality of recycled materials, and pose health and safety issues for sorting staff. Even a small amount of contamination can prevent an entire bin, skip bin or trailer from being recycled.

Myth 5: 'Recycling doesn't really help the environment'

Fact: Recycling helps the environment by extending the life of existing landfills. This lessens the need for new landfills which emanate greenhouse gases, and damage the surrounding environment. Recycling also helps conserve resources by producing goods from recycled materials instead of raw materials.

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By removing the myths that weaken public confidence in recycling programs, we will see better public participation, an increase in recycling rates, and establish a better partnership with the community for a more environmentally friendly East Gippsland.

Myth 1: 'Australia has abundant space to bury our waste, so I don't need to recycle'

The lack of space for new landfills in densely populated areas such as Japan and across Europe is a significant driver for their recycling programs. However, it is not the *only* driver. This myth gives the impression that space for landfill is the primary consideration for waste disposal, and ignores the fact that burying household waste in landfill has many environmental and economic impacts.

Environmental costs of landfill

The breakdown of organic matter in the anaerobic (without air) conditions of landfill produces greenhouse gases such as carbon dioxide and methane, with the latter having a global warming potential of 21 times than that of carbon dioxide. Landfills also produce a slurry liquid, called leachate. Leachate is a mixture of organic acids, dissolved chemicals and rainwater. It can contaminate surrounding land and waterways.

Proximity to urban centres

There are economic and environmental trade-offs in choosing landfill sites. No one wants a landfill in their backyard; however, siting a landfill close to urban areas reduces transportation costs and environmental impact.

Waste of resources

Recycling and waste avoidance are ways to make better use of resources. All waste materials represent an investment of water, energy and natural resources, such as coal, oil or trees. Once waste goes to landfill, new material has to be taken from our environment to produce new products.

Myth 2: 'All recyclables go into one truck and is sent to landfill'

This myth is commonly believed by people who live (or have lived) in areas that either use a different recycling collection and bin system than we do in East Gippsland (for example split wheelie bins), or believe they have seen the same trucks collecting both waste and recycling.

In more densely populated areas like Bairnsdale, Council's contractor Tambo Waste has specific trucks that collect general waste, recycling or green waste. In smaller areas that are a further distance from landfills and the Materials Recovery Facility (MRF), like Omeo, there are general trucks that can pick up any kind of waste. For example, two trucks collect general waste then deposit it in landfill. Subsequently, the same two trucks travel back to collect the recyclables and take them to the MRF in Bairnsdale. It is more efficient to use the same trucks twice than sending multiple trucks to collect small amounts of waste.

General waste is sent to landfill, and recyclables are sent to the MRF where they are sorted and separated. The various products (aluminium, paper, steel, glass, plastics) are then baled and sent to recycling plants in Australia and abroad.

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Recyclables picked up by waste trucks in East Gippsland do not go to landfill unless they are highly contaminated.

Myth 3: 'I don't need to recycle – everything biodegrades in landfill'

It's commonly believed that everything we send to landfill will eventually decompose. The problem with landfill however is more complex, because the time taken for materials to break down is a lot longer than what people think.

Organic materials biodegrade naturally, through the action of micro-organisms that digest the materials. When organic waste is exposed to air and sunlight, this occurs at a steady pace. In a landfill, layer upon layer of waste is buried with more waste and covered with soil or clay. These anaerobic (without air) conditions slow down the natural decomposition process and increase the proportion of methane produced. Aside from organic matter, there are a number of complex products, plastics, alloys and other materials that end up in landfill. Many of these are new to nature and indigestible to enzymes and microbes, meaning they can remain in landfill for over hundreds of years.

In studying past civilisations, archaeologists and anthropologists rely on the fact that rubbish heaps can last for centuries without completely breaking down. Professor William Rathje's study of modern waste found examples of 50 year old newspapers in landfill that were still legible, despite newspaper being biodegradable.

Myth 4: 'I can put anything into the recycling bin – someone else will sort it for me at the recycling plant'

What you choose to put into your recycling bin has a big impact on operations at the MRF. When the right things go into recycling bins, the collected recyclables have less contamination and can be made into a broad range of products, at a cheaper cost. When rubbish is put into recycling bins, recycling becomes more expensive and dangerous to employees.

This is because:

- Otherwise recyclable materials may have to be disposed of in landfill
- The output of recycled raw materials is of lower quality (worth less money)
- Machinery can be damaged, which is expensive to repair or replace
- Sorting at the Bairnsdale MRF is largely completed manually, and workers can be put at risk. The public can look after workers by not putting hazardous materials, such as dead animals, syringes or medical waste into their recycling bins.

You can ensure that you're recycling the right things by checking Council's website, or getting in touch with the Waste Education Officer.

Myth 5: 'Recycling doesn't really help the environment'

There is a common misconception that something environmentally preferable is completely without environmental impact. This simply isn't the case.

When assessing different options, we need to look at the environmental benefits across the range of impacts. Recycling trucks use fuel and produce transport emissions, however landfill also contributes to the greenhouse effect on a huge scale. Many studies have looked at the environmental savings of recycling while considering the negative effect of transporting recyclables and found these to be insignificant.

Recycling also has benefits in terms of conserving natural resources, energy and water. Materials collected for recycling have already been refined and processed once, so manufacturing the second time is usually much cleaner and less energy-intensive. According to a study by the NSW Department of Environment and Conservation in 2005, 'Every 10 tonnes of extra recycling we can recover is equivalent to taking an extra four cars off the road permanently, the annual electricity requirements for 14.5 households and saves enough water to fill 3.5 average backyard swimming pools'.