

How **green** is this, really?



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Human beings have been deliberately and routinely recycling things for thousands of years.

Driven mostly by concerns about the growing economic and environmental costs of landfills, most governments have taken a more organised and coordinated approach to public recycling programs over the past 30 years.

Throughout this time there has occasionally been some controversy about the environmental benefits of recycling. This has usually been driven by a small number of US-based lobby groups. In some instances, these groups have been successful in gaining media attention for their views.

The main questions about whether recycling really is good for the environment or not focus on three main issues:

- The environmental impacts created by collecting and transporting recyclables
- The water, energy and chemical impacts of recycling processes
- The question of whether landfills are really all that bad

Let's look at transport of recyclables first. Road transport is a major use of fossil fuels, especially diesel petrol, and therefore a significant contributor to Australia's Greenhouse Gas emissions. Transporting recyclables long distances can therefore reduce or eliminate any environmental benefits from recycling them.

This is a valid and important point; especially for WA because we are so far away from other large manufacturing centres of Australia or other nations.

But hang on a minute - it's not that simple. (Is it ever?) There are important things to bear in mind on this question, including:

- Some recyclables, like aluminium cans, are much more efficient to transport than others.
- The better we get at gathering and collecting recyclables, the better we get at transporting them efficiently and the better our chances are for creating viable recycling industries for more resources.
- Much of the data used to criticise recycling is based on information from outdated recycling processes and inefficient equipment. The more we recycle, the stronger our local recycling industry will become and the more people will be willing and able to invest in the latest technology and techniques.
- Local recycling creates local jobs.
- If we didn't recycle, much more material would still have to be transported somewhere. Urban and semi-urban areas have spread out a great deal in recent decades and, as no-one wants an active landfill in their street, landfill sites are now further and further away.

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The better we get at designing, producing, gathering, transporting and processing recyclables ... the better our chances are for creating more viable industries.

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go on...
you know you want to!

For information on these and other workplace recyclables, call 1800 819 000 or visit www.recycleatwork.com.au

Water and Energy

As for water and energy efficiency, these criticisms just don't stack up. The data sometimes quoted by recycling critics is based on outdated recycling plant records from decades ago. Across all recyclables, the pattern is that making something from already-processed materials uses less water and energy - often much less. It makes sense when you think about it - most of the hard work has already been done. Australia's paper recycling mills, for example are among the best in the world for water and energy efficiency. Making packaging from recycled cardboard uses less than 10% of the water that would be needed to make the same amount of cardboard from raw fibre. Recycling even a single aluminium soft drink can save enough energy to run your TV at home for 3 hours.

Landfills

And, as for landfills, the truth is that there is no rule that applies to them all. There are many different landfills around the world that it just doesn't make sense to judge our landfills by how well - or how badly - landfills are managed overseas. The bottom line for WA, especially Perth which relies more and more on groundwater, is that burying stuff in even the best possible landfills will still risk toxic leachate getting into our vulnerable groundwater supplies where it can cause contamination for a century or more.

Just as worrying is the fact that the greatest bulk of what we currently dump in landfill is organic matter that will rot slowly below the surface without much oxygen. This creates methane which is more than 20 times worse as a Greenhouse Gas than carbon dioxide. It is much better if organic matter is allowed to break down on the surface with oxygen.

And, of course, the perennial problem with landfills is where do we put them? No-one wants a landfill near their home and no-one

wants any natural environment spoiled yet we also don't want to send trucks continually to the middle of nowhere. The short answer is that we should avoid dumping anything in landfill. To do this we have to rethink what we produce and reduce our use of resources as well as reuse and recycle everything we can.

A Burning Question

Waste incineration, often called waste combustion or waste-to-energy, facilities have been used widely overseas for years with much success. But the argument that this will make recycling programs unnecessary is just plain wrong.

Burning waste is not as bad as it sounds - modern technologies and processes can make it surprisingly clean and efficient. It can, for example, reduce in far less greenhouse gas emissions than landfilling and it can even produce a useful soil additive as a by-product.

But there is no such thing as a good, quick fix. Burning waste is very expensive and does not recover resources very efficiently. Many recyclables such as glass and metals actually make the incineration plants harder and more expensive to operate safely. Items such as batteries complicate things even further. In fact, the parts of the world where waste incineration works the best, like Europe and Japan, are those where recycling programs are also very strong.

So when someone says to you "Recycling is a waste of time, it's much better to just burn it all and get the energy" - they are missing the point. Recycling and waste combustion technologies should not be seen in competition with each other. In fact, the best opportunities probably lie in getting them to complement each other.



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Making packaging with fibre from recycled cardboard uses less than 10% of the water needed to make it from new fibre

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