

Explainer

RECYCLING CRISIS

Not sure what can and can't be recycled? Here's how it works

Recycling is a complicated business, which is why many of us end up "wish cycling". How does recycling work in Sydney? Do you leave lids on or off? And does it go to landfill anyway?

By [Robyn Grace](#), [Laura Chung](#) and [Josh Dye](#)

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Waste being sorted at a recycling facility. Vision: Planet Art

What do you do with rubbish if you're not sure it can be recycled? Cross your fingers and throw it in the recycling bin anyway?

The national recycling crisis prompted by China's refusal to accept our waste has revealed an industry beset with problems, at every level of government and right along the supply chain.

But the crisis revealed another fault in the recycling process: us.

Experts say many of us are "wish cycling" – tossing everything in the yellow bin in the hope it can be recycled. Whether it's apathy or misdirected idealism, the phenomenon has already consigned many tonnes of recycling to landfill.

The amount of waste generated in NSW continues to fall since it peaked in 2011. Almost two-thirds of waste is now diverted to recycling, which is helping to reduce the number of littered items by 48 per cent.

The NSW Environment Protection Authority found households sent 1.92 million tonnes of residual waste to landfill, while the remaining 1.77 million tonnes was recycled in 2014-15.

In dollar terms, [the state's waste amounts to \\$10 billion](#), or \$3800 per household per year.

In most capital cities, the population and waste generated per head has increased since 2015, says Australian Landfill Owners Association chief executive Colin Sweet, who would be "staggered" if NSW consumers' habits did not mirror this.

After three decades of recycling, why do we still get it wrong? Who is to blame for confusion about recycling? And where is it really going?

The IQ Renew recycling facility in Somersby, NSW. Source: Planet Ark

What's wish cycling?

Recycling giant Visy bemoaned “wish cycling” in a Senate committee submission last year, saying contamination resulting from tossing everything that “could possibly, maybe, sort of be” recyclable into the bin could doom tonnes of recycling to landfill.

Australian Council of Recycling (ACOR) chief executive officer Pete Shmigel says most wish cycling comes from people who like to think they are doing the right thing.

He says: "It's not that people are doing the wrong thing. Essentially, they are ambitious and trying to make their contribution to the environmental outcomes that recycling holds."

Why the confusion?

Sydney councils organise their own waste collection. There's no standard approach. **Mr Sweet says the rules vary due to population density and different contracts with waste management companies.**

All councils offer a basic rubbish and recycling waste collection but some also offer blue-lidded bins for paper and cardboard or green-lidded bins for green waste.

Randwick and the City of Sydney are trialling a burgundy-lidded bin for food waste.

Then there's the preparation of rubbish. Residents in the Inner West, Camden, the Hills and Randwick can recycle lids on plastic and glass containers. Residents in Ku-ring-gai must remove the lids. But residents in Waverley can recycle the lids of plastic containers only. Metal lids must go in the red bin.

Other areas around Sydney, including Hornsby Shire and Sutherland Shire, can recycle only container lids that are bigger than a 50¢ piece.

These differences make statewide education campaigns difficult, prompting industry bodies to call for a uniform waste system.

Lids on or off? That depends ...

Councils have various rules on container and bottle lids

Bayside	Lids made of similar material to bottle or container may be left on
Blacktown	Lids smaller than a business card cannot be recycled
Burwood	Lids must be on bottles and containers
Camden	No specific rules
Campbelltown	Separate lids
Canada bay	Does not recycle
Canterbury Bankstown	Bigger than 4cm wide and must be separated
Fairfield	Does not recycle
Cumberland	Lids must be on bottles and containers
Georges River	No specific rules
The Hills	No specific rules
Hornsby	Bigger than a 50c piece, no bottle tops
Hunters Hill	Plastic lids must be on containers. Separate metal lids and recycle in a metal container
Inner West	Must collect similar types in one container
Ku-ring-gai	Separate lids
Lane Cove	Plastic lids must be on containers. Separate metal lids and recycle in a metal container
Liverpool	Plastic lids must be on containers. Metal lids must be separated and no mixed recyclable lids (like wine bottles)
Mosman	No plastic lids
Northern Beaches	Lids must be separated from containers
North Sydney	No small plastic, no wine bottle screw-cap
Parramatta	Remove lids from glass containers and recycle separately
Penrith	No specific rules
Randwick	No specific rules
Ryde	Separate metal lids and recycle in a metal container
Strathfield	Plastic lids must be with containers. Metal lids must be separated
Sutherland Shire	Bigger than a 50c piece
Sydney	Lids from glass containers must be recycled separately
Waverley	No lids from glass containers
Willoughby	Bottle lids cannot be recycled
Woollahra	Must be bigger than a 50c piece

Source: Local councils. Research: Laura Chung, Josh Dye

Where are we going wrong?

In NSW, the contamination rate, the amount of incorrect material taken from recycling to landfill, is an average of 10 per cent, in a range of 7 per cent to about 20 per cent.

The No.1 contaminant is plastic bags. Soft plastic such as shopping bags are not recyclable, even if they're full of clean and sorted recyclables. In other words, putting recyclables into soft plastic bags undermines your trash efforts.

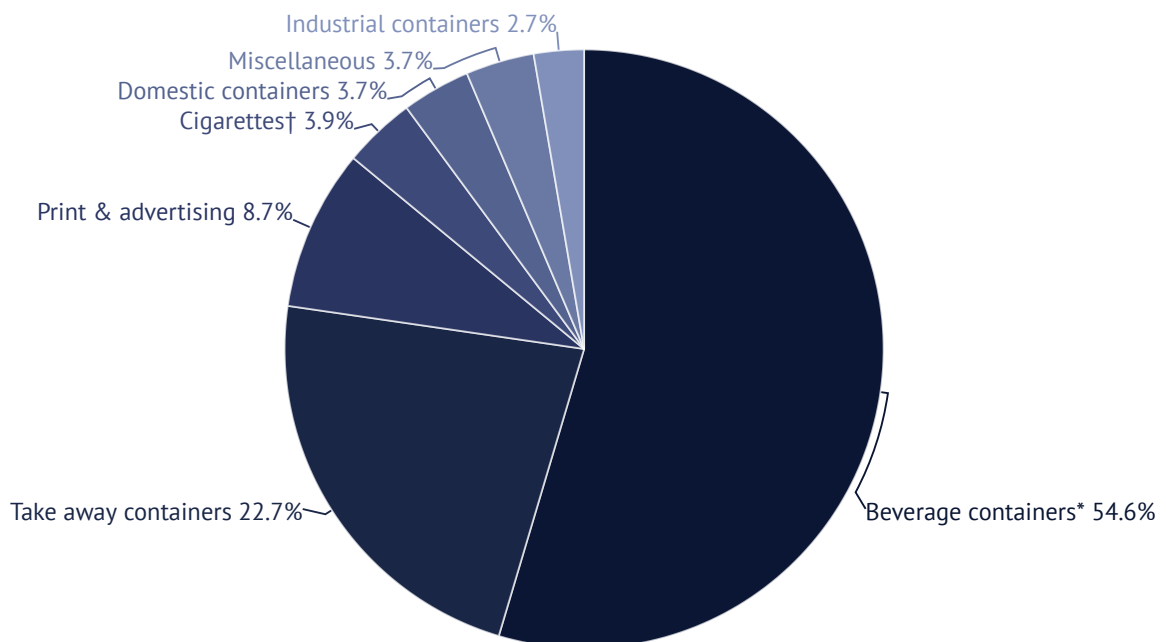
Clothing and plastic bags get caught in sorting machines and can be dangerous to employees at recycling facilities. Too many contaminants degrade the quality of the material. The benchmark for wastage varies depending on a number of factors, including capabilities of the sorting machinery and the type of contaminant.

At worst, they send the lot to landfill.

Disposable nappies, broken crockery, medical waste, clothing and shoes, batteries and polystyrene are also big offenders.

What is our waste?

Volume of NSW litter generated by category in 2017-18



*Including return and earn containers. †Including packaging. Source: NSW EPA

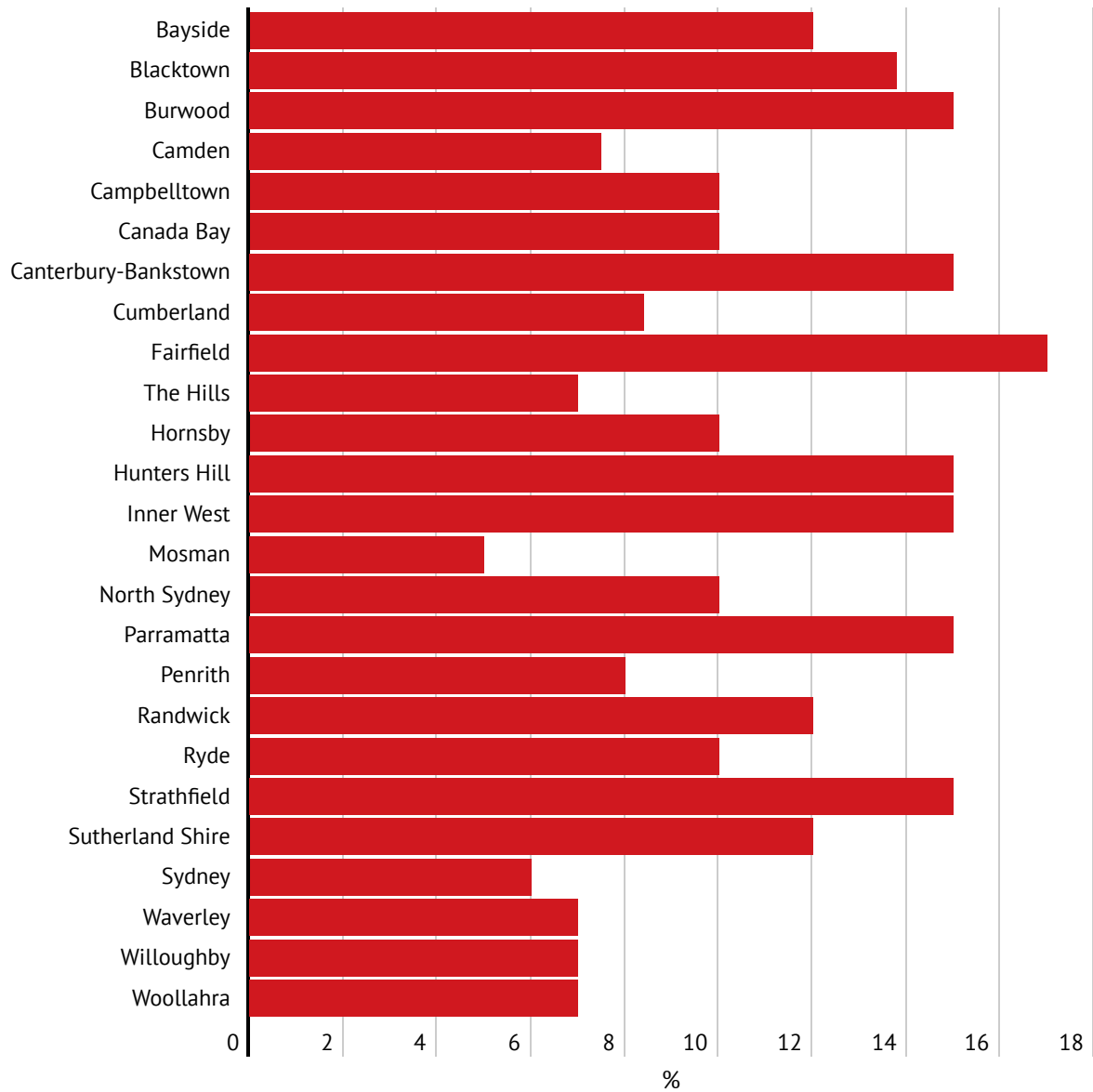
Broken glass is a challenge for recyclers, yet most councils continue to collect it in general recycling. But this can cause difficulties for recycling facilities as it tends to damage other products, such as paper and plastic.

Food is also a major contaminant. Millions of tonnes of food and garden waste ends up in landfill. More than a third of household waste is food.

Local Government NSW president Linda Scott says: “NSW is presently not equipped to deal with the perfect storm of upcoming bans on exporting waste, limited landfill space, failure to effectively recycle and increasing waste being generated equivalent to almost 2.7 tonnes per man, woman and child in NSW in 2017/18 alone.

“Currently, less than half that waste is recycled.”

Recycling contamination rates



Data from Georges River, Lane Cove*, Liverpool, Ku-ring-gai and Northern Beaches Council is not available.

*Council cannot give an exact rate as it has not had an independent audit assessment.

Research: Laura Chung, Josh Dye

So, are there any common rules?

Thankfully, yes. All councils allow paper and cardboard, "hard" plastic, aluminium and steel cans and trays, and empty aerosol cans in the general recycling bin.

Everything should be loose, not in a plastic bag. All items should be at least empty and rinsed.

Some items should not be placed in the yellow bins, no matter where you live, says Waste Contractors and Recyclers Association of NSW executive director Tony Khoury. No-nos include: asbestos, batteries, nappies, shredded paper, organic wastes and gas cylinders.

Planet Ark says adding something to the bin if you're not sure can do more harm than good. If in doubt, leave it out.

Sydney kerbside waste collections



Rubbish

All Sydney council areas

Weekly



All Sydney council

What is hard and soft plastic and what does it matter?

If you squash plastic in your hand and it bounces back into shape, it's hard and recyclable. If it stays squashed, it's soft plastic.

Plastic and glass bottles, and cans are all hard plastic. Foil-like chip packets and chocolate wrappers, bubble wrap and cling wrap are soft.

Hard plastics are commonly found around the home in places such as the kitchen, bathroom and laundry, says Mr Khoury.

"It's important to note that not all plastics which have a printed recycling symbol are recyclable in your yellow-lidded recycling bin," he says. "Some recycling symbols are very misleading."

Sometimes, it's more complicated

Cling film is tricky, too: only the Glad brand is recyclable as soft plastic (many other brands use PVC). Soft plastics need to be empty and dry. Wet plastic creates a mould problem.

Soft plastic, such as bread bags, biscuit packets or old green bags, can be recycled at Coles or Woolworths. [REDcycle was started by one mother in 2011](#). She found a local re-processor and now has 1800 bins nationwide. The plastics are recycled into bench seats for schools and kindergartens.

What about those numbers on plastics?

The numbers one to seven on the bottom of plastics are not recycling symbols. They explain what type of plastic the product is made from.

Most councils accept “plastic 1-7” in recycling but the codes include items such as PVC and polystyrene, which aren’t recyclable.

The Australasian Recycling Label (ARL) has instructions on how to dispose of each part of an item's packaging. Developed by the Australian Packaging Covenant Organisation and Planet Ark, it's so far been adopted by 270 companies.

How can I buy food without packaging?

Consumers are constantly told to buy less plastic but supermarkets, in an effort to avoid food waste and increase convenience, make that difficult.

There are businesses that allow BYO containers, or shoppers can at least take their own bags. Woolworths says it's "working hard" to reduce plastic packaging, such as by replacing some plastic fruit punnets with cardboard. By mid-2021, it will allow customers to use their own containers but only if they're supplied by the instore Loop program.

Woolworths uses the ARL recycling label on home-brand products and has committed to make home-brand packaging reusable, recyclable or compostable by 2025.

Coles says it's working with suppliers on more sustainable forms of packaging. Plastic bags in its produce section are made of 30 per cent recycled material. It uses the ARL recycling label on 20 per cent of home-brand products.

Both supermarkets support REDcycle and have banned single-use plastic bags.

The IQ Renew recycling facility in Somersby, NSW. Source: Planet Ark

Doesn't it all go to landfill anyway?

No. Sydney's councils are using various recycling plants, including the Visy plant in Smithfield and the SUEZ facility in Spring Farm.

Last year, [the Herald revealed](#) thousands of tonnes of NSW recycling was sent straight to landfills in Queensland due to a loophole in waste disposal levies. Since then, Queensland has introduced a waste levy to minimise this behaviour.

Theoretically, paper can be recycled seven or eight times before it loses its recyclability. Cans can be recycled repeatedly. Glass can generally be recycled indefinitely. Low-quality glass is also used in the construction industry as a replacement for sand.

Just 12 per cent of plastics were recycled nationally in 2016-17. But there is innovation on this front.

The NSW government has committed more than \$800 million over nine years to support waste and recycling initiatives under its Waste Less, Recycle More program, which is the nation's largest recycling program.

This program provides funding for business recycling, organics collections, market development, managing problem wastes, new waste infrastructure, research and development, local councils and programs to tackle illegal dumping and litter.

NSW also has a container deposit scheme, Return and Earn, which aims to reduce the volume of litter in the state by 40 per cent by 2020. Most empty 150 millilitre to three-litre drink containers are eligible for a 10¢ refund when presented to an [approved collection point](#).

Would more bins solve the problem?

Extra bins rely on consumers sorting waste properly, which is something we could do better at.

Instead, Mr Shmigel suggests councils should adopt a standard approach to waste management, introducing uniform rules for bin colours and sizes and what can and cannot be recycled.

The ACOR and the state government have released Recycle Mate, an app that allows users to photograph an item and find out where it can be recycled in their locality. During product development, the team consulted councils across NSW and found 3800 variations in how councils manage their waste.

This, Mr Shmigel says, highlights the complexity of the waste system.

A Local Government NSW spokesman says that bins, and occasionally crates, are the most common way of separating materials. But as we move into smaller and denser living spaces, there is less room for separate bins for each material in the average house or apartment block.

Adding more bin types also means extra truck movements to collect the waste, which is far from ideal from a traffic or environmental perspective, the LGNSW spokesman says.

What's next?

The export of domestic waste will be phased out by June 2022. There's a national target for packaging to be recyclable, compostable or reusable by 2025.

While Australia will have to re-evaluate how it manages waste, the Southern Sydney Regional Organisation of Councils (SSROC) says it presents a unique opportunity "for all levels of government and industry to work together to transform the recycling industry".

For example, SSROC, which comprises of 11 member councils including Randwick, the Inner West and the City of Sydney, has agreed to focus on introducing more recycled content in road-making materials.

NSW is lagging when it comes to banning lightweight plastic shopping bags, which have been ditched in the other states and territories.

The NSW Audit Office will next year undertake [a review](#) of the waste services levy and planning for waste infrastructure.

The federal government pledged more than \$100 million for an Australian Recycling Investment Fund before the May election [but took seven months to act](#).

Consumers will also continue to play a critical role.

Says Mr Shmigel: "We're not really recycling until we're buying recycling." If you're not buying sustainably, "you're a bystander".

Recycling: advanced level

- Councils around Sydney also provide unwanted bulky household rubbish clean-ups and e-waste collections. You can find details on your local council's website.
- Australians send 34 printer cartridges to landfill every minute. Cartridges 4 Planet Ark collects printer cartridges. They can be dropped at all Officeworks stores and at participating JB Hi-Fi, Australia Post, Harvey Norman and The Good Guys stores.
- Planet Ark has a fun tool to find out [what can be made from recycled materials](#) and where they can be purchased.
- Before you buy, [ask yourself these questions](#): Do I really need it? Could I borrow it or buy second-hand? Is there a packaging-free option? Is there a local option available?

Let us explain

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