



At the crossroads

The state of waste and
recycling in NSW

**SAVE
OUR
RECYCLING**
Make waste a product
not a problem



Introduction

This paper has been produced by Local Government NSW (LGNSW) to shed light on the state of waste and recycling services across the state. It outlines the steps the NSW Government needs to take to raise awareness on recycling, create new markets for recycled products, and invest in better waste and recycling services.

It is a blueprint for the NSW Government to invest the money it collects from the Waste Levy to help support local government to strengthen our recycling and build a circular economy in NSW.

About Us

LGNSW is the peak body representing councils in New South Wales.

Our role is to support, promote, advocate for and represent the local government sector so members are in the best possible position to serve their communities, for the public good.



Recycling at the crossroads

Executive summary

Australia will soon mark 10 years since the publication of its first National Waste Policy: Less Waste, More Resources. It was intended to set the nation on a new course where, together, we generated less waste and recovered more of it for productive re-use.

It envisaged an economy where waste became a product not a problem.

A decade on and the latest national and state progress reports show that NSW is failing when it comes to managing waste.

- The amount of waste being generated is increasing.
- Recycling and waste diversion rates are stagnating and are expected to decrease.
- Our waste infrastructure is barely keeping up with demand.
- We can no longer ship our recycling off shore for someone else to manage.

Recycling in NSW is now at the crossroads.

Local councils are working with their communities to collect our waste and recycling so that more can be re-used and diverted from landfill. But it's not enough.

Today, local communities are shouldering the burden and opportunities to create a circular economy are being wasted.

This makes it difficult to develop new products and industries that re-use waste in innovative and productive ways.

And, when we do break through and bring recycled content to market, rules and regulation often hamper its use in areas such as roads, footpaths or rail infrastructure.

The buying power of governments could be helping to create markets for recycled content in NSW. Councils are working hard to do this, and we're urging the NSW Government to pull that lever.

We have real opportunities to create jobs and sustainable industries that drive economic development, particularly in regional NSW.

We need real and coordinated regional planning to deliver the recycling and waste infrastructure the state needs now and into the future. We need our State Government to lead.

We are calling on the NSW Government to:

- Fund councils to develop regional plans for the future of waste and resource recovery in their regions
- Fund the delivery of priority infrastructure and other projects, procured by local government, that are needed to deliver the regional-scale plans, particularly where a market failure has been identified
- Increase local and state government procurement of recycled goods made with domestic content; and
- Fund and deliver a state-wide education campaign on the importance of recycling to encourage the right way to recycle, the purchase of products with recycled content, and promoting waste avoidance.

The good news is that none of this requires extra funding. The NSW Government already collects hundreds of millions of dollars each year via a Waste Levy. It just requires the will.

On behalf of NSW councils, Local Government NSW – is calling on the NSW Government to work with us to properly develop, fund and deliver this plan before it is too late.



Linda Scott
LGNSW President

Plan to Save Our Recycling in NSW

The NSW Government must:

Educate

Fund a large-scale, state-wide education campaign to support recycling and markets for recycled products in NSW. It must fund and work with councils to activate this campaign, community by community.

Innovate

Governments should lead and use more recycled content to help create scale and then new markets, jobs and investment will follow.

Invest

Reinvest the Waste Levy in council-led regional waste-and-recycling strategies and fund councils to deliver the infrastructure and services our cities and regions need.

The time to act is now.

The government collects the Waste Levy and now it must spend it in local communities to Save our Recycling.

Waste and Recycling in NSW

Waste is generated from industry and large businesses: the construction and manufacturing sector, energy and water services, small businesses and households.

A June 2019 NSW Government progress report found that in NSW about 42 percent of household waste is processed for recycling. The remainder of the domestic waste – 2,446,000 tonnes a year – is sent to landfill sites where it is buried.

Residents have embraced recycling on the promise that their efforts lead to waste being sustainably managed. The NSW Government is responsible for setting the rules and regulations so waste is managed in a way that protects our local environment.

It sets targets to reduce the amount of waste we generate, increase diversion rates from landfill and achieve higher rates of recycling.

Across Australia, only about 12 percent of the total plastic waste we generate is recycled, compared to 60 percent of paper and 57 percent of glass. About 70 percent of the plastic and 43 percent of paper collected for recycling is sent overseas for processing. According to Sydney University, Australia is producing waste at six times our population growth.

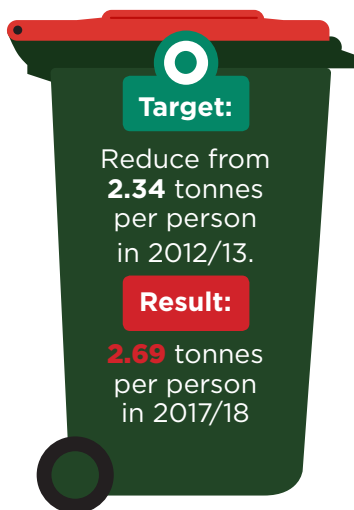
The NSW Government predicts the amount of waste generated over the next two decades will continue to increase by about 40 percent.

Since 2015, the amount of per capita waste being generated in NSW increased by 11 percent but at a household level our recycling rates remain flat. The latest Progress Report predicts household recycling rates will decrease as less mixed solid waste is recycled.

NSW is failing, and major changes are needed to turn the ship around.

Is NSW on track to meet its waste reduction targets?

1. Reduce waste generation



2. Increase recycling



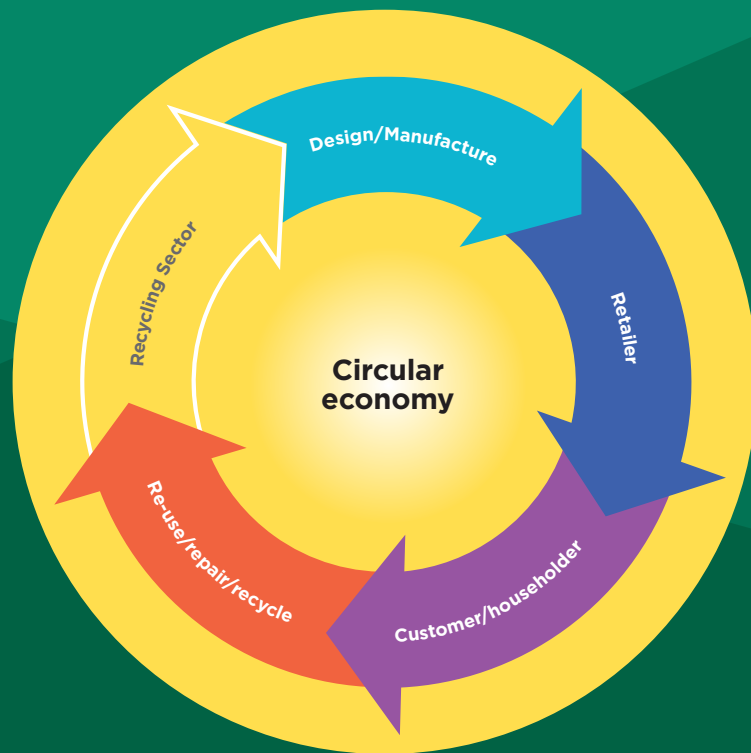
3. Divert more waste from landfill



Circular economy

The concept of a circular economy has broken into our mainstream vernacular. Simply put, it seeks to replace our old ways of production where we make, use and then dispose of items without much thought of the impact on our waste stream or the environment. A circular economy challenges us to first avoid or reduce unnecessary production, packaging or consumption, and to find ways to re-use or recycle as much as possible – closing the loop.

It saves inefficient production, reduces the need for more costly waste infrastructure and promotes both economic and environmental sustainability. Single use plastics don't fit in a circular economy. NSW is the only state in Australia that has not banned or phased out single use plastic bags.



Port Macquarie businesses join the circular economy

A Port Macquarie coffee company has joined forces with cafes and a local manufacturer to clean and sort used milk containers and coffee bags, so they can be turned into new products.

DONE Coffee got together with 15 local cafes to kick off the initiative, with the help of Port Plastics and Tooling. Used plastic materials are taken to their factory where they are processed and turned into new products such as whipper snipper heads, coasters and bottle openers. Over six cubic metres of material is being diverted from the waste stream each month, converting positive local action into locally manufactured recycled products.

Councils and communities leading the way

Research shows that more than 90 percent of people in NSW recycle to reduce the amount of rubbish going to landfill and because of concern for plastics entering our oceans. They see it as a way to do their bit for the environment.

Councils in NSW are generally ahead of the pack when it comes to providing services that encourage the collection and sorting of household waste.

They use different bin systems depending on the nature of the region and the communities that live there.

About 86 percent of councils offer a combination of red, yellow, blue and green bin services so waste can be separated at the source, helping to reduce contamination, which can lead to higher rates of landfill disposal. Many councils collect paper, glass and plastic in one yellow bin.

About one quarter of all councils use Alternative Waste Treatment services that separate and process mixed solid waste so that it can be diverted from the waste stream and re-used to improve degraded land, for fuel or biogas. This process also recovers other material, such as plastics, glass and metals, and diverts them from landfill.

However, last year the NSW Government removed a special exemption on the use of this material, which means most of it is again being landfilled.

Save Our Recycling 2019 Waste Survey - key findings

- The majority of residents in NSW separate recycling and green waste all of the time: 78 per cent of residents separate recyclables from general rubbish and 63 per cent of residents separate green waste for composting or council collection
- 73 per cent of the population use reusable shopping bags all the time
- Almost half of NSW residents take more than 15 minutes per week to manage household rubbish
- 88 per cent of those who are aware of the waste levy either strongly agree or somewhat agree with the NSW Government using it to develop recycling in NSW



Fish waste and FOGO reduce waste and boost recycling in Bega Valley Shire

Bega Valley Shire Council is reducing waste-to-landfill and dealing with an unsightly litter problem by turning unwanted fish waste into organic garden compost.

Eden-based business Ocean2Earth is managing the project, which involves collecting fish waste from specially-marked bins at six popular boat ramps throughout the shire. The project also ties in with the council's 'choose the right bin' campaign, which is trialling public place landfill and recycling bins before introducing them across the shire.

The fish-waste-to-compost is one of several innovative waste reduction and re-use projects that has come out of council's 10-year waste management strategy.

That strategy also confirmed that the life expectancy of its five-year-old landfill facility had been cut in half because of increasing demand.

Last October the council embarked on its most ambitious change since introducing recycling bins when it added a food and garden organics (FOGO) kerbside collection service to the shire's 13,000 urban households.

FOGO reduces waste-to-landfill and provides a cleaner source of organic matter to turn into high-quality compost. In its first year FOGO has cut



Bega Valley Shire Council is taking steps to slow the rate of waste to landfill, but more is needed to increase rates of recycling and reuse of resources from the yellow bin.

waste-to-landfill by about one-third and has achieved a contamination rate of less than 0.4%, among the lowest rates in Australia.

The council is now trialling the disposal of compostable nappies in its new organics collection, a trial that can be introduced by other councils if successful, to further reduce what goes into Bega Valley landfill.

Waste reduction and recycling taken to new heights at local public school

Canteen staff, students and teachers at Wheeler Heights Public School, in Sydney's Northern Beaches, have taken the lead on recycling and waste reduction, and they have been sharing their success with schools throughout the region.



The canteen recently introduced different recycling bins, while the school introduced composting, worm farms and a vegetable garden.

The school's canteen also went plastic free, while student sustainability leaders were chosen to help champion the waste-reduction initiatives.

The school used to send an average of 51 kg of waste to landfill each day. That was cut to a meagre 11 kg per day after the school introduced its waste reduction initiatives.

The school's canteen manager, Sherene LaGasse, spoke to other schools about the program and a number have followed suit with their own initiatives.

Several non-government schools are set to adopt waste reduction programs, while Bilgola Public School has gone completely waste free.

"We knew we had to act a few years ago, when we found out our recycling was being sent to landfill. Most schools aren't recycling at all. It seems like such a good place to start tackling our waste problems," Sherene said.

Return the Waste Levy to fix recycling in NSW

The NSW Government charges a special levy for every tonne of rubbish taken to landfill across Sydney and parts of regional NSW. It's an incentive to avoid sending waste to landfill.

In 2012/13 it collected \$483 million via the levy from councils, business and the community. The NSW Government expects that by 2022/23 this number will have grown by almost 70 percent to just over \$800 million a year.

That's about \$100 for every woman, man and child in NSW. It's difficult to determine exactly how much of this money is reinvested in waste management and resource recovery.

The NSW Government set up its Waste Less, Recycle More program to help manage and reduce waste and encourage recycling in NSW. It allocated \$802 million over nine years to the program, funded from the Waste Levy.

Some goes to local government, some to grants for industry and research, and some to education campaigns.

According to a NSW Parliamentary Inquiry in March 2018, about 13 percent of the Waste Levy revenue was reinvested in waste and regulatory programs, while a further 13 percent went to environmental programs. LGNSW modelling suggests that less than 18 percent of total Waste Levy revenue is returned to local government.

The NSW Government is pocketing between \$500 million and \$600 million each year from the Waste Levy. While more waste is sent to landfill, more revenue will be collected.

If we are going to solve our waste and recycling problems in NSW, it starts with more investment. Extra funding must be re-invested from the Waste Levy into better managing our waste as a resource. The era of under-investment must end, or our waste problems will get worse.



NSW the hard nut to crack

“NSW has always been a bloody hard market to crack”, according to Mark Yates from recycled plastics manufacturer Replas.

“Procurement policy is the key. We need accountable procurement policy that helps develop scale and markets,” Mark said.

Mark points to schools in NSW. While some schools have taken the initiative to incorporate recycled plastic products into their infrastructure, there is no policy to mandate the use of products made with recycled content, such as seats or benches.

“You have to be at the right school at the right time to get them to consider your product. But if we get recycled products in schools, the connection is a living example to help teach students about the value of recycling and the circular economy. It’s a no brainer.”



Young students show how easy it is to reduce, reuse and recycle

Year 5 students from St Aloysius Primary School near Maitland are setting up their own plastic recycling centre, to help reduce plastic pollution in their community and turn the waste into new products.

An old demountable building will be used to house the collection service, which the school hopes to kit out with locally designed tools and other equipment to shred and re-cast the plastic into new items they can use in the classroom.

“We’ve asked students from the University of Newcastle to help us design tools, molds and equipment that is safe for 10-year-olds to use,” teacher Bek Stokes said.

“There are so many items the school buys to help the students learn – like dice for maths. We want to make those ourselves from the plastic waste the students collect.

“It was our students’ idea to turn the waste into products we can use ourselves. Even 10-year-olds could see that it’s better to re-use the plastic at the school, instead of buying new materials.”

These young recyclers are a practical demonstration of the circular economy in action.



Year 5 students from St Aloysius Primary School near Maitland get working on their plans to set up their own plastic recycling centre to turn plastic waste into useful products to use in the classroom.

Deliver a state-wide recycling education campaign

The NSW Government's Waste Less, Recycle More program includes \$9.5 million over four years for small-scale contestable grants for council-led waste education programs. Education and awareness campaigns are also funded from a range of other programs.

The focus of the government's public awareness programs has been on litter reduction and food waste reduction campaigns. They have been met with some success.

In 2015, the NSW Government promised a state-wide education campaign to help boost support for kerbside recycling. Councils were waiting for the campaign in 2016 and now, three years later, it has not been delivered.

Rates of recycling are now flatlining and it's time for the NSW Government to act.

Significant additional investment for a state-wide education campaign is required to drive change and help improve the quality of materials going into the yellow bin.

Contamination rates in the yellow bin can be as high as 40 percent. If we can reduce contamination rates, it becomes easier for councils to recover more waste for re-use. It helps industry turn waste into products.

If we can raise awareness about the benefits of buying recycled products, we help drive demand and create new sustainable markets.

The NSW Government needs to partner with local councils on strategic large scale and long-term campaigns targeting better recycling practices. We need a state-wide campaign, backed up at the local and regional level. Each council knows its own community well. They will play a key role in making this education campaign a success.



Missed opportunities for recycled glass in NSW

Each year, Hunter Resource Recovery recycles about 30,000 tonnes of recycled material from the yellow bins at more than 148,000 homes across Maitland, Cessnock, Lake Macquarie and Singleton councils.

This includes glass, paper and hard plastics. The recovered glass is cleaned and processed so it can be re-used. However, about 85 percent of the recycled glass is shipped to Victoria, where most of it is stock-piled. Some is reused in areas such as road construction, insulation, filtration or other glass products.

“The glass can be cleaned and refined and ready for use like any other product,” CEO Roger Lewis said.

“But in NSW it is still classified as waste. There is no flexibility, it will always be a waste not a resource. This means we can’t stockpile it for local markets. It also attracts the Waste Levy, because the NSW Government classifies us as a waste facility, not a recycling facility. It’s cheaper for us to transport the material to Victoria.”

IQ Renew takes glass and other recyclables from Sydney’s Northern Beaches and the Central Coast. It also runs a facility in NSW that cleans and re-processes glass into sand that can be reused for a

range of building and construction purposes.

It’s in the process of finalising an agreement with a NSW council to provide a large amount of its recycled glass product. However, this alone will not solve the glass recycling problem in NSW, according to its Chief Operations Manager Graham Knowles.

“It’s still classified as a waste, even though its washed, cleaned and turned back into sand,” Graham said.

“When you put water through, it comes out clean. There’s no leachate.

“To get an exemption to use it in NSW can take four to five years. In Victoria, it might take you about 18 months to two years and in Queensland it might take 12 months.”

Graham believes we could find a market to use almost all our recycled glass, if the NSW Roads and Maritime Services started using washed glass for 10 percent of the compacted layers in its road base.

“It’s not processed like the refined glass sand product, but it is completely sealed under the road. It’s the perfect recycled content for this use, but the opportunity is not being taken.”



Glass collected from homes and businesses in Sydney’s northern beaches and the Central Coast is turned into sand - ready for re-use in road construction throughout NSW. However, more needs to be done to create markets for it in NSW.

NSW Government must lead on procurement and regulation

Under the *NSW Protection of the Environment Operations Act 1997* waste is still considered a waste even if it can be processed, recycled, reused or recovered. It is treated as a problem that needs to be disposed of.

Resource recovery orders and exemptions in NSW for commonly recovered and reused wastes that enable these 'wastes' to be used again. However, to use the waste in a way not covered by the orders and exemptions, you need to apply to the EPA. These exemptions can be expensive and take years to be granted.

It's important that materials are recycled safely. However, it is also clear our current approach is a handbrake on new ways to solve our waste problems.

Waste is classified as an essential service in NSW. However, it is not treated this way, like other utility services. Strategic land use planning should be coordinated with councils.

“ The NSW Education Department is one of the largest education bureaucracies in the world. Schools can access a state-wide recycling contract, but there is no mandate to recycle or use recycled products in schools.



Railway sleepers made from recycled plastic are being trialled in Melbourne and Queensland, but not NSW. In the Hunter, 85 percent of recycled glass is sent to Victoria, rather than reused for projects such as road construction.

State-wide guidelines and regulations for multi-unit developments don't encourage adequate space for bins or recycling systems. As a result, recycling rates are generally lower in apartments or unit developments and contamination rates are higher.

The buying power of government is a significant factor in creating the scale and markets to encourage a recycling industry in NSW. However, it too is not being leveraged to solve our recycling mess.

The NSW Government reported in its latest Waste Avoidance and Resource Recovery Strategy Progress Report that it was working with the RMS and other departments to 'reinvigorate' the use of crushed glass in government construction projects. It is unclear if any progress has been made.

Recycled plastic railway sleepers slip past NSW

Recycled plastic railway sleepers are being trialled on mainline tracks in Victoria and Queensland to help prove the technology and reduce maintenance costs.

The Duratrack® sleepers have three to four times the design life of traditional timber sleepers and about 64 tonnes of recycled plastic waste is used for every kilometre of track laid.

“We live in the circular economy,” Integrated Recycling General Manager Stephen Webster said.

“We reuse plastics, including polystyrene, that have served their primary use.”

Integrated Recycling developed the recycled plastic sleeper over the past five years. However, there hasn't been the same level of interest yet in NSW as in Queensland and Victoria.

“There is a great opportunity to create local markets for recycled content in products made in Australia,” Stephen said.

“Sustainability needs innovation and collaboration through procurement, the linking of the supply chain, the creation of standards and the valuing of renewed products through whole-of-life costing.”



Plastic waste is used to create railway sleepers being trialled in Victoria and Queensland, but NSW is missing out.



Invest in regional scale plans to save recycling in NSW

Most councils in NSW are part of regional waste groups. They get limited financial assistance from the NSW Government to produce regional waste plans and can apply for education grants and coordinate procurement for waste and recycling services for their communities.

To be eligible for funding, the regional plans must align to the NSW Waste Avoidance and Resource Recovery Strategy. The contestable grants are mostly small and time consuming to apply for, administer and report on. The funding helps make small one-off improvements, but not enough to repair our ailing waste and recycling systems.

In 2017, the NSW Government released a Draft Waste Infrastructure Strategy to 2021. It outlined the infrastructure required to deliver its Waste Avoidance and Resource Recovery Strategy, identifying that an additional 16 major facilities were needed in Sydney alone. The strategy has not been finalised.

In 2018, work started on the development of a 20-year Waste Strategy for NSW. It was put on hold in the lead up to the NSW election earlier this year. Work has now re-started on the strategy with an expected release date sometime next year.

Recycling and waste management in NSW is in a parlous state. We cannot afford these delays. We urgently require regional-scale planning for waste and recycling in NSW. These plans need to outline the infrastructure and services required to lift recycling and recovery rates and reduce waste going landfill.

Recycling a jobs generator

The waste sector is worth about \$14.2 billion a year across Australia. Recycling and re-use is also a big generator of jobs and investment.

Recycling creates three times as many jobs as waste sent to landfill and modelling from the Centre for International Economics suggests that a 5 per cent increase in recycling rates could add \$1 billion to Australia's gross domestic product.

To succeed, they need to be matched with adequate funding.

Local councils are the level of government closest to the people. Councils best understand their communities and the waste and recycling services required in the cities and the regions. The NSW Government needs to partner with councils to improve waste and recycling services.

This will not cost the government or communities extra money. It is already being collected by the NSW Government via the Waste Levy. It is time the levy is returned to its original purpose - to improve waste and recycling services in NSW.

Our recycling services are at a crossroads. However, we still have the chance to act now to change direction and Save our Recycling.



Recycling for the cities and regions

Domestic waste collection services are delivered in NSW by local councils. But what's required is vastly different depending on the region.

In metropolitan areas like the City of Sydney, up to 70 percent of housing is made up of apartments or multi-unit dwellings. They require space for collection and facilities to process recycling for re-use.

In regions like western NSW, kerbside recycling services cannot always be supported because of cost and distance to services. They have the will to recycle but lack the resources.

In some regions like Dubbo or Inverell, councils are interested in becoming recycling hubs or in the potential for waste-to-energy plants.

Regionally led waste planning, matched with ambitious targets and funding from the Waste Levy, are the key to unlocking solutions and better services to help improve recycling in NSW.



Time to act

Over the past year local councils in NSW have stood together to unanimously call for action on this pressing issue. Communities have also come forward to ask for change.

The NSW Government has the money to help solve this issue.

And now it has a plan.

There has never been a better time to act.



Plan to Save our Recycling in NSW

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FACT

According to research from the University of Newcastle, there is so much plastic in our ecosystem, Australians are ingesting a **credit card's worth of plastic every week**

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www.saveourrecycling.com.au