



RESOURCE RECOVERY AND WASTE STRATEGY

**Our pathway towards zero waste to landfill
and net zero emissions goals.**

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MAYOR'S FOREWORD

I am pleased to present the first Resource Recovery and Waste Strategy for the City of Canada Bay.

Our community has already achieved a great deal when it comes to reducing waste and recovering resources. The average household in the City of Canada Bay sends 10 per cent less to landfill than we did a decade ago — an important achievement, as all waste sent to landfill is a lost opportunity to reuse, recover or produce energy from valuable resources.

This strategy sets out our pathway to a zero waste to landfill and net zero emissions future for the City of Canada Bay, including goals to:

- » Send less waste to landfill and reduce greenhouse gas emissions
- » Recycle and reuse more
- » Continuously improve our waste management and resource recovery services
- » Reduce litter and illegal dumping
- » Lead by example in Council operations.

We have committed to delivering improved resource recovery and waste management services to meet the needs of our growing community. We will also lead by example to avoid waste in our own operations through smarter procurement and the reuse and recovery of more materials.

We also call on the NSW Government to reinvest Waste Levy funds back into Councils and local recycling and waste infrastructure and initiatives. This is critical to ensure that the materials we use are transformed into new products right here in Australia, creating new jobs and economic growth.

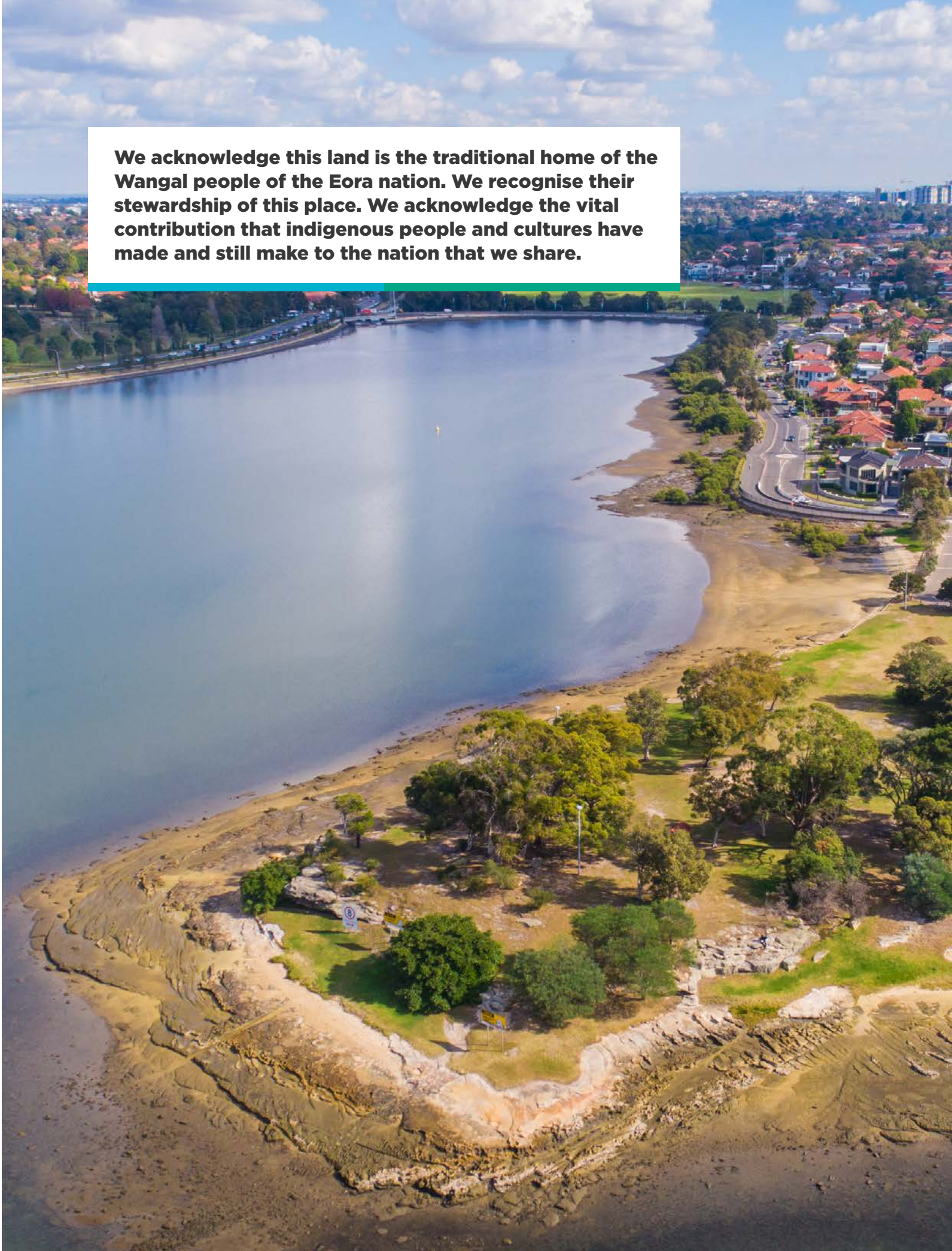
Thank you to everyone who collaborated with Council during the development of this strategy. Together with our community, we will meet the challenges facing the waste sector, improve our waste management and resource recovery services, and commit to a zero waste and net zero emissions future for the City of Canada Bay.



Angelo Tsirekas

Angelo Tsirekas
Mayor | City of Canada Bay

We acknowledge this land is the traditional home of the Wangal people of the Eora nation. We recognise their stewardship of this place. We acknowledge the vital contribution that indigenous people and cultures have made and still make to the nation that we share.



EXECUTIVE SUMMARY

Our first overarching Resource Recovery and Waste Strategy sets out the pathway towards our zero waste to landfill and net zero emissions goals.

In this strategy, we commit to a future with zero waste to landfill and net zero greenhouse gas emissions. We will recycle and reuse more, improve our waste services, reduce litter and illegal dumping, and lead by example in Council operations.

Since 2010, our community has decreased the amount of waste we send to landfill per person by more than 10%. This achievement was realised through improved and expanded recycling services, new education programs, and community commitments.

But there is still more to do. We need to think about materials as resources and make choices that avoid generating unnecessary waste.

Too much of our waste is still sent to landfill, where it can break down and produce potent greenhouse gases.

Council collected 33,160 tonnes of waste, recycling and organics from households in 2019-20.

While over 38% of this material was recovered and recycled, 20,000 tonnes was sent to landfill — enough to cover Drummoyne Oval with a pile of waste over five metres high!

At the same time, the waste sector is facing unprecedented pressures both in Australia and internationally. There is less space available for landfill, international restrictions on importing recycling, and limited infrastructure in Australia for manufacturing new products from recycled material.

Effective waste management is essential to minimise our impact on the environment. Our new strategy identifies opportunities and sets a roadmap for reducing the amount of waste sent to landfill from our community.

Key goals

Our key goals are to:

- » Reduce waste to landfill and reduce greenhouse gas emissions
- » Recycle and reuse more
- » Improve our waste services
- » Reduce litter and illegal dumping
- » Lead by example.

These goals have been developed through extensive community consultation.

97% of surveyed residents said that reducing waste to landfill was important, and 95% said that reducing the amount of contamination in bins was important.

Above all, 87% of residents surveyed ranked reducing waste sent to landfill and greenhouse gas emissions as even more important than the cost and convenience of waste services, demonstrating just how much waste minimisation matters to our community.

In this strategy, we commit to a zero waste future, and reaching key milestone targets in the next ten years to support this transition.

We have developed these targets through modelling of waste generation now and into the future, and research of the processing infrastructure options for our region available now or under development.

Our targets include:

- » Reducing waste sent to landfill per person by 20% by 2030
- » Increasing diversion of landfill from 38% to 60% by 2027
- » Reducing contamination in our recycling to below 10% by 2025
- » Maintaining 93% community satisfaction with our services
- » Reducing the total number of illegal dumping incidences per year from a baseline of 1,180 events in 2019-20



- » All Council facilities and offices to implement recycling by 2021 and a food recovery program by 2023
- » 100% of Council procurement for civil works, construction and street furniture to include preference for locally sourced recycled content by 2023.

This strategy sets out priority areas and actions which will contribute to our commitment to a zero waste to landfill future.

Actions include trialling and implementing food waste collection, targeted community education to establish long-term behaviour change, new programs and services for difficult to recycle materials, incorporation of circular economy principles in all Council procurement, and innovation through new technologies.

We also look further forward towards our zero waste future. We know this aspirational aim will require new infrastructure and technologies not currently available in New South Wales, such as energy from waste, and that there are important regulatory hurdles that must be overcome to provide our community with confidence that these technologies are safe and effective.

We will continue to monitor these emerging possibilities, and transition our services in consultation with our community. With the strong community support shown throughout this process, we will find opportunities in the challenges facing the waste sector locally and globally, to progressively improve our waste management services and work towards a zero waste and net zero emissions future.

ABOUT OUR CITY

The City of Canada Bay has a population of over 96,000 in an area of around 20km². Our population is projected to increase to over 120,000 by 2036.

We are a diverse community that cares about the environment and about recovering resources from the items we use.



96k estimated population (2021)



120k estimated population by 2036



36km foreshore



19.9km² area



2.5 person average household size



4% of residents need disability assistance



Over 36k households



39% stand-alone, 61% units or attached dwellings



40% of residents speak another language at home



WHERE WE ARE NOW

Council has a number of priority areas for resource recovery across our City including residential collection services, commercial service, corporate waste, civil infrastructure, litter and illegal dumping.

Every residential property is provided with a regular kerbside collection service for waste, recycling, garden organics and bulk household materials.

In total, households in our area generate around 33,860 tonnes of waste each year.

Of this, 20,440 tonnes (around 62%) is sent to landfill, and around 12,770 tonnes (38%) is recovered and used for another purpose.

Total domestic waste sent to landfill 2019-20: 20,440 tonnes (62%)	
Kerbside bins	18,200t
Bulk household	2,200t
Illegal dumping	40t

Total Domestic Resource Recovery 2019-20: 12,770 tonnes (38%)	
Kerbside bin recycling	6,900t
Kerbside bin organics	4,900t
Bulk household recovery	400t
Bulk household organics	250t
Bulk household mattress	100t
Community recycling Centre	130t
Drop off events	40t

On average, each household produces each week:



The City of Canada Bay has a number of priority areas for resource recovery across our area including residential collection services, commercial service, corporate waste, civil infrastructure, litter and illegal dumping.



MULTI-UNIT DWELLING CONTAMINATION PROGRAM

Recycling is contaminated when the wrong items are placed in the recycling bin. Apartment buildings in our council area have significantly higher contamination rates compared to single dwellings (apartments tend to have more contaminated bins Australia-wide).

The overall contamination rate of mixed recycling within multi-unit dwellings is approximately 20%. For high rise dwellings (over six stories), the contamination rate is even higher, at around 25%.

There are a number of factors that may contribute to higher contamination rates in apartment buildings:

- » Limited space for bins in apartment
- » Challenges in providing waste education for rental tenants with a high turnover

- » Demographics of residents, such as more recent arrivals to Australia who may have less experience with the type of waste service
- » Less ownership and responsibility of the outcomes of resource recovery due to shared bins
- » The use of plastics bags (a common contaminant) to collect and carry recycling from apartments to bin rooms.

To address this challenge, Council is trialling a proactive, evidence-based contamination management program for apartment buildings.

This project trialled four different intervention strategies across 18 apartment buildings, covering over 1,500 apartment premises.

This represents around 7% of all apartment units in our council area.

Each education strategy was formulated based on separate evidence-based behaviour change tools:

- 1. Prompts** – displaying educational bin stickers and bin bay signage
- 2. Convenience** – providing bags for storing and transporting recycling
- 3. Feedback** – weekly posters providing feedback on recycling bin contents
- 4. Commitment** – asking residents to make a public pledge to unbag recycling

The intervention strategies trialled in this program are founded on community-based social marketing principles.

These principles draw heavily on social psychology research and recognise that a reliance on traditional advertising and media alone has had little success in fostering sustainable behaviour change.

Taking this into account, each strategy was developed to address behavioural barriers that individuals experience which may prevent the occurrence of correct recycling practices.

Over 6,000 bin inspections have been undertaken at these buildings to assess intervention impacts. Initial findings show that all strategies have led to improvements in recycling contamination and behaviour.

The Commitment and Convenience strategies were the most improved with over 50% reduction in contamination. Some improvements were also evident in some control buildings, suggesting weekly presence of Council officers undertaking inspections can also change behaviour.

The findings of this project will help Council develop effective contamination management programs, based on actual findings from households in our area. The next stage of this program will be a Council wide rollout of the intervention strategies that were most successful.



WHAT WE DO

All households are provided with a three bin collection service: each house, unit and apartment is provided with 120L of bin space for waste, recycling and garden organics each week.

This may be collected via a 120L bin collected weekly, a 240L bin collected fortnightly, or larger bins shared between multiple premises within a unit block and collected weekly.

In addition, all residences are provided two prescheduled collections of bulk household items each year.

Residential waste service

The City of Canada Bay provides a 120L weekly red-lidded waste bin collection service to all households. In total, around 20,440 tonnes of waste was collected from households in 2019-20. 36% of the material in the average household bin is food waste.

An additional 11% of material in our waste bins is recyclable material that should have been placed in the yellow-lidded bin.

The most common recyclables that are placed incorrectly in the waste bin are aluminium foil and aerosol cans.

Kerbside waste is transported to the Veolia transfer terminal in Clyde. From there, material is transported via train to the Veolia

Single dwellings	
Service	Collection frequency
120L general waste bin	Weekly
240L recycling bin	Fortnightly
240L garden organics bin	Fortnightly
Bulk household collection	3m ² twice per year

Multi-unit dwellings	
Service	Collection frequency
240L, 660L or 1100L waste bin	Weekly
240L, 660L or 1100L recycling bin	Weekly
240L garden organics bin	Fortnightly
Bulk household collection	3m ² twice per year

Bioreactor in Woodlawn (located between Canberra and Goulburn) for disposal in an engineered landfill. This facility captures some of the methane gas generated from decomposing organic waste to produce energy.

Residential recycling service

Council provides single households with a fortnightly 240L yellow-lidded bin collection service. Apartment buildings and other multi-unit dwellings are provided with a weekly 240L, 660L or 1100L recycling bin collection.

Over 6,700 tonnes of recycling was collected from household bins in 2019-20.

Over 80% of glass packaging and over 90% of paper is correctly placed in the recycling bin. However, around 18% of material in recycling bins was not recyclable and should not have been placed in that bin.

The most common materials placed incorrectly in the recycling bin included recycling in plastic bags, paper towel, and soft plastics.



The total volume of kerbside recycling collected has decreased over the past five years, despite an increasing population.

This is the case for most councils in New South Wales, and is largely due to changing trends in newspaper and magazine use, and the diversion of containers to the Return and Earn container deposit scheme.

Kerbside recyclables are transported to the VISY Recycling Material Recovery Facility in Smithfield, Sydney for sorting and recovery.

Residential garden organics service

All households are offered a fortnightly 240L green-lidded bin organic waste collection service.

Over 4,900 tonnes of garden organics was collected in 2019-20. This service is used extremely well by our residents.

An audit of kerbside bins in 2019 showed that almost all vegetation waste was correctly placed in the garden organics bin (and not in any other kerbside bin), and less than 3% of the contents of this bin was incorrectly placed there (mostly soil, rocks, and some garden pots).

Household kerbside and bulk household organics are transported to the Veolia Resource Recovery Facility in Greenacre, Sydney for initial processing, and are then sent to ANL Badgerys Creek for composting and mulching.

Bulk household service

Over 2,950 tonnes of mixed bulk household waste was collected in 2019-20. To maximise recycling, material is collected in four separate batches for organics, metals, mattresses and residual mixed bulk waste. All separately collected mattresses, whitegoods and organics are recycled. It is important that households place these materials out in distinct separate piles so that as much as possible can be recovered.

Mixed bulk household material is transported to Veolia Environmental Solutions Resource Recovery facility located in Greenacre Sydney, where at least 15% is recovered for recycling. But most mixed bulk material is sent to landfill.

Commercial waste service

Council provides a commercial waste and recycling service to local businesses and non-rateable premises such as schools and churches.

Over 900 businesses have opted to take up this service and are provided with regular recycling and waste collections.

All organisations that request a Council-provided waste service are required to also receive a recycling bin, to ensure recyclables are collected and diverted from landfill.

In 2019-20 Council collected over 700 tonnes of waste from businesses, as well as over 200 tonnes of recycling.

Corporate waste

The City of Canada Bay generates waste from its own offices, facilities and venues. We operate a leisure centre, libraries, child care centres, swimming centres, a civic centre, a depot and thirteen venues for hire.

Given these areas of Council currently arrange recycling services for these activities, there is an opportunity to consolidate services and develop a holistic, overarching program for minimising Council generated waste.

This will maximise resource recovery outcomes, as well as improve data collection and reporting to ensure Council is leading by example.

Civil infrastructure renewals and major projects

Council undertakes regular infrastructure renewals and maintenance, as well as major projects. Ongoing civil works include footpath, kerb and gutter renewals, as well as road maintenance. Major projects can include new sporting facilities, public buildings and seawall renewal.

Council manages the waste generated from these activities, and prepares Waste Management Plans to ensure resource recovery aims are considered for every major project. However, there is opportunity for greater data collection and reporting, and incorporation of sustainable procurement and circular economy principles in these activities.

Illegal dumping

Illegal dumping threatens both the quality and appearance of the local environment. Illegal dumping has potential health implications, costs considerable money to monitor and clean up, and can cause considerable environmental damage.

Council attended to over 1,180 incidences of illegal dumping in 2019-20, clearing over 40,000kg of material.

Litter

Litter poses serious social, economic and environmental costs as well as detracting from the amenity of the area.

As a Council with 36km of foreshore, preventing litter is critical for protecting biodiversity and our natural environment. In 2019-20, we collected 496 tonnes of public litter from over 500 bins in our parks and streets.

Our public place cleansing service includes hand sweeping in retail precincts, street sweeping vehicles, and staff servicing parks for weekend litter picking. Council collected over 267 tonnes of garden organics waste through street sweeping in 2019-20, which was sent to Veolia for processing, mulching, and composting.

CASE STUDY TWO

COMPOST CAPERS

Soon after the 2020 COVID-19 lockdown came into effect, Council saw a significant increase in the volume of garden waste and household waste in kerbside bins due to residents spending more time at home and cooking more at home.

We saw this as a key opportunity to encourage composting and worm farming. Council launched Compost Capers in May 2020 aimed at providing resources and education to residents about home composting. This program included:

- » Central online location for all information on compost bins and worm farms
- » Fact sheets on worm farming and composting
- » Educational videos teaching residents how to set up worm farms and compost bins
- » Giveaway of 100 worm farms and 100 compost bins
- » Fact sheets on setting up a communal compost bin at an apartment building
- » Video interview with residents who successfully set up composting at their apartment building.

This program has been highly successful. Achievements to date have included:

- » Over 4,000 views of the online resources
- » Over 1,400 views of educational videos
- » 73% of compost bin and worm farming recipients successfully establishing their bin or worm farm (and almost all others reporting they plan to do so soon)
- » An estimated 11,450kg of food recovery per year
- » Estimated savings of over \$3,000 per year
- » Saving the equivalent of 2.8 tonnes of carbon dioxide and 5kL of water each year.

Overall, this program was highly successful in diverting food waste from landfill, and received positive feedback from the community. Bins and worm farms given out to date are expected to divert over 11 tonnes of food waste from landfill each year.

Based on recovery estimates from surveyed recipients, the total cost of all bins and worm farms is expected to be recovered by a reduction in landfill tipping costs within 3.3 years.



Council has received further requests for bins or worm farms since the first giveaway. Council is planning to expand this program, with additional offers of bins and worm farms for our community.

OTHER SERVICES AND PROGRAMS

In addition to residential kerbside services, Council delivers a range of services and programs that keep our area clean, as well as encourage waste avoidance, reuse, and recycling.

Community Recycling Centre

Council launched the Five Dock **Community Recycling Centre** (CRC) in November 2016, supported by a NSW EPA grant. The CRC accepts problem wastes that cannot be safely managed in the kerbside collection, such as gas bottles, paints, fluorescent tubes, batteries, and motor oils.

Since launching the service, total drop offs at the facility has increased from 1,800 vehicles in the first year of operation to over 4,200 vehicles in 2019-20. The total volume of material recovered has increased from 44,000kg to over 130,000kg in the same period, ensuring that potentially hazardous material is safely recovered and kept out of the environment.

Drop off points

Recycling Stations have been installed at all City of Canada Bay libraries, Five Dock Leisure Centre and the Drummoyne Civic Centre to recycle difficult materials such as printer cartridges, household batteries, and mobile phones.

Installed at four Council sites and three local schools, these stations recover a total of over 300kg each year.

Bins for the safe disposal of **Community Sharps** have also been installed at six pharmacies, accepting over 150kg of medical syringes and other sharps each year.

Home collection services

Council has partnered with the **Bower Rehoming Service**, an environmental charity that offers specialist advice on where to recycle items.

Where possible, this service also collects items from residents for repair and resale for free.

Since launching in 2017, over 450 residents have had items collected from their residences, diverting 33,500kg of waste from landfill.

Council has also partnered with **RecycleSmart** in a trial program to provide collection of materials that are not accepted in recycling bins, including electronic waste, soft plastics, reusable clothing and problem wastes such as household batteries, and smoke alarms.

Since launching this service in June 2020 over 5,000kg has been collected across 875 pickups.

Events and recycling days

Held in February each year, Council's annual **E-waste Drop Off Day** accepts all electronic waste and small appliances from our residents, free of charge. In 2021 we recovered over 18,000kg of e-waste from over 900 residents.

Clean Up Australia Day is held in March of each year. Council supports coordination of the event and hosts sites with barbecues or food giveaways.

In 2021, a total of 1,633 participants cleaned up 37 sites across the council area, recovering over 4,280kg of litter.

The City partners with NSW EPA to host the entire Inner West's **Household Chemical CleanOut Day** each year, usually in October. In 2020 we recovered over 19,000kg of potentially hazardous chemicals from 712 attendees.

Community workshops

Council's **WasteLess in the Bay** program has asked residents to commit to simple and achievable sustainable recycling and waste minimisation behaviours.

Over 7,000 households have committed to WasteLess in the



Bay and received a full kit of resources to help them avoid and reduce waste.

Over 100 free **community workshops** have been held over the past five years, with over 1,800 residents learning how to reduce waste by planning meals, storing food correctly, composting, and worm farming.

16 **Reuse and Repair Cafe** workshops have been hosted by the City of Canada Bay since 2017, with over 170 resident attendees. Residents learned how to repair electrical items and small furniture items and most items brought along to these workshops were repaired and diverted from disposal.

Community education tools and resources

Our contracted **Waste Hotline** provides waste collection information to all residents, Monday to Friday, 8am-5pm.

The Waste Hotline responded to over 9,000 community enquiries in the 2019-20 financial year

Council launched its free Waste and Recycling **mobile app** in 2014, offering residents household recycling information translated into nine languages, bulk household collection dates and a 'report a problem' function. The app is currently used by over 8,000 households.

School education waste minimisation and recycling education programs are delivered under contract to local schools, preschools and childcare centres.

Since 2015, lessons have been delivered at 66 local schools and preschools, to over 3,700 students.

Council has also taken part in joint **regional education programs**, such as the South Sydney Regional Organisation of Councils' *Unbag Your Recycling* campaign that received over 25,000 video and advertisement views from City of Canada Bay residents.

WHAT YOU TOLD US

To better understand our community's priorities, we undertook a comprehensive community consultation 'Weigh in on Waste' to help develop our new strategy.

Consultation included a postcard sent to all households, a dedicated website, and a resident survey available online and in print.

We translated the survey into the four most common community languages other than English and provided a phone-in survey option for accessibility. In total across all survey options, 586 contributions were received.

We also held six community stakeholder workshops to gain community feedback.

Three key topics were identified through community feedback and review of the waste management issues facing Councils, and two workshops were held on each topic.

The key topics identified were: 'food waste recovery'; 'waste services in high-density areas'; and 'bulk household collections and illegal dumping'. 56 residents took part in these workshops, providing focussed feedback on these matters.

In general, the community feedback told us that reducing the environmental impacts of our waste was a key priority, and even more important than the cost of waste services.

Our residents told us they would like more help and resources to show them how to recycle right at home, and that a better solution is needed for our food waste.

Waste management priorities

Our residents told us they care about reducing waste to landfill, and reducing the environmental impacts of waste generation:

- » 98% of all survey respondents stated they make choices to avoid generating waste daily or occasionally, such as buying items with less packaging, repairing and reusing items or avoiding buying excess food
- » 97% of respondents said that reducing waste to landfill was important to them

- » 96% said that Council providing drop off locations for materials that can't be placed in bins was important
- » 95% said that reducing the amount of contamination in recycling bins was important
- » 87% of residents ranked reducing waste to landfill and reducing greenhouse gas emissions as more important than the cost or convenience of waste services
- » Over 84% of residents indicated that food waste collections or composting were important.

CASE STUDY THREE

COMMUNITY RECYCLING CENTRE

Hazardous items such as paints, batteries, motor oils, and gas bottles are not accepted in any Council kerbside collection service. Until a few years ago, there were few local options for managing these safely, apart from Council's once a year Household Hazardous Waste Clean-out.

To provide our residents with a safe, convenient and free option for managing these materials, Council applied to the NSW Government for a grant to build a Community Recycling Centre in Five Dock. The facility opened in November 2016 and accepts:

- » Oil and water-based paints
- » Motor, cooking and other oils
- » Car and household batteries
- » Gas bottles
- » Fluoro globes and tubes
- » Fire extinguishers
- » Smoke detectors.

These items should never be placed in household bins as they put the health and safety of collection workers at risk and may also pollute waterways and drinking water if sent to landfill. Materials accepted at the Community Recycling Centre are sent to specialist centres for safe processing and recycled where possible.

Since its launch, the Canada Bay Community Recycling Centre has gone from strength to strength. Total drop offs at the facility have increased from 1,800 vehicles in the first year of operation to over 4,200 vehicles in 2019–20.

The total volume of material recovered has increased from 44,000kg to over 130,000kg per year in the same period, ensuring that potentially hazardous material is safely recovered and kept out of the environment.

In 2020, Council also entered into a partnership with Burwood for shared use of the centre. This agreement shares operational costs between the two Councils whilst also broadening the promotion of the centre across the two areas.



Council partnered with NSW Government to deliver a facility that is convenient for the community and ensures hazardous waste will not pollute our environment.

IN YOUR WORDS

More recycling education

“Education around recycling – what can and can’t be recycled – the effects of placing the wrong items in recycling, e.g. everything in a plastic bag will go straight to landfill.”

“Educating the community in the importance of both reduction of plastic and conversion of food wastage into organic material would be my top priority.”

Reducing food waste

“I believe the most important improvement would be food waste management within a household. The Council should implement a communal compost scheme where food waste is separated by households and collected by the Council.”

“Being able to recycle food waste through Council collection.”

Bulk household recovery

“Encourage residents to seek recycling options.”

“Would like a yearly collection option from recyclers or even a recycle workshop to make use of items which no longer serve their purpose rather than being encouraged to throw items out.”

“I like that you let us know of where items could go instead e.g. charities.”

Managing difficult materials

“An option to recycle soft plastics from home.”

“I’d like so many more recycling options available through the year at the Council depots e.g. monthly e-waste, places to drop polystyrene, light bulbs and batteries, large amounts of cardboard and more so people are less likely to put these things in the red waste each week.”

Reducing litter and illegal dumping

“Reducing the amount of litter in public spaces and protecting waterways from our waste by installing waste traps in storm water drains.”

“Educating people moving in and out of apartments not to dump their unwanted items on the kerb.”

Advocating for improvements in packaging

“I think food suppliers need to be made to look at packaging (in supermarkets they have already replaced single use bags but there is more to be done there – i.e. you can buy apples in a plastic container, covered in plastic.”

“Reducing food packaging in supermarkets, but I understand this is not within Council’s delegations.”

STRATEGIC CONTEXT

City of Canada Bay's Resource and Recovery Strategy fits within the context of national, state and regional policies and strategies.

Local Government carries the primary responsibility for delivering waste management services directly to the community. While this is the case, all levels of government play a role in shaping the regulatory environment and future direction of waste management in Australia. The framework for regulation and overarching strategies flows from the Federal Government and international commitments, through to State Government, on to regional groups and Local Government.

International policies

Governments, businesses and the community are working with the United Nations to achieve the **Sustainable Development Goals Agenda** by 2030. Goal 12, Sustainable consumption and production, is about doing more and better with less.

It is also about decoupling economic growth from environmental degradation, increasing resource efficiency and promoting sustainable lifestyles.

Australia is a signatory to the **2015 International Paris Agreement on Climate Change** which commits to limiting global

temperature rise to well below 2°C, and given the grave risks, to strive for 1.5°C. In October 2018, governments approved a Special IPCC report on limiting global warming to 1.5°C. The report indicated that achieving this would require rapid, far reaching and unprecedented changes in all aspects of society to limit global warming to 1.5°C.

In 2018, global flows of recyclables were interrupted when China imposed its '**National Sword Policy**' of sweeping restrictions on the import of recyclable materials such as used paper and plastics. Other countries including Malaysia and Indonesia have also initiated restrictions on recyclable imports. These changes present both challenges and opportunities for Australia's recycling processors and manufacturers.

Federal Government policies and strategies

The Australian Government's **2018 National Waste Policy: Less Waste, More Resources** provides broad objectives for national waste and recycling outcomes. It includes strategies for collective action by businesses, governments, communities and individuals until 2030.

The **National Plastics Plan** outlines the Australian Government's approach for the reduction of plastic waste and pollution, including phasing out problematic plastic materials.

Australia's State and Federal Environment Ministers have recently committed to a **National Action Plan** on waste, which includes ambitious targets such as recovering 80% of waste across all waste streams and achieving 70% recycling for plastic packaging.

Ministers have also agreed to a **Waste Export Ban** for used paper, plastic, glass and tyres. The Council of Australian Governments has set a timeframe that includes banning export of all waste glass by July 2020 and mixed plastics by July 2021.

NSW Government policies and strategies

The **NSW Waste Avoidance and Resource Recovery Strategy 2014–21** provides key result areas for state-wide targeted action, including reducing waste generation, increasing recycling, and better management of problem waste, litter and illegal dumping.



The NSW Government is also developing a new **20 Year Waste Strategy** that will shape state waste policy, NSW-wide targets, and the future of critically needed waste infrastructure. They are also preparing a NSW Plastics Plan which aims to address problematic and unnecessary single-use plastics and develop a holistic approach to managing plastic waste.

The **NSW Government 2019 Circular Economy Policy Statement** aims to change the way products are produced, sold and used, by incorporating reuse and energy efficiency strategies throughout the entire product life cycle.

The **NSW Illegal Dumping Strategy 2017–21** outlines objectives and actions for NSW Government and its partners, including local government, to undertake in order to reduce illegal dumping.

Regulatory Framework

The **NSW Waste and Resource Recovery Act 2001** provides a framework for state-wide targets for waste reduction and the introduction of state-wide extended producer responsibility schemes.

The **NSW Protection of The Environment Operations Act 1997** and its subordinate

Protection of The Environment Operations (Waste) Regulation 1997 make up the central environmental protection legislation for NSW, and include provisions establishing a levy on waste to landfill.

The **NSW Local Government Act 1993** sets out Local Government responsibilities for managing residential waste, and mandates a Domestic Waste Management Charge for all residential properties.

Regional coordination and strategies

The City of Canada Bay collaborates with other councils across the Inner West and Southern Sydney through the Southern Sydney Regional Waste Group (SSROC). Councils are able to achieve greater outcomes by sharing information, jointly advocating for improved state and federal policy and legislative approaches, and partnering on projects to build economies of scale for joint procurement or infrastructure.

The **SSROC Regional Waste Avoidance and Resource Recovery Strategy** sets out an overarching regional strategy, and includes Key Strategic Actions for avoiding waste, recovering resources, reducing illegal dumping, and preventing litter.

City of Canada Bay policies and strategies

The City of Canada Bay **2019 Environmental Strategy** sets out overarching environmental goals and direction, building on community feedback to identify key actions we will take to achieve our sustainability targets.

The targets within this Waste Strategy are meant to support the Environmental Strategy and become the waste targets for Council.

Council's **Your Future 2030: Community Strategic Plan 2018–2030** sets out a long-term vision for the local community and an overarching plan to enable Council to coordinate the funding priorities, activities and services for future challenges. This plan includes a goal to '*Provide efficient and effective waste and resource recovery services.*'

The City of Canada Bay **Emissions Reduction Action Plan** sets a target of net zero emissions from Council operations by 2030, and a target of net zero emissions from our community by 2050.

Waste collection and disposal contributes to an estimated 12% of community emissions, and reducing emissions from waste will be an important contribution to achieving these targets.

CHALLENGES AND OPPORTUNITIES

This is an exciting time for waste management in Australia, and locally.

Population growth, recycling export restrictions, new regulatory requirements and changing technologies present challenges, but also opportunities to implement sustainable, long-term waste management solutions.

All levels of government, the waste and resource recovery industry, and residents will need to work together to ensure we can build sustainable waste management systems that prioritise avoiding waste and recovering resources.

Our changing population

Due to Sydney's growing population, as with many Council areas, the City of Canada Bay is transforming into an area with increasingly higher density living. The proportion of residents living in apartments has increased from 37% in 2006 to over 50% in 2019.

This trend is expected to continue, with Council's population forecast to grow from 96,000 to 120,000 residents over the next 15 years.

Increasing household density creates specific challenges:

- » Generally higher contamination and lower recycling rates (common Australia-wide)

- » Competing demands for space and traffic access for collection vehicles
- » Limited space for storage and presentation of unwanted furniture and other bulky waste for a demographic that has limited car ownership or capacity to easily transport unwanted materials
- » Higher turnover of unit spaces which leads to illegal dumping when tenants leave behind furniture.

To better manage waste in unit blocks, Council has undertaken a thorough review and benchmarking of Development Control Plan requirements, and is in the process of developing updated controls that will communicate improved minimum requirements for on-site separation, storage and vehicle access to designers, developers, builders and building managers.

Environmental impacts of landfill

Sending waste to landfill is a missed opportunity to recover valuable resources and causes damage to the environment.

When organic material such as food scraps and paper break down in landfill, they produce methane gas and carbon dioxide. Methane is a powerful greenhouse gas, 28 times more potent than carbon dioxide.

Both methane and carbon dioxide contribute to greenhouse emission, therefore it is critical that we divert waste from landfill. Landfill gas can also contain a variety of corrosive, toxic or odorous components.

Sending our household waste to landfill also means we lose the value of those resources. Making products from new materials takes more energy, water and greenhouse emissions than making the same products from recycled materials. We are also running out of landfill space. Most landfills near Sydney have closed, and regulatory and community factors mean that it is unlikely we will see any new landfills built near Sydney for the foreseeable future.

Recycling import restrictions and processing infrastructure

In 2018, global flows of recyclables were interrupted when China imposed its 'National Sword Policy' of sweeping restrictions on the import of recyclable materials such as used paper and plastics. Prior to this policy, China received around 30% of Australia's used paper and around 36% of its recyclable plastics.

Since this change, other countries including Malaysia and Indonesia have also initiated restrictions on recyclable imports.



While this presents an opportunity for Australia to develop domestic recycling processing markets, it has also led to increasing costs for recycling processing and challenges in finding processors and markets for sorted recyclables.

There has been limited investment in Australia for processing materials from the yellow-lidded recycling bin into new products, which has left Australia's recycling industry vulnerable to the volatility in global markets caused by these import restrictions.

The City of Canada Bay is working with Local, State and Federal Governments and the recycling industry to implement strategies to develop stronger markets for recycling, including by supporting the Local Government NSW

Save Our Recycling campaign, which calls for the state government to greatly increase investment in the local industry.

This is vital to the long-term viability of kerbside recycling and will create local industries and jobs.

New markets may require cleaner, less contaminated material so it is important that we continue to recycle and reduce contamination in order to provide the best recycling products.

To help us recycle correctly, we ask residents to avoid single-use plastics and reuse where possible. We also ask residents to continue their great efforts with home recycling and to minimise the amount of contamination in their yellow-lidded bins.

Food waste processing or transfer station infrastructure

Reducing our food waste is important to our community, and food waste currently makes up 36% of the general waste bin in the City of Canada Bay. However, there is limited infrastructure in Sydney for processing food waste, or for storing and transporting food waste to processing facilities outside of Sydney.

Some councils in metropolitan Sydney had previously sent the whole red-lidded waste bin to a sorting facility so that food organics (and other recyclables) could be separated for processing.

But there have been longstanding concerns about the quality of the products made from this food waste, due to potential contamination from other materials in the red-lidded waste bin, such as broken glass.

In 2018, the NSW Government revoked approval for using this material, leading to significant uncertainty about the future of these facilities for the separation and recovery of food waste.

A much cleaner stream of food waste can be produced through separation of food at home, into either a separate food waste bin or the mixing in with the garden organics bin. Processing this material may require new or expanded infrastructure.

The facilities in Sydney that are currently able to process this food waste have limited capacity. There is much greater processing capacity outside of Sydney, as well as significantly more customers for compost products made from food waste, but a new transfer station may be required to move this material out of Sydney in a cost-effective and environmentally responsible manner.

The City of Canada Bay is working with Southern Sydney Regional Organisation of Councils and other councils in our region to further assess these infrastructure needs and investigate opportunities for shared approaches to this issue.

Residual waste processing infrastructure

Once recyclables and food are separated for recovery, further investigation about the best way to manage the leftover residual waste in the red-lidded bin will be required.

It is acknowledged that to achieve greater landfill diversion, Council will need to explore solutions such as Mechanical and Biological Treatment and Energy from Waste processing technologies.

Alternative waste treatment technologies for waste that cannot be recycled can provide energy recovery and carbon emission reduction, as well as reducing waste to landfill.

While some MBT facilities have been constructed within viable distance of the City of Canada Bay, the future of these facilities is now highly uncertain.

Recent regulatory changes by the NSW government mean that the organic products made through the 'biological' treatment part of MBT can no longer be used.

Several of these facilities are now retooling to accept primarily source-separated organics, and so would not be able to recover a substantial fraction of the residual waste.

Energy from waste facilities can supplement waste avoidance, reuse and recycling.

NSW Government policy currently specifies that Energy from Waste approaches may only be directly used for kerbside waste where organic putrescibles are collected separately (such as via a kerbside food and garden organics collection). Only a few of these facilities have been built in Australia, and none within viable distance of our Council area.

A number of previous proposals for energy from waste facilities in and around Sydney have been cancelled or rejected due to community and environmental health concerns.

The waste targets and actions in this Strategy assume that new facilities of this type would take several years to progress through planning and environmental approvals, and the construction process.

As there are no facilities that are certain to be built within target timeframes, this type of processing has not been included within targets or underlying actions.

However, if the marketplace for this infrastructure was to change, and additional facilities became available within reasonable distance of our Council area, then strategy actions may be revisited, revised and set to even greater recovery outcomes.

Council will continue to monitor these emerging technologies, and engage with our community on potential solutions for residual waste.



Many factors need to be taken into account when considering these new technologies and services, including:

- » Availability and capacity of local facilities
- » End-markets for recycled products
- » Contribution towards diversion of waste from landfill
- » Carbon emissions performance
- » Likely community acceptance and uptake of methods
- » Cost of implementation
- » Data for waste planning and investment decisions.

A lack of central coordination and management of national and state waste sector data has created significant gaps in the data required to enable all levels of government, consumers and industry to make informed procurement choices and appropriate long-term waste planning decisions.

The lack of reliable data and transparency is an issue affecting all waste streams, but has become critically urgent in the wake of the recent changes in international markets for recyclable materials.

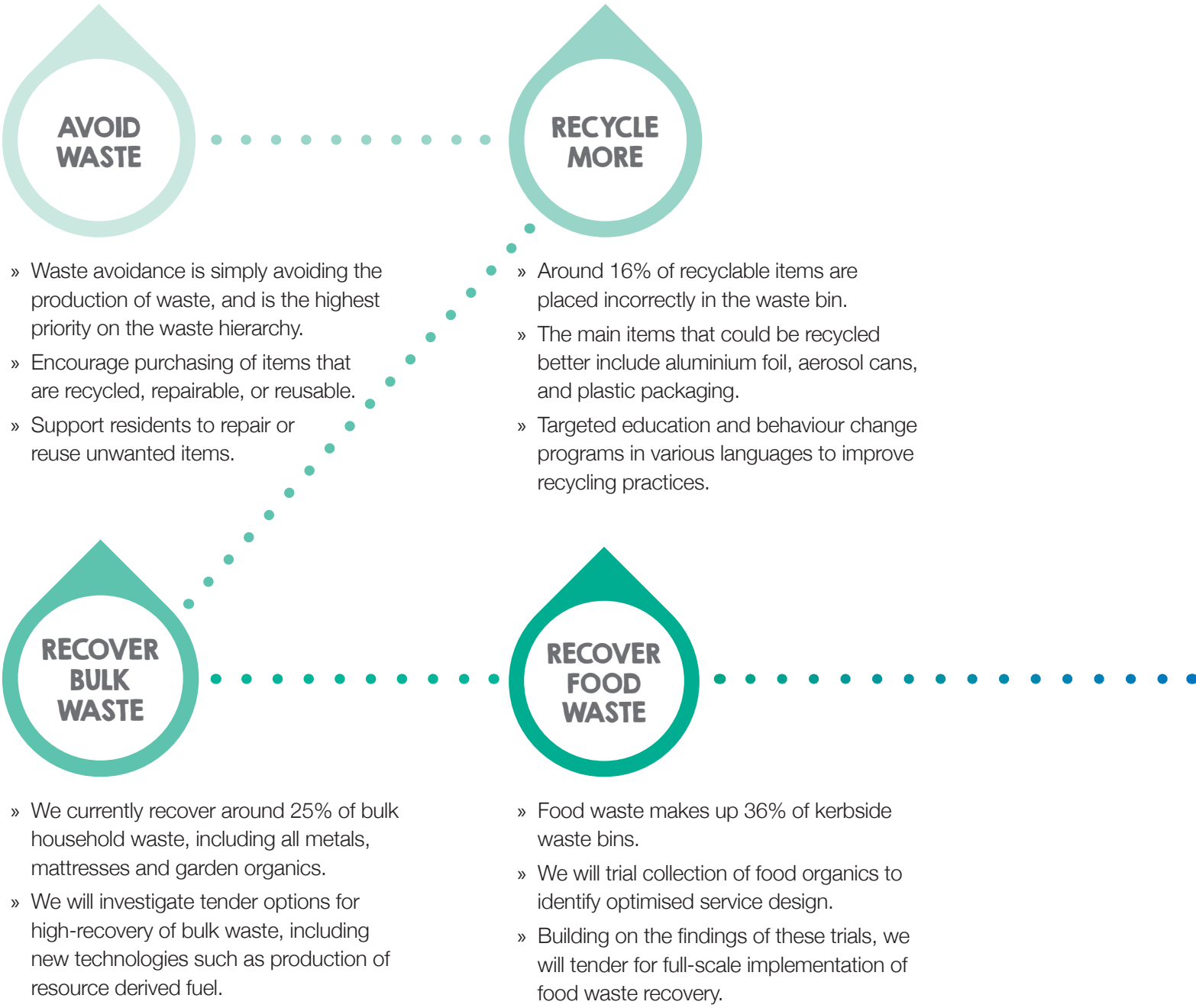
In many instances, councils are not currently able to track where and how materials are being recycled after they leave Material Recovery Facilities.

This in turn affects consumer confidence in the recycling system and councils' accountability to their residents.

The City of Canada Bay will continue to advocate to state and national governments for greater data transparency, including the processing volumes and capacity of waste and recycling facilities, so Council has the best information available to inform planning infrastructure and regional projects.

OUR ZERO WASTE ROADMAP

WASTE STRATEGY ACTIONS - UPCOMING COLLECTION AND PROCESSING TENDERS



THE FUTURE - OUR LONG TERM OBJECTIVE

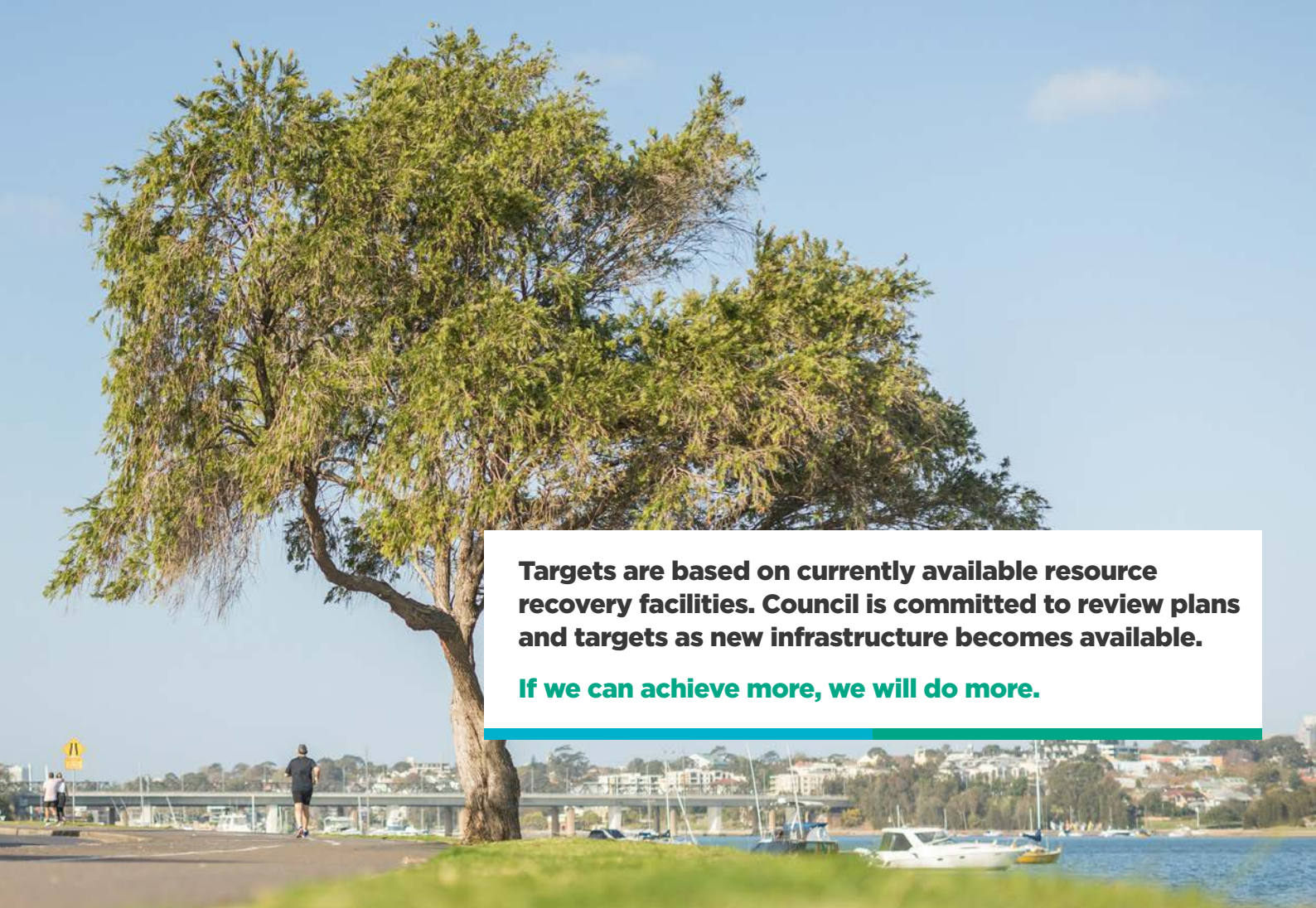
- » Once recyclables and food are separated, further processing of the residual waste bin will be required to achieve long term waste minimisation aims.
- » Some alternate technologies, such as mechanical biological treatment, may be less viable due to regulatory changes.
- » Energy from waste technologies may deliver high recovery outcomes, but need to meet regulatory requirements and demonstrate safe and effective processing to the community.
- » It is assumed that these technologies will not be proven within target timeframes, but we will continue to monitor new technologies, and engage with our community if new potential solutions arise for residual waste.

GOALS AND TARGETS

Our zero waste journey goals have been developed by distilling community feedback and aspirations, reviewing council priorities, modelling of waste trends in our area, analysis of the national and international waste context and investigation of existing and emerging waste technologies.

We are committing to a zero waste future, and reaching key milestone targets in the next 10 years to support this transition.

The targets are based on modelling our waste streams, benchmarking of other areas, and research of processing infrastructure viable in our region now or in the near future.



Targets are based on currently available resource recovery facilities. Council is committed to review plans and targets as new infrastructure becomes available.

If we can achieve more, we will do more.

GOAL 1 Less waste to landfill and reduced greenhouse gas emissions	GOAL 2 Recycle and reuse more	GOAL 3 Continuously improve our services to meet community needs	GOAL 4 Reduce litter and illegal dumping	GOAL 5 Lead by example in Council
TARGET Increase diversion of waste from landfill from 38% to 60% no later than 2027 TARGET Reduce waste to landfill per person by 20% by 2030 (from 213kg per person in 2019-20 to 171kg per person by 2030)	TARGET Reducing contamination in our recycling to below 10% by 2025	TARGET Maintain above 93% community satisfaction with waste collection services	TARGET Reduce total number of illegal dumping incidences by 2025 (from 1183 total incidences in 2019-20)	TARGET All Council facilities and offices to implement recycling by 2021 and a food recovery program by 2023 TARGET 100% of Council procurement for civil works, construction and street furniture to include preference for locally sourced recycled content by 2023

REPORTING AND REVIEW

Council will deliver a report on progress every four years. This report will include a major review of goals, priorities, and actions, as well as an industry update on emerging technologies.

The current targets and actions in this strategy assume that new technologies for treatment of residual waste, such as Energy from Waste, will not be proven within a viable distance of our Council within target timeframes.

However, if infrastructure was available within reasonable distance of our Council area, then strategy actions and targets may be revisited, revised, and set to even greater recovery outcomes.

In addition to reporting progress against each target, the Progress Report will include a check on each action outlined in the Action Plan.



ACTION PLAN



ACTION PLAN

GOAL I - LESS WASTE TO LANDFILL AND REDUCED GREENHOUSE GAS EMISSIONS

TARGET 1 – Increase diversion of waste from landfill to 60% by 2027 (from 38% in 2019–20)

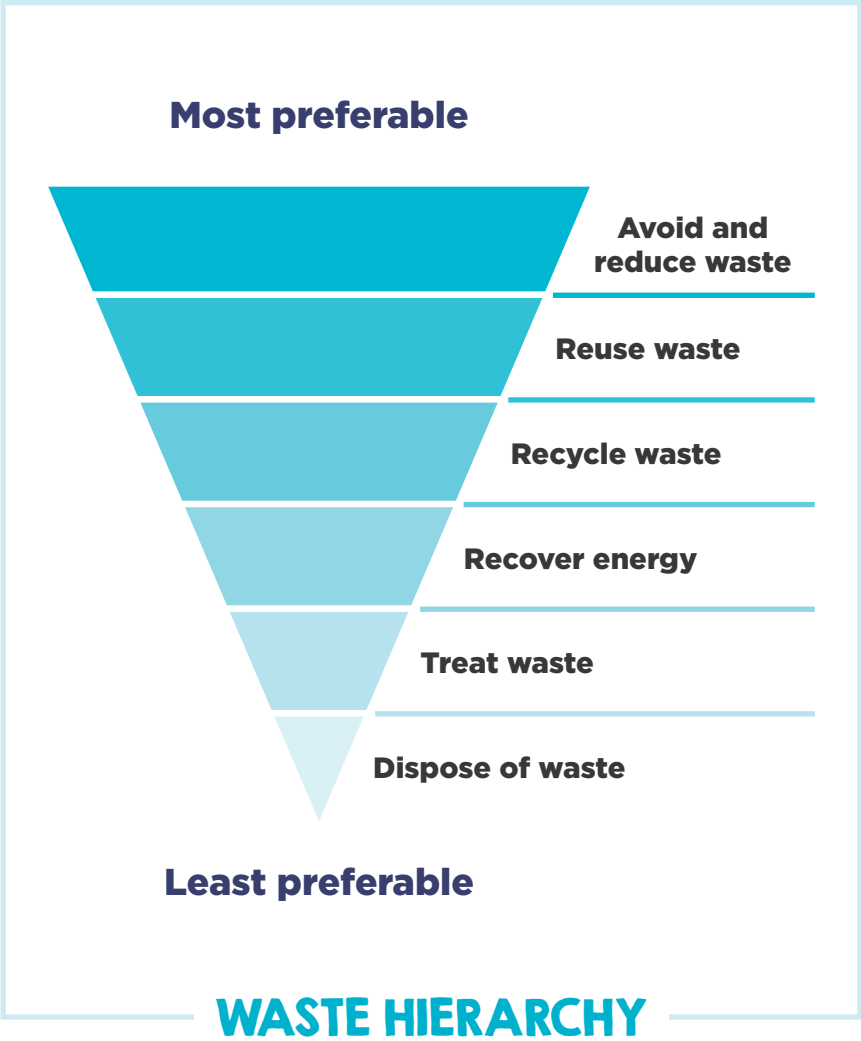
TARGET 2 – Reduce waste to landfill per person by 20% by 2030 (from 213kg per person in 2019–20 to 171kg per person by 2030)

Did you know that 64% of our kerbside household waste continues to be sent to landfill? Increased diversion is a critical step in reducing the environmental and carbon footprint of the City of Canada Bay community.

This Resource Recovery and Waste Strategy is an opportunity to reconfigure and optimise current services to offer resilient, secure and sustainable waste services that meet the community’s current and future needs.

In the decade from 2010 to 2020, the City of Canada Bay reduced waste sent to landfill per person by more than 10%. This was achieved through improved and expanded recycling services, community education, and community commitment.

However, we still send over 18,700t of household waste to landfill, and additional programs, services, and commitments are required to reduce the impact of our waste.



The waste hierarchy infographic on page 38 shows us that avoiding and reducing waste is a top priority and is the key to reducing waste to landfill. We need to make different choices in the way purchase goods, recycle better and make reuse a priority.

PRIORITY 1.1 – Provide innovative collection services which support increased recovery improve waste diversion.

Food waste currently makes up 36% of the general waste bin in the City Canada Bay, so the separate collection of food waste will significantly increase resource recovery rates and diversion from landfill.

Community feedback indicated a strong interest in the recovery of food waste and the addition of new services to collect food waste.

Over 84% of all residents stated that collecting food waste was ‘somewhat important’ or ‘very important’.

Council is planning to trial the collection of food organics in different housing contexts in order to optimise service design. Building on the findings of these trials, Council will tender for full-scale implementation of the new services at expiry of the current waste collection and disposal contract.

Actions:

1.1.1 – Undertake food waste collection trials for full scale introduction. This will assist to:

- » Determine preferred service configurations for different housing types, particularly collection within existing garden bin or separate food waste bin, and weekly or fortnightly collection of residual red-lidded waste bin.

- » Build community acceptance of the new food waste collection service and potential changes to residual waste collection.
- » Define local performance indicators for use in more detailed financial analysis, procurement and planning for the future service change.

1.1.2 – Develop a plan and information to procure new kerbside collection contracts for food organics.

1.1.3 – Develop food waste avoidance education and programs to support implementation of food waste source separation.

1.1.4 – Include full-scale introduction of food waste collection and processing in Council’s upcoming tenders for collection and processing services.

PRIORITY 1.2 – Empower our community to make better choices and reduce their waste.

Community feedback has suggested a strong interest in Council educating the community about waste reduction and improved recycling.

When asked what they thought would make the most difference to waste management in our community, residents most commonly stated additional education on recycling, with over 20% of all responses including this as the most important factor.

Responses to the Weigh in on Waste survey included requests for clear information or infographics about which materials are accepted in which bin and the impacts of placing the wrong items in the wrong bin.

With the potential to reach a broad range of people to educate them about waste avoidance and the correct use of waste management services, Council will promote messaging through multiple avenues including online campaigns, community groups, and direct messages to household and businesses.

Actions:

1.2.1 – Develop a waste education plan to support the implementation of the Waste Strategy which considers key topics, event engagement, resources, workshops and targeted programs.

“Education around recycling – what can and can’t be recycled – the effects of placing the wrong items in recycling.”

“Making sure that households are well informed about the best way to reduce their own rubbish production and EXACTLY what qualifies for recycling.”

“You need a simple but strong marketing campaign to educate the community – stickers on bins, social media, a ‘fun’ program to educate children in local schools.”

1.2.2 – Provide residents with educational materials on waste and recycling services, including kerbside collection, bulk household collection and local waste drop off facilities to improve resource recovery and reduce contamination rates.

1.2.3 – Review, expand (where necessary), and promote the mobile waste application.

1.2.4 – Target education in schools to establish long-term behaviours and recognising the influence of our younger residents in transferring knowledge and facilitating change.

1.2.5 – Promote the reuse, repair, and repurposing of household items.

1.2.6 – Further promote businesses and individuals who demonstrate resource recovery and circular economy excellence, to recognise and encourage sustainability champions.

1.2.7 – Investigate alternative options for households to compost food waste, such as communal

composting, community gardens, and technology solutions.

PRIORITY 1.3 – Continuously improve our Community Recycling Centre to meet the needs of our community.

Since launching in November 2016, Council’s Community Recycling Centre has increased total drop offs at the facility from 1,800 in the first year of operation to over 4,200 in 2019-20.

The total volume of material recovered has increased from 44,000kg to over 130,000kg in the same period.

There are further opportunities to investigate further developing the services at the Community Recycling Centre, including exploring recovery of additional material types, and long-term investigation of alternative locations to allow for potential future expansion.

Community feedback about this facility is very positive, with residents that had used the centre

taking the opportunity to provide positive feedback about staff and services. However, nearly 40% of survey respondents were not aware of this facility, demonstrating that Council has the opportunity to do more to promote this service.

Actions:

1.3.1 – Continue operations of the Community Recycling Centre, and raise community awareness of this facility.

1.3.2 – Investigate options for expanding services and materials collected at the Community Recycling Centre service.

1.3.3 – long-term investigation of alternative locations for the Community Recycling Centre, to allow for potential future expansion of services and account for potential change of land use at current location.

PRIORITY: 1.4 Encourage innovation through studies into new technologies.

Once recyclables and food are separated for recovery, further investigation will be required about the best way to manage the leftover residual waste in the red-lidded bin.

It is acknowledged that to achieve greater landfill diversion, Council will need to explore solutions such as Mechanical and Biological Treatment and Energy from Waste processing technologies.

Alternative waste treatment technologies for waste that cannot be recycled can provide energy recovery and carbon emission

reduction, as well as reducing waste to landfill.

If new infrastructure was to become available within viable distance of our Council area, then strategy actions and targets may be revisited, revised and set to even greater recovery outcomes.

Actions:

1.4.1 – Explore innovative waste processing technologies such as waste-to-energy, biodigestion, and alternative waste treatment systems.

1.4.2 – Investigate options and implement high recovery technology for bulk household waste.

1.4.3 – Support funding opportunities for innovative technologies and processes, and advocate for state and national investment in alternative treatment technologies.

1.4.4 – Identify opportunities in the short term to assist in the sorting of materials locally before transporting.

1.4.5 – Advocate for NSW Government to support new and emerging technologies, including infrastructure needs analysis to identify gaps and opportunities for new infrastructure, suitable zoning for priority waste facilities, and grants for suitable technologies.

PRIORITY 1.5 – Track greenhouse emissions related to waste management, and implement approaches and programs to contribute towards Council emission targets.

The City of Canada Bay is committed to tackling climate change, and has adopted a target of net zero community emissions by 2050. Waste contributes to approximately 12% of City of Canada Bay local area greenhouse gas emissions.

Organic and biodegradable waste sent to landfill breaks down to produce methane, a powerful greenhouse gas 28 times more potent than carbon dioxide.

Waste collected from households in our Council is sent to an engineered landfill able to capture most of the methane for waste generation, but some emissions still escape to the atmosphere.

Waste reduction initiatives and programs such as separation and collection of food waste will reduce greenhouse gas emissions. In addition, investigating low or zero emission collection vehicles can help contribute to achieving Council’s target of net zero community emissions by 2050.

Actions:

1.5.1 – Track greenhouse gas emissions related to waste management, and implement approaches and programs to contribute towards Council emissions targets.

1.5.2 – Implement changes to our services which contribute to a reduction in emissions, including investigation of low or zero emissions collection vehicles that are fit for purpose e.g. hybrids, electric and hydrogen.

GOAL 2 - RECYCLE AND REUSE MORE

TARGET – Reduce total contamination in yellow-lidded recycling bin to 10% by 2025 (from 2018-19 previous kerbside audit finding of 18% contamination)

Nearly every single household in the City of Canada Bay makes an effort to separate out their recycling for collection. However, most of our recycling bins still include some material that cannot be sorted for recycling.

This may be due to us not always knowing which bin is correct, or not always taking that extra effort to make sure the right thing goes in the right bin.

In 2019-20 Council collected over 6,900t of recycling from households. We found that over 80% of glass packaging and over 90% of paper was correctly sorted and placed in the recycling bin.

However, around 18% of material in recycling bins was not recyclable. The most common materials placed incorrectly in the recycling bin included paper towel, soft plastics, and the largest problem item of all — recycling tied in a plastic bag.

While we continue to make efforts to recycle better at home, the recycling industry in Australia and internationally is undergoing a transformation.

In 2018, China implemented the National Sword Policy, placing stringent restrictions on the import of recyclable materials and this change has presented an opportunity for Australia to develop domestic recycling processing markets.

New markets may require cleaner, less contaminated material so it is important that we all continue to recycle and reduce contamination in order to provide the best recycling products.

Council is also seeking to shift to a circular economy approach that aims to encapsulate waste minimisation at every point in a product's lifecycle – from design and assembly, through to sales and use, to final reuse, repair, refurbishment or recycling.

A circular economy model expands waste management from a focus on end-of-life recycling or recovery, to incorporate sustainable procurement, extended producer responsibility, and an increased focus on sharing and reuse.

City of Canada Bay has embraced the circular economy approach, including signing up to a Memorandum of Understanding to Prioritise Recycled Materials in Procurement for Council operations, such as using glass, reclaimed asphalt pavement, reclaimed sand and tyre crumb in civil works.

PRIORITY 2.1 – Deliver contamination management programs, with a focus on multi-unit dwellings (MUDs).

Bin audits in our area have shown that recycling bins in apartments

have significantly higher contamination rates than single dwellings (common Australia-wide).

Average recycling contamination in single households is around 16%, while contamination in multi-unit dwellings is around 20%. This may be due to a range of factors, such as limited space for bins in apartments, challenges in providing waste education for rental tenants with a high turnover, and differences in physical collection systems.

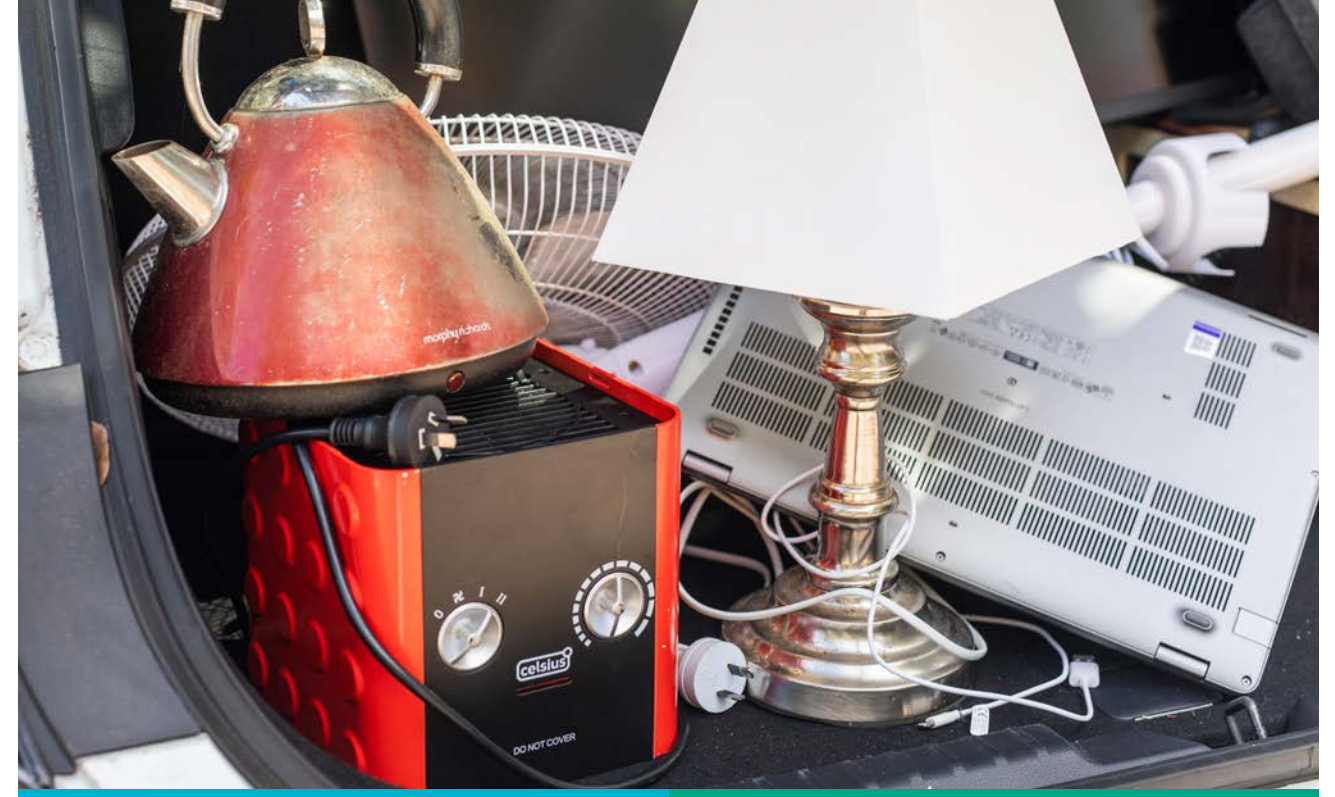
Actions:

2.1.1 – Maintain a clear understanding of the challenges multi-unit dwellings to increase participation in correct waste management and therefore improving waste behaviours.

2.1.2 – Trial and evaluate contamination management approaches in multi-unit dwellings and single households, prior to council-wide rollout of evidence-based contamination management programs.

2.1.3 – Engage with strata managers, strata committees and owner's corporations to provide resources and education on waste minimisation and management of dumping on private land.

2.1.4 – Implement a multi-unit dwelling contamination management program to improve



recycling outcomes. As part of this program, a review of all multiunit dwellings should be undertaken to look for opportunities to improve signage, storage, and access.

PRIORITY 2.2 – Target materials that are difficult to recycle or not accepted in existing kerbside waste services.

Some recyclable or reusable items such as electronic waste, clothing and textiles, paints and chemicals cannot be accepted in current kerbside recycling bins.

Council has implemented recycling programs for some of these materials, including drop off days and household pickup services.

There are opportunities to continue and expand on these programs to make it easier for our community to manage these items and improve environmental outcomes.

Actions:

2.2.1 – Expand existing programs for collection or drop off for

difficult materials such as textiles, electronic waste and soft plastics.

2.2.2 – Increase separate collection of recyclables in apartment buildings, including drop off points for e-waste, textiles, and other materials.

2.2.3 – Deliver programs to reduce use of single-use plastics and encourage reuse and resource recovery by businesses and our community.

2.2.4 – Investigate feasibility of additional annual drop off day for e-waste.

PRIORITY 2.3 – Deliver innovative and engaging community education and behaviour change programs to empower residents to recycle and reuse more.

Successes in reducing recycling contamination are driven first and foremost by community behaviour.

We will continue to provide education and behaviour

change programs to reduce contamination in recycling bins, and adopt circular economy principles through increased repair and reuse.

Actions:

2.3.1 – Implement education and behaviour change programs in various languages to improve recycling practices and reduce contamination of recycling.

2.3.2 – Develop and provide resources aimed at minimising contamination, including 'Is this recyclable?' lookup tools for mobile and web.

2.3.3 – Deliver repair, reuse, re-homing, or on selling of unwanted items and second-hand purchasing programs.

2.3.4 – Undertake an investigation of rebates for reusable nappies and sanitary products. Trial rebate if found to be cost effective for environmental benefits.

GOAL 3 - CONTINUOUSLY IMPROVE OUR SERVICE TO MEET COMMUNITY NEEDS

TARGET – Maintain above 93% community satisfaction with waste collection service

Waste management is an essential service that impacts every member of our community. Council is committed to continually improving its waste services to meet the community's needs.

Our Weigh in on Waste survey showed that the primary driver for our community was to divert waste from landfill and have improved environmental outcomes.

In Council's most recent community satisfaction survey, household waste collection was rated one of the most important Council services, with 92% of residents stating this was important to them. And 93% of residents were satisfied with their waste collection – one of the highest ratings of all services Council provides.

PRIORITY 3.1 – Deliver best practice residential waste collection services, which are safe, cost effective, innovative and accessible.

Waste management is one of Council's primary responsibilities. It is essential that these services meet the needs of our community, are fit for purpose, and provide value for money, with a long term view of minimising risk and identifying opportunities for improvement.

Actions:

3.1.1 – Regularly review contracts, systems and services to improve efficiency, and outcomes of waste management services.

3.1.2 – Continually improve bin infrastructure, review fleet, and routes to ensure our collections are efficient and accessible.

3.1.3 – Investigate the use of incentives to increase the uptake of smaller bins as part of the domestic waste service.

3.1.4 – Ensure tender processes are robust, comprehensive and competitive, using joint regional procurement where it adds value, is competitive, and meets the needs of the community.

3.1.5 – Implement waste tracking and monitoring equipment on all collection vehicles to improve waste service standards and reduce contamination.

3.1.6 – Investigate the use of smaller waste collection vehicles in underground car parks of MUDs to improve bulky waste, waste, and recycling collections.

PRIORITY 3.2 – Deliver a commercial service which prioritises recycling and opportunities to divert waste to landfill.

Council provides an optional waste, recycling and garden organics collection service for businesses, schools and other non-rateable properties. Over 900 organisations used this service in 2021.

Council wants to provide a service that is efficient, encourages recycling, and provides customers with support and education to minimise waste to landfill.

Actions:

3.2.1 – Manage and improve commercial services, including collection data and systems.

3.2.2 – Continually improve bin infrastructure, review fleet and routes to ensure our collections are efficient and accessible.

3.2.3 – Investigate feasibility of an optional separate food waste collection and processing service for businesses to be rolled out in conjunction with household food waste collections.

3.2.4 – Encourage, educate and support building owners and tenants to improve their waste avoidance, reuse, recycling and recovery performance.

PRIORITY 3.3 – Improve data collection and investigate new collection service technologies.

Waste and recycling data is key to improving resource recovery and environmental outcomes. We need to better understand the waste we produce and how it is managed to identify, develop and implement improvements.

By understanding the lifecycle and processes of different waste streams, we can better understand behaviours and implement programs to reduce waste and improve resource recovery.

Actions:

3.3.1 – Undertake detailed audits of kerbside waste, recycling, and organics bins to determine what materials should be targeted in education campaigns.

3.3.2 – Use data from our bulk household collection to develop recycling and reuse services for items not currently accepted in kerbside recycling bins.

3.3.3 – Improve collection, analysis, verification, and transparency of reporting of waste and recycling data, including development of a digital platform for storing and reporting data.

3.3.4 – Consider the use of Radio-Frequency Identification (RFID) bin tags or other technologies.

3.3.5 – Undertake a 'Bin Reconciliation Study' for the residential service to compare the Council Rates Database to existing bin collection services.

3.3.6 – Advocate for state and

national government to provide regular and transparent waste data reports, including total volumes of waste streams and materials in New South Wales and nationally.

PRIORITY 3.4 – Improve bulk household collection services to recover more, including service delivery and education.

Council currently runs a collection service for bulk household items where residents are offered two scheduled collections per year. This service separates materials for recovery with mattresses, green waste, and metals all recovered for recycling.

Around 2,950 tonnes of bulk household material was collected in 2019-20, and of this around 750 tonnes was recycled, including over 250 tonnes of garden organics and over 3,500 individual mattresses.

Mixed household material, including furniture, presents a resource recovery challenge. High-recovery options will be investigated in the future, including monitoring new technologies implemented in other council areas, such as the production of 'resource derived fuel' from bulk household materials for the production of energy.

Actions:

3.4.1 – Review collection servicing options around bulk waste at the kerbside to identify opportunities to divert more waste from landfill.

3.4.2 – Develop a bulk household waste education campaign, including targeted information

around problem locations and specific buildings types (e.g. multi-unit dwellings).

3.4.3 – Trial alternative bulk household waste collection approaches, including additional collections in high-density areas.

3.4.4 – Investigate options to improve reuse and recycling outcomes from bulk household waste collections for items such as mattresses, garden waste, and furniture.

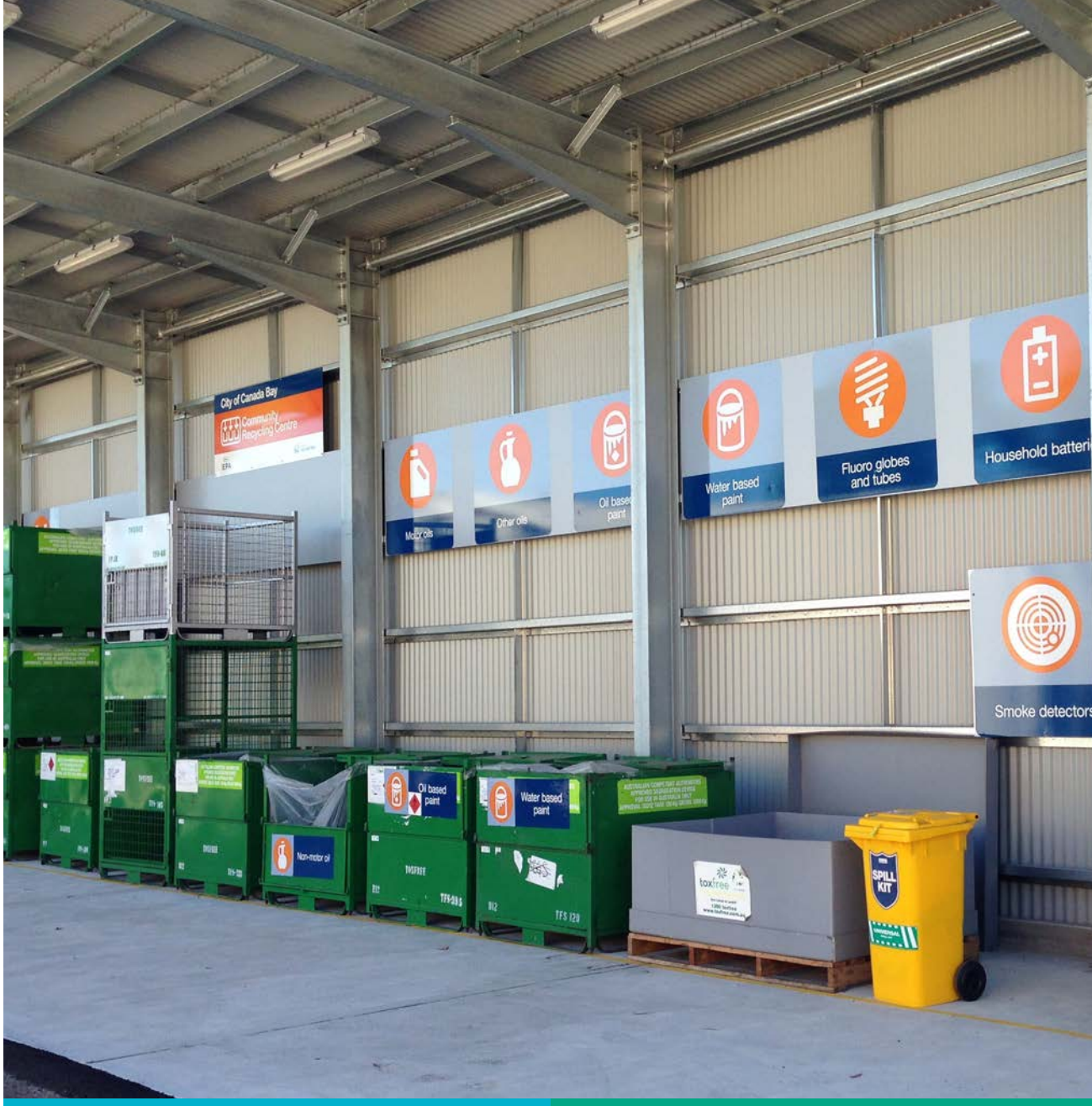
3.4.5 – Increase promotion of alternative reuse options for unwanted bulk household waste materials, including Council-supported rehoming services.

PRIORITY 3.5 – Strengthen building design to support best practice waste storage and service delivery for developments.

Council also encourages reuse and recycling of construction and demolition waste from new developments through Development Application waste management plans.

There is opportunity to revise and improve on these requirements, and implement a more thorough inspection, reporting and evaluation program to minimise waste to landfill from construction and demolition activities in our LGA.

When a building is designed, it is essential that waste management and storage are integrated and constructed to support service delivery.



The design must be sustainable, meet the needs of residents whilst also ensuring that it protects streetscapes, ensures safety, optimises recycling and minimises waste to landfill.

Buildings need safe and convenient areas to store recyclables and unwanted waste items. Access restrictions and a lack of space can reduce recycling outcomes and create amenity issues on the street.

Actions:

3.5.1 – Improve Council's Development Control Plan (DCP) and associated Waste Control Guidelines for new MUDs to support Council's ability to mandate and monitor the design and development of new buildings.

3.5.2 – Incorporate best practice waste management for demolition, construction and operation into our sustainable buildings and facilities requirements and guidelines.

3.5.3 – Monitor the implementation of improved waste management controls, and increased compliance investigations and tracking to ensure construction and demolition activities are undertaken in line with approved waste management plans.

GOAL 4 - REDUCE LITTER AND ILLEGAL DUMPING

TARGET – Reduce total number of illegal dumping incidences by 2025 (from 1183 total incidences in 2019-20)

Litter poses serious social, economic, and environmental costs as well as detracting from the amenity of the area.

As a Council area bordered by the Parramatta River with 36km of foreshore, the effects of litter are seen very prominently along our foreshores, caused primarily by catchment pollution.

In 2019–20, we collected 496 tonnes of public litter from over 500 bins in our parks and streets, and we will look to build on these efforts to further reduce litter in our area. Illegal dumping is a problem which costs our community.

It detracts from the urban amenity, has potential health implications, costs considerable money to monitor and clean up and can cause considerable environmental damage. Since 2017, Council has investigated over 4,000 illegal dumping incidents.

Council is committed to tackling these issues with new, innovative and evidence-based programs, aimed at reducing the number and scale of illegal dumping incidences to maintain the cleanliness of Council's nature strips, parks, and public places.

PRIORITY 4.1 – Promote litter reduction and maintain litter infrastructure, street sweeping and cleansing programs.

Actions:

4.1.1 – Maintain service levels for Council's public place bin network, street sweeping and public place cleansing programs, recognising that a clean space is less likely to attract litter.

4.1.2 – Promote litter prevention and raise the profile of litter as an issue through collection vehicle signage and public bin signage.

4.1.3 – Encourage community participation in litter reduction and clean up, including through the Love your Place program and Clean Up Australia Day events.

4.1.4 – Continue to monitor public place recycling system trials and outcomes, noting that previous trials have indicated high contamination rates resulting in collected materials not being suitable for recycling.

4.1.5 – Monitor alternative processing options to recover organics and recyclables from material collected from street sweeping and public place bins.

4.1.6 – Investigate low-emission options for Council's litter collection and street sweeping vehicles.

4.1.7 – Continue to maintain existing stormwater litter traps and identify priority locations for the installation of new infrastructure.

4.1.8 – Investigate opportunities to implement technological

solutions to improve litter collection efficiency and reduce litter overflows.

4.1.9 – Investigate options for public programs to encourage residents to maintain and clear streets and apartment complexes, such as a 'Cleanest Streets' competition.

PRIORITY 4.2 – Develop and implement innovative, evidence-based illegal dumping education and enforcement campaigns.

Actions:

4.2.1 – Deliver targeted communication and education programs which focus on educating the community on what illegal dumping is, the cost of illegal dumping to the community, and reducing the incidence of illegal dumping.

4.2.2 – Work with strata managers to develop and implement programs to increase resident awareness of illegal dumping and reduce the incidence of illegal dumping outside multi-unit dwellings.

4.2.3 – Continue to collect City-wide data to target campaigns in hotspot areas with an infrastructure, education, and enforcement approach.

GOAL 5 - LEAD BY EXAMPLE IN COUNCIL OPERATIONS

TARGET 1 – All Council facilities and offices to implement recycling by 2021 and a food recovery program by 2026

TARGET 2 – 100% of Council procurement for civil works, construction and street furniture to include preference for locally sourced recycled content by 2023



4.2.4 – Promote the reporting of illegal dumping through Council platforms.

4.2.5 – Where suitable, look at installing barriers to restrict access, lighting and signage in hot spot areas to reduce illegal dumping.

4.2.6 – Increase regulatory enforcement and improve surveillance technologies to support illegal dumping investigations.

4.2.7 – Increase community awareness and compliance with Council's bulk household waste collection service.

4.2.8 – Incorporate best practice waste management systems into all unit block developments for the storage and collection of bulky items.

4.2.9 – Work with retailers and key stakeholders to reduce the incidence of abandoned trolleys and improve collection times.

All resources have an environmental impact from source extraction, processing, distribution, use and end of life disposal. Some resources are becoming scarcer and more expensive.

Council will lead by example by buying sustainably, using resources efficiently and reducing waste. This improves Council's productivity and supports the growth of a circular economy. Reducing waste reduces the size and cost of processing and disposal.

Council generates waste from its own activities, including our community facilities, offices, depot and civil works activities such as road maintenance.

Each Council service arranges waste and recycling for its own activities.

To demonstrate leadership we will develop a holistic overarching corporate program to buy sustainably, minimise Council-generated waste and maximise resource recovery. We can also improve our data collection and reporting.

PRIORITY 5.1 – Improve recycling and reuse outcomes and divert more waste from landfill from Council operations.

Council will establish a baseline of resources we buy, use and dispose of through our operations and facilities. We will identify and quantify resource streams and the types and volumes of waste generated and the way it is processed.

We will assess practices that generate waste and identify opportunities to avoid waste, recycle more and buy products and services with less virgin material and more reused and recycled content. Choosing and using resources more wisely reduces Council's environmental impact and helps City of Canada Bay as a whole.

We will lead by demonstrating the waste wise behaviours we all need to adopt to be a zero waste, net zero emission organisation and community.

Actions:

5.1.1 – Establish a baseline of types and volumes of resources we buy, use and dispose of through our operations and facilities. We will quantify resource use and waste streams and

volumes through a 12-month program of audits in Council operations and buildings.

5.1.2 – Based on the audit findings, develop a publicly available corporate Sustainability Action Plan for Council operations and buildings. This will include specific, measurable achievable, realistic and time-bound (SMART) actions to avoid waste and support local reuse, repair and recycling. It will apply principles for circular economy, resource efficiency and the hierarchy of waste. The corporate Sustainability Action Plan will build on and enhance Council's existing commitments in the Emissions Reduction Action Plan, Environment Strategy and Sustainable Procurement Policy.

5.1.3 – Provide staff and customers with the infrastructure and education they need to reduce waste to landfill from Council operations.

5.1.4 – Investigate and implement ways to avoid waste, reduce waste to landfill and improve recycling at Council events.

5.1.5 – Phase out the use of single-use plastics from Council operations and events.

5.1.6 – Investigate options to incorporate waste and recycling targets in future collection and facility cleaning contracts.

5.1.7 – Incorporate environmental sustainability into Council's asset management strategy and supporting asset management plans. Create and implement a sustainable buildings and facilities policy and standards that incorporate best practice waste management for demolition, construction and operation.

5.1.8 – Increase the use of recycled content in civil and construction works where quality requirements are met.

PRIORITY 5.2 – Implement sustainable procurement practices to design out waste.

In 2021 Council adopted an updated Sustainable Procurement Policy. During 2021 and 2022, Council will train and support staff to implement the requirements and opportunities.

Actions:

5.2.1 – Ensure Council's Sustainable Procurement Policy is implemented. The following should be prioritised in every procurement to reduce waste impacts:

- » Buy from local businesses that upcycle, reuse, or refurbish recyclable materials where quality and cost requirements are met.
- » Monitor sustainable purchasing data from any of Council's contracts (e.g. percentage of total spending on stationery and office products that is on products with environmental considerations).
- » Consider full life cycle costing in assessment of appropriate

procurement decisions where expenditure is in excess of \$250,000

- » Give preference to environmentally responsible products when performance and price are comparable to conventional products. In all evaluations, a minimum of 10% will be added to the weighting of evaluation criteria for sustainability credentials.
- » Lifecycle costing factoring in waste disposal and eliminating unnecessary packaging.

PRIORITY 5.3 – Increased procurement of local recycled content to develop domestic end markets and drive towards a circular economy.

As well as minimising waste sent to landfill, Council can support the change to a circular economy by encouraging and supporting markets for materials with recycled content.

This is where waste materials can be reused rather than being discarded after single-use.

Actions:

5.3.1 Ensure all Council procurement documents, specifications, and processes include recycled material targets and criteria in future procurement contracts.

5.3.2 Prioritise recycled materials in council procurement such as in playgrounds, benches and roads (e.g. the purchase of recycled crushed glass for roads, pavements and civil works).

5.3.3 Trial new local uses for recycled products and materials and encourage innovation in recycling, reprocessing, and reuse.

5.3.4 Show how to buy sustainable and ethically by sharing examples of our own practices and behaviours with the community.

PRIORITY 5.4 – Explore smart city technology to enhance waste processes.

As part the City of Canada Bay Smart City Plan, we will explore relevant ways to use digital technology across all our waste practices when and where they offer the greatest value and effectiveness.

Actions:

5.4.1 – Identify where existing mobile applications and websites along with bin tagging and advanced collection vehicle technology can create open access data in real time with smart, online tracking of waste services.

5.4.2 – Monitor the suitability of other smart technologies and models as they emerge, including benefits, barriers, risks, and community appetite.

Priority 5.5 – We will advocate to various levels of Government for policies and programs that support Council's Waste Strategy.

Council will advocate to all levels of government for policies and regulations that support the aspirations of the City of Canada Bay community.

Council is committed to working with stakeholders within and outside of Council, including the formation of mutually beneficial partnerships, to empower the community to drive waste avoidance and improve resource recovery.

Actions:

5.5.1 – Advocate for and support the development of Federal and State Government policies and programs that support this Strategy, such as the NSW 20-Year Waste Strategy.

Key areas include but are not limited to:

- » On-going funding and grant support, particularly for recycling infrastructure
- » Robust packaging covenants and programs to reduce the volume of packaging and increase its recyclability
- » Policy and a program to eliminate single-use plastics
- » Policies and programs to reduce waste generation and improve waste avoidance (including food waste).
- » Policies and legislation to enable a repair and share economy, including Right to Repair
- » Updated and clarified Energy from Waste guidelines/policy
- » Streamlined approvals for strategic waste infrastructure projects
- » General waste regulation/policy that has implications on Council's strategic objectives.

PRIORITY 5.6 – We will work in collaboration with Southern Sydney Regional Organisation of Councils and other organisations to obtain the best outcomes for our community.

Actions:

5.6.1 – Continue to work with other local councils and collaborate with Southern Sydney Regional Organisation of Councils on regional issues and opportunities including:

- » Regional educational resources and campaigns
- » Regional reuse initiatives and pilots
- » Joint procurement and contracts for services including collection, processing and disposal
- » Regional infrastructure requirements and development of regional shared facilities.

PRIORITY 5.7 – We will engage our community in education programs and initiatives to increase awareness and support improved resource recovery, litter reduction and illegal dumping behaviour. We will improve measurement of and reporting on Council's community engagement activities and outcomes.

Actions:

5.7.1 – Provide community engagement programs, initiatives and workshops to support improved resource recovery,

litter and illegal dumping behaviours, including:

- » Waste avoidance and food waste minimisation workshops
- » School holiday events and workshops
- » Reuse and repair workshops
- » Support reuse events, including Garage Sale Trail and clothing swaps
- » Home composting and worm farming workshops
- » Education on the use of strata by-laws to better manage illegal dumping and resource recovery in apartment buildings
- » Clean Up Australia Day events.

5.7.2 – Provide face-to-face community engagement at major Council events

5.7.3 – Improve measurement of community engagement and reporting on outcomes, including participant counts, follow-up surveys, and general community surveys for awareness of and interest in Council-led community engagement programs.

IMPLEMENTATION TIMEFRAME

GOAL 1 - LESS WASTE TO LANDFILL AND REDUCED GREENHOUSE GAS EMISSIONS

Action	Short term 1-3 yrs	Medium term 4-7 yrs	Long term 8-10 yrs
PRIORITY 1.1 – Provide innovative collection services which support increased recovery improve waste diversion			
1.1.1 – Undertake food waste collection trials and tender for full-scale introduction.		✓	
1.1.2 – Develop a plan and information base required to procure new kerbside collection contracts.	✓		
1.1.3 – Develop food waste avoidance education and programs to support implementation of food waste source separation.	✓	✓	
1.1.4 – Undertake a tender for full-scale introduction of food waste collection and processing.		✓	
PRIORITY 1.2 – Empower our community to make better choices and reduce their waste			
1.2.1 – Develop a waste education plan to support the implementation of the Waste Strategy which considers key topics, event engagement, resources, workshops and targeted programs.	✓	✓	✓
1.2.2 – Provide all residents with educational materials on existing Council services, including kerbside collection, bulk household waste pick-up and local waste drop off facilities.	✓	✓	✓
1.2.3 – Review, expand (where necessary) and promote the mobile waste application mobile and online app.	✓		
1.2.4 – Target education in schools to establish long-term behaviours and recognising the influence of our younger residents in transferring knowledge and facilitating change.	✓	✓	✓
1.2.5 – Promote the reuse, repair, and repurposing of household items.	✓	✓	✓

1.2.6 – Further promote businesses and individuals who demonstrate resource recovery and circular economy excellence, to recognise and encourage sustainability champions.	✓	✓	✓
1.2.7 – Investigate alternative options for households to compost food waste, such as communal composting, community gardens and technology solutions.	✓		
PRIORITY 1.3 – Continuously improve our Community Recycling Centre to meet the needs of our community			
1.3.1 – Continue operations of the Community Recycling Centre, and raise community awareness of this facility.	✓	✓	✓
1.3.2 – Investigate options for expanding services and materials collected at the Community Recycling Centre service.	✓	✓	✓
1.3.3 – long-term investigation of alternative locations for the Community Recycling Centre, to allow for potential future expansion of services and account for potential change of land use at current location.			✓
PRIORITY 1.4 – Encourage innovation through studies into new technologies			
1.4.1 – Explore innovative waste processing technologies such as waste-to-energy, bio digestion, and alternative waste treatment systems.	✓	✓	✓
1.4.2 – Investigate options and implement high recovery technology for bulk household waste.	✓	✓	✓
1.4.3 – Support funding opportunities for innovative technologies and processes, and advocate for state and federal investment in alternative treatment technologies.	✓	✓	✓
1.4.4 – Identify short-term opportunities to assist in locally sorting waste materials before transporting.	✓		
1.4.5 – Advocate for NSW Government to support new and emerging technologies.	✓	✓	✓
PRIORITY 1.5 – Track greenhouse emissions related to waste management, and implement approaches and programs to contribute towards Council emission targets			
1.5.1 – Track greenhouse emissions related to waste management, and implement approaches and programs to contribute towards Council emission targets.	✓	✓	✓

1.5.2 – Implement changes to our services which contribute to a reduction in emissions.



GOAL 2 - RECYCLE AND REUSE MORE

Action	Short term 1-3 yrs	Medium term 4-7 yrs	Long term 8-10 yrs
PRIORITY 2.1 – Deliver contamination management programs, with a focus on multi-unit dwellings (MUDs)			
2.1.1 – Maintain a clear understanding of the challenges in multi-unit dwellings to increase participation in correct waste management and therefore improving waste behaviours.	✓	✓	✓
2.1.2 – Trial and evaluate contamination management approaches in multi-unit dwellings and single households, prior to council-wide rollout of evidence-based contamination management programs.	✓		
2.1.3 – Engage with strata managers, strata committees and owner's corporations to provide resources and education on waste minimisation and management of dumping on private land.	✓	✓	✓
2.1.4 – Implement a multi-unit dwelling contamination management program to improve recycling outcomes. As part of this program, a review of all multi-unit dwellings should be undertaken to look for opportunities to improve signage, storage and access.	✓	✓	✓
PRIORITY 2.2 – Target materials that are difficult to recycle or not accepted in existing kerbside waste services			
2.2.1 – Build on existing programs for collection or drop off of difficult to recycle materials such as clothing, electronic waste and soft plastics.	✓	✓	✓
2.2.2 – Increase separate collection of recyclables in apartment buildings, including drop off points for e-waste, textiles, and other materials.	✓	✓	✓
2.2.3 – Deliver programs to reduce use of single-use plastics by businesses and our community.	✓	✓	✓
2.2.4 – Investigate feasibility of additional annual drop off day for e-waste.	✓		

PRIORITY 2.3 – Deliver innovative and engaging community education and behaviour change programs to empower residents to recycle and reuse more

2.3.1 – Implement education and behaviour change programs in various languages to improve recycling practices and reduce contamination of recycling.	✓	✓	✓
2.3.2 – Develop and provide resources aimed at minimising contamination, including 'Is this recyclable?' lookup tools for mobile and web.	✓		
2.3.3 – Deliver repair, reuse, re-homing, or on selling of unwanted items and second-hand purchasing programs.	✓	✓	✓
2.3.4 – Undertake an investigation of rebates for reusable nappies and sanitary products. Trial rebate if found to be cost effective for environmental benefits.	✓		

GOAL 3 - CONTINUOUSLY IMPROVE OUR SERVICE TO MEET COMMUNITY NEEDS

Action	Short term 1-3 yrs	Medium term 4-7 yrs	Long term 8-10 yrs
PRIORITY 3.1 – Deliver best practice residential waste collection services, which are safe, cost effective, innovative and accessible			
3.1.1 – Regularly review contracts, systems and services to improve efficiency and outcomes of waste management services.	✓	✓	✓
3.1.2 – Continually improve bin infrastructure, review fleet and routes to ensure our collections are efficient and accessible.	✓	✓	✓
3.1.3 – Investigate the use of incentives to increase the uptake of smaller bins as part of the domestic waste service.	✓		
3.1.4 – Ensure tender processes are robust, comprehensive and competitive, using joint regional procurement where it adds value, and meet the needs of the community.	✓	✓	✓
3.1.5 – Implement waste tracking and monitoring equipment on all collection vehicles to improve waste service standards and reduce contamination.	✓	✓	

3.1.6 – Investigate the use of smaller waste collection vehicles in underground carparks of multi-unit dwellings to improve bulk household waste, waste and recycling collections.	✓		
PRIORITY 3.2 – Deliver a commercial service which prioritises recycling and opportunities to divert waste to landfill			
3.2.1 – Manage and improve commercial services, including collection data and systems.	✓	✓	✓
3.2.2 – Continually improve bin infrastructure, review fleet and routes to ensure our collections are efficient and accessible.	✓	✓	✓
3.2.3 – Investigate feasibility of an optional separate food waste collection and processing service for businesses to be rolled out in conjunction with household food waste collections.	✓	✓	
3.2.4 – Encourage, educate and support building owners and tenants to improve their waste avoidance, reuse, recycling and recovery performance.	✓	✓	✓
PRIORITY 3.3 – Improve data collection and investigate new collection service technologies			
3.3.1 – Undertake detailed audits of kerbside waste, recycling and organics bins to determine what materials should be targeted in education campaigns.	✓	✓	✓
3.3.2 – Use data from our bulk household collection to develop recycling and reuse services for items not currently accepted in kerbside recycling bins.	✓	✓	
3.3.3 – Improve collection, analysis, verification and transparency of reporting of waste and recycling data, including development of a digital platform for storing and reporting data.	✓	✓	✓
3.3.4 – Consider the use of Radio-Frequency Identification (RFID) bin tags or other technologies.	✓	✓	
3.3.5 – Undertake a ‘Bin Reconciliation Study’ for the residential service to compare the Council Rates Database to existing bin collection services.	✓	✓	
3.3.6 – Advocate for State and Federal government to provide regular and transparent waste data reports, including total volumes of waste streams and materials in NSW and nationally.	✓	✓	✓

PRIORITY 3.4 – Improve bulk household waste collection services to recover more, including service delivery and education			
3.4.1 – Review collection servicing options around bulk waste at the kerbside to identify opportunities to divert more waste from landfill.	✓	✓	✓
3.4.2 – Develop a bulk household waste education campaign, including targeted information around problem locations and specific buildings types (e.g. multi-unit developments).	✓	✓	
3.4.3 – Trial alternative bulk waste collection approaches, including additional collections in high-density areas.	✓	✓	
3.4.4 – Investigate options to improve reuse and recycling outcomes from bulky waste collections for items such as mattresses, garden waste, and furniture.	✓	✓	✓
3.4.5 – Increase promotion of alternative reuse options for unwanted bulky waste materials, including Council-supported rehoming services.	✓	✓	✓
PRIORITY 3.5 – Strengthen building design to support best practice waste storage and service delivery for developments			
3.5.1 – Improve Council’s Development Control Plan (DCP) and associated Waste Control Guidelines for new MUDs to support Council’s ability to mandate and monitor the design and development of new buildings.	✓	✓	
3.5.2 – Incorporate best practice waste management for demolition, construction and operation into our sustainable buildings and facilities requirements and guidelines.	✓		
3.5.3 – Incorporate best practice waste management for demolition, construction and operation into our sustainable buildings and facilities requirements and guidelines.	✓		

GOAL 4 - REDUCE LITTER AND ILLEGAL DUMPING

Action	Short term 1-3 yrs	Medium term 4-7 yrs	Long term 8-10 yrs
PRIORITY 4.1 – Promote litter reduction and maintain litter infrastructure, street sweeping, and cleansing programs			
4.1.1 – Maintain service levels for Council's public place bin network, street sweeping, and public place cleansing programs, recognising that a clean space is less likely to attract litter.	✓	✓	✓
4.1.2 – Promote litter prevention and raise the profile of litter as an issue through collection vehicle signage and public bin signage.	✓	✓	✓
4.1.3 – Encourage community participation in litter reduction and clean up, including through Love your Place programs and Clean Up Australia Day events.	✓	✓	✓
4.1.4 – Continue to monitor public place recycling system trials and outcomes, noting that previous trials have indicated high contamination rates resulting in collected materials not being suitable recycling.	✓	✓	✓
4.1.5 – Monitor alternative processing options to recover organics and recyclables from material collected from street sweeping and public place bins.	✓	✓	✓
4.1.6 – Investigate low-emission options for Council's litter collection vehicles.	✓	✓	✓
4.1.7 – Continue to maintain existing stormwater litter traps and identify priority locations for the installation of new infrastructure.	✓	✓	✓
4.1.8 – Investigate opportunities to implement technological solutions to improve litter collection efficiency and reduce litter overflows.	✓	✓	✓
4.1.9 – Investigate options for public programs to encourage residents to maintain and clear streets and apartment complexes, such as a 'Cleanest Streets' competition.	✓		
PRIORITY 4.2 – Develop and implement innovative, evidence-based illegal dumping education and enforcement campaigns			
4.2.1 – Deliver targeted communication and education programs which focus on educating the community on what illegal dumping is, the cost of illegal dumping to the community and reducing the incidence of illegal dumping.	✓	✓	✓

4.2.2 – Work with strata managers to develop and implement programs to increase resident awareness and reduce the incidence of illegal dumping outside multi-unit dwellings.	✓	✓	✓
4.2.3 – Continue to collect City-wide data to target campaigns in hotspot areas with an infrastructure, education and enforcement approach.	✓	✓	✓
4.2.4 – Promote the reporting of illegal dumping through Council platforms.	✓	✓	✓
4.2.5 – Where suitable, look at installing barriers to restrict access, lighting and signage in hot spot areas to reduce illegal dumping.	✓	✓	✓
4.2.6 – Increase regulatory enforcement and improve surveillance technologies to support illegal dumping investigations.	✓	✓	✓
4.2.7 – Increase community awareness and compliance with Council's bulk waste collection service.	✓	✓	✓
4.2.8 – Incorporate best practice waste management systems into all unit block developments for the storage and collection of bulky items.	✓	✓	✓
4.2.9 – Work with retailers and key stakeholders to reduce the incidence of abandoned trolleys and improve collection times.	✓	✓	✓

GOAL 5 - LEAD BY EXAMPLE

Action	Short term 1-3 yrs	Medium term 4-7 yrs	Long term 8-10 yrs
PRIORITY 5.1 – Improve recycling and reuse outcomes and divert more waste from landfill in our own operations			
5.1.1 – Establish a baseline of types and volumes of resources we buy, use and dispose of through our operations and facilities. We will quantify resource use and waste streams and volumes through a 12-month program of audits in Council operations and buildings.	✓		
5.1.2 – Based on the audit findings, develop a publicly available corporate Sustainability Action Plan for Council operations and buildings.	✓	✓	✓
5.1.3 – Provide staff and customers with the infrastructure and education they need to reduce waste to landfill from Council operations.	✓	✓	✓

5.1.4 – Investigate and implement ways to avoid waste, reduce waste to landfill and improve recycling at Council events.	✓	✓	✓
5.1.5 – Phase out the use of single-use plastics from Council operations and events.	✓	✓	✓
5.1.6 – Investigate options to incorporate waste and recycling targets in future collection and facility cleaning contracts.	✓	✓	✓
5.1.7 – Incorporate environmental sustainability into Council's asset management strategy and supporting asset management plans. Create and implement a sustainable buildings and facilities policy and standards that incorporate best practice waste management for demolition, construction and operation.	✓	✓	✓
5.1.8 – Increase the use of recycled content in civil and construction works where quality requirements are met.	✓	✓	✓
PRIORITY 5.2 – Implement sustainable procurement practices to design out waste			
5.2.1 – Ensure Council's Sustainable Procurement Policy is implemented.	✓		
PRIORITY 5.3 – Support increased procurement of local recycled content to develop domestic end markets and drive towards a circular economy			
5.3.1 – Ensure all Council procurement documents, specifications, and processes include recycled material targets and criteria in future procurement contracts.	✓		
5.3.2 – Prioritise recycled materials in council procurement such as in playgrounds, benches and roads (e.g. the purchase of recycled crushed glass for roads, pavements and civil works).	✓	✓	✓
5.3.3 – Trial new local uses for recycled products and materials and encourage innovation in recycling, reprocessing, and reuse.	✓	✓	✓
5.3.4 – Show how to buy sustainable and ethically by sharing examples of our own practices and behaviours with the community.	✓	✓	✓
PRIORITY 5.4 – Explore smart city technology to enhance waste processes that align with new contracts			
5.4.1 – Identify where existing mobile applications and websites along with bin tagging and advanced collection vehicle technology can create open access data in real time with smart, online tracking of waste services.	✓		

5.4.2 – Monitor suitability of other smart technologies / models as they emerge, including benefits, barriers, risks and community appetite.	✓	✓	✓
PRIORITY 5.5 – Work with all levels of government to advocate for policies and programs that support Council's Waste Strategy			
5.5.1 – Advocate for and support the development of Federal and State government policies and programs that support this Strategy.	✓	✓	✓
PRIORITY 5.6 – We will work in collaboration with Southern Sydney Regional Organisation of Councils and other organisation to obtain the best outcomes for our community			
5.6.1 – Continue to work with other local organisations and collaborate with Southern Sydney Regional Organisation of Councils on regional issues and opportunities.	✓	✓	✓
PRIORITY 5.7 – We will engage our community in education programs and initiatives to increase awareness and support improved resource recovery, litter reduction and illegal dumping behaviour. We will improve measurement of and reporting on Council's community engagement activities and outcomes.			
5.7.1 – Provide community engagement programs, initiatives and workshops to support improved resource recovery, litter and illegal dumping behaviours.	✓	✓	✓
5.7.2 – Provide face-to-face community engagement at major Council events.	✓	✓	✓
5.7.3 – Improve measurement of community engagement and reporting on outcomes, including participant counts, follow-up surveys, and general community surveys for awareness of and interest in Council-led community engagement programs.	✓	✓	✓

