



WAVERLEY
COUNCIL

Draft Resource Recovery and Waste Strategy

Towards a Circular and Zero Waste Community 2024-2032



Department	Waste Services and Operations and Environmental Sustainability
Approved by	
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Relevant legislation	<p><u>Protection of the Environment Operations Act 1997</u> (POEO Act).</p> <p><u>Protection of the Environment Operations (Waste) Regulation 2014</u></p> <p><u>Waste Avoidance and Resource Recovery Act 2001</u></p> <p><u>Plastic Reduction and Circular Economy Act 2021</u></p> <p><u>The Local Government Act 1993 and the Local Government (General) Regulation 2021</u></p>
Related policies/ procedures/guidelines	<p>Procurement Policy</p> <p>Interim Internal Events policy</p>
Related forms	

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1. Background

Over the next 20 years, the volume of waste generated annually in NSW is projected to grow from 21 million tonnes in 2021 to nearly 34 million tonnes by 2041¹. State and Federal governments are prioritising actions to address and minimise waste generation and adopt circular practices. The main policy drivers for this strategy are Waverley's Community Strategic Plan, Waverley's Environmental Action Plan, the NSW Waste and Sustainable Materials Strategy 2041, and the National Waste Policy Action Plan 2019.

The NSW Waste and Sustainable Materials Strategy 2041 sets out a 20-year vision for reducing waste and changing how the NSW economy produces, consumes, and recycles products and materials. This Strategy commits to the targets set out in the National Waste Policy 2019 developed by the Federal Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). Relevant targets include:

- Reduce total waste generated in Australia by 10% per person by 2030
- 80% average resource recovery rate from all waste streams, following the waste hierarchy, by 2030
- Significantly increase the use of recycled content by governments and industry
- Halve the amount of organic waste sent to landfill for disposal by 2030.

In 2023 approximately 71,414 residents were living in the Waverley Local Government Area, and our population is expected to grow to 80,100 residents by 2031. Over 80% of the dwellings in Waverley are medium or high density, compared to 46% in Greater Sydney, which means we have a higher population density compared to other areas.

Waverley also has a thriving business community with over 39,408 registered businesses in 2023, a significant concentration of which are retailers, comprising almost one third of all businesses. Oxford Street Mall receives up to 6,000 visitors per day in summer, and Bondi Beach attracts approximately 2.9 million visitors annually.

As the population and visitors numbers grow, so does consumption, leading to increased waste that must be managed effectively. Waste in Waverley varies from littered cigarette butts and single-use plastics to household food organics, unwanted furniture, and commercial waste².

¹ EPA, Waste and Recycling 2021, <https://www.soe.epa.nsw.gov.au/all-themes/human-settlement/waste-and-recycling-2021>

² EPA, Waste and Recycling 2021, <https://www.soe.epa.nsw.gov.au/all-themes/human-settlement/waste-and-recycling-2021#waste-contributions-to-carbon-emissions-pressures>

2. A snapshot of Waverley's Waste

In 2023, Waverley Council collected on average 27,323 tonnes of residential waste from more than 10,473 households. A kerbside audit in 2023 revealed that about 58.5% of materials in the red-lidded bin could be recovered and reused or processed into new materials.

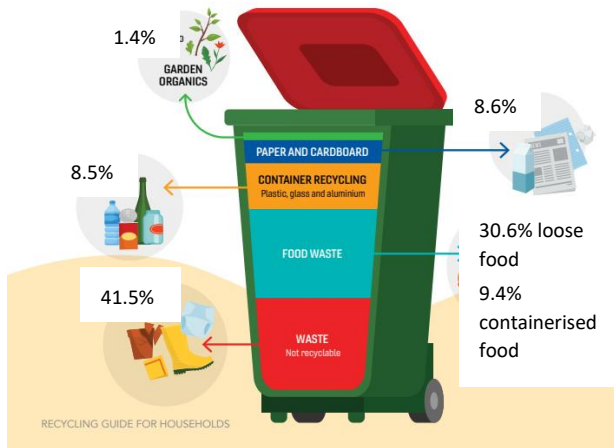


Figure 1 Unpack Waverley's Waste

Additionally, Council collected 1,800 tonnes of bulky household material from scheduled and on-call cleanups, and 443 tonnes of non-booked material in 2023.

Public waste and litter

In 2023, Council collected 1,207 tonnes of waste from bins located at public places, such as business centres and parks.

Our annual litter audits show that our beaches accumulate plastic, paper and cigarette litter at the shore, middle, and wall sand sections. A comparison of the Summer periods of 2023 and 2024 show an increase in shore litter at Bronte beach, indicating a growth in marine litter. Bondi beach had an increase in litter counts over the weekend and decrease on weekdays, while Tamarama beach had an overall decrease in litter counts.

The results suggest challenges in interpreting litter count studies and demonstrate the need to continue delivering a mix of initiatives in litter prevention and cleansing at the local level, whilst advocating for a reduction in single-use packaging.

Commercial and industrial waste

Businesses and commercial organisations are responsible for arranging their waste collection and have no requirements to report on the amounts of waste generated. Council provides an optional commercial waste service to local businesses, and services approximately 60% of local businesses,

generating 3,891 tonnes of garbage and 1,319 tonnes of recycling material annually, based off the most recent 2022-2023 collection data.

Construction and demolition waste

Construction and demolition waste is generated during new developments, renovations, additions and shop fit outs. Only a small proportion of these activities are carried out by Council through major projects and maintenance contracts. Due to this, Council has limited control over the waste generated by these activities and does not have an estimate of the amounts of waste produced.

Challenges

Waverley’s diverse demographic, transient community, infrastructure density, thriving commercial precinct, and geography presents unique challenges regarding waste management. These challenges necessitate strategic planning to ensure effective waste services that meet community needs and environmental objectives. These challenges are outlined below.

<p>Increasing population and housing density</p>	<p>Waverley’s population is expected to increase by 12 to 15% from 2023 to 2031, with the majority residents living in medium and high-density dwellings. Competing demands for space can impact on source separation of waste, lead to bins left on footpaths and increased illegal dumping activity, affecting the amenity for residents and visitors.</p>
<p>Consumption and waste generation</p>	<p>The rising demand for products, fast fashion, and rapid turnover of technology results in higher levels discarded materials without sustainable end-of-life solution, increasing landfill waste.</p> <p>Planned obsolescence and the complexity of electrical and electronic products further complicate recycling efforts.</p>
<p>Limited capacity for waste disposal close to Waverley</p>	<p>Waverley’s waste is currently processed in a mechanical biological treatment facility that captures methane (a potent greenhouse gas). As waste generation increases, we need to consider how and where future waste will be processed to ensure sufficient recovery opportunities and emissions management.</p>

Obtaining accurate waste data	Tracking waste quantities and recycling rates from commercial and retail premises is challenging due to multiple waste operators. Residential waste tracking is easier, but improper disposal and recycling techniques mix waste types. Accurate data collection is crucial for calculating carbon emissions from waste generation and transport of waste to processing and disposal facilities.
Waste-related greenhouse gas emissions	Waverley has a Net Zero community emissions target for 2035, including waste-related emissions. Organic waste decomposing in landfill contributes more than 2% of the State’s annual greenhouse gas emissions.
Management of Problem Wastes	Problem wastes, such as paints, solvents, batteries, and e-waste need safe management to protect human and environmental health.
Cost	Waste separation, collection, and transport to facilities outside the Sydney Metropolitan region is costly, adding pressure to Council’s ability to offer a holistic waste service that is fair, equitable and resilient to market changes.

3. Purpose of the Strategy

This Strategy outlines a pathway to achieving zero waste to landfill and increasing circularity by providing access to waste management and avoidance services that are attractive and accessible to our community.

A zero-waste community avoids waste generation and ensures discarded materials are resources for other processes, with no discharge to land, air, or water. This strategy and action plan aligns with NSW State Government targets of

- 80% resource recovery by 2030
- 50% reduction in organic waste sent to landfill by 2030 and
- 60% reduction in litter by 2030

Guiding Principles

The key principles that underpin this strategy are outlined below.

Follow the Waste Hierarchy

Emphasising waste avoidance and reduction, the waste hierarchy supports the circular economy. While it is Council’s responsibility to manage materials from the point of disposal through kerbside

collection services, it is the community’s responsibility to rethink consumption habits, help keep materials in use for longer periods and appropriately separate materials for recycling and disposal in the first place.

Waste management is a significant proportion of Council’s budget and there are many opportunities to drive circularity by following the waste hierarchy to emphasise avoidance and reduction as the most preferred option to minimise waste, with waste disposal as the last resort. Council and the community have different levels of control in managing waste along this hierarchy, and collaboration toward a shared goal is key in the transition to a circular, zero-waste community.

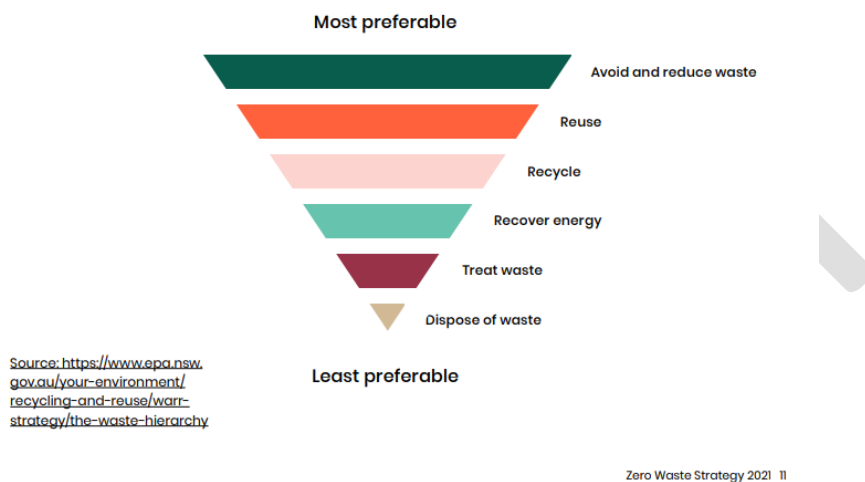


Figure 2 Waste Hierarchy

Transition to the Circular Economy

The circular economy approach values resources and creates further pathways to minimise waste generation by keeping products and materials in use for as long as possible. Instead of the linear economy model of take-make-dispose that has economic drivers that value disposal, the circular economy aims to close the loop by designing out waste and pollution through better product design for longevity and recyclability, reuse and repair initiatives and promotion of circular business models.

This model aims to shift the way society produces and consumes goods and services, shifting practices towards a more sustainable and regenerative approach. This involves not only waste minimisation through efficient waste and resource management, but a wider collaborative approach amongst different sectors of society such as industry, communities, and government.

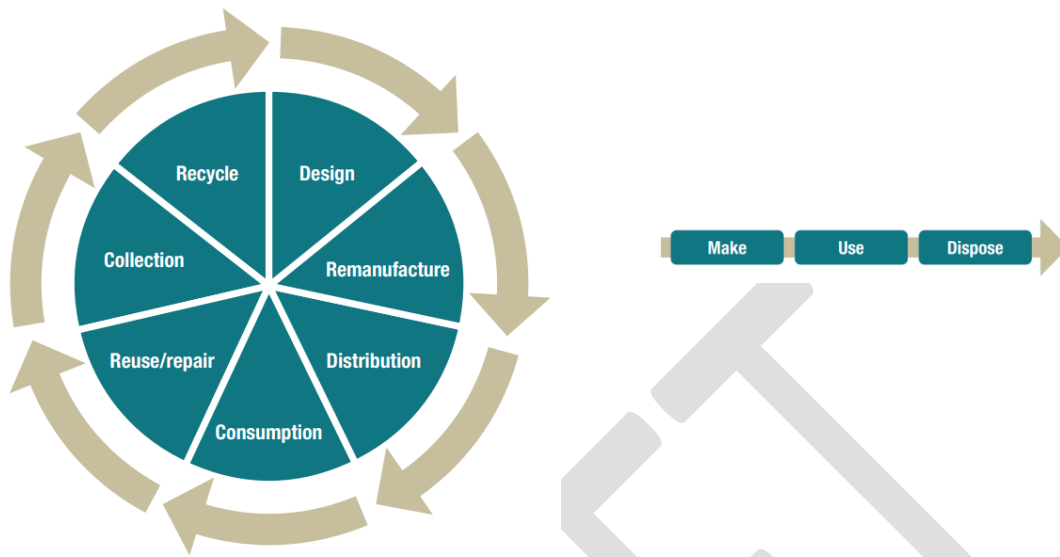


Figure 3 Circular vs Linear Economy

Share Responsibility

Waste is a collective issue and transitioning from a take-make-dispose society to a zero-waste circular economy requires stronger collaboration from residents, commercial precincts, businesses, waste operators and Council. Through the implementation of this strategy, Council will support the following key areas in this transition:

- Support and advocate for better consumption behaviour – buy better, buy second hand
- Explore approaches to material and reuse, increase the purchase of recycled or repurposed products, and avoid all single-use items
- Create accessible share, repair, refurbish and reuse pathways
- Increase awareness about separation of waste and materials to improve recycling outcomes
- Improve standards for waste management and material reuse in our commercial precincts and developments

We are committed to taking action to achieve this transition, however, Council’s ability to influence how waste is generated and managed within the community is restricted. The actions outlined in this strategy reflect the varying levels of influence Council has and are focused on what we can do to realise the vision of a zero-waste community.



Lead and Leverage

Council must lead by example and leverage policies, operations, and controls to achieve positive outcomes. This strategy outlines key areas where Council will deliver sustainable procurement, processes, and construction to develop local circular capacity.

The Corporate Environmental Sustainability Program reflects Council’s mission to ‘walk the talk’ on positive environmental actions, including achieving net zero greenhouse gas emissions in the community by 2035.

Since 2018, we have achieved significant success in the management of waste and resources through expanding programs to recycle problem and hard-to-recycle materials and reducing contamination in the recycling stream to improve resource recovery outcomes. We also implemented community projects that address litter and illegal dumping issues. Some of our key milestones are outlined below:

1. Reduced contamination in the kerbside recycling bins at apartment buildings by more than 50%. Having a clean recycling stream means that this material has a greater chance of being recycled at its end of life.
2. Increased problem waste drop-off events to 4 times per year and enabling the safe disposal and treatment of hazardous items such as electronic waste, batteries, and light globes, which has diverted 1800 tonnes materials from landfill.
3. Improvements to bulky waste services which has collected more than 80% of bulky household material from scheduled and on-call cleanups, including mattresses and white goods.
4. Targeted illegal dumping reduction projects that reduced incidents by 40% in hot spot areas.
5. Reduced litter by 20% at Bondi beach and 27% at Bronte beach.

Scope

Waverley’s zero waste plan outlines a pathway to a long-term goal of zero waste to landfill through increasing resource circularity by providing access to waste management and waste avoidance services that are attractive and accessible by our community.

We all have a role to play in transitioning to a zero-waste community and Council cannot deliver on this strategy alone. We have identified 7 key priority areas:

Structure of Action Plan



Figure 4 Action Plan Structure

4. Waste Strategy Actions, Responsibility and Timing

Target	Action	Responsibility	1-2 y	3-5 y	5-10 y
1. Minimise waste generation and increase resource recovery					
1.1	Support initiatives that maximise waste avoidance, reuse, repair, and the sharing economy	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.2	Empower the community to rethink consumption habits	ES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.3	Assess the suitability of new technologies to deliver fit for purpose waste collection to reduce greenhouse gas emissions, such as low emission vehicles	WO		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1.4	Implement improvements to the residential kerbside waste and recycling services that are aligned with best practice and State and Federal government policy requirements	WO		<input checked="" type="checkbox"/>	
1.5	Deliver improvements to the existing residential bulky waste collection service to increase flexibility, service efficiency and support further material recover	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
1.6	Identify data gaps and implement feasible solutions to improve data collection and monitoring in a manner that adds value to the community, Council's operations and meets existing regulatory obligations	WO	<input checked="" type="checkbox"/>		
1.7	Explore and implement waste processing options that enable a pathway to net zero by 2035	WO/ES		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Reduce food and garden organics sent to landfill					
2.1	Develop and support food waste avoidance programs and initiatives to support residents and local businesses	WO/ES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.2	Implement a food organics and garden organics service trial; report and make recommendations on the wider service rollout	WO	<input checked="" type="checkbox"/>		
2.3	Roll out a Council-wide organics collection service that is efficient and aligned to best practice organics processing to produce quality output material	WO		<input checked="" type="checkbox"/>	
2.4	Continue supporting composting initiatives to manage organics locally to minimise the impacts of waste transport	WO/ES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.5	Investigate and support best practice waste management in buildings to facilitate and increase source separation of organic materials from new and existing residential and mixed developments	WO/UPPS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Recycle more and recycle better					
3.1	Update and expand the delivery of Council's recycling improvement program in multi-unit dwellings with a focus on reducing contamination in the recycling bins to improve the quality of recycling output	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Target	Action	Responsibility	1-2 y	3-5 y	5-10 y
3.2	Strengthen partnerships with the Strata community to increase resident engagement in recycling and waste reduction, and identify opportunities to improve service access and waste management in multi-unit dwellings	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3.3	Develop and deliver community engagement campaigns to increase the recovery of recyclables disposed of in the garbage stream	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3.4	Identify further opportunities and innovations to recycle household products and materials that are not accepted in the existing kerbside collection system	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3.5	Investigate opportunities to support feasible and efficient textile reuse and recycling for residents	WO/ES	<input checked="" type="checkbox"/>		
3.6	Support local businesses to increase recycling rates	ES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3.7	Support local businesses to reduce their end use waste and recycling	ES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Manage and recover hazardous and problem waste safely					
4.1	Continue to provide opportunities for residents to drop-off problem waste and difficult to recycle material	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4.2	Improve design and safety of existing recycling stations for e-waste, batteries and other problem wastes	WO	<input checked="" type="checkbox"/>		
4.3	Investigate innovative options to increase opportunities for the Waverley community to recycle problem and tricky wastes in the local area	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4.4	Identify opportunities to partner with State government and neighbouring councils to improve access to appropriate services that improve the safe disposal of problem waste	WO		<input checked="" type="checkbox"/>	
4.5	Investigate options to implement a separate service for the collection of e-waste from households	WO		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.6	Encourage businesses to source separate and dispose of hazardous and e-waste correctly	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.7	Increase awareness of the risks posed by the incorrect disposal of batteries in household materials, and provide options for correct disposal	WO	<input checked="" type="checkbox"/>		
5. Collaborate and innovate to increase resource recovery and circularity					
5.1	Review and strengthen waste management guidelines for new developments to foster material recovery and ensure that solutions for organics and difficult to recycle materials are considered during building design	WO/UPPS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Target	Action	Responsibility	1-2 y	3-5 y	5-10 y
5.2	Continue developing regional collaborations to support local businesses to innovate and help drive the circular economy	ES	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5.3	Partner with other councils and regional organisations to procure best practice waste services that will help Council achieve resource recovery targets and provide value for money for the community	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5.4	Work with State and Federal government to advocate for increased stewardship of products and materials that are currently too difficult or expensive to recycle	ALL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5.5	Advocate with external organisations to provide more opportunities to recycle drink containers under the NSW Government's Return and Earn	WO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6. Support place-based initiatives to reduce litter and illegal dumping					
6.1	Develop and implement litter prevention monitoring, projects, and programs to improve the local amenity and protect our coastline	WO/Compliance		<input checked="" type="checkbox"/>	
6.2	Partner with external organisations to support the uptake of reusable containers	ES	<input checked="" type="checkbox"/>		
6.3	Develop and implement illegal dumping monitoring, prevention projects, and programs to improve amenity in the local area	WO/Compliance	<input checked="" type="checkbox"/>		
6.4	Continue addressing waste presentation and illegal dumping compliance through monitoring and enforcement	Compliance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7. Lead by example and embed Circularity and Sustainable Procurement in Council operations and capital works					
7.1	Calculate and report on Council waste related emissions			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7.2	Require and report on sustainable procurement for all Council developments and projects			<input checked="" type="checkbox"/>	
7.3	Explore partnership and/or joint procurement opportunities with other councils to increase the market for recycled products and help drive circular outcomes				<input checked="" type="checkbox"/>
7.4	Integrate sustainability and circular economy into Council's project management system (from scope to closure) to capture reporting for each major capital work project		<input checked="" type="checkbox"/>		
7.5	Train relevant staff in Circular Economy principles and applications		<input checked="" type="checkbox"/>		
7.6	Incorporate environmental, social and Circular Economy principles in Asset Disposal Policy and procedure revision.		<input checked="" type="checkbox"/>		

Target	Action	Responsibility	1-2 y	3-5 y	5-10 y
7.7	Provide Zero Waste and Net Zero emissions event guidance and encourage reporting of event emissions for Council run events			<input checked="" type="checkbox"/>	
7.8	Reduce waste generation from Council's facilities and operations, and eliminate single use plastics to reduce residual waste and potential litter		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7.9	Maximise recovery of food organics and garden organics from Council's activities and operations			<input checked="" type="checkbox"/>	
7.10	Identify suitable opportunities to continue recovering textiles from Council's operations		<input checked="" type="checkbox"/>		

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Appendix A: Waverley Council's Waste Accomplishments

2005

- Introduced a garden organics collection service

2006

- Introduced electronic waste drop-off events in partnership with Woollahra Council

2009

- Compost revolution starts in trial council area

2010

- Supported the Garage Sale Trail via launch of program which is now national
- First recycled glass road base constructed in Waverley

2011

- Partnership with mission Australia/ soft landings to recover wood, metal and foam from mattresses (2011-2017)
- First plastic free July - 2013

2015

- Building Futures
- Second Nature program developed

2017

- AWT, increased diversion of red bin contents from landfill
- Sustainability principles embedded into council procurement and events policy
- Recycle Smart App
- 42 solar compactor bins deployed to Bondi Junction and Bondi Beach
- Problem waste drop off stations located at Customer Service Centre and library (and two public schools)

2018

- Development Control Plan (DCP) amended to include waste management and minimisation for new developments
- Recycling Improvement Program (RIP) at apartment buildings began targeting contamination
- Get Rid of it Right illegal dumping prevention campaign targeting 6 problem streets

2019

- First roads (6) made from recycled plastic
- One million container at Reverse Vending Machine early 2019
- Climate and biodiversity emergency declared
- Strata Bylaw for Waste Management template made available
- Started the trial of textile collection and recovery at apartment buildings

2020

- Problem waste drop-off stations expanded to include additional material such as globes, x-rays, and fluoro tubes
- My Street is Your Street illegal dumping prevention campaign targeting 11 problem streets
- Reached 100 buildings that received the Recycling Improvement Program

2022

- DCP amended to include further provisions for waste management and minimisation for new developments
- Introduced Council's first rebate for reusable nappies and sanitary products
- Started the trial of school uniform recycling with 6 local schools
- Partnered with City of Sydney and Woollahra to deliver quarterly free problem waste drop-off events

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