

For a Litter Free Greater Sydney

GREATER SYDNEY HARBOUR

REGIONAL LITTER PREVENTION STRATEGY 2021–2030

July 2022



Parramatta River
Catchment Group



SYDNEY COASTAL
COUNCILS GROUP

This Greater Sydney Harbour Regional Litter Prevention Strategy (RLPS) was developed by the Sydney Coastal Councils Group (SCCG) in partnership with the Parramatta River Catchment Group (PRCG) with funding from the NSW Environment Protection Authority (EPA). The SCCG has a strong commitment to advancing sustainable management of Sydney's urban coastal and estuarine environment on behalf of its member councils. The PRCG is an alliance of local and state government agencies and the community working together to make the Parramatta River swimmable by 2025.

This project is funded by the NSW Environment Protection Authority, Waste Less Recycle More initiative funded from the NSW Waste Levy.

The project was guided by a Steering Committee consisting of representatives from:

- Parramatta City Council
- Willoughby City Council
- Inner West Council
- Transport for NSW
- Scotts Creekcare Willoughby
- Pure Objectives Balmain
- ParraParents
- Parramatta River Catchment Group (PRCG)
- Sydney Coastal Councils Group (SCCG)

Cover Image: Source Destination NSW

All images provided by the SCCG and the PRCG unless stated otherwise.

Web: Greater Sydney Harbour Litter Prevention Strategy

Acknowledgement

We respectfully acknowledge the Traditional Custodians of the Greater Sydney Harbour and also acknowledge other Aboriginal and Torres Strait Islanders who have made the harbour their home. We pay our respect to elders past and present.

We acknowledge that Aboriginal and Torres Strait Islander peoples have an intrinsic connection to the land and have cared for country for over 60,000 years. Their lore, traditions and customs have led to the bountiful land, rivers and ocean we all enjoy today. We would like to acknowledge all Aboriginal and Torres Strait Islander people living on the land today.



Image courtesy of Ben Bowen, Shared Path Aboriginal and Torres Strait Islander Corporation

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Executive summary

Greater Sydney Harbour is an international icon and includes the world class Parramatta River and areas of stunning natural beauty along the harbour foreshore and in its catchments. It is a local and international tourist destination as well as a commercial port and has around two million people across 21 local government areas who call the catchment home.

Greater Sydney Harbour's health and beauty is being damaged by litter. When it rains, stormwater systems are overwhelmed by the volume of litter carried from streets and carparks and this then overflows into local creeks and waterways. Tonnes of material is captured every year through the efforts of councils, communities, organisations, and the NSW Government however a lot more escapes into the broader marine environment. The cost of removing litter from the environment on this scale is currently in the millions of dollars every year (NSW EPA 2019a).

The community agrees that litter prevention action is needed in the Greater Sydney Harbour catchment to stop litter at the source before it enters the environment. 82% of respondents to the 2021 Sydney Coastal Councils Group Community Perception on Litter Survey stated that litter is a problem in waterways.

Communities also want more action on litter in local places. Local communities want clean public parks, shopping centres and local streets that are free from cigarette butts, beverage containers, overflowing bins and dropped litter. Councils have many local litter prevention projects at public place hotspots.

Communities are also doing their part by raising awareness about littered items such as plastic straws and lollipop sticks.

The NSW Government is serious about reducing litter. In 2015, the former Premier set a target to reduce litter volume in NSW by 40% by 2020. This target was reached in 2020 with a 43% reduction in litter volume since the baseline year of 2013-14 (NSW EPA 2021a).

The 2021 target of 60% less litter by 2030 and the ground-breaking 30% less plastic by 2025 will continue to lead litter prevention actions in the coming years and should have a significant impact on litter.

Despite these activities, litter continues to be identified as a major threat to the marine environment, the Greater Sydney Harbour and to the cleanliness and liveability of local public places.

“Communities are also doing their part by raising awareness about littered items such as plastic straws and lollipop sticks.”



About the strategy

The Greater Sydney Harbour Litter Prevention Strategy (the Strategy) invites a collaborative regional approach among the many Greater Sydney Harbour catchment communities to contribute to the NSW Government's 2030 target of 60% reduction of litter and 30% less plastic by 2025 (Department of Planning, Industry and Environment [DPIE] 2021). It aims to prevent litter ending up in the Greater Sydney Harbour by taking local action on the land, in the catchment and reaching over two million people across 535km².

The Strategy invites all 21 councils, community organisations and other major landholders within the catchment to work together locally and regionally to prevent litter. The Strategy aims to identify regional collaborative approaches that can prevent items becoming litter in the first place, before it accumulates in parks, on streets, in drains, in creeks and rivers, and in Sydney Harbour.

A focus on a cleaner harbour aligns with the NSW Government's Marine Litter Campaign (NSW Government 2021). The Marine Litter campaign builds on the success of Don't be a Tosser! by showing how rubbish on land ends up in our waterways and the consequences of litter once it enters the marine environment.

A catchment approach to litter prevention acknowledges that there are many organisations responding to common littering behaviours and issues across multiple types of sites (shopping centres, car parks, public places etc). Many very good projects currently exist within the catchment that can be shared by networking and collaboration to increase the impact and reduce litter entering the environment.

Vision

The Strategy adopts a local version of the vision of the NSW Litter Prevention Strategy 2019–2022 (DPIE 2019).

'We want the Greater Sydney Harbour catchment to be a clean, safe and healthy environment that we can all share and enjoy.'

This statement reflects the community's desire for cleaner litter free local places identified in almost every Council community engagement survey and by the actions that communities take to remove litter through many clean-up activities. Communities are also increasingly concerned with the impact of litter on wildlife and the natural marine environment.

Objectives

The Strategy's objectives provide direction for collaboration across the Greater Sydney Harbour area that aligns with the NSW litter targets.

1. Provide for a regional approach to achieve the NSW litter prevention target of 60% reduction in litter by 2030 and reduction in plastic items litter by 30% by 2025.
2. Reduce the volume and incidence of litter entering Sydney Harbour and associated waterways through litter prevention activities.
3. Support litter prevention activities within Councils and other organisations in the Greater Sydney Harbour catchment.

Actions

Across the area, there is considerable knowledge and experience in successful litter prevention actions conducted by councils, community groups, the NSW Government, and others. This Strategy's actions build on this expertise and describe the initial steps to support sharing what works and developing new litter prevention projects. The actions can be updated over time.

The NSW Litter Prevention Strategy 2019-2022 and the NSW Litter Prevention Grants Program provide direction and funding for action on litter by councils and communities. Five approaches guide litter prevention actions:

- Rewarding responsible behaviour
- Education and awareness
- Infrastructure and clean-up
- Regulation and enforcement
- Evaluation and monitoring

This Strategy also supports the implementation of the NSW Government's Waste and Sustainable Materials Strategy 2041 and the NSW Plastics Action Plan.

The Strategy was developed through a partnership between the Sydney Coastal Councils Group (SCCG) and the Parramatta River Catchment Group (PRCG). A Steering Committee provided advice on the document direction.

At the time of developing this Strategy in 2021-2022, there were policy and political changes that might affect the uptake of litter prevention. For these reasons, this document will be reviewed biennially. Organisations that endorse this Strategy and associated targets can be progressively recognised in an updated document and on the project website.

Litter in the catchment

There is a need to better understand litter and litter sources in the catchment, and to have more consistent measures.

Litter is described as material up to the size of a shopping bag that has been disposed of in the wrong place. It is also described in the NSW Waste and Sustainable Materials Strategy 2041 as leakage from the circular economy and a valued resource.

The extent of litter in the Greater Sydney Harbour catchment can be estimated by litter capture and measure activities. This data from these activities is variously reported as the number of people attending, or quantified by item, weight or volume. This is collected by multiple councils, community and government organisations. Data is held locally, sometimes shared publicly or reported in media or not fully captured.

The key data collections in the catchment include:

- NSW Maritime's Sydney Harbour Environmental Services team: 2,776 cubic metres of marine debris were removed in 2020
- NSW Key Littered Items Study site at Meadowbank that has identified the top 10 littered items
- Stormwater estimates: between 350-1200 tonnes entering the Parramatta catchment in 2017
- Clean Up Australia Day events and other community clean-ups: 156 groups participated in the 2021 March Clean Up Day over just three council areas
- Recent Seabin Project and AUSMAP data.

Litter prevention and measurement in the catchment

Litter prevention policy in NSW is led by the NSW Government. The NSW targets of **60% litter reduction by 2030** and **30% plastics reduction by 2025** have been adopted for this Strategy.

All 21 councils in the Greater Sydney Harbour have litter actions. Litter is often part of a broader strategy such as waste and resource recovery, circular economy, clean/green city, environment and waterway health. NSW Government is leading actions for a circular economy through the NSW Plastics Plan and NSW Waste and Sustainable Materials Strategy 2041.

Community litter prevention activity is mainly around litter capture and this may be used to raise awareness of a littered item or litter hotspot.

The EPA's litter journey is about the life cycle of a piece of litter. The links in the litter journey are represented as five steps from Production, Sale, Disposal, and Hotspot through to the Wider environment. It provides a focus for litter prevention activity.

Production



The litter journey starts with producing items that can end up as litter. The community wants to see industry take a stronger role

in avoiding production of packaging that becomes litter. Traders can be influenced to choose alternative products to sell that do not produce as much litter.

Sale



The point of sale can be the occasion not to buy or choose least packaging. The community recognises that retail outlets are

important places to influence consumer choices. It can link to thinking about disposal e.g. by providing pleasant eating areas with bins near takeaway outlets.

Disposal



Litter needs to be disposed of responsibly or else fines imposed on litterers. The community has many ideas on

infrastructure to prevent littering. Councils are continually assessing bin type and placement. Establishing Return and Earn centres has led to a reduction in littered containers.

Hotspot



Hotspots are where littering is concentrated and are more frequent in certain landuse types. There is not enough information to

understand litter hotspots across the catchment. The community can identify local hotspots and work with councils in clean-ups to understand litter better and help reduce litter escaping into the wider environment.

Wider environment



Litter reaches the end of its journey, once it escapes into the wider environment. Preventing litter entering drains and waterways along the length of the catchment is important for both healthy waterways and the marine environment. More research is needed on the impacts of litter on the wider environment and to help educate the community.

The NSW Litter Data framework provides opportunities to incorporate regional catchment litter measurement actions into a consolidated framework to better understand the baseline and progress towards the target .

What the strategy will achieve

The issues arising for litter prevention across the Greater Sydney Harbour and the potential opportunities for this strategy are as follows:

Litter prevention leadership and governance across the Greater Sydney Harbour

This Strategy, led by the SCCG and the PRCCG, will establish litter prevention governance arrangements that are regional and also sub-catchment/local.

Increased commitment to the litter prevention targets

Consistent commitment will be sought from all organisations to the litter target through the EPA's Own It And Act framework. The target will be well communicated and promoted.

Setting a baseline to monitor progression towards the litter target

The Strategy is an opportunity to coordinate those who collect litter data at different points on the land and across the catchment. Further monitoring could be established using the Australian Litter Measure.

Gain a better understanding of the impact of litter in the Greater Sydney Harbour catchment

Communicate existing research into litter impacts and seek further research.

Increase litter prevention activities

Implement and support place-based community/council projects at the local catchment level that link litter prevention to the health of local waterways and adjacent parks, and use the EPA litter prevention resources.

More activity to identify hotspots and hotspot actions

The EPA's resources provide opportunities for training in local litter checks and litter prevention activities. A sub-catchment approach enables communities, councils, and others to develop local skills in litter prevention.

Catchment wide litter prevention communications

A publicly available litter prevention website would provide information on activity, stories on what's working, annual reporting to the community and connect people across the catchment.

Objectives

Strategies

Actions

Objective one

Provide for a regional approach to achieve the NSW litter prevention target of **60%** reduction in litter by 2030

1 Collaborate for a Litter Free Catchment

- 1.1** Establish a Litter Prevention Working Group consisting of representatives from local communities and Council to help identify hotspots and key litter items and develop and implement initiatives across the region.
- 1.2** Apply for funding for a Regional Litter Coordinator to coordinate regional community litter prevention activities in consultation with key community groups and councils.
- 1.3** Work with member councils to provide support and capacity building opportunities for local community groups to assist them in delivering litter prevention activities and sourcing funding.
- 1.4** Consolidate commitment for the strategy, target and approach from councils, key community groups and other major landholders.

Objective two

Reduce the volume and incidence of litter entering Sydney Harbour and associated waterways through litter prevention activities

2 Develop and implement targeted programs and initiatives

- 2.1** Work with member Councils and community groups to develop and implement place-based action plans for key litter hotspots.
- 2.2** Work as a region and with the EPA to develop and implement initiatives to address key litter items such as confectionary wrappers, cigarette butts, and takeaway containers
- 2.3** Utilise annual litter data and the Marine Debris Threat and Risk Assessment to identify new hotspots and confirm key littered items for focused action.

Objective three

Support litter prevention activities within councils and other organisations in the Greater Sydney Harbour Catchment

3 Develop a shared knowledge base for ongoing litter prevention

- 3.1** Create a publicly available online portal for the sharing and reporting information around litter prevention activities for the Greater Sydney Harbour and Parramatta River Catchments.
- 3.2** Develop a local litter prevention monitoring plan and information sharing hub that can capture relevant data and provide regional context to the NSW Litter Data Framework.

4 Support further litter prevention commitments from key organisations

- 4.1** Work with member councils and community groups to embed litter prevention objectives in their operational plans and policies using the Own it and Act Framework.
- 4.2** Work with key partners to develop and deliver education and awareness programs for local schools / industry.

About the Strategy

This section outlines the background to the strategy, the vision and objectives and future review.

The Greater Sydney Harbour Litter Prevention Strategy (the Strategy) invites a collaborative regional approach among the many Greater Sydney Harbour catchment communities to contribute to the NSW Government's 2030 target of 60% reduction of litter and 30% less plastic by 2025 (Department of Planning, Industry and Environment [DPIE] 2021).

It aims to prevent litter ending up in the Greater Sydney Harbour by taking local action on the land, in the catchment and reaching over two million people across 532km².

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Across the area, there is considerable knowledge and experience in successful litter prevention actions conducted by councils, community groups, the NSW Government, and others. This Strategy's actions build on this expertise and describe the initial steps to support sharing what works and developing new litter prevention projects. The actions can be updated over time.

The [NSW Litter Prevention Strategy 2019–2022](#) and the [NSW Litter Prevention Grants Program](#) provide direction and funding for action on litter by councils and communities. Five approaches guide litter prevention actions:

- Rewarding responsible behaviour
- Education and awareness
- Infrastructure and clean-up
- Regulation and enforcement
- Evaluation and monitoring

This Strategy also supports the implementation of the NSW Government's [Waste and Sustainable Materials Strategy 2041](#) and the [NSW Plastics Action Plan](#).

Strategy development

The Strategy was developed through a partnership between the Sydney Coastal Councils Group (SCCG) and the Parramatta River Catchment Group (PRCG). A Steering Committee provided advice on the document direction. The Steering Committee consisted of staff from Inner West Council, the City of Parramatta, Willoughby City Council, and Transport for NSW. Community members that participated in the Steering Committee were from Parramatta, Balmain, and Scotts Creek Bushcare in Willoughby. This has ensured that valuable information, including litter prevention opportunities and gaps, has informed the strategies and priority actions. Further details were provided by other



councils and community groups within the Greater Sydney Harbour region. The SCCG and the PRCG are committed to leading a collaborative approach to implement the strategy. Both organisations have started to implement the NSW EPA's [Own it and Act Framework](#) (NSW EPA 2021b).

Strategy review

At the time of developing this Strategy in 2021–2022, there were policy and political changes that might affect the uptake of litter prevention. These include:

- Many councils were about to review waste management strategies to better align with the NSW Government's Waste and Sustainable Materials Strategy 2041
- Council elections in late 2021 may bring new priorities in 2022
- The NSW Litter Prevention Strategy 2022 will be revised
- In 2021–2022, the Independent Pricing and Review Tribunal (IPART) NSW commenced a [Review of Domestic Waste Management Charges](#) that may impact on the ability of Councils to fund litter prevention activities (IPART 2019).

For these reasons, this document will be reviewed biennially. Organisations that endorse this Strategy and associated targets can be progressively recognised in an updated document and on the project website.

About Sydney Harbour and catchment

This section provides an overview of the physical location and communities within the Greater Sydney Harbour as well as the major stakeholders responsible for or engaged with litter prevention.

Size and population

Greater Sydney Harbour is an iconic local, state, national, and global asset. The Greater Sydney Harbour catchment is characterised by waterways that include creeks, significant rivers with navigable waters and the harbour itself. Further information on the Harbour

and its catchment can be found on the [NSW Marine Estate website](#) that has extensive information on Sydney Harbour.

The Greater Sydney Harbour stretches from the freshwater limits of the Parramatta River, downstream to the ocean entrance between North and South Head and covers an area of 532 km². The harbour foreshore is fringed by twelve local government areas, with 21 dispersed across the greater catchment area.

Four sub-catchments drain into the harbour estuary: Parramatta River, Lane Cove River, Port Jackson and Middle Harbour sub-catchments (BMT 2018). These are shown in Figure 1.

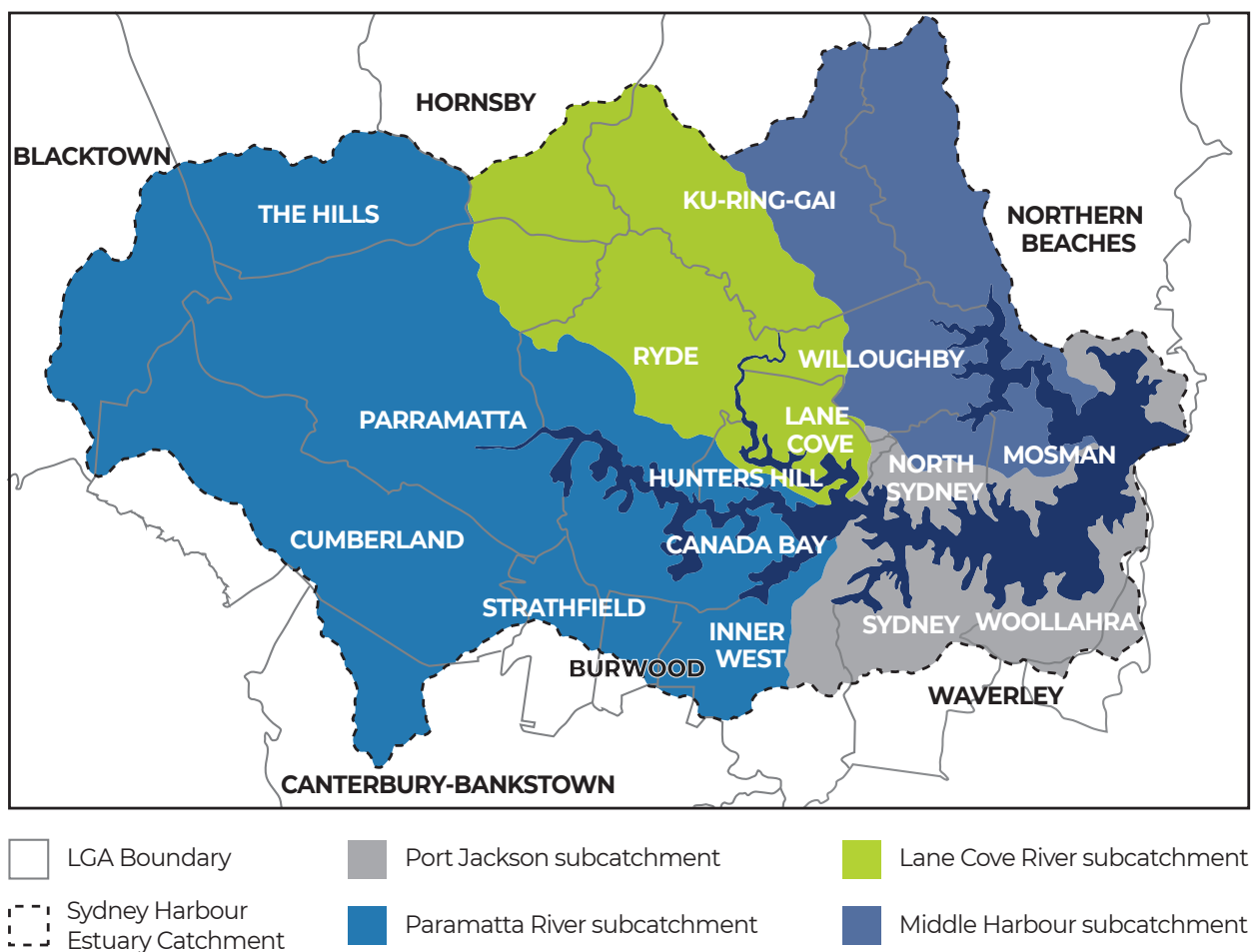


Figure 1: Local government areas and sub-catchments across Sydney Harbour and its tidal waterways (Source: BMT 2018)

The Sydney Harbour catchment is home to around two million people. Many more commute for work or visit the region for recreation and tourism.

The catchment population is growing at a varying rate. For example, it is estimated that by 2041 Inner West Council's population will grow by 20% and Parramatta City Council's by 69% (see [.id population forecast](#)).

Communities across the catchment are highly diverse. Some of the local government community profile parameters outlined in [Profile.id](#) (from the 2016 census) are:

- The percentage of residents born overseas is mostly higher than the Greater Sydney region average of 37.6%
- Most council areas have a higher percentage of households than the Greater Sydney region average, made up of couples with children while more established older areas such as North Sydney have a lower rate of households with couples and a higher percentage of lone person households.

The land uses across the catchment include residential, transport corridors, industrial areas, retail precincts, parks, bushland and public areas. These are shown in Figure 2.

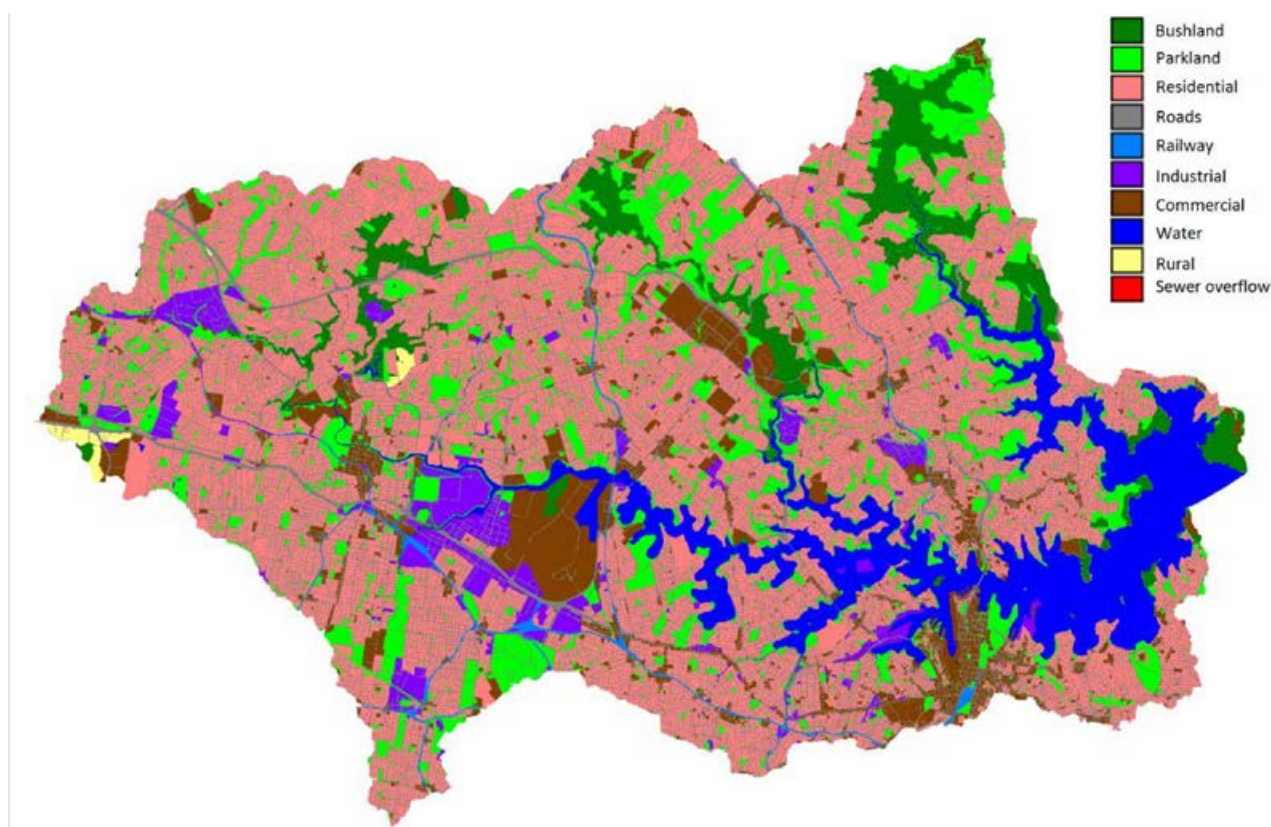


Figure 2: Land use map Sydney Harbour Catchment

(Source: Sydney Harbour Catchment Model draft report 2018)

Key organisations

Local councils are the major land managers across the Greater Sydney Harbour catchment. Councils are responsible for managing the stormwater network along with Sydney Water, as well as maintaining the cleanliness of public places. Council regulatory staff are also able to issue litter infringement notices.

Table 1: Councils with all or part of the local government area within the Greater Sydney Harbour catchment

Blacktown City Council
Burwood Council
The City of Canada Bay Council
The City of Canterbury Bankstown
Cumberland City Council
The Hills Shire Council
Hornsby Shire Council
Hunters Hill Council
Inner West Council
Ku-Ring-Gai Council
Lane Cove Council
Mosman Council
Northern Beaches Council
North Sydney Council
Parramatta City Council
The City of Ryde Council
Strathfield Council
The City of Sydney
Waverley Council
Willoughby City Council
Woollahra Council

Groups of councils have a role in litter prevention that includes action plans, advocacy and funding. These include:

- Sydney Coastal Councils Group (SCCG) that is developing a Coastal Management program for Sydney Harbour
- Parramatta River Catchment Group (PRCG) that has a river Masterplan
- Western Sydney Regional Organisation of Councils (WSROC) that has previously developed a Litter Action Plan 2017-2021
- Northern Sydney Regional Organisation of Councils (NSROC) that has a litter plan to 2021
- Southern Sydney Regional Organisation of Councils (SSROC) that has a litter action plan targeting retail precincts and other hotspots (2017-2021).

Council membership varies in each of these groups.

There are several other significant land managers that can contribute to litter prevention actions. These include:

- Sydney Olympic Park Authority (SOPA) in the Parramatta River
- Taronga Zoo on the foreshore at Mosman
- The Sydney Harbour Federation Trust that manages public places on headlands and islands
- NSW National Parks and Wildlife Service, part of the NSW Department of Planning and Environment which manages large areas of Middle Harbour, Lane Cove, headlands and the foreshores of Sydney Harbour
- Sydney Water, a public authority that manages stormwater and water services infrastructure throughout the Greater Sydney area.

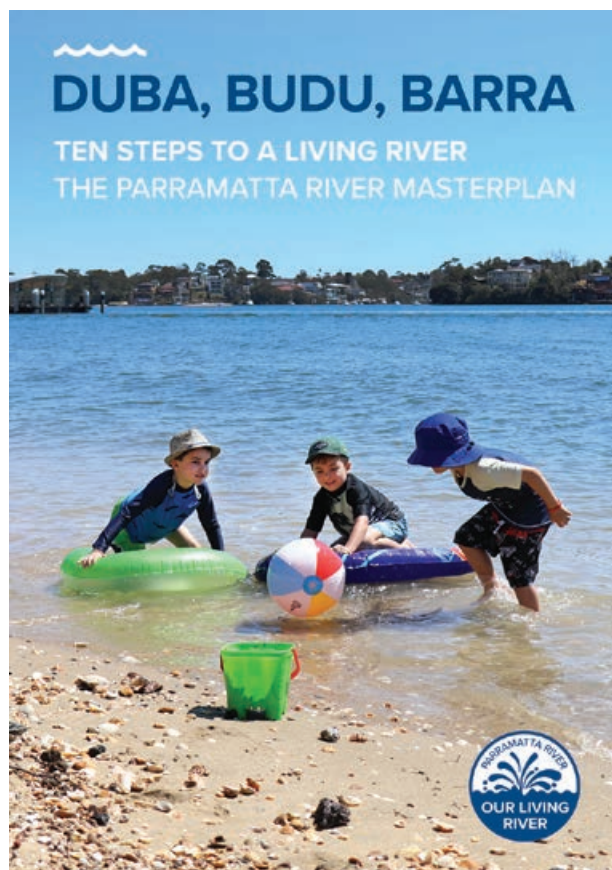
NSW Government agencies and community organisations are also active in litter clean-ups and prevention activities. These include:

- Marine Environment Services (Transport for NSW) that cleans the navigable waters of the harbour and rivers
- NSW EPA that has a regulatory and education role in litter prevention.
- Community and not for profit groups across the Greater Sydney area are active in litter clean-up and prevention education. Groups include:
- Greater Sydney Landcare
- The Seabin project
- Ecobel
- Bushcare groups
- Parraparents
- Take 3

Many of these organisations are participating in current collaborative planning actions to improve the health of the environment.

The Parramatta River Catchment Group's (PRCG) River Masterplan [Duba, Budu, Barra 10 Steps to a Living River](#) (2018) identifies litter as a stormwater pollutant and includes litter prevention in community engagement. The PRCG and its members have endorsed the NSW litter prevention target that drives this Strategy.

The Sydney Coastal Councils Group (SCCG) is partnering with 20 councils and key State Government agencies to develop a whole-of-catchment [Coastal Management Program \(CMP\)](#) for Greater Sydney Harbour. The current stage is focusing on managing threats to water quality from the catchments with an initial study on the impacts of stormwater. The inner and outer harbour stormwater working groups for this project provide an opportunity to collaborate with this litter prevention strategy.



“The Sydney Coastal Councils Group (SCCG) is partnering with 20 councils and key State Government agencies to develop a whole-of-catchment Coastal Management Program (CMP) for Greater Sydney Harbour.

About litter

This section describes litter and litter behaviours. It describes litter sources and hotspots and what is known about these in the Greater Sydney Harbour area.

There are many sources of litter data in the Greater Sydney Harbour catchment that help to understand what is being littered. Much of this data is captured during clean-up or capture activities. Local Litter Checks also provide snapshots of litter at hotspots. There may be opportunities to better align these activities for a consistent reporting framework. This will assist in prioritising litter prevention actions and tracking this strategy's progress. The Australian Litter Measure data, once available, will also assist in understanding what is being littered in the Greater Sydney Harbour catchment.

What is litter?

Litter is a material that has been discarded in the wrong place. The current definition of litter is material up to the size of a shopping bag; anything larger is considered illegal dumping.

Under section 144A of the *Protection of the Environment Operations Act 1997* (POEO Act), 'litter' includes:

- any solid or liquid domestic or commercial refuse, debris or rubbish including any

glass, metal, cigarette butts, paper, fabric, wood, food, abandoned vehicles, abandoned vehicle parts, construction or demolition material, garden remnants and clippings, soil, sand or rocks, deposited in or on a place, whether or not it has any value when or after being deposited in or on the place, and

- any other material, substance or thing deposited in or on a place if its size, shape, nature or volume makes the place where it has been deposited disorderly or detrimentally affects the proper use of that place.

There are multiple ways items can become litter.

Under section 144A of the POEO Act, 'depositing litter' in or on a place includes:

- dropping or throwing litter in, on, into or onto the place, or
- leaving litter in or on the place, or
- putting litter in such a location that it falls, descends, blows, is washed, percolates or otherwise escapes or is likely to fall, descend, blow, be washed, percolate or otherwise escape into or onto the place, or
- causing, permitting or allowing litter to fall, descend, blow, be washed, percolate or otherwise escape into or onto the place.



What is being littered?

Litter is collected, itemised, weighed, categorised and measured across the Greater Sydney Harbour area by the NSW Government, communities, and councils. While there is variation in each approach, there is also a consistent finding that cigarette litter, consumer packaging and beverage containers are mainly the most littered items.

National Litter Index

An estimate of the volume and items littered has been undertaken since 2005-2006 through the National Litter Index. The NSW results are based on a survey of 151 sites divided into eight types: beaches, car parks, highways, industrial, recreational parks, residential, retail and shopping centres. The NSW results are reported in the [NSW Litter Report 2016-2020 \(NSW EPA 2021a\)](#).

The 2019-2020 National Litter Index Report indicates that the most littered item continues to be cigarette litter (including packaging) at 34%.

The Report indicates that the biggest contributor to litter volume, making up 35% of the litter stream, was beverage containers eligible for the container deposit scheme (CDS). This was followed by takeaway containers (32%) (NSW EPA 2021a).

The National Litter Index was replaced by the Australian Litter Measure in December 2020 and this will complement the Key Littered Items Study and NSW Marine Estate policy.

Key Littered Items Study

A further data source for understanding the type of litter found is the [Key Littered Items Study \(KLIS\)](#). Since 2017, the KLIS has been monitoring the types and quantities of marine debris along the NSW coast (DPE 2022a). The KLIS has found that in the Sydney metropolitan region, as much as 39 times the amount of litter found on land is found washed up in urban estuaries.

The KLIS has found that items from consumers make up 50% of all items found. In urban estuaries, nearly 50% is confectionery and snack packaging, plastic lids and bottle tops, straws, and cigarette butts.

Most of the other half of debris objects found is generally litter that has broken down into smaller bits of plastic, glass, and other materials.

In 2020, the KLIS '[dirty dozen](#)' of most littered items found in NSW estuaries was by item:

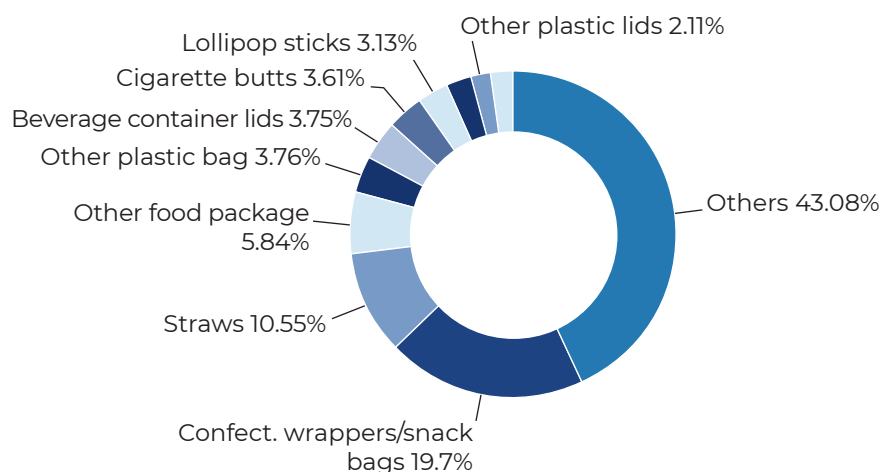


Figure 3: Most littered items by item (KLIS Dirty Dozen)

and by volume:

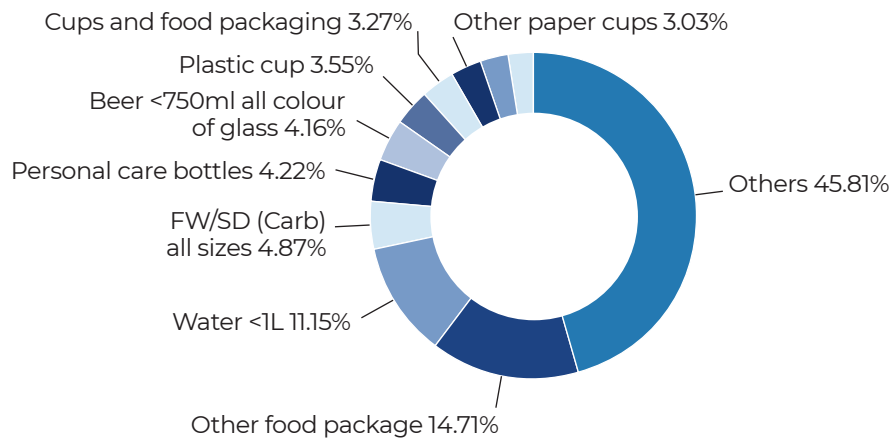


Figure 4: Most littered items by volume (KLIS Dirty Dozen)

Greater Sydney Harbour litter

In the Greater Sydney Harbour catchment, litter is reported on by type, volume and weight, usually through clean-up activities, and depending on the organisation that is collecting it. The categorisation of litter also varies by composition or by use.

In 2017, it was estimated that the potential total quantity of organic and inorganic litter that enters the stormwater network of the Parramatta River catchment was between 350,000 kilograms and 1,200,000 kilograms annually. This estimate does not include the large volumes of litter collected before entering the stormwater network through manual litter-picking and mechanical street-sweeping (WSROC 2017).

In 2020, the Sydney Harbour Environmental Services team removed 2,776 cubic metres of marine debris. NSW Maritime, through its Maritime Environmental Services team, ensures removal of hazards to navigation, litter and waste from the navigable waters of Port Jackson (Sydney Harbour), navigable tributaries (Parramatta and Lane Cove Rivers), and public beaches and foreshores up to Mean High Water Mark. The litter is removed from beaches, foreshores and navigable waters and aligns with a Harbour Cleaning Program that is influenced by tides, winds, and seasons.

A detailed analysis by count, volume and weight of the marine debris collected in September 2019 revealed that most of the non-organic litter was plastic (about 90%) and plastic sheet/film was the most prevalent.



Table 2: Sydney Harbour Litter Audit Report (Source: Karimi 2019 unpublished report)

Category	Count	Volume	Weight (grams)
Beverage container	14	11.02	455
Beverage-related	18	6.33	382
Hard plastic	274	2556	1874
Plastic sheet/film	755	108.10	2145
Smoking related plastic	3	.65	50
Takeaway container	99	7.7	420
Plastic foam	54	.23	565
Rope-like plastic	19	.23	85
Plastic litter overall	1305	159.81	5976

A Key Littered Items Study site is within Sydney Harbour at Meadowbank. The Study has found that the **top 10 items** at that site are:

1. Confectionery wrappers
2. Straws
3. Cigarette butts
4. Other food packaging
5. Beverage container lids
6. Tape
7. Other plastic lids
8. Coffee cup lids
9. Plastic cup lids
10. Lollipop sticks

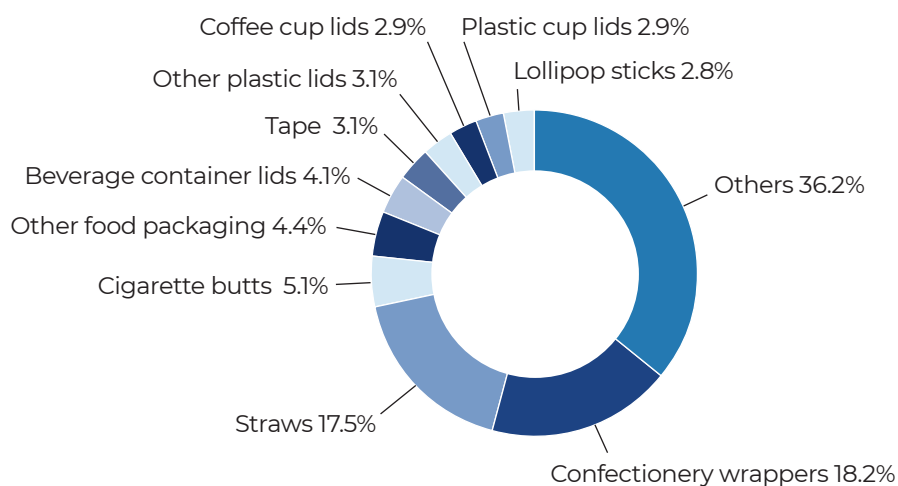


Figure 5: Top 10 items (KLIS Meadowbank)

The Seabin Project reported litter in Sydney Harbour captured in a pilot project with 16 seabins over 2020-2021. Data was reported by weight, item and category (Seabin Project 2021).

The overall results were:

- 3.2 billion litres of water filtered for microplastics, plastic fibres, oil and more
- 16.5 tonnes of marine litter captured for the months of July 2020 to June 2021
- This is the equivalent of 351 football fields with plastic shopping bags
- 70,965 plastic items, including microplastics and microfibres were catalogued
- An estimated 441,228 plastic items have been captured since July 2020
- 780% increase in plastic items recorded during data collections from the 16 units in Sydney Harbour over the pilot period.

Data collected by community groups and councils during voluntary clean-up activities is usually reported by the number of bags rather than the type of litter collected. This data is generally not held and reported informally through social media.

The Clean Up Australia Day (CUAD) Annual Rubbish Reports identify the types of rubbish

collected by item, category, and volume.

CUAD has approximately 115 registered sites within the Greater Sydney Harbour area. The NSW 2020 Rubbish Report ranked the top 10 rubbish items as a percentage of the total rubbish surveyed.

Councils and community groups undertake Local Litter Checks when conducting litter prevention projects at identified hotspots. Local Litter Checks provide a snapshot of litter type and numbers at sample sites that can be measured before and after litter prevention actions. The Local Litter Check looks at the features of a local site that is 'clean' and relatively free of litter, and a second site where litter is a problem – a litter 'hotspot' (NSW EPA 2019c).

Local Litter Checks are now completed online (litterchecks.epa.nsw.gov.au) enabling the data to be searchable by location and by the user. This data is a tool for investigating hot spots. Data being created through the Australian Litter Measure will provide for aggregation by region for similar sites and will help inform litter prevention actions in similar hotspots. Some Councils undertake council-wide litter hotspot studies to support waste or environment strategies using the Local Litter Check methodology and these reports are available.



Figure 6: Top 10 items found in Clean up Australia Day NSW 2020 (CUAD)

Sources of litter and hotspots

The possible sources of litter are illustrated in the NSW EPA's Litter Prevention Toolkit (NSW EPA 2019b,c,d). While litter behaviour is at the centre of littering, there are also other factors such as wildlife, wind, and overfull bins that contribute to litter. Sources of litter are shown in Figure 7.

Litter hotspots are areas where litter is a problem (NSW EPA 2019d). The NSW EPA's [Litter Prevention Kit](#) states that in 2011-2012, the most littered sites (by the number of littered items) were industrial sites, followed by retail sites and car parks (NSW EPA 2019b).

Sources and hotspots in the Greater Sydney Harbour area

Councils across the Greater Sydney Harbour region have identified litter hotspots and sources of litter through projects and hotspot studies. The Regional Organisations of Councils (ROCs) have also reported on litter hotspots.

Industrial and commercial areas

Industrial and commercial areas are a source of litter that includes litter from cars and people passing through, overflowing bins around takeaway shops, litter dropped by workers (e.g. cigarette butts) and litter escaping from business premises.

Project examples in industrial areas

Blacktown City Council's Business Pride supports businesses to clean up around their premises. The City of Canterbury Bankstown's Laneways Project targets laneways behind businesses.

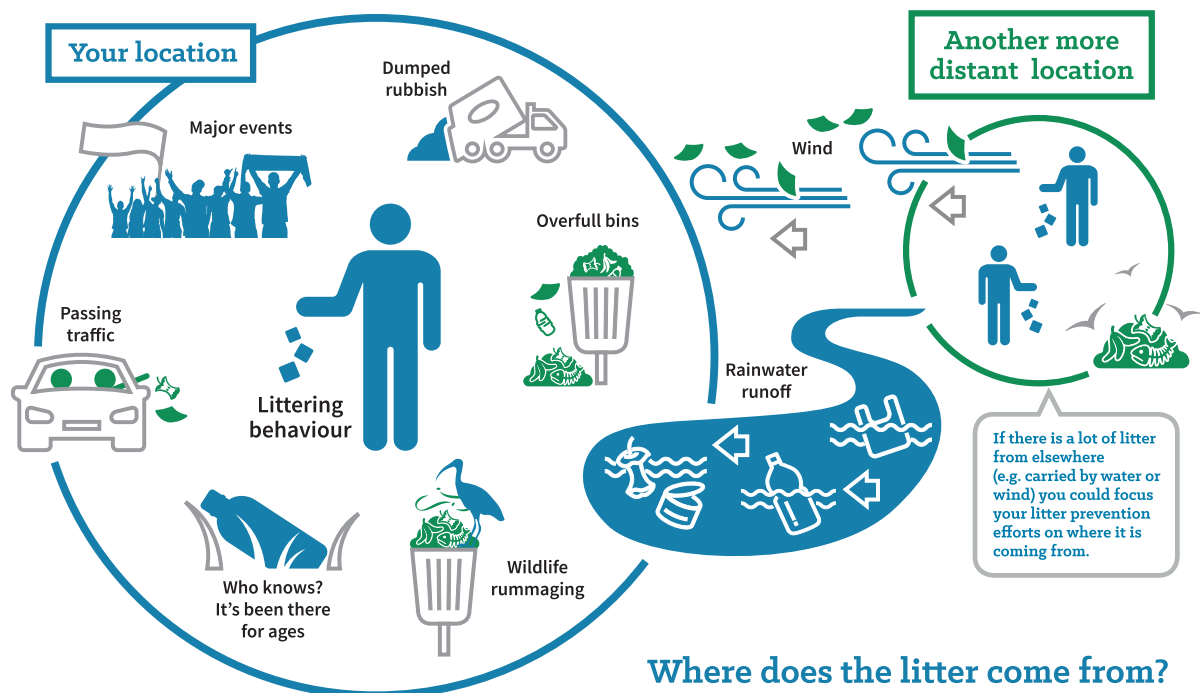


Figure 7: Sources of litter (Source: NSW EPA 2019c)

Retail precincts

Retail precinct litter includes packaging dropped by consumers or coming from overflowing bins, and materials escaped from the businesses. These areas generally have higher volumes of people and litter can become no one's responsibility.

Project examples in retail precincts

Burwood Council has targeted litter prevention in the Burwood Road shopping precinct project.

The City of Parramatta worked with Bunnings and McDonalds at Rydalmere to prevent litter in the shared carpark.

Willoughby Council targeted litter in the Chatswood CBD.

Southern Sydney ROC (SSROC 2016) identified retail centre projects in Our Place: Recreational and Retail, Litter Prevention Plan for the Southern Sydney Region 2016-2021.

Ku-ring-gai Council has installed reverse vending machines (Return and Earn) at the Ray Street public car park and the St Ives Shopping Centre car park to promote the recycling of eligible drink containers. Local businesses have also been engaged to target the littering of takeaway containers.

Public parks and sport fields

This is by far the most identified littered hotspot category, and the most common area where communities and Councils have clean-up activities. The sources of litter include:

- takeaway food packaging dropped or escaping from overflowing bins
- picnic waste including coals from barbeques
- litter from specific events such as sporting or outdoor parties.

Larger organised events in public places such as festivals and markets are approved or managed by Councils, and these can become litter sources. Many Councils have a Sustainable Event policy that includes litter prevention actions as a requirement for stall holders or organisers.

Project examples in public parks and sports fields

The Ethnic Communities Council of NSW's partnered with the Sydney Olympic Park Authority to provide bilingual education to prevent picnic litter at the parklands.

Community groups implemented Sustainable Picnic awareness actions in parks adjacent to Parramatta River.

In 2022 Cumberland Council is working with sport field users within the Duck River catchment.

Willoughby City Council has banned single use plastics in the weekly market and at Council events through its Sustainable Events Policy. Council has also targeted dog poo disposal at Artarmon Reserve.

Transport corridors

Transport corridors such as train lines, motorways, regional roads and local roads collect litter.

This includes litter that is:

- thrown out of vehicles or items that escape from vehicles
- blown or washed along train line easements and is challenging to remove.

Project examples in transport corridors

Burwood Council has identified the Burwood train line as a hotspot.

Cumberland Council's 2020 EPA Litter grant: Cleaning Cumberland – 'Litter, it's everyone's responsibility' targeted litter along the Great Western Highway.

In 2020, the NSW EPA funded Blacktown City Council under the Community Litter Grants for a project entitled 'Buses, trains and automobiles' which reduced litter at the Blacktown transport interchange by targeting commuters and working in partnership with Sydney Trains.

Other sources and hotspots

Other sources of litter and hotspots that have been identified by Councils include:

- construction sites
- medium density housing (bin overflows)
- schools

The Take 3 Visitor Economy Strategy targets places with high tourist bus visits that may not cater for the additional waste created e.g. around the harbour.



Why do people litter?

A significant amount of litter research shows that there is no such thing as a typical litterer. The same person may litter in one place but not in another; littering can be intentional or accidental, and litterers cannot be identified by age, ethnicity, or socio-economic background.

The 2021 Sydney Coastal Councils Group Community Perception on Litter Survey elicited 480 responses from across the Greater Sydney Harbour area. Interestingly, 82% of respondents live near a creek, river, lake, or canal, with 89% using those waterways for recreation.

What the community told us:

- litter is a problem in waterways **82%**
- litter in their local area is a major/moderate problem **74%**
- their local creeks, rivers, lakes, and canals are heavily littered **61%**
- people litter because they don't care about the effects of litter **62%**



Littering behaviours and attitudes identified show that the type of litter matters to people. For example, there are worse types of litter (non-biodegradable or harmful) and more acceptable types of litter (biodegradable or edible for animals).

NSW Government research has also identified the litter behaviour cues shown in Table 2 (NSW EPA 2019a). Consideration of these cues is important when developing targeted behavioural change projects in a place, community, sector, or by type.

Table 3: Litter behaviour cues and outcomes (NSW EPA 2019a)

Behaviour cue	Outcomes
Type of item	People are most likely to litter cigarette butts, probably because there is no bin nearby or butts are seen as 'only small'.
Type of place	People are more likely to litter in places such as bus stops or where they think they will not be seen.
Cleanliness of the place	People are less likely to litter somewhere that is clean, with well cared-for street furniture and bins, and no graffiti or vandalism.
Bins	People are less likely to litter if there is a bin nearby, however they are more likely to do so if the bin itself is dirty.
Signs	People are more likely to put waste in the right place if there are clear, consistent and relevant signs nearby.
Knowledge	People may be less likely to litter when they understand where their litter ends up.
What others are doing	People will litter if others do. For example, people may leave litter piled next to a bin or under stadium seats because others have.

The impacts of litter

Marine and waterways

Litter harms our waterways, harbour, and oceans. The NSW Marine Estate Management Authority identified marine debris as a threat to the marine estate and is taking steps to address this issue by undertaking the Marine Debris Threat and Risk Assessment. This assessment aims to identify what types of marine debris are the greatest threats to our marine wildlife and to the values that society derives from the marine estate ([DPE 2022b](#)).

Councils within the Greater Sydney Harbour also recognise that litter is a threat to the marine environment.

Key institutions within the Greater Sydney Harbour have a focus on marine and waterway health. These include the Sydney Institute of Marine Science at Mosman, the Sydney Wetlands Institute at Sydney Olympic Park, and the Taronga Conservation Society at Mosman.

In the Greater Sydney Harbour catchment, litter is captured in wetlands (mangroves and saltmarsh). The scope of this issue is recognised by the community and others with multiple clean-up programs along the water's edge. Mangroves and wetlands are scattered across Greater Sydney Harbour, fringing contributing creeks, and covering large sections of Middle Harbour, Lane Cove, and Parramatta rivers.

'Zero Litter to River by 2030' target

The [City of Ryde](#) became the first council to adopt the 'Zero Litter to River by 2030 target' in 2019.

The City of Sydney (2019) endorsed that it strongly supported a 'Zero Litter to Ocean' target across the entire local government area by 30 June 2030 as part of the next Environmental Strategy and Action Plan.

Burwood Council endorsed the Zero Litter to River target by 2030 as a priority in Council's [draft Sustainable Burwood Strategy \(2021\)](#).

These are great inroad opportunities to collaborate and align litter prevention action and strategies.

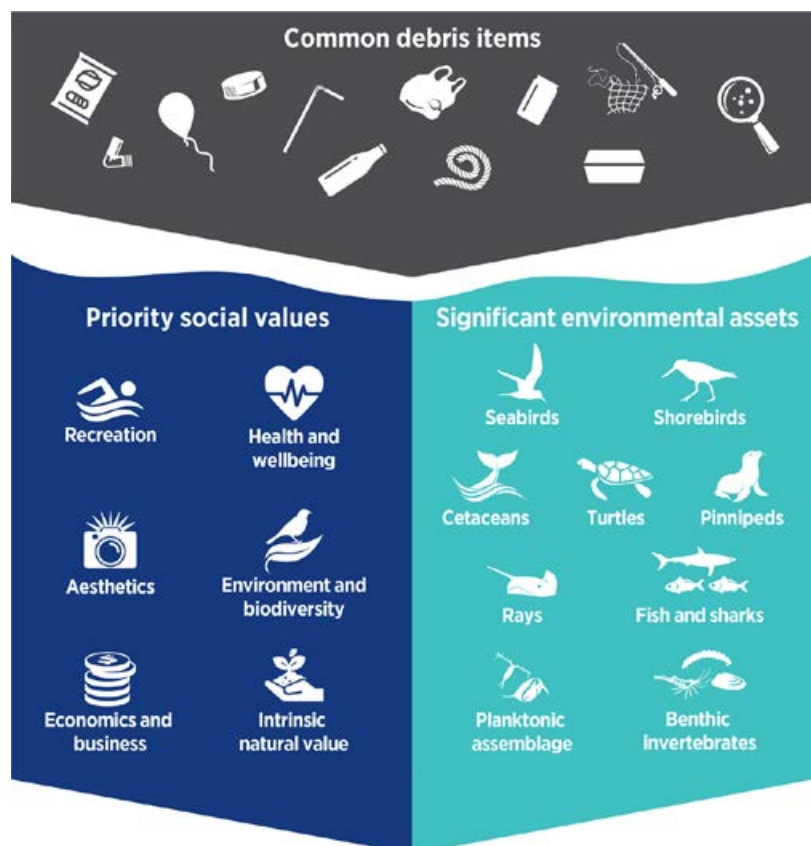


Figure 8: Infographic identifying marine debris and the environmental assets most at risk from this debris Source: DPIE

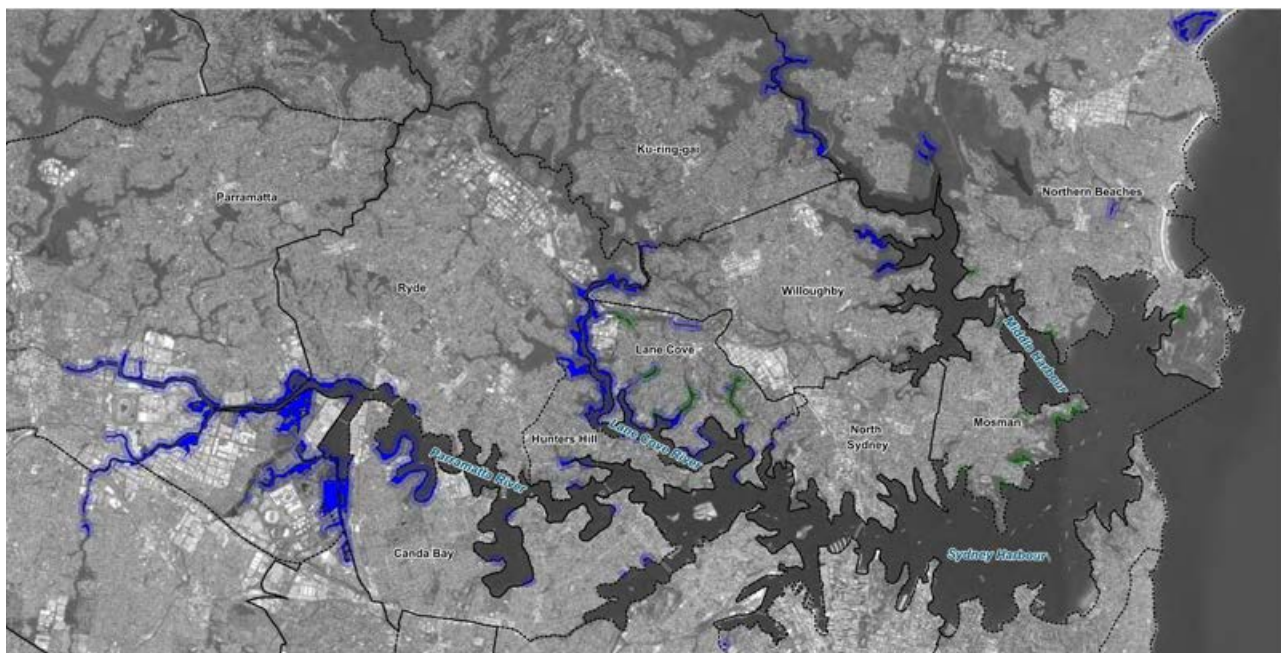


Figure 9: Coastal wetlands in the Greater Sydney Harbour (Source: BMT 2018)

The [NSW Government's State Environment Planning Policy \(Coastal Management\) maps 2018](#) (figure 9 above) shows the extent of Greater Sydney's mangroves and saltmarsh and this provides an indication of the potential impact of litter in these areas.

Litter that is not trapped in mangroves flows through to the broader marine environment. In the 2020 financial year, the NSW Government estimated 575 million items of plastic litter generated in NSW made its way into our waterways, and terrestrial and marine environments (DPIE 2021a). Eight million tonnes of plastic leaks into our oceans every year (Jambeck et al. 2015). The litter comes via urban stormwater discharge and represents the highest level of threat to estuarine and ocean waters.

Health

Litter is also washed onto harbour beaches and foreshore areas where it may be recovered by Maritime Environmental Services Team, community groups, and others. This can become a health hazard as items such as broken glass and syringes can injure people.

Litter is a health issue. [The Public Health Association of Australia](#) notes significant and distinct risks to human health from littered plastic, including cascading exposure as plastic degrades – leaching toxic additives and accumulating in food chains through soils and water.

Microplastics are small pieces of litter less than five millimetres and can be broken down parts of litter or micro waste products and may be a health issue. Microplastics are being found in the world's highest mountains and in the deepest oceans. More information on microplastics can be found at the Australian Microplastic Assessment Project ([AUSMAP](#)).

Cleanliness and use of public places

A litter-free place is a liveable place. Litter in public places is considered unsightly and can affect the community's use and enjoyment of a park, school, street, or shopping centre. Councils have long recognised this and allocate significant resources to keeping public places litter free.

The presence of litter has an impact on swimming in waterways. Swimming in the Parramatta River and harbour is a key priority for Parramatta River catchment councils and other harbour councils. The Parramatta River Catchment Group has a plan to make the river swimmable by 2025 (PRCG 2022).

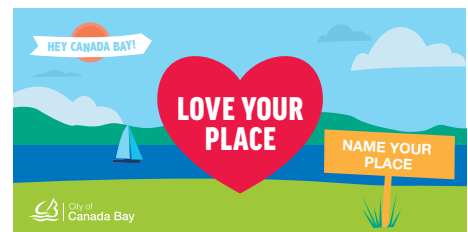
At the 2021 Sydney Water Innovation Festival, the Lord Mayor of the City of Sydney outlined a [vision](#) for a swimmable Sydney Harbour that was dependent on improved water quality and was under threat from the impact of population growth and development, as well as from climate change.

Financial costs

Litter has financial impacts and is costly to remove once it is in the environment. A 2016 survey of NSW local councils, public and private land managers, and community groups found that more than \$180 million is spent each year on managing litter (NSW EPA 2020). In the navigable waters of Sydney Harbour, floating litter is continuously removed by the NSW Government, while multiple council and community programs also remove litter.

Litter is a lost resource and has an impact on raw materials and production. When an item is prevented from becoming litter, it is no longer a lost resource. In 2019-20, 161,300 tonnes of materials were reused or recycled in the Return and Earn Program (Exchange for Change 2021).

Another lost resource are nurdles, not considered as litter, yet have an impact on marine biodiversity. Nurdles are small pellets of plastic resin used as a raw material in the manufacture of plastic products. Their size and appearance (usually clear) mean marine wildlife often mistake nurdles for food (DPIE 2021a). There are at least 10 plastic manufacturers within the catchment. Nurdles have been found on beaches and at stormwater outlets within the harbour. The NSW Government through [The NSW Plastics Action Plan](#) is committed to reduce the risk of nurdles entering the environment and assist councils and plastic manufacturers to implement the global initiative [Operation Clean Sweep](#).



Litter prevention

This section describes litter prevention activities within NSW and the Greater Sydney Harbour catchment.

Litter prevention is generally described by the actions that everyone can take to avoid materials becoming litter. These actions start at the production of materials, sale, use, and finally disposal. There are multiple opportunities to prevent litter in the lifecycle of materials.

The role of the NSW Government

Litter prevention policy in NSW is led by the NSW Government. The NSW targets of 60% litter reduction by 2030 and reducing plastic litter items by 30% by 2025 have been adopted for this Strategy.

60% litter reduction **by 2030**

30% reduction of plastic litter items **by 2025**

Table 4: NSW Government commitments to litter prevention

(Source: Cooks River Litter Prevention Strategy 2021)

NSW Government Litter programs	Targets	Stopping litter at the source	Support for litter prevention	Reducing litter in the marine environment
NSW Marine Estate Management Strategy				Targeted marine litter campaign and Marine Litter Working Group
NSW Waste Less Recycle More initiative and the NSW Litter Prevention Strategy	Reduce the volume of litter by 40% by 2020	\$50 million committed to litter prevention from 2012 to 2021		
NSW Waste and Sustainable Materials Strategy 2041	Overall litter reduction target of 60% by 2030	Phase out of problematic plastics (including single use plastics):	\$38 million for litter prevention programs to 2027:	Progress to litter reduction targets is monitored using a Marine Litter Measure (Key Littered Items).
The NSW Plastics Action Plan 2025	Plastic litter reduction target of 30% by 2025	<ul style="list-style-type: none">Investigation of cigarette butt extended producer responsibilityAction on nurdles	\$10 million in council grants; New litter data framework.	

Since 2004, the NSW Government has been reporting on litter and building evidence-based resources, toolkits, and research to understand litter prevention better, with

some success. In 2015, litter became a Premier's priority with a target to reduce litter volume by 40% by 2020, which was exceeded, reaching 43%.

NSW Government litter prevention resources

Litter prevention resources from the NSW Government have been developed from the NSW EPA Litter Prevention Program.

The NSW Litter Prevention Strategy

The [NSW Litter Prevention Strategy 2019-2022](#) and accompanying plan has provided direction and approaches to litter prevention projects. It is expected that a new Strategy will be released in 2022.

The [NSW Litter Prevention Strategy 2019-2022](#) vision is:

'We want New South Wales to be a clean, safe and healthy environment that we can all share and enjoy.'

The strategy set a target to reduce litter by volume by 40% by 2020 and this was achieved, reaching 43% by 2020.

To achieve the vision, the strategy outlines the following five approaches that continue to inform successful litter prevention projects across NSW:

Approach One: Rewarding responsible behaviour

Approach Two: Education and awareness

Approach Three: Infrastructure and clean-up

Approach Four: Regulation and enforcement

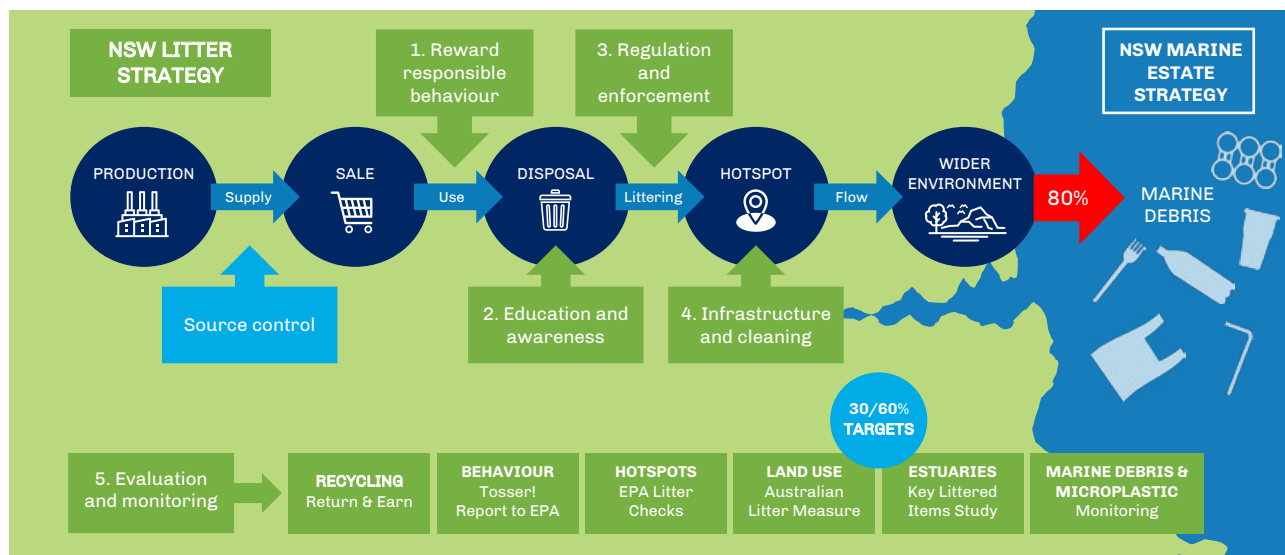
Approach Five: Evaluation and monitoring



Figure 10: Integrated litter prevention

(Source: NSW EPA 2019a)





(Source: NSW Government 2022a)

The Litter Journey

The Litter Journey (above) helps to think through what items have become litter and where best to prevent it. The NSW EPA has mapped the five approaches above, from the movement of litter from its original manufacture as a product to its dispersal into the environment as a pollutant. Along the way, there are opportunities for manufacturers, distributors, and consumers to prevent litter at any stage before it reaches the marine environment. A greater focus on source reduction will also occur under the NSW Waste and Sustainable Materials Strategy 2041 and NSW Plastics Plan.

Don't be a Tosser!

[Don't be a Tosser](#) is a NSW Government site that provides education, information, and links resources. It focuses on the impact of litter in the marine environment and what can be done before it enters waterways, building on the *Don't be a Tosser!* campaigns and actions.



EPA NSW Litter Prevention Resources

The [NSW EPA's Litter Prevention resources](#) includes a comprehensive set of tools and information to enable the community and councils to be informed about litter and its prevention and to run litter prevention projects. These include:

- [Research](#) into litter behaviours, monitoring and reporting on NSW litter
- [The Litter Prevention Kit](#) to assist communities and councils to run litter prevention projects
- Grant funding for [community groups](#), [Councils](#), and for [cigarette butt litter prevention](#)
- [How to report littering](#) information
- Information on [litter laws](#)
- The [Local Litter Check](#) online tool to record evidence.

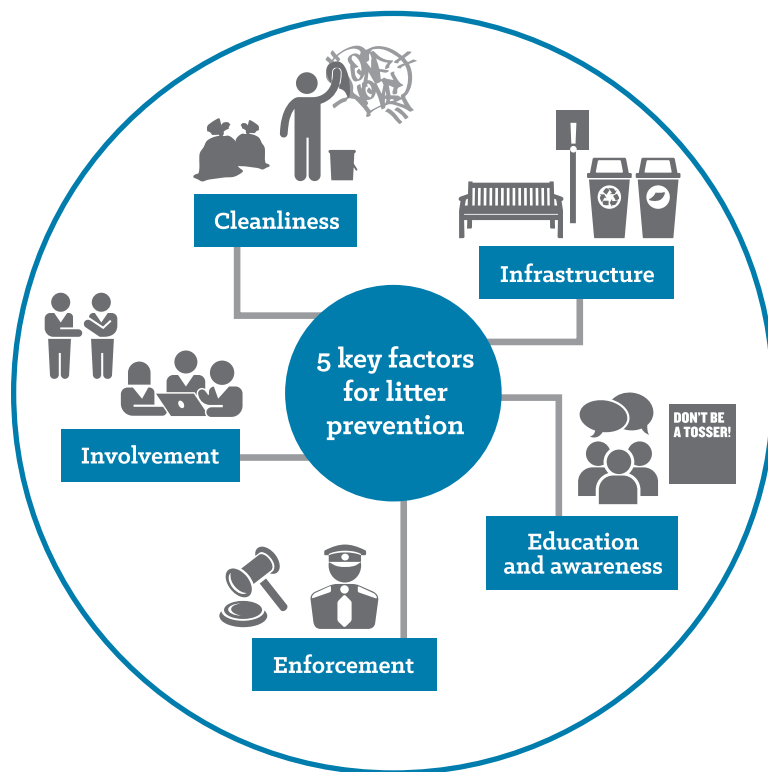


Figure 11: Designing and delivering a litter prevention project – 5 key factors

(Source: NSW Government 2022a)

Own it and Act Strategic Framework

The NSW EPA Own it And Act: Strategic Framework (2021b) assists organisations to embed litter prevention principles, policies and practices into business-as-usual operations and to build litter prevention networks and collaborations for long term litter prevention. The Framework identifies four key enablers: Leadership, Processes, Commitment, and Permission.

This Framework also provides tools for organisations to track and evaluate organisational capacity for litter prevention, as well as monitor litter prevention progress.

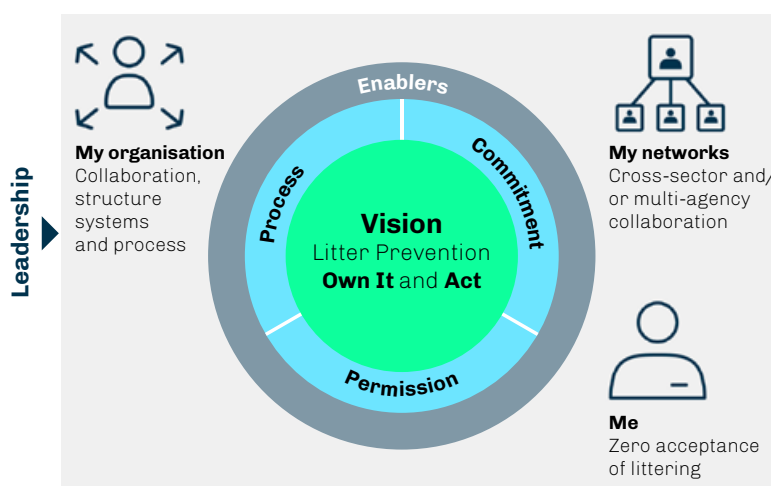


Figure 12: OIAA Delivery space and enablers

(Source: NSW EPA 2021b)

Within the Greater Sydney Harbour catchment, the preliminary checklist has been undertaken by Councils and community groups that have applied for Litter Prevention Grants. The Sydney Coastal Councils Group (SCCG) and the Parramatta River Catchment Group (PRCG) have both completed a comprehensive status assessment, set OIAA goals and have begun to implement the actions.

SCCG OIAA actions

- Engage councils and their communities to adopt and implement the RLPS and litter prevention activities:
- Litter prevention objectives in the Strategic Plan

Report annually on litter prevention activities

- Facilitate shared ownership of litter prevention targets
- Support a Regional Litter Prevention Coordinator role
- Implement consistent litter monitoring methods
- Monitor and report on councils and their communities' litter prevention achievements

PRCG OIAA actions

- Communicate the benefits of litter prevention strategies and projects at all PRCG member forums
- Embed litter prevention in Changemaker courses to upskill volunteers in litter prevention actions, including Local Litter Checks
- Review Riverkeeper Position to include litter prevention and budget allocation
- Facilitate shared ownership of litter prevention targets
- Support a Regional Litter Prevention Coordinator role
- Monitor, evaluate, and report on litter prevention outcomes
- Celebrate litter prevention successes and share outcomes

Greater Sydney Harbour litter prevention actions



Table 5: Mentions of litter in Greater Sydney Harbour councils' planning documents

Focus area	Number
General environment	2
Clean public places	6
Healthy waterways	10
Waste management	7
Circular economy	2
Specific litter plan	3

Councils in Greater Sydney Harbour have many litter prevention projects. Some examples are below:

Councils actions

Local councils have been responding to the community's desire for litter-free public places for many years with litter prevention projects and campaigns. The 21 local councils of the Greater Sydney Harbour catchment focus on litter through different organisational sections, covering a range of litter prevention activities, including education, clean-ups, infrastructure and enforcement (see Appendix 1).

In councils, litter is often part of a broader strategy such as:

- Waste and Resource Recovery
- Circular Economy
- Clean/Green City
- Environment

Some councils have developed specific litter prevention plans while others have undertaken litter prevention projects.



In 2019, the City of Parramatta

implemented 'McDonalds Car Park Litter Campaign' at McDonalds Rydalmere and the adjoining Bunnings. Both car parks had been identified as hotspots for food and drink packaging as they were a common rest area or meeting point.

Council used a mix of education, infrastructure, enforcement and clean up strategies in partnership with McDonalds Rydalmere and Bunnings Rydalmere.

The campaign reduced the number of items littered at the site by 86% and the volume of litter by 99%.



The Roberts Corner Happy Plant space
(Source: Inner West Council)

In 2020, Inner West Council integrated litter reduction into place-making at Roberts Lane. The Roberts Corner Happy Plant space worked with the local community to turn an unkempt littered site into a community space by planting a tree, plants, and artwork. Roberts Corner is now a treasured community hub used by residents from the surrounding streets with an active group of over 75 local members participating in a closed Facebook Group called 'Roberts Corner the Happy Plant Space'. There is zero litter.

Willoughby Council undertook a project with funding from the NSW EPA to target litter in the Chatswood CBD. The project had a focus on improving hotspot sites and their amenities, graffiti removal, preventing litter escaping from bins, improving the presentation of bins, and moving them to better locations and improved servicing practices. Council also received funding from the NSW EPA for a butt litter project including signage.



Education activities at McDonald's carpark Rydalmere (Source: Parramatta Council)



Willoughby Spring Fair



City of Sydney

Community actions

Many community members are working to clean up litter. Community litter capture may be characterised as:

- **Informal:** encouraging litter to be picked up while walking, jogging etc. or through social media
- **Formal:** regular clean-up days or events in public places
- **Items based:** collecting littered items such as lollipop sticks or plastic straws

These actions remove significant quantities of litter and involve many people. Actions are occurring across the catchment. It is often measured by the number of items collected or by volume (bags). Often the events also raise awareness of the problems of litter.

Litter prevention activities tend to be implemented by more formal community groups, sometimes in partnership with a council or not-for-profit organisation. Groups often target one part of the litter stream, such as single use plastic bags and coffee cups. Data on the litter avoidance outcomes is often kept with the project or locally.

In 2019, the EPA funded the NSW Ethnic Communities Council to work with the Sydney Olympic Park Authority at Homebush to implement 'CALD Communities Litter Less' to reduce picnic litter.



Volunteer clean up events on the Parramatta River



Keep it Clean event



Clean up event at Holroyd Gardens, Merrylands



Community sculpture made with littered lollipop sticks on Parramatta River

Production



Greater Sydney Harbour litter prevention at the source

During online consultations conducted for the development of this strategy the community identified the need to stop the production of items that can become litter. Some suggestions included:

- partnerships with industry to move away from single use items
- advocacy for less food packaging
- understanding more about plastic manufacturing in the catchment
- increase consumer awareness and education to avoid purchasing single use items
- educate and make businesses responsible for packaging.

The NSW Government is leading the way in tackling litter at the source or production stage, before it becomes litter. Litter comprises a large percentage of plastic litter by volume and number of items. The NSW Plastics Action Plan sets out actions to achieve long term outcomes to better manage plastics and reduce the impact they have on the environment.

Single use item production

From June 2022, NSW will start the journey to phase out single-use plastic items, tackling litter at the source. Change in the design, marketing, manufacture and supply of goods is critical to reduce the risk of items ending up as litter.

Items that are produced for a single-use and designed as disposable make up most items found in litter counts. These include confectionery wrappers, plastic straws, lollipop sticks, and coffee cup lids.

Sale



Greater Sydney supply and sale

Supply is a critical dimension in the litter journey from Production to Sale where traders can be influenced to order alternative products to sell that do not produce as much litter e.g. with less or no packaging or fully recyclable rather than non-recyclable. There is scope to work with business communities at regional and local scales to influence these choices.

The point of sale is a critical point to influence consumer decision making. The point of sale can be the occasion not to buy or choose least packaging and where consumers can be influenced to start thinking about how they will dispose of their rubbish e.g. providing a pleasant seating area outside a takeaway shop, with bins, encourages people to stay and eat and dispose of their rubbish responsibly.



Greater Sydney Harbour use and disposal

Any item can become litter once it is used, even if it is designed to have more than one use. The correct disposal of items requires the right infrastructure (e.g. bins, recycling, reuse options) and the right behaviour (e.g. signs and awareness campaigns).

During online consultations the community and councils identified the many awareness and education actions already in place and some new ideas.

Infrastructure and cleaning ideas:

- increase signs and tackle bins for recreational fishing
- better bin placement and more bins in river and foreshore parks
- consider smart bins that alert council when full and compact waste
- clean up unkempt places and long grass as these places capture litter

Education and awareness ideas:

- increase messaging for local communities, adapting the EPA's *Don't be a Tosser!* campaign
- increase education and awareness about picnic waste at popular places
- awareness and bins for tourist bus hotspots
- increase the council public place event and hire agreements about waste

Regulation and enforcement ideas:

- increase litter monitoring and enforcement by paid litter monitors
- better information on how to report litterers
- consider banning specific items such as balloons

Hotspot



Hotspots

Incorrect disposal of litter creates litter Hotspots whereby litter is not controlled at the Production, Sale and Disposal points in the litter journey. A litter hotspot is an area where litter is a problem. There are several ways to determine a litter hotspot. For example, data from council operations such as street sweeping or gross pollutant traps can determine an area with high volumes of litter; input from community-run clean-up events or information from council complaint lines can trigger an area to become a hotspot.

Current hotspot identification actions in the Catchment

The City of Parramatta's Litter Study (2019) identified 30 hotspot sites to investigate using the NSW EPA's Local Litter Check guidelines. These sites are scattered throughout the local government area. Hotspots that are identified through Local Litter Checks and recorded on the NSW EPA Local Litter Check website are accessible on the EPA's website. Public places comprise around 53% of land use, with parklands and bushland mainly along waterways. Industrial areas are scattered across the whole catchment and, while there are large commercial areas, there are also scattered smaller retail places. These are all potential litter hotspots.

During online consultations, community members identified big shopping areas, transport routes such as the light rail corridor, and major roads such as Liverpool Road as hotspots. Litter is escaping from these places into local waterways such as Toongabbie Creek, Duck River and Scotts Creek, and into Sydney Olympic Parklands.

Transport routes for supply and sale and retail areas are in the top four littered places in NSW. Industrial areas can be hot spots and are one of the top four littered areas in NSW.

Industrial areas

Litter in industrial areas comes from a variety of sources. Sources of litter in industrial areas include products escaped during transport, overflowing bins, takeaway food litter and general littering behaviour.

The issue of mishandled and poorly shipped goods resulting in waste and material leakage needs to be dealt with directly at the locations in question. It is a key focus for an overarching compliance framework that targets industrial businesses and practices.

Actions in litter hotspots require holistic measures that integrate the right infrastructure and cleaning regimes with messaging that supports norms around littering, keeping places 'clean'.



Litter capture in the wider environment

Some litter is captured in the stormwater systems by councils and Sydney Water by gross pollutant traps and other devices. During a rain event, these systems are often overwhelmed due to the quantity and speed of water running off hard surfaces such as roads, carparks, and driveways. Stormwater also brings other pollutants such as nutrients, faecal matter from dogs, and organic matter such as grass clippings.

The 2014 studies completed on Sydney Harbour as part of the [NSW Marine Estate Programs](#) do not specifically identify litter. In 2022, Sydney Coastal Councils Group is coordinating a stormwater study across the catchment in partnership with catchment councils and the Parramatta River Catchment Group. This study is part of a whole catchment and harbour plan called the Greater Sydney Harbour Coastal Management Program (CMP). When completed, the CMP will have agreed actions for each council on issues including stormwater management.

Community groups are also capturing litter in the wider environment along waterways and in the harbour itself. These actions also raise awareness of the issues to change behaviour.



Parramatta community group promoting Greener Gatherings to prevent litter from picnics

Measuring litter prevention

This section provides an overview of the current litter prevention data collection including the NSW Litter Data Framework and other local litter data. A framework for the Greater Sydney Harbour Catchment area is proposed that might also include case studies and stories.

Progress towards the target of 60% less litter by 2030 requires measuring and monitoring change over time and understanding what works, what doesn't work, and why.

Across a regional area like the Greater Sydney Harbour catchment, monitoring and measuring decisions include:

- where to measure change and at what scale – local projects, by sub-catchment, in the harbour
- what to measure – by the number of items, volume, weight
- who measures, and how to ensure consistency and quality of the data
- how to share, interpret and report on the trends over time.

Additionally, telling the story of litter prevention requires data about projects, and the people involved and engaged.

Currently all of these actions are occurring in some form in the catchment. This data is not captured, or the data is held locally within an organisation. This creates a challenge to understand the current litter baseline and to track progress toward the 2030 target.

NSW Litter Data Framework

The draft NSW Litter Data Framework frames a set of measuring programs developed or supported by the NSW Government to understand long-range trends in litter data in NSW and to inform priorities and policy impacts.

This Framework can be adapted regionally using existing data collected by councils and communities and the NSW Government's measuring programs.

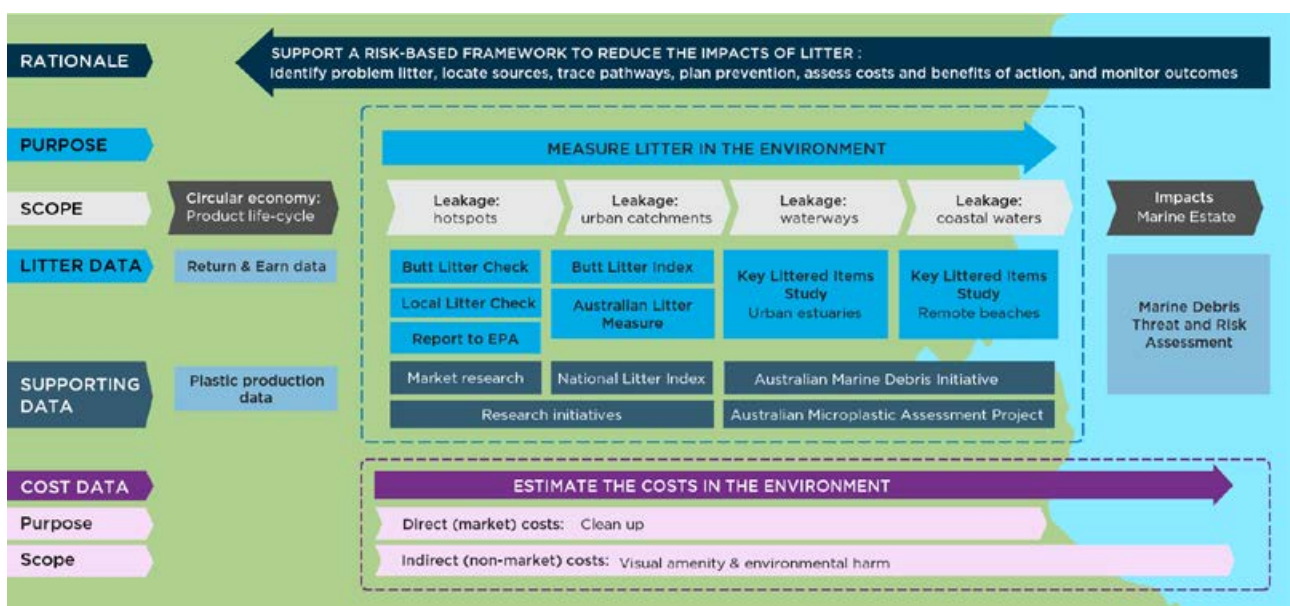


Figure 13: Outline of Draft NSW EPA's litter data risk-based framework

(Source: NSW Government 2022b)

Catchment scale litter data

The following table identifies current data collection for the NSW Litter Data Framework. This can be used to adapt the Litter Data Framework for the Greater Sydney Harbour area.

Table 6: Litter Data framework data sources in the Greater Sydney Harbour region.

Data collection project	NSW Government	Councils	Community groups	Independent orgs	Availability
Return and Earn	X				returnandearn.org.au
Plastic production data	X				
Butt Litter Check		X	X	X	
Local Litter Check		X	X	X	Litter check website
Report to the EPA	X				
Butt Litter Index	X				
Australian Litter Measure	X	X (future)			X
National Litter Index	X				Owned by KAB – available for 2007-2020 on request
Key Littered Items Study	X				Dataset in EPA dashboard – available on request
Australian Marine Debris Initiative					Owned by Tangaroa Blue
Australian Microplastics Project				AUSMAP	Website with sites in the harbour catchment
Direct and indirect market costs	X	RoC's planning	Clean up costs		

Additional litter measures

Local litter monitoring and reporting is important as it can track the success of local actions and contribute to understanding what has worked.

Across the Greater Sydney Harbour catchment, litter data is mainly collected through clean-up and capture activities after it has leaked into the environment. This is undertaken by councils, community groups and individuals, not-for-profit organisations, businesses, and the NSW Government. The data is mostly held within each organisation making it a challenge to understand the litter story across the catchment.

The volume, weight, and type of items collected is often reported to raise awareness of local litter issues. It may also include data

on the number of people attending an event and the geographic spread of events. Monitoring may also include reporting on the number of infringements as an indicator of litter prevention success. New infrastructure can be reported, such as bins in public places and the associated reduction in litter. Councils collect data on the volumes of litter collected from Gross Pollutant Traps. The number of litter prevention pledges and commitments can also be tracked as an indicator of intention.

The litter prevention projects, and actions of councils and communities, can also be captured to tell the project stories and share learning on what works. This qualitative data can be collected at a local and catchment level.



Table 7: Additional litter data across the Greater Sydney Harbour catchment

Organisations	Activity	Data collected by Item type	Data collected by volume	Data collected by weight	Other data	Availability
Councils	Reports on the number of GPT's, volumes of litter in stormwater. Litter prevention projects Litter prevention strategies	% volumes of inorganic and organic litter recorded	From stormwater (GPT's etc) Est by the % of litter		Council enforcement Numbers attending education and awareness projects	On request Through stormwater action plans RoC's Litter plans
Community groups	Clean ups by community groups usually along a waterway	Usually single use plastic items	By bags collected		Education and awareness projects – numbers attended	Generally not recorded or held within the community group
Clean Up Australia Day	Annual events- number of sites and numbers attending reported	Sample sites audited	By bags collected			NSW data available online in an annual report
Transport for NSW (Harbour clean-ups)	RMS navigable waters cleaning on the water and beaches			Annual tonnage		On request – annual tonnage Audit conducted on request
Seabin Project	Seabins placed in the Harbour and contents collected and audited	Yes	Yes		Education and awareness	Online Sydney Harbour report by volume, location, item and weight.

Measuring activity

Case studies and project outcomes are also an essential data set for understanding progress towards the litter target. This qualitative data tells an important story on the changes over time in litter prevention.

Indicators might include changes in:

- numbers and types of litter prevention projects
- people involved in projects
- spread of projects across the catchment communities
- changes in the levels of awareness
- understanding of the environmental impact of litter

Further activity could be measured by changes in the adoption of litter prevention by organisations. This might include changes in:

- implementation of the Own it and Act Framework and Own it and Act status
- policy change, e.g. Sustainable Event policies
- litter prevention plans
- new litter prevention directions in existing community groups or new community groups

A proposed regional framework

Measuring litter prevention across the Greater Sydney Harbour Region is complex and there are multiple opportunities to bring together existing data and create new data sources.

A framework for the Greater Sydney Harbour could include indicators for changes in:

- litter
- the people involved and engaged
- litter projects
- networking and collaboration
- organisational change.

These indicators and associated outcomes could be developed through an outcomes hierarchy.

A central catchment litter monitoring portal for the community could provide an additional resource to the NSW Litter Data Framework and help to understand what is working locally and regionally to prevent litter. It could capture both qualitative data (case studies) and quantitative data.



Education on litter Prevention, Northern Beaches Council

Litter prevention strategies

Litter related activities in the Greater Sydney Harbour are generally locally supported by communities and councils and other organisations. To reach the targets of 60% less litter by 2030 and 30% less plastic by 2025, the Greater Sydney Harbour will need more prevention activity and coordinated approaches.



Strategy issues and opportunities

Issue: Litter prevention leadership and governance across the Greater Sydney Harbour

This Strategy has been developed through a partnership of the catchment groups – the Sydney Coastal Councils Group and the Parramatta River Catchment Group, with funding from the NSW Environment Protection Authority. The Steering Committee consisted of voluntary community members and three pilot councils that nominated to participate in developing the Strategy. A representative of Transport for NSW also participated. This was sustained over a very challenging year of COVID that impacted the way the strategy was developed.

This governance model has shown that councils, community members, catchment groups, and NSW Government representatives can work together through challenging times on a complex issue such as litter prevention.



In 2022, cross-sectoral governance will continue. A small Steering Group will be established to guide the implementation across the whole catchment. Existing litter groups, councils, and others will be invited to work together in a local Project Working Group to better understand local litter issues in each sub-catchment and to develop local actions and messaging. Further groups may be established as interest in litter prevention collaboration grows.

“ This governance model has shown that councils, community members, catchment groups, and NSW Government representatives can work together through challenging times on a complex issue such as litter prevention.

Issue: Increased commitment to litter prevention

Councils have litter as a priority in planning around waste, clean public places and waterway health. Community groups focus on local litter issues. There is a need to communicate the litter prevention targets and gain commitment from local government, key community organisations, and other major landholders to set litter prevention objectives and implement projects. All organisations can be encouraged to implement the EPA's Own it and Act framework.

Issue: Setting a baseline to monitor progression towards the litter target

The current understanding of the scale of litter in the catchment is based on the litter picked up once it is in the environment by the NSW Government's Environment Services team, council stormwater systems, groups such as AUSMAP and Seabin, and Council and community clean-ups. Council and community litter prevention projects also provide information. Elements of the NSW Litter Data Framework contribute data. These activities all contribute to developing a baseline to enable tracking towards the target of 60% less litter by 2030 and 30% less plastic by 2025.

The Strategy is an opportunity to develop a monitoring and evaluation plan that is readily available for all organisations to contribute data. Further monitoring could be established using the Australian Litter Measure. The Strategy will also enable agreement across multiple organisations on a baseline, and a monitoring plan and a monitoring working group may be established.

Issue: Gain a better understanding of the impact of litter in the Greater Sydney Harbour catchment

The impact of litter in the Greater Sydney Harbour is not well understood. The NSW Marine Estate's 2014 studies on Sydney Harbour did not identify litter as an issue

separate from other water quality issues. The impact of litter in sub-catchments, the harbour, and leaving the harbour into the greater marine environment is also not communicated well to the harbour community. Existing research into impacts could be more widely communicated and further research identified to better understand litter impacts and the types of litter prevention projects that are needed.

Issue: An increase in litter prevention activities

The litter activity across the community, councils and council groups, and industry has a strong focus on litter capture once it is in the environment. The [CSIRO estimates](#) 80% of marine litter comes from the land so, despite all this effort, litter is still escaping into the marine environment. The removal of litter by councils and the community is also a financial cost and a cost of volunteer time.

The NSW Government's Plastics Action Plan 2025, Waste and Sustainable Materials Strategy 2041 and the EPA's Litter Prevention Strategy, funding, and resources provide an opportunity to significantly increase the projects and actions to prevent litter. The staged phase out of single use items through the implementation of the NSW Plastics Action Plan could support a refocus of action from clean-up and capture activities to litter prevention.

The community wants to see a litter-free harbour, creeks and rivers. Place-based community/council projects at the local catchment level can link litter prevention to the health of local waterways and adjacent parks. The Greater Sydney Harbour catchment communities, including councils and industry, are a resource that can implement litter prevention projects and actions locally and regionally.

Issue: More activity to identify hotspots and hotspot actions

Hotspot identification is a key tool to understanding litter and developing a litter prevention project. The identification of hotspots is not consistent across the catchment, and data is generally held locally. Learnings about what has worked in litter prevention could be more widely shared.

The EPA's resources provide opportunities for training in local litter checks and litter prevention activities. A local approach enables communities, councils, and others to develop local skills in litter prevention.

Issue: Catchment-wide litter prevention communications

Litter messaging is generally local at council level and there is no catchment-wide narrative about litter prevention and its impacts on creeks, rivers, and the

harbour. There is an opportunity to raise the profile of litter and litter prevention in the catchment by creating a litter-free narrative around the litter target at multiple levels across the catchment. This could build on each council's litter messaging, the NSW Government's *Don't be a Tosser!* and marine debris campaign, and other resources focused on waterway health. A publicly available litter prevention website could provide information on activity, stories on what's working, annual reporting to the community, and connect people across the catchment.

This will support and connect with Government websites e.g. EPA microsite launched in 2022: www.dontbeatosser.epa.nsw.gov.au and other organisations websites for litter prevention.



EPA Don't be a Tosser campaign to raise awareness for litter prevention



Litter Prevention Strategies

Vision

‘We want the Greater Sydney Harbour catchment to be a clean, safe and healthy environment that we can all share and enjoy.’

Objective one: Provide for a regional approach to achieve the NSW litter prevention target of 60% reduction in litter by 2030

Strategy	Action	Measure
1. Collaborate for a litter free catchment	1.1 Establish a Litter Prevention Working Group consisting of representatives from local communities and Council to help identify hotspots and key litter items and develop and implement initiatives across the region.	1.1 By 2022 the PRCG and the SCCG have cross-sectoral Litter Prevention Working Group.
	1.2 Apply for funding for a Regional Litter Coordinator to coordinate regional community litter prevention activities in consultation with key community groups and councils.	1.2 SCCG receives funding for a Regional Litter Coordinator for 2022-2023.
	1.3 Work with member councils to provide support and capacity building opportunities for local community groups to assist them in delivering litter prevention activities and sourcing funding.	1.3 An increase in the number of member councils supporting community groups and the level of funding received.
	1.4 Consolidate commitment for the strategy, target and approach from councils, key community groups and other major landholders.	1.4.1 An increase in the number of committed organisations
		1.4.2 An increase in litter prevention activities.

Objective two: Reduce the volume and incidence of litter entering Sydney Harbour and associated waterways through litter prevention activities.

Strategy	Action	Measure
2. Develop and implement targeted programs and initiatives	2.1 Work with member Councils and community groups to develop and implement place-based action plans for key litter hotspots.	2.1 Place based actions plans developed in each sub catchment and at least one project conducted in each sub-catchment.
	2.2 Work as a region and with the EPA to develop and implement initiatives to address key litter items such as confectionary wrappers, cigarette butts, and takeaway containers	2.2 One region wide initiative developed on a priority littered item.
	2.3 Utilise annual litter data to identify new hotspots or emerging litter items for ongoing action.	2.3 Litter data coordinated and hotspots identified in each sub- catchment annually.
3 Develop a shared knowledge base for ongoing litter prevention	3.1 Create a publicly available online portal for the sharing and reporting information around litter prevention activities for the Greater Sydney Harbour and Parramatta River Catchments.	3.1 SCCG establishes an online litter prevention portal.
	3.2 Develop a local litter prevention monitoring plan and information sharing hub that can capture relevant data and provide regional context to the NSW Litter Data Framework, linking to the EPA's monitoring framework.	3.2 The SCCG develops a local and regional litter prevention monitoring plan.

Objective three: Support litter prevention activities within councils and other organisations in the Greater Sydney Harbour catchment.

Strategy	Action	Measure
4. Support further litter prevention commitments from key organisations	4.1 Work with member councils and community groups to embed litter prevention objectives in their operational plans and policies using the Own it and Act Framework.	4.1.1 Number of Own it and Act workshops conducted.
	4.2 Work with key partners to develop and deliver education and awareness programs for local schools/industry.	4.1.2 An increase in the number of organisations that have completed and implemented the Own it And Act Framework. 4.2 By 2023 one regional project and key partners identified, and a project scope developed, funded and implemented.

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Appendix one: Litter prevention activities of councils

Blacktown City Council

Blacktown City Council is in the west of Sydney and covers 240.1 km². The east of the Council area has five creeks that flow into Parramatta River covering the suburbs of Kings Langley, Lalor Park, Blacktown,

Prospect and Seven Hills. The creeks are:

- Toongabbie Creek
- Girraween Creek
- Blacktown Creek
- Lalor Creek
- Grantham Creek

Community

Blacktown City Council has an estimated population in 2020 of 382,831. The population living within the catchment is approximately 88,479. In 2016 40.4% were born overseas, slightly higher than the Greater Sydney average of 36.7%. ([Profile ID](#)).

Between 2016 and 2041, the population for Blacktown City Council is forecast to increase by 295,985 persons (85.06% growth), at an average annual change of 2.49%. ([Forecast ID](#)).

Policy

Blacktown City Council's Community Strategic Plan, [Our Blacktown 2036](#), links litter to clean and healthy environments in Strategic Direction 2 – A Clean Sustainable and Healthy environment.

The Clean Cities Strategy 2015-2020 is the leading strategy in managing litter in the City. The strategy provides the foundations for improving public place amenity as a central element in building clean, safe communities with an improved sense of ownership and belonging (Blacktown City

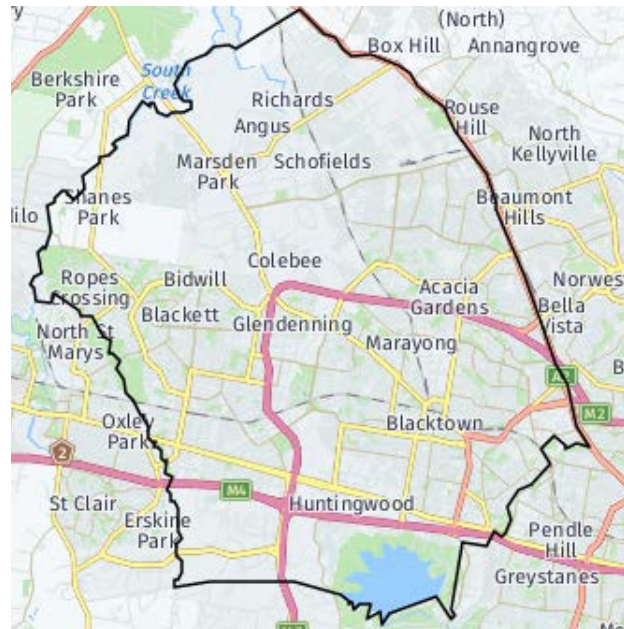


Figure 1: Blacktown City Council area
(Profile ID)

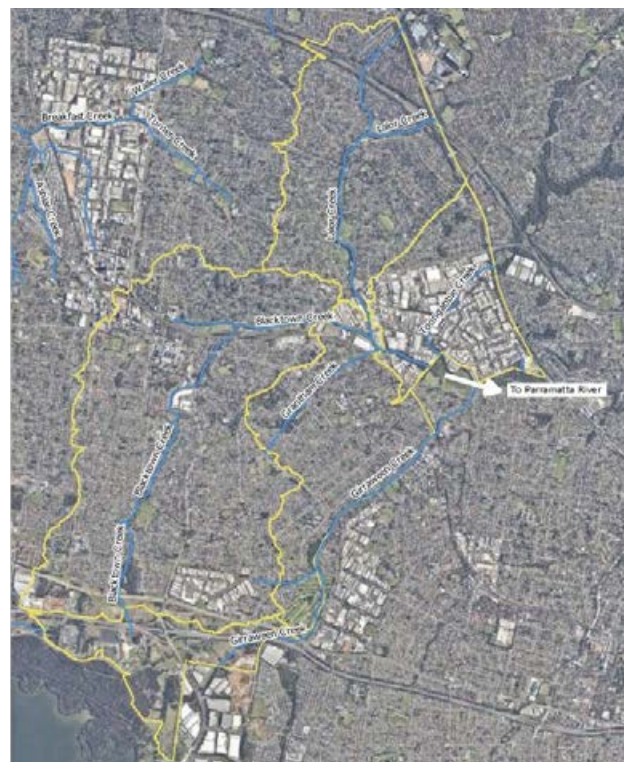


Figure 2: Catchment areas Blacktown City Council
(Supplied by Council)

Council). The Clean Cities Strategy has very detailed ways to reduce litter through the strategic plan. Key achievements are:

- the provision of secure bin storage facilities in identified active reserves to assist sporting bodies to minimise misuse and vandalism of the bins
- the picipup litter campaign, where regular walkers are provided bags and gloves and encouraged to collect litter as they walk. At the centre of the strategy is the Clean Communities Assessment Tool for monitoring and review over time. In 2022 the Clean Cities Strategy is in review.

Litter is also identified in the City's [Six Streams Integrated Water Strategy 2020](#).

- Target 3 of the strategy is for 65% of waterways to be in fair or better condition by 2036. This condition score takes into litter into account
- Target 4 includes litter as it is to improve community satisfaction with 'healthy natural waterways' to above 80% by 2036
- a further action in Target 4 is to continue to support the PRCG and the Our Living River campaign to make the Parramatta River swimmable again by 2025.

Projects and hotspots

Actions in the Clean Cities Strategy are funded through existing operations budget, the NSW Government's Better Waste and Recycling Fund and the EPA's NSW Litter Grants Program.

The Strategy has 35 actions and most influence litter prevention. Council uses the approaches outlined in the NSW Litter Prevention Strategy – Education and awareness, regulation and enforcement, monitoring and review, cleanliness and infrastructure.

Council has identified that the following aspects are working well:

- engagement and education
- enforcement when used as an educative tool
- infrastructure upgrades
- regular presence and projects.

Projects include:

- Business Pride actions that encouraged industrial and commercial properties to keep the nature strip clear of litter, especially at locations with high resident usage and close to waterways
- Chewing Gum program
- regulatory enforcement
- Advocacy to NSW State Agencies to maintain public places (e.g.transport corridors)
- fast food outlets to keep car parks clear of litter (inc signage, enforcement and local litter checks)
- targeting litter thrown out of vehicles (signage)
- targeting litter on building sites (signage, engagement, social media campaign)
- enforcement officer regularly patrolling hot spots.

In 2020 the NSW EPA Litter Round 5 Grant funded project 'Buses, Trains and Automobiles' reduced litter at the Blacktown transport interchange by targeting commuters and working in partnership with Sydney Trains. Council also received grant funding in 2014 to undertake litter actions in Seven Hills shopping centre. Council has conducted other grant funded projects outside the catchment such as in the Minchinbury industrial area.

Potential projects and the GSHLPS

Staff see benefits in the following joint approaches:

- regional education and awareness such as signage, innovative videos
- stronger linkages with the impact of litter on waterways through catchment wide waterwise campaigns
- increase community participation in litter prevention by identifying locations where the community can participate in waterway management activities and support local neighbourhood initiatives e.g. Adopt a creek
- continued support for community events such as Clean Up Australia Day
- more business/industrial pride projects that have close proximity to local waterways and creeks
- engage with schools to promote litter prevention through existing networks (e.g. Blacktown Sustainable Schools Network) and implement school based projects such as stormwater education and actions
- continue to seek for regional grants.

Burwood Council

Burwood Council covers 7,493 km² and is in the inner west of Sydney, on the southern side of the Parramatta River.

Community

The Burwood 2030 Community Strategic Plan 2018, states that the community's long-term vision for Burwood is:

“a well-connected, innovative, sustainable and safe community that embraces and celebrates its diversity”.

Key facts and considerations are:

- the population is expected to grow a further 44% to 76,350 people by 2041
- 57% of residents were born overseas.

(Draft Sustainable Burwood Strategy 2021)

Policy

Burwood Council's [draft Sustainable Burwood Strategy](#) has been on public exhibition and will go to a Council meeting in early 2022.

An Action Plan will be developed in 2022.

The Strategy builds on Council's successful Green Action Plan 2012.

The draft Strategy has a litter priority identified in Theme 1 Waterways and Stormwater.

Priority:

- participation in the Zero Litter to River initiative. Council endorsed the Zero Litter to River target, by 30 June 2030 in September 2019.

Target

- assist and contribute to improving the water quality of the Cooks River and Parramatta River catchments and improve the management of stormwater within our communities.



Figure 3: Burwood Council area (Profile ID)

The impact of litter is also mentioned in Theme 2 Effective Waste Management.

Priority:

- maintain enforcement of illegal dumping and litter hotspots and deliver a street sweeping and cleaning maintenance service.

Target

- reduction of litter in hotspots by 50%.

Projects

Burwood Council has placed cigarette butt bins in the commercial areas along Burwood Road and The Strand. The Clean and Safe team have reported that the area is cleaner.

Burwood Council has been working with schools for many years to educate students on litter and litter prevention (e.g. zero waste lunch). The Presbyterian Ladies College (PLC) located in Five Dock, is working with the Parramatta River Catchment Group's Our Living River to bring back turtles to the Parramatta River. As part of the [One Million Turtles Project](#) the school has committed to reduce litter around the school.

Hotspots

Waste and Sustainability staff have identified the following:

- the railway corridor as a major hotspot for Burwood
- the commercial area of Burwood Road
- public parks and sports fields at Enfield, Wangal Park and Croydon Park.

Potential projects and the GSHLPS

Staff see benefits in sharing information across councils on what works in litter prevention. Council has already well-established working relationships with neighbouring councils – the City of Canterbury Bankstown and the City of Canada Bay.

Other ideas area:

- set up Local Litter Committees
- work with Council commercial areas place planners across the catchment to incorporate litter prevention
- ensure an approach to litter prevention that is relevant for all cultures.

City of Canada Bay

The City of Canada Bay is in the inner west of Sydney and covers an area of 19.9 km². It is located within the Parramatta River catchment and has 36 km's of river foreshore.

Community

The City of Canada Bay Council population forecast for 2022 is 97,022 and is forecast to grow to 132,249 by 2041 (forecast ID). The population density in 2016 was 4,852 persons/km². In 2016, 40.5% of people in City of Canada Bay were born overseas.

The communities' priorities outlined in [Your Future 2030](#) includes litter under the theme of a Sustainable City.

"Our community feels that the City of Canada Bay is a leader in sustainability. Our community wants the focus to continue through...reducing waste by reusing and recycling; minimising noise, air, water and litter pollution."
(2018 Canada Bay Council).

There are several volunteer community groups that conduct litter clean ups or litter prevention activities. These are usually around waterways or parks next to waterways.

Policy

Council's 2017 [Litter Strategy](#) and implementation plan provided a five-year direction for preventative litter action across the City. It aligned with the Southern Sydney Regional Organisations of Councils (SSROC) Regional Waste Avoidance and Resource Recovery Strategy and Regional Litter Strategy. It aligned with the [NSW Premier's 2015 Litter Priority](#) and the [NSW Waste and Resource Recovery Strategy 2014-2021](#).

The Strategy set a target to reduce litter by 50% in hotspot areas by 2021 and the Implementation Plan had 89 actions.

The success of the strategy was measured

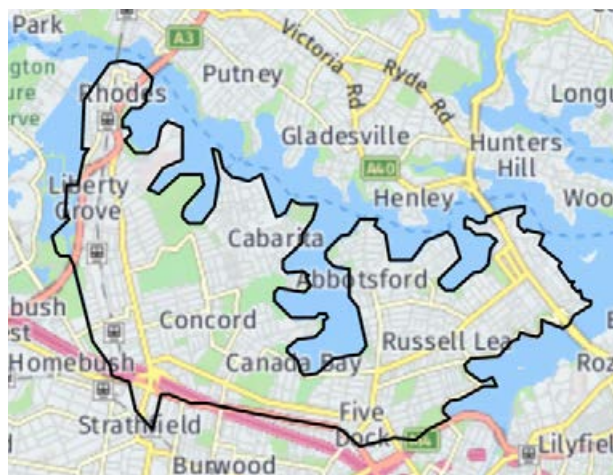


Figure 4: City of Canada Bay Council area
(Profile ID)

against the six key focus areas:

- infrastructure and cleansing
- education and communication
- enforcement
- evaluation and observation
- partnerships and pride
- strategy and management.

The strategy results are reported in Council's [State of the Environment reports](#). Staff estimate 80% of the litter strategy is completed as at 2021.

The implementation of this comprehensive Litter Prevention Plan was funded by Council and five NSW EPA Litter Grants.

In 2018 Council developed the [Love Your Place](#) program that supports local community members to partner with Council at public parks. It integrates litter clean-up and prevention activities. This program increases community pride in local places and connects communities to waterways. In 2021 there were 11 active groups mainly doing foreshore clean-ups and some residential street clean-ups.

Projects

Council has completed multiple projects.

The availability of EPA Litter Grants has been a driver for litter prevention actions.

These include NSW EPA Litter Grant funded projects:

- Back of Business – Putting litter in its place (working with local businesses)
- [Litter in the Bay](#) at Cabarita Park
- Hey Tosser – Bin your Butts
- Two Hot Coal projects at Cabarita Park.

Council also delivered

- BagLess in the Bay – a plastic bag reduction program
- litter promotion on Council trucks
- Clean up Australia Day activities
- Business Use of Public Footpath Policy to reduce blowaway litter
- a public place bin audit of 125 bins from a range of public places including parks, streets and bus stops
- local litter checks at 26 locations
- installed solar bins and removed open topped bins
- implemented a Sustainable Events Policy
- school education about litter on school grounds.

Council partners with Transport for NSW on projects as well as the Parramatta River Catchment Group.

Hotspots

- town centres and retail commercial areas especially for butts
- parks and public places as identified in the 2015 litter hotspot audit
- Local Litter Checks are completed as part of Love Your Places

Potential projects and the GSHLPS

- resourcing and training for litter audits to measure progress towards litter reduction targets
- expanding community partnerships and place-based approaches to litter prevention such as Love Your Place is less resource intensive for councils and has many other benefits for councils and communities
- possibly extend into schools
- business cases could be developed for conversion to 'smarter' public bins/ butt bins and litter prevention as part of stormwater activity
- targeting hotspot locations to show trends over time
- the potential for the Australian Litter Measure to become a citizen science project as part of Love Your Place- would require training.

City of Canterbury Bankstown

The City of Canterbury Bankstown covers 110.3 km² in the south-west of Sydney. A small part of the council area is in the catchment.

At Sefton (about 1.8 km²) in the north-west of the council's area, stormwater flows into the Duck River and then on to the Parramatta River.

Community

The City of Canterbury Bankstown's Estimated Resident Population for 2020 is 380,406, with a population density of 3,449 persons/km². Within the suburb of Sefton the population was estimated at 6511 for 2020.

Sefton is mainly residential with 3563 persons/km² slightly higher than the overall Council average. (Profile ID).

Policy

Council's Community Strategic Plan, [2028 CB City](#), identifies that the community want to see less litter, and that clean and litter-free streets is a high priority.

In 2022, Council is drafting the Clean Cities Strategic Plan. Council is also participating in the [Cooks River Litter Prevention Strategy](#).

Council supports the Southern Sydney Regional Organisation of Councils (SSROC) [Our Places Recreation and Retail Litter Prevention Plan 2016-2021](#)

Projects and hotspots

Council recognises the value of litter prevention in reducing time spent time picking up litter and is working proactively to prevent the act of littering. Programs prioritise community engagement and education, and work with communities to ensure the City of Canterbury Bankstown is clean and litter-free. (cbc.city.nsw.gov.au)



Figure 5: City of Canterbury and Bankstown Council (Profile ID)

Key projects include:

- 2013-2018 We like Our Park Litter Free encouraged picknickers to pledge to place rubbish in bins and increased bins and hot coal bins with a 90% reduction in litter
- 2017 Tackling Takeaway Litter in Bankstown was an EPA Litter Program Grant that reduced takeaway wrappers and beverage container litter at carparks around Bankstown
- 2017 Litter Management in Campsie through Community Based Social Marketing approaches was an EPA Litter Program Grant and established community anti-litter groups to target littered hotspots
- Council has also installed infrastructure such as litter bin sensor programs, bottle refill stations and is planning further public litter bin upgrades
- Council has also had a number of place-based litter prevention projects at Greenacre and Campsie retail precincts and supports Clean Streets Lakemba
- in 2022 Council will implement a Laneways Project for commercial laneways and streets starting with a survey of businesses.

Future projects include:

- research into the impact of bird feeding in public areas
- ongoing public litter bin upgrades.

Council's key learnings from many successful projects include:

- the importance of good research prior to piloting strategies
- delivering education and awareness programs at the same time as providing bin infrastructure gives better longer-term positive results
- bringing different teams together to problem solve bin infrastructure at a site
- the SSROC Bin Tool is good to use to communicate back to the community on the outcomes of a bin assessment
- sustainable outcomes are best achieved over time and not just in a single year/event.

Potential projects and the GSHLPS

- infrastructure upgrades and associated education in public parks and sports fields
- collaborating to ensure Council's actions contribute to cleaner catchments and waterways.

Cumberland City Council

Cumberland City Council is in Sydney's west and is around 25 kilometres from the Sydney CBD. Most of the council area of 71.67 km² is in the Duck River and Duck Creek, both sub-catchments of Parramatta River.

Community

The Cumberland City estimated resident population for 2020 was 242,674 with a population density of 3,386 persons/km². In 2016, 52.2% of people in Cumberland City were born overseas. (profileid.com.au/Cumberland)

The Cumberland City Council population forecast for 2022 is 264,669, and is forecast to grow to 304,811 by 2036. (forecast.id.com.au/cumberland).

Policy

Cumberland City Council's community vision is Welcome, Belong, Succeed.

Council's strategic plan identifies litter in Strategic Goal 3 'A clean and green community'.

"This priority also ensures a desire for clean and well-maintained public areas in Cumberland. This takes into account waste collection, litter removal and public place infrastructure maintenance. This focus is based on the high rates of street litter in the past and the effect that cleaner areas will have on community pride and health." ([2017 Cumberland Community Strategic Plan](#)).

Council's [Waste and Resource Recovery Strategy](#) also identifies litter as part of cleanliness and illegal dumping actions. Key Focus Area 4 is to reduce illegal dumping and littering and ensure cleanliness. The actions include a Public Place Cleansing Action Plan to improve street cleanliness and reduce littering. Council does not have an overall litter prevention target, instead Council uses project-based targets. There is no separate litter prevention plan.

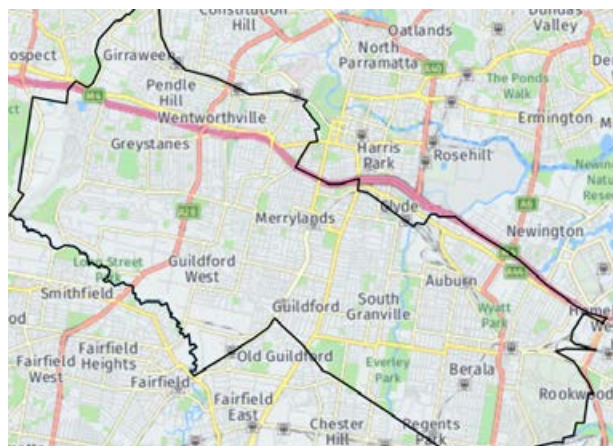


Figure 6: Cumberland City Council (Profile ID)

Projects

Litter projects are mainly litter clean-up with some education.

Council supports

- the annual Clean Up Australia Day community events
- Conservation Volunteers Australia – clean up events a year along Duck River
- Gross Pollutant Traps – 110 GPTs installed across the LGA including Duck River.

In 2020 Cumberland implemented an EPA Litter grant: Cleaning Cumberland – 'Litter, it's everyone's responsibility'

The project targeted litter along the Great Western Highway, Wentworthville, which is heavily used by drivers, shoppers and pedestrians. Transport NSW assisted with clean-up at the site at project outset. Temporary roadside signage and bin infrastructure was installed to support the project. Council rangers were trained and ran an enforcement blitz supported by EPA promotional activities. The project also targeted takeaway and beverage container litter through partnerships with local food outlets and on-site education signage. There was a 90% drop in litter as a result.

In 2022 Council was again successful with an EPA Litter Grant. Keep it Clean – Put it in the bin! will partner with several sporting

groups and volunteer groups to deliver litter prevention actions at local sporting fields. The project will be able to provide a guide to working with sporting clubs on litter prevention. A driver for this project is that litter generated at local sporting hotspots ends up in Duck River.

Hotspots

- the Great Western Highways and other roads and streets have been identified as previous hotspots and a street cleanliness plan and litter grant were implemented
- sports fields adjacent to the Duck River.

Potential projects and the GSHLPS

Due to the location in the upper catchment litter prevention messaging around waterways may not be so effective for many people. Messaging on street pride and local place 'ownership' may be more appropriate.

Generic business cases on litter prevention savings to street cleaning programs.

Training for rangers on the litter regulations and associated delegations. The EPA have training courses.

The Hills Shire Council

The Hills Shire Council is 386.3 km² in the north of Sydney. The Hawkesbury River forms a part of its north-western border.

Community

The Hills Shire estimated resident population for 2020 is 183,791, with a population density of 475.8 persons/km². In 2016, 35.1% of people in the Hills Shire were born overseas.

Policy

The Provision of 'services, infrastructure, information and education that facilitate resource recovery and encourage commercial and residential waste minimisation' is one of the Council's strategic actions in the 2020-21 Annual Report. This entails:

- delivering safe, efficient, and cost-effective waste, recycling, garden organics and clean up services
- providing innovative education and communication programs that encourage community behaviour change to conserve resources and reduce waste generation
- developing and implementing a Resource Recovery Strategy
- investigating innovative waste strategies.

The Council is currently having consultations with the community to inform the development of a waste strategy.

The Council supports the Western Sydney Regional Organisation of Councils (WSROC) [Regional Waste Strategy](#).

The Council is a member of the Western Sydney [Regional Illegal Dumping \(RID\) Squad](#) that has been targeting illegal dumping across the growing Western Sydney region.



Figure 7: The Hills Shire Council (Profile ID)

Projects and hotspots

Using NSW EPA Waste Less, Recycle More funding from the waste levy, the Council hosts a variety of free waste and recycling education workshops. During 2020-2021, 398 programs, promotional communications and composting and worm farming units were delivered. The programs and promotional communications ranged from school education events to community education by promoting Plastic Free July and Council's Single Use Plastics Campaign. The programs are designed to positively influence behaviours and values towards waste avoidance, re-use and recycling and composting and worm farming. Some of these workshops are available in Mandarin and Cantonese to maximise engagement from the Chinese-speaking community in the Hills Shire.

The Council worked with business manager, Mulpha Norwest Pty Ltd., in 2016-17 to clean up litter daily around Norwest Lake. The [program](#) reduced the volume of rubbish by 98% and 83% in two heavily littered areas. Key elements of the program:

- installation of 12 new bins with signage around Norwest Lake
- installation of three 'Hey Tosser!' banners on the lake's perimeter fence
- engagement of local food businesses around the lake to display Hey Tosser! posters in their shop windows
- increase of regular ranger patrols around the lake.

Council has developed a list of guidelines to look at practical ways to phase out single-use plastics that are most often littered – including water bottles, coffee cups and lids, straws, foodware, (cups, plates and cutlery), takeaway containers, balloons and plastic bags – at Council events.

Potential projects and the GSHLPS

- working with Council and community groups to embed litter prevention objectives in their operational plans and policies and facilitate litter prevention projects
- GSHLPS initiatives should ensure alignment with and leverage ROC collaboration and activities.

Hornsby Shire Council

The Hornsby Shire Council covers 455.2 km² in the north-east of Sydney, with a significant part of its border being formed by the Hawkesbury River.

Community

The Hornsby Shire estimated resident population for 2020 is 152,419, with a population density of 334.8 persons/km². In 2016, 36.9% of people in the Hornsby Shire were born overseas.

The community has expressed the desire to see the Shire 'to do more to tackle illegal dumping and litter management' in the LGA during consultation ([2020 Hornsby Waste Matters Strategy](#)).

Policy

To meet community expectations, the Shire has set a strategic goal in the [Hornsby Waste Matters Strategy](#) to reduce illegal dumping and littering in the Shire through an integrated approach of infrastructure, education and compliance.

Plastic litter in particular is addressed through the [Single Use Plastics Policy](#) (2020).

The Shire is a member of the Northern Sydney Regional Organisation of Councils (NRSOC), which has developed the Northern Sydney [Regional Waste Strategy](#) 2014-2021 and receives funding from the NSW Government for coordinated, voluntary programs at regional scale.

Projects and hotspots

The Shire delivers multiple litter prevention projects to achieve its strategic goal:

- continue to promote and support the six Return and Earn sites within the Shire
- comprehensive bin signage on litter bins with the 'Hey Tossler!' campaign



Figure 8: Hornsby Shire Council (Profile ID)

- regular cleaning and maintenance of 302 GPTs across the Shire
- annual support for three Clean Up Australia Day events
- Clean4Shore organised [28 field trips](#) in 2020 to clean litter and general rubbish along the foreshores of the Hawkesbury River. More than 14,000 litter items were collected.
- The Shire is currently developing three litter education videos to highlight the impact of littering and increase community awareness
- [EnviroMentors](#) school incursions (including catchment health and litter prevention modules) have been regularly offered to all primary schools within the Hornsby LGA. The incursion-based environmental education program improves community awareness and engagement on local sustainability issues and initiatives.

- Lane Cove River Catchment Days were an annual creek water quality monitoring event that brought together students from numerous high schools across the catchment. Water quality results were shared, and forums investigated ways of reducing litter and stormwater pollution. This initiative was originally started by Hornsby Shire's Cheltenham Girls Streamwatch Team with support from the Council staff.

Potential projects and the GSHLPS

- development of regional (catchment wide) initiatives that coordinate and strengthen collective responses
- ensuring consistency in regional initiatives and strategies
- strengthening internal collaboration within the Hornsby Shire Council and external collaboration with relevant stakeholders to coordinate litter prevention initiatives
- a sustainable financial model to resource litter prevention initiatives
- Council staff supports the implementation of a catchment wide standardised signage and working with sporting groups to increase community engagement and awareness.

Hunters Hill Municipality

The Hunters Hill Municipality is 5.72 km² in the inner north-west of Sydney. The land is bordered by Lane Cove River, Parramatta River, and Sydney Harbour.

Community

The Hunters Hill Municipality estimated resident population for 2020 is 14,962, with a population density of 2,617 persons/km².

Hunters Hill Municipality is located in Sydney's north-western suburbs – about 7 kilometres from the Sydney GPO.

Policy

Hunters Hill Council Community Strategic Plan identifies actions to ensure that that public places are vibrant and active and that Council will maintain public places to ensure they are clean and attractive.

An action is to 'Undertake a community-led project in partnership with UNSW Circular Economy Network to bring together local champions to develop a project that is focused on diverting materials (e.g. textiles/ furniture) away from landfill and create new products that can be used in the local economy.'

Council is a member of Northern Sydney Regional Organisation of Councils (NSROC). This includes implementing the [Northern Sydney Regional Waste Strategy](#). This has litter actions such as:

- reduce litter (reduce by 40% compared with 2011-12 rates)
- 20% positive change to survey responses describing the Northern Sydney community's view towards taking responsibility for their own litter by June 2021 based on public surveys undertaken within the region
- increased promotion of active community participation in litter control through targeted programs



Figure 9: Hunters Hill Municipality Council
(Profile ID)

- establish information on problem areas to identify target waste streams such as litter and plastics.

Council's Delivery and Operations Plan has actions to:

- reduce litter and waste sent to landfill
- maintain streets so they are clean and attractive
- maintain village centres to ensure they are clean and attractive

Projects

[Gladesville Shopping Precinct 'Hey Tosser' Litter Improvement Program](#) (EPA Litter Grant). This anti-litter education campaign in the Gladesville Shopping Precinct changed behaviours around littering broken glass, bottles and cigarette butts.

The project resulted in:

- improved streetscape and infrastructure, and an increased awareness of the social and environmental impact of littering
- 84% decrease in litter and reduction of over 80% in visible cigarette litter outside the TAB on Cowell St. Qualitative observation of behaviour used before and after education and improvements,

and *Reduce, Reuse, Recycle* Council newsletter used to keep locals informed of progress on the project

- results noticed included: – reduction in litter – reduction in graffiti on buildings in particular Cowell Street – reduction in graffiti on infrastructure such as bins and street furniture.

Potential projects and the GSHLPS

Councils work closely with the Parramatta River Catchment Group on a range of projects and will participate in future litter prevention projects.

Inner West Council

The northern border of this 35.19 km² council is Sydney Harbour and Parramatta River.

Community

The Inner West Council area Estimated Resident Population for 2020 is 201,880, with a population density of 5,737 persons/km².

The Inner West Council area is located in the inner-western Sydney suburbs, about 4-10 kilometres west of the Sydney CBD

Policy

[Our Inner West 2036](#) has the following outcome 'Inner West is a zero waste community with an active share economy.'

Council has a [Zero Waste Strategy](#). This has the following priority action:



Figure 10: Inner West Council (Profile ID)

Reduce Litter Reduce the amount of litter entering our environment.	<i>Reduce litter by 60% by 2030. Reduce plastic litter by 30% by 2025.</i>	17. Provide infrastructure in the right locations with appropriate service to avoid litter.	Ongoing – 2036
		18. Prevent litter entering our local environment.	Ongoing – 2036
		19. Build community capacity and leadership to prevent litter.	Ongoing – 2036
		20. Deliver two new Return and Earn machines for plastic containers within the Inner West.	Ongoing – 2036

Projects

In 2022 Council has an officer position that includes litter prevention funded through the Better Waste and Recycling fund.

In 2022 Council has received NSW Litter Grant funding to implement 'Love Your Home Ground' working with local sports clubs and community associations to inform litter prevention actions across parks and sports grounds in the Inner West.

Council partnered with Transport NSW to tackle butt litter at Petersham train station. This included new bins and signs.

Council supports Clean Up Australia Day events and supplies bags or waste collection at parks at weekends. Council also promotes Green Café.

Council recently installed bins for fishermen nets.

Council's effort goes into cleaning up public areas and staff will ask for additional clean-up where required.

Hotspots

In 2021 Council is mapping street litter bins across LGA and a report is due in 2022. This will provide a baseline to decide where bins are needed.

Potential projects and the GSHLPS

Council's focus is on place-based projects and could include precincts such as the Bay Run that borders Parramatta River.

Possible projects such as:

- working with canteens in schools and sports fields
- share learnings from 'Love your Home Ground'
- dog owners and dog litter
- an app that enables people to report on overflowing bins and bin locations.

Ku-ring-gai Council

Ku-ring-gai Council is 85.44 km² in the north of Sydney. Its northern border is distinguished by Cowan Creek, and its south-western border is the Lane Cove River.

Community

The Ku-ring-gai Council area estimated resident population for 2020 is 127,603, with a population density of 1,494 persons/km². In 2016, 38.9% of people in Ku-ring-gai Council area were born overseas.

Ku-ring-gai residents value a clean, green environment around them.

Policy

The [Waste Management Strategy](#) identifies litter prevention as a Council priority and highlights the Council's commitment to meeting the State Government target of 40% litter reduction by 2021. The Council also strives to divert 60% of total household waste from landfill.

Between 2014 and 2018 the Council has delivered a significant reduction in litter, exceeding the Premier's target of 40% with an average of 85% reduction in litter across all sites since 2015. The current priority is to maintain this 85% reduction across the Council area.

The Council supports the Northern Sydney Regional Organisation of Councils (NRSOC) [Regional Waste Strategy](#).

Projects

Using NSW EPA Waste Less, Recycle More funding from the waste levy, the Ku-ring-gai Council has conducted litter assessments across Ku-ring-gai's centres. Results have informed Council's litter strategies by identifying where the priority hotspots are, their usage and littering behaviour.

In 2013, the Council introduced the [Litter Free Ku-ring-gai](#) program. The Council has received multiple NSW EPA grants to



Figure 11: Ku-ring-gai Council (Profile ID)

improve physical infrastructure by repairing or improving the street litter bins, installing new butt bins and mall seats in centres, removing litter and landscaping. Litter prevention trials have been undertaken at St Ives Showground, Lindfield Oval and North Turramurra Recreation Area with a view of rolling out further projects.

As outlined in the 2019-2029 Waste Strategy, a visual audit is conducted every two years to assess the cleanliness of hotspot sites. The most recent audit was completed in 2020.

Reverse vending machines were installed in early 2021 in Turramurra and St Ives for recycling bottles and other containers in return for cash. Council approved the installation following community consultation in 2020, which showed overwhelming support. The Ray Street public car park at Turramurra and the St Ives Shopping Centre Car park are the first sites in Ku-ring-gai to have reverse vending machines installed. Other machines will be installed as suitable locations are identified.

The Council regularly maintains 97 pit baskets and 63 gross pollutant traps as part of the stormwater pollution control device maintenance contract. This maintenance removed approximately 70.16 tonnes of pollutants from the waterways.

Litters bins have recently been moved to improve access for public and contractors.

Rangers interacted with the public at car parks to promote litter prevention and education.

The Council's [Better Business Partnership](#) (BBP) program provides sustainability advice to small and medium businesses in Ku-ring-gai. This advice has included waste, energy and water audits and has led to the diversion of waste from landfill, annual electricity and water savings. The program has been delivered in partnership with Willoughby and North Sydney Councils since 2009 with Ku-ring-gai Council now the BBP program coordinator and manager until June 2023. There are 127 accredited businesses currently registered with the program (with 50 members in Ku-ring-gai, 35 in North Sydney and 42 in Willoughby).

Hotspots

- results from litter assessment have identified a few major town centres and transport hubs as highly littered
- cigarette butts, takeaway containers and plastic drink bottle containers are the main litter items.

Potential projects and the GSHLPS

- strengthening collaboration to ensure Council's actions contribute to cleaner catchments and waterways.

Lane Cove Council

At just over 10 km², the Lane Cove River makes up the southern boundary of this council which is located 10 km north-west of Sydney's central business district. It has 16 km's of river foreshore and about two thirds of that is in public ownership.

Community

The 2021 Estimated Resident Population for Lane Cove Council area was 40,336, with a population density of 3,848 persons/km².

Policy

Lane Cove Council's Community Strategic Plan [Liveable Lane Cove 2035](#) identified that , among other things, the community most valued the natural environment.

In 2018 Council phased out single-use plastics such as plastic drinking straws, plastic bottles, plastic cups, plastic crockery and cutlery, plastic bags and any other single-use plastic items at all Council venues. Additionally, Council banned the use of balloons at Council run, and Council supported events, in outdoor areas.

[The Sustainability Action Plan 2016-2021](#) aims to integrate sustainability across Council operations, set aspirational sustainability directions and guide funding. While the Plan does not specifically target litter prevention it does set out actions to maintain natural areas, bushland and water quality.

[The Climate Resilience Plan 2021-2026](#) identifies waste management and reduction as mitigation actions that Council will take.

Projects and hotspots

Council promotes Plastic Free July and the 2066 Litter Challenge to the community offering vouchers for the most litter picked up.

Sustainability Lane is a popular annual event at Lane Cove. Stallholder guidelines ensure that no single use plastic items can be used and that prevention measures to avoid litter are put in place.

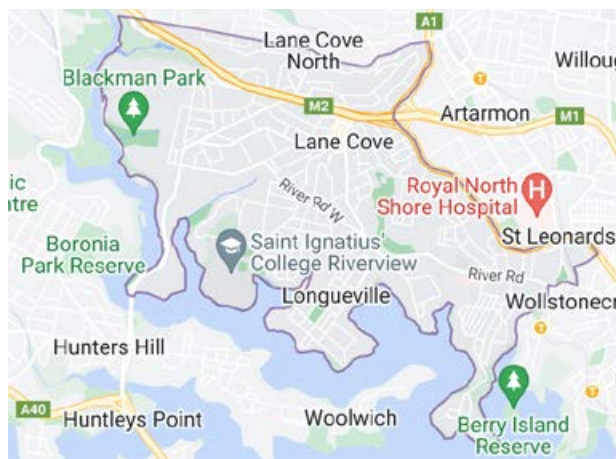


Figure 12: Lane Cove Council (Profile ID)

Harbourcare is a voluntary community program that supports individuals to address the marine debris problem and associated waterway issues. This program focuses on collecting litter data whilst cleaning up our waterways and natural areas before loose rubbish is forever lost to the ocean with devastating impact on marine animals and sea birds.

The information collected helps Council to better understand the types of waste entering the waterways and river, helps improve waste services if needed and develop targeted educational campaigns to reduce the reliance on single-use plastic.

Harbourcare also includes harbour kayak clean-ups on World Turtle Day in May and Clean Up Australia Day.

[Council's State of the Environment report 2016-2021](#) (SOE) reports that the Harbour Care Program has 784 volunteers who have helped collect an average of around 1,000kg's of litter each year.

In 2018 Council launched the Plastic Straw Reduction Campaign which assisted local businesses with the transition from single-use plastic straws to more sustainable alternatives. As a result of the trial, 46% of businesses ceased using single-use plastic straws (SOE).

In 2019 Council installed a Return and Earn vending machine to capture beverage containers before they become litter.

Mosman Municipal Council

The Mosman Municipal Council is 8.65 km², with most of its boundary as Sydney Harbour.

Community

The Mosman Municipality estimated resident population for 2020 is 30,785, with a population density of 3,557 persons/km². In 2016, 33.3% of people in the Mosman Municipality were born overseas.

Policy

Having 'an attractive and sustainable environment' by using and encouraging sustainable practices is one of the Council's seven strategic directions ([MOSPLAN 2018-2028](#)).

Mosman Council recognises waste avoidance as best practice and aims to reduce its carbon footprint and minimise waste to landfill.

The [Mosman Waste Minimisation Policy 2012](#) sets the foundation for facilitating sustainable waste management within the Mosman Local Government area in a manner consistent with the principles of ecologically sustainable development. The objective of waste avoidance is to minimise resource consumption and waste production throughout the lifecycle of the building or premises.

Planning Priority 15 of the [Local Strategic Planning Statement](#) (2020) is to 'manage energy, water and waste efficiently to ensure a sustainable urban environment'.

Projects and hotspots

Council monitors local water quality through data collation undertaken as part of the *Harbourwatch* program and maintains a network of stormwater quality improvement devices to restrict the amount of litter entering the harbour.

All reserves received bin upgrade in early 2018. The new bins incorporate specially designed enclosures that prevent wildlife,



Figure 13: Mosman Municipal Council
(Profile ID)

especially birds, from accessing the bins and prevent light plastics from escaping bins on a windy day. This has helped keep the area clean and support the positive action of people using the bins. New signage on the bins has been installed to highlight what can be recycled in public place bins and what items need to be placed in general waste.

Almost 500 local residents and visitors joined the *Rethink Rubbish* activities, all focusing on raising awareness about the damaging effects of single-use plastics and rubbish in the waterways. *Rethink rubbish* activities occurred at Clifton Gardens and Balmoral focused on cigarette butts, outdoor party litter, single use plastics and fishing tackle.

The Ocean Action Pod and a pop-up marine education display run by *Shark in a Bus* guided many participants through waste reduction educational activities and interactive displays.

The popular *Seaside Scavenge* was held annually, with participants collecting litter on the beach, exchanging their collection for tokens which in turn were swapped for previously donated second-hand goods. Over 10,000 pieces of rubbish were collected and 141kg of second-hand goods were swapped. Collectively over 1600 program interactions took place.

The *Huskee Cup Trial* was launched in September 2019 in order to reduce the quantity of single-use cups going to landfill. The program allowed customers to return their used cup in exchange for a clean one. This system was focussed on people who have multiple take away coffees in a day. 32% of cafes approached registered for the trial and were listed on both Huskee and Responsible Café websites. Over the seven-week trial, it was estimated that 2,300 cups were diverted from landfill.

The Council has run an annual community awareness program, '*There's no such thing as the Dog Poo Fairy*', at Mosman's dog parks since 2014 to target dog poo litter. Over the 2017-2021 Council term, the amount of dog waste identified through annual audits at Spit West, Clifton Gardens, Sirius Cove and Rosherville has remained stable, and Rawson Oval is trending downwards. The only upward trend has been identified at Reid Park, although waste identified in 2021 still remains below 2014-2016 levels.

The Council supports and engages with organisations such as Take 3, Two Hands Project and the Total Environment Centre (TEC) to reduce waste.

Potential projects and the GSHLPS

- continue to run regular education programs which are often well received and have good outcomes (especially face-to-face educational interactions)
- working with Council and community groups to embed litter prevention objectives in their operational plans and policies and facilitate litter prevention projects.

Northern Beaches Council

The coastal Northern Beaches Council is 256.7 km², in the north-east of Sydney. It stretches from the northern head of Sydney Harbour to Broken Bay.

Community

The Northern Beaches Council estimated resident population for 2020 is 274,041, with a population density of 1,068 persons/km². In 2016, 28.8% of people in the Northern Beaches Council area were born overseas.

Policy

Council is dedicated to a plastic-free Northern Beaches. The [Single Use Plastics Policy](#) was adopted by Council in 2017 to encourage responsible procurement and consumption practices within Council and the community.

The Waste Minimisation at Functions and Events Policy requires event organisers to reduce their waste, promote sustainable procurement and increase recycling at public events held on Council property. The Policy and Guidelines ban event organisers selling or distributing single-use plastics, balloons, bottled water and single serve sachets.

Projects

The Council has recently received the NSW EPA Council Litter Prevention Round 6 Grant to produce litter baseline data and costs of litter study to inform litter prevention strategies, actions and litter reduction targets under Council's proposed Waste and Circular Economy Strategy. The EPA litter prevention business case tools will be used to engage a wide range of stakeholders in developing cost effective options, a shared vision and specific targets for litter prevention and address identified gaps.



Figure 14: Northern Beaches Council
(Profile ID)

The *Swap for Good* program encourages businesses and school canteens to transition away from single-use plastics items. Resources include an information trifold and guides for behaviour change, sustainable procurement and marketing. A customer-facing poster was developed to promote their sustainable practices. To activate change, the Council's Waste Education team developed Action Plans and Supplier Lists, making it a holistic program where changes were easy to implement.

During the pandemic the *Swap for Good* program pivoted to provide advice which aligned safety with waste reduction. Working closely with Environmental Health Officers, NSW Food Authority and NSW Health, a [case study and video](#) were produced to show three safe methods for reusable coffee cups. Following this in October 2020, Council offered a float of '[swap and go](#)' coffee cups, to support a number of reusable cup systems including Green Caffein, Huskee, Return and Claycups. This allows individuals to return

and swap their reusable coffee cups at any participating café. The program aims to double the number of participating cafes to a total of 60.

The [Circular Containers](#) program has also been launched to fund reusable containers at office precincts to help businesses transition to the circular economy. The shared container system is available for caterers and office staff to use and enjoy waste free lunches. Currently, 40 businesses are participating in this initiative. Similarly, to target waste in school canteens, the Council has delivered 500 reusable bento boxes to 10 schools in the Northern Beaches.

The program also created a collaborative space for almost 40 community groups and social enterprises operating in this space to combine strengths and co-create an impactful and unified approach to reduce single-use plastics through the [Collaboration Collective](#). The mission is that community groups and social enterprises that are passionate about waste and litter reduction work collaboratively to actively engage with Northern Beaches businesses, schools and communities to swap out single-use plastic. Examples of achievement by member groups:

- *Operations Straw* runs regular underwater clean-ups to remove single-use plastic straws in Manly
- *Our Blue Dot* decided to align closely with Council's 'swap and go' coffee cup program. They hit the streets and talked to more than 60 local cafes and helped set 30 cafes up with Green Caffeine.
- In 2021, 12 community groups worked collaboratively for the *Seaside Scavenge* event in May.

The Council has worked collaboratively with Macquarie University and AUSMAP to track and identify sources of microplastics impacting the Dee Why Lagoon and catchment. The Reducing Litter in the Dee Way Lagoon Catchment, Solutions for the Future project has won the Keep Australia Beautiful – Sustainable Cities Award in 2020.

The Council has run a litter bug campaign at Manly Beach every summer.

The Council has recently introduced QR codes to target hotspot bins which the community can use to alert the Council of overflowing bins.

Hotspots

The Council's cleansing team has a record of litter hotspots in the LGA (e.g., Little Manly Beach, Dee Why commercial, South Steyne Beach, etc.). The Council will be identifying further hotspots and conducting local litter checks to inform waste education and prevention strategies.

Potential projects and the GSHLPS

- a sustainable financial model for resourcing litter prevention initiatives and ongoing maintenance
- development of a regionally consistent and integrated approach
- creation of a central repository for the sharing of information and where Council staff are able to access the most updated information on waste management and litter prevention
- garnering support from other councils to implement catchment wide initiatives and communications (e.g., encouraging local businesses to use reusables for takeaway instead of single-use plastics, expanding the Swap and Go coffee cup system to other councils so individuals can return the reusable coffee cup to any participating café).

North Sydney Council

North Sydney Council is bordered by both Sydney Harbour and Middle Harbour. The land area is 10.49 km².

Community

The North Sydney Council estimated resident population for 2020 is 75,094, with a population density of 7,160 persons/km². In 2016, 37.8% of people in the North Sydney Council area were born overseas.

Policy

The North Sydney Environmental Sustainability Strategy 2030 aims to help fulfil Council's vision for North Sydney including that the 'North Sydney community actively looks after the environment for current and future generations making sure that North Sydney remains clean and healthy'.

'Carry out litter prevention programs' is listed as an action item to achieve the Council's water quality and community engagement targets.

The Council has adopted a Single Use Plastics Policy in 2019 to take all feasible and reasonable viable steps to phasing out single-use plastics for its operations, events, venues and Council owned properties.

The Council is a member of and works with the Northern Sydney Regional Organisation of Councils (NRSOC) on [Regional Waste Strategy](#), implementing joint programs/activities, including photovoltaic system installation at McMahon's Point and Forsyth Park Community Centre.



Figure 15: North Sydney Council (Profile ID)

Projects and hotspots

The Council has delivered:

- Council operates street sweeping and pit cleaning programs which removed 3048t of material in 2019
- installation of 26 Stormwater Quality Improvement Devices (SQIDs) including Gross Pollutant Traps (GPTs) that removed a further 527.6t of material in 2019
- implementation of catchment education and litter prevention initiatives, in particular Council's HarbourCare Volunteer program which has been extended to several other Council areas. In 2019 HarbourCare volunteers removed 6.7t of materials from North Sydney's foreshore areas, which were then collected and disposed by street cleaners
- 10 years of annual school grants which have funded rainwater tanks, kitchen gardens, biodiversity trails, litter audits and student engagement programs
- there were 40 waste education workshops held over 2020/21 with very positive participant feedback.

The Council has [prohibited smoking](#) in the North Sydney CBD. Footpath decals have been installed advising people that smoking is prohibited in the CBD as well as the area north of the CBD (up to the Council Chambers and the Civic Centre). Interventions have since focused on keeping smoking area clean and litter free by improving the physical infrastructure.

[Better Business Partnerships](#) is a free council-funded business sustainability program on Sydney's North Shore supporting businesses in Ku-ring-gai, North Sydney and Willoughby LGAs to run 'bye bye plastics' to assist businesses to reduce single-use plastics. There are 127 accredited businesses currently registered with the program (with 50 members in Ku-ring-gai, 35 in North Sydney and 42 in Willoughby).

[Sydney by kayak](#) is supported by the Council and runs weekly kayak tours picking up litter in the harbour.

Potential projects and the GSHLPS

Would be beneficial to liaise with rangers from other council areas or link with the EPA enforcement initiative to improve current approaches to litter regulation and enforcement (e.g., having a consistent approach for issuing infringements)

City of Parramatta

At 83.75 km², the City of Parramatta contains a majority of the Parramatta River, and includes Lake Parramatta.

Community

The City of Parramatta estimated resident Population for 2020 is 260,296, with a population density of 3,108 persons/km².

Policy

[The City of Parramatta Community Strategic Plan](#) includes sustainable as part of the community vision .

Council has an [Environmental Sustainability Strategy 2017](#) that had the target of reducing litter by 40% by 2020. This has been revised to reduce the volume of litter by 50% by 2023.

Council's [Waste and Resource Recovery Strategy 2019](#) identified the following litter actions :

- L1. Conduct a study of litter across the City to establish a baseline from which we can monitor progress over time and identify possible interventions
- L2. Continue community engagement and public place litter programs to encourage a change in behaviour
- L3. Partner with schools, community organisations, and sporting clubs to support anti-litter campaigns and deliver litter-free events
- L4. Continue to install fit for purpose litter bins across the City, targeting high use areas as a priority
- L5. Ensure Council's street sweeping and public place cleaning programs have the capacity to maintain service levels based on the principle that people are less likely to litter in areas that are clean



Figure 16: City of Parramatta Council

(Profile ID)

- L6. Continue to maintain existing stormwater litter traps and identify priority locations for the installation of new infrastructure
- L7. Deliver campaigns to ensure bins are presented with lids closed and not overflowing to prevent windblown litter.

These actions are embedded into council practice through linking actions and KPIs into Councils Delivery Program and Operational Plan. Actions are shared across a number of departments:

Cleansing, Parks, Opens Space and Natural Resources, Waste, Place, and Regulatory.

Overall responsibility for reporting against targets etc is with the Sustainability team as owners of the WARR Strategy.

Projects

The Litter Study 2019 was repeated 2021 at the same places.

More detailed strategies were developed based on the findings of local litter studies with detailed/prioritised actions for different site types/litter streams- responding to hotspots rather than high level actions.

Litter Education is Mixed – schools program (schools and preschools) is offered through our waste contractor but is not well subscribed.

Council has installed more infrastructure:

- 807 public place bins including 27 solar compacting bins
- 83 active Enviropoles/Cigarette Bins
- 30 dog poo bag dispensers.

Council supports community programs such as:

- Responsible Cafes and Green Caffeine
- Plastic Free July promotions
- Clean Up Australia Day
- providing resources to regular clean-up groups including the collection of litter
- Seaside Scavenge event along Parramatta River near Lennox Bridge (postponed due to COVID)
- community groups actions such as Parraparents along the river (e.g. George Kendall Park Ermington) and the Plastic Pluckers (Northmead/Toongabbie creek).

Council education and awareness includes:

- training for local litter champions on conducting safe community clean ups (BWAR funded)
- video on litter and single use plastics (DWM funded)
- place based campaigns (Love where you live) such as in Harris Park with signs, family fun day, issues talks and print material

- working with Sydney Olympic Park Authority to educate on litter prevention in parks
- some public place bins include signage 'keep our river clean', and some streetsweepers have litter messaging however there is no single all-encompassing messaging
- in 2022 a project with fast food outlets – signage, cleaning regimes and engagement.

Monitoring data is collected through:

- street sweeping, GPTs, Clean Up Australia Day in tonnages
- an investigation into impact of collect and return services on litter loads (DWM funded)
- Waterways officer does litter picks
- Local Litter Checks conducted pre and post project for all projects
- 7 solar bins installed as a result of complaints and hotspot identification will have Local Litter Checks pre and post instalment.

Council practice includes:

- Council run events (e.g. weekly farmers markets, Australia Day events) avoid single use plastic in stall holder agreements and provide organics recycling
- Council trialled reusable cups for two years at Parramatta Lanes event and now uses council branded purchased cups
- to minimise bin spillage from medium density dwellings caused by overflowing bins, bird scavenging etc the waste contractor has a runner.

Hotspots

Hotspots are identified through the Litter Hotspot Study which directs actions such as the Litter grant funded:

- McDonalds/Bunnings Car Park Litter Campaign 2019
- Zoom in on litterers: Parramatta retail area and cigarette butts 2016

Potential projects and the GSHLPS

- reviews of public place bins and servicing to ensure bins are fit for purpose and servicing meets demand
- more use of Local Litter checks as they are a good start to understand different site types/litter issues
- consistent school education projects including signage and projects in parks near schools and where school sports carnivals occur

- consistent messaging and signage in parks, playgrounds and public areas
- consistent funding
- partnerships with RMS to address litter along RMS roads and with TFNSW to address litter along transport interchanges
- projects for sporting groups attending sport fields
- working with larger retailer such as Westfield Parramatta, Stocklands to ensure bins on the outside that they are responsible for are serviced to Council standards
- a target that is shared with shared priorities that are delivered regionally
- unified messaging along the river or across LGA's
- fast food consistent messaging
- rationale for applying for funding as projects are part of the regional strategy.

City of Ryde

The City of Ryde covers an area of 40.49 km² and shares its southern border with the Parramatta River and the northern area is within the Lane Cove River catchment.

Community

The City of Ryde Estimated Resident Population for 2021 was 132,822, with a population density of 3,281 persons/km². (profile.id.com/ryde). It is a culturally diverse council area and has a growing number of families and retirees. The council is also an employment destination with Macquarie Park designated as a health and education precinct. Jobs are expected to grow from around 58,500 in 2016, to 79,000 by 2036. Student places are expected to grow from 32,500 to 55,000 by 2030, making it the third largest concentration of jobs and students in NSW. (City of Ryde Community Strategic Plan).

Policy

[Ryde 2020 Community Strategic Plan](#) outlines how Council will ensure a natural and sustainable city by maintaining open natural place and innovative waste practices.

P21 Sustainable Planning.

Litter reduction has been managed by the waste services section of Council. Council's [Waste Management Strategy 2014](#) identifies that litter is a prime concern of the community as it pollutes the City's streets, parks, waterways, and the local environment.

Council's litter reduction objective is :

Objective 6. Creating a Cleaner City by Reducing Litter and Illegal Dumping

Creating "the place to be for lifestyle and opportunity" through a change in attitudes and behaviour towards littering and illegal dumping through targeted education programs and enforcement.

The strategies for reducing litter are:

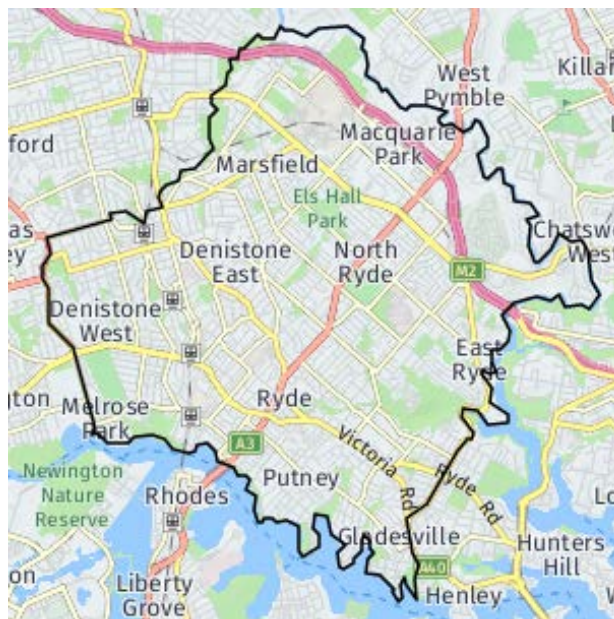


Figure 17: City of Ryde Council (Profile ID)

Targeted education campaigns, as well as adequate litter bins, appropriate signage, and enforcement can be utilised to reduce the incidence of littering.

Actions:

- engage the community to help identify and combat littering "hot spots"
- targeted education campaigns and community recognition awards.

Council has adopted a Zero litter to river target by 2030 and this is evidence of council shifting from a reactive litter prevention approach to more proactive.

Projects and hotspots

In 2020 Council completed a Costs of Litter Study. Following this Council has received funding to prepare the Ryde Litter Prevention Strategy 2022 – 2030. The project will develop a litter prevention strategy for the City of Ryde. The strategy will focus on fostering collaboration across the City to ensure litter is not only managed at the point of generation, but future risks are anticipated and controlled by continuing to meet the needs of the Ryde community into the future.

Council also supports community cleanup activities along the Parramatta River foreshore with the Tzu Chi Foundation at Eastwood and sporting groups such as the Netball association.

Potential projects and the GSHLPS

Council may focus on the flagship parks that are highly used by sporting groups to promote education to families and children on litter prevention.

Council recognises that there is already a lot of work done in engaging the community on litter prevention and would like to share what works across the region.

Strathfield Council

Strathfield Council is 13.87 km² in area. The Cooks River runs through the southern half of the council.

Community

The Strathfield Council area estimated resident population for 2020 is 47,767, with a population density of 3,444 persons/km². In 2016, 56.3% of people in the Strathfield Council area were born overseas, compared with 36.7% in Greater Sydney.

Policy

Council aims to reduce generation of waste and divert more resources away from landfill. The [Strathfield 2040, Local Strategic Planning Statement](#) recognises the importance of a focus on litter and illegal dumping to improve the health of the Council's natural environment.

Projects and hotspots

The Council received the NSW EPA Litter Prevention Round 5 Grant to target litter in the Homebush West industrial area by working with businesses and their employees to create cleaner public spaces. The project started with a clean-up of the industrial area's public spaces. Local businesses were surveyed for littering solutions and invited to take a leadership role in managing outside their premises. Businesses were offered infrastructure and collateral to manage litter on site. Kerbside stenciling and signs have also been used to engage site users and promote a litter-free space. Council's regulatory officers are more visible in the area to support enforcement efforts.

Council has installed public ashtrays around the municipality's public area to reduce the littering of cigarette butts. Smoking has also been prohibited in Strathfield CBD.

Council has partnered with Responsible Cafés to reduce the use of disposable coffee cups from the local cafes. The Responsible

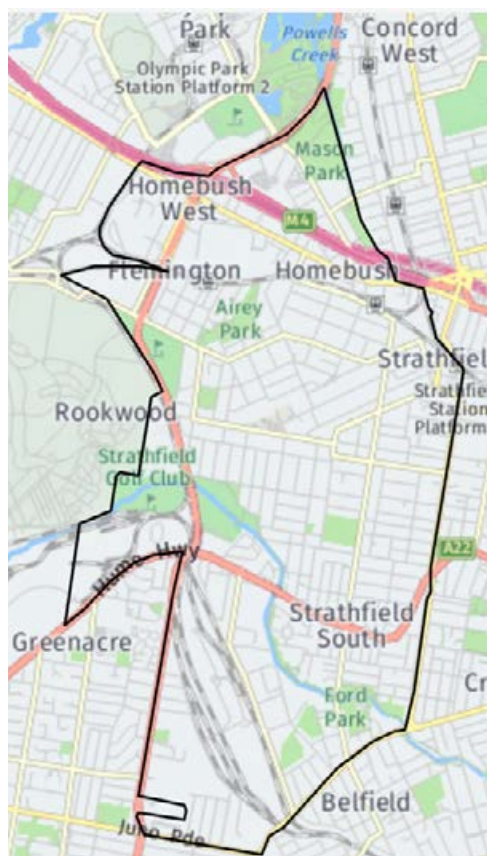


Figure 18: Strathfield Council (Profile ID)

Cafés program encourages cafés to provide a small discount to customers who bring a reusable cup. Strathfield Council is one of almost 50 Councils to join the program and work with local businesses and the community to keep our environment healthy and clean.

Potential projects and the GSHLPS

- working with Council and community groups to embed litter prevention objectives in their operational plans and policies and facilitate litter prevention projects.

City of Sydney

The north border of the City of Sydney area is the Sydney Harbour. The council covers 26.72 km² of land.

Community

The City of Sydney estimated resident population for 2020 is 248,736, with a population density of 9,308 persons/km². In 2016, 47.7% of people in City of Sydney were born overseas, compared with 36.7% in Greater Sydney.

Policy

The [Leave Nothing to Waste: Managing Resources in the City of Sydney Area – Waste Strategy and Action Plan 2017-2030](#) sets the foundation for waste management in the City of Sydney area. The City is working to achieve its zero waste target by 2030, with a focus on waste avoidance, reuse and better recycling. Six priority areas have been identified to achieve this target:

- promote innovation to avoid waste
- improve recycling outcomes
- sustainable design
- clean and clear streets
- better data management
- future treatment solutions.

To reduce the amount of materials going to landfill, the City supported and promoted the Paving the Way program, as a member of the South Sydney Regional Organisation of Councils (SSROC).

Projects

Return and Earn machines have been installed in Kings Cross and Sydney Park as easy access points for the public to deposit eligible drink containers.

The City of Sydney has been progressively installing new litter bins across the council. A total of [650](#) new litter bins is expected to



Figure 19: City of Sydney (Profile ID)

be installed by May 2022 to help keep our streets clean.

The council promotes waste avoidance such as coffee cups, single use policy to reduce litter in the public domain.

City rangers conducted regular inspections and targeted patrols in the public domain to address illegal dumping, discarded cigarette butts, littering and other activities. In 2019 there were 871 penalties issued for deposit litter excluding from vehicles and 44 for deposit litter from vehicles. During Covid-19 restrictions in 2020, resources were diverted and used to monitor and provide an educational approach in parks on safe social distancing.

The City of Sydney sponsored *Seaside Scavenge* to run a litter clean-up and education event at Redfern Park on the 29th of January 2022. The event attracted 68 scavengers, 78% of which had never attended a litter clean-up before ([Seaside Scavenge 2022](#)). Together they collected 42kg of waste and 36kg of recycling which were sorted and catalogued with the Australian Marine Debris Database. The litter that scavengers collected was also used as a currency in a pop-up market to purchase pre-loved clothes and goods that have been donated by the local community.

The City of Sydney provides support for Clean Up Australia Day events and has provided funding to install multiple SeaBins in Sydney Harbour to capture marine litter.

To reduce the amount of materials going to landfill, the City supported and promoted the Paving the Way program, as a member of the South Sydney Regional Organisation of Councils (SSROC). The program focuses on using glass fines (crushed glass) instead of virgin sand for building roads and footpaths. This will increase the amount of collected glass that can be recycled from 65 per cent to 79 per cent, the equivalent of nearly 100 million glass containers each year.

The City is partnering with *Plastic Oceans Australasia* to deliver a *Primary School Waste Avoidance Program* to engage with the school community about waste avoidance. The program is focused on engaging students directly, as well as their teachers, parents and guardians. Program facilitators provide guidance to student-lead teams to help eliminate single-use plastics and improve school waste processes, such as repurposing and recycling. From January to June 2020, in school terms 1 and 2, 14 local primary schools opted-in to the program and 261 students, and their teachers, engaged in 12 workshops to form student led groups to tackle single use plastics in their schools and to learn about waste avoidance and alternatives to single use items. Activities will continue in terms 3 and 4.

[Litterati](#) is a global initiative with the mission of creating a litter-free world. Individuals are empowered to geotag photos of litter they find on the streets and upload the data to the Litterati app to make the litter problem measurable. Industries and government bodies can easily access the database to identify patterns around what lies on the streets, playgrounds and beaches, and inform countering measures and strategies.

Hotspots

- train stations such as Circular Quay ferry terminals, Wynyard, Central.

Potential projects and the GSHLPS

- the ban on single use plastics has worked well in reducing plastic litter. It could be extended to address other single use items to achieve a more comprehensive waste avoidance agenda
- a smaller alternative unit to large Return and Earn machines to be deployed and integrated in the CBD such as hotspot train stations. In Europe, these machines are embedded in walls.

Waverley Council

The Waverley Local Government Area covers part of the east coast of Sydney, including Bondi Beach. Its total land area is 9.25 km².

Community

The Waverley Council area estimated resident population for 2020 is 74,276, with a population density of 8,034 persons/km². In 2016, 38.5% of people in the Waverley Council area were born overseas.

Litter and illegal dumping were [two of the four environmental issues that concern residents the most](#) according to a 2015 Waverley Council Community Sustainability Survey.

Policy

Waverley Council aims to transition toward a zero-waste community. The Council's objective is to actively reduce the amount of waste generated; keeping the streets, beaches and parks clean and free of litter, rubbish and pollution; and best practice in waste management to increase recycling and recovery.

The Council has delivered actions within the [Sustainable Waste Strategy 2015-2020](#) to reduce waste, increase recycling and reduce litter on the beaches and streets in Waverley Local Government Area.

Litter prevention was addressed by a number of key focus areas in the [Sustainable Waste Strategy 2015-2020](#):

The target for Focus Area 1: Reduce Waste Generation was 'zero increase in waste generation from 2004 levels'. Achieving this target involves:

- encourage and enable the community via targeted education and engagement programs to reduce waste generation and increase recycling capabilities

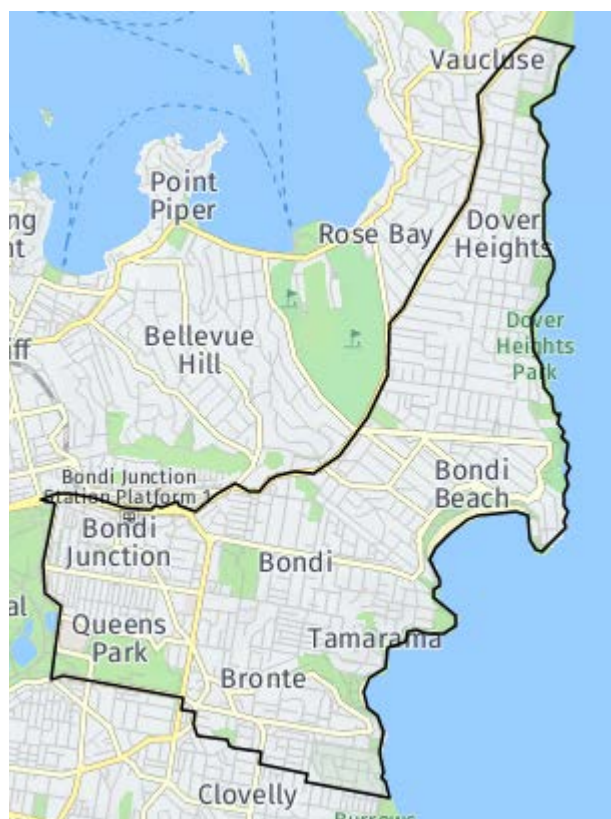


Figure 20: Waverley Local Government Area
(Profile ID)

- design targeted programs and explore partnerships with the community to reduce waste generation and promote reuse initiatives
- continue to support Extended Producer Responsibility schemes that help reduce waste and increase opportunities for resource recovery
- research new technology that would support initiatives for waste reduction.

Under Focus Area 5: Clean and Attractive Waverley, the Council targets:

- reduced incidence of littering and dumping
- increased reuse/recycling of household clean-up items; and
- provide a waste service that is effective and simple.

‘Developing and delivering residential education and engagement programs to reduce waste generation and litter’ is a high priority.

The Council supports the South Sydney Regional Organisation of Councils (SSROC) [Regional Waste Avoidance and Resource Recovery Strategy \(2014-2021\)](#).

Projects and hotspots

The Council has undertaken multiple litter prevention projects, including:

- Council has installed 80 cigarette butt disposal containers, called *Enviropoles*, to encourage responsible disposal. Butts are recycled into park benches and other plastic infrastructure by Terracycle
- the Return and Earn [Reverse Vending Machine](#) launched at Bondi Beach in June 2018 and since then more than 5 million containers have been returned for recycling
- Council has installed 42 high-capacity [solar compacting waste and recycling bins](#) in high traffic areas. These ‘smart’ bins use solar power to squash waste and recycling, allowing them to hold up to five times the amount of waste as a normal bin, and they use Wi-Fi to communicate when the bin is full and ready for collection
- Council collaborates with local community groups to deliver waste and litter avoidance initiatives in our area, including beach clean-ups, Plastic Free July and events such as Summerama
- smoking has been banned on beaches since 2004. Rangers patrol the beaches to provide this message to the community and issue fines when necessary
- Council engages with businesses to support waste reduction, litter reduction and the use of more sustainable takeaway materials
- Council undertakes annual litter audits at Bondi, Bronte and Tamarama beaches. There has been a trend of litter reduction

over the past 12-years at Bondi Beach. The average litter on the beach per 48 square metres reduced to 10 in 2019 from 27 in 200

- each summer, Council implements a litter prevention program to target top litter items identified through the annual beach audits. Additional litter reduction programs are undertaken as required
- every summer, Council provides an anti-litter campaign at Bondi Beach that includes an intensive litter audit, additional litter removal events, and a targeted community engagement campaign.

In 2016, Waverley Council launched ‘Bondi Unwrapped’, a multidisciplinary education and engagement program working to prevent take-away packaging litter in Bondi. The program was part funded by the NSW EPA and supported the installation of Solar Bins as well as working with the community and businesses to prevent litter at the source, patrol litter hotspots and maintain the cleanliness of those areas. The program resulted in an overall 50% reduction in take-away packaging and won the Keep NSW Beautiful Hey Tosser Litter Award for 2017.

- cigarette butts – 51% reduction in litter items observed, 51% reduction by volume
- takeaway packaging – 50% reduction in total litter items, 50% reduction by volume
- overflowing bins – 48% reduction in reports of overflowing bins
- awareness – in the final litter check, all survey respondents spoken to were aware of littering as an offence through the Hey Tosser campaign.

The Council has recently received the NSW EPA Council Litter Prevention Round 6 Grant for its Better BYO Project which aims to encourage and support local food businesses to take up reusable alternatives to single use takeaway packaging. Council will also partner local community groups to jointly run a high profile clean up event highlighting the connection between litter and consumption

habits and encouraging participants to pledge to making more sustainable food and drink packaging choices.

Potential projects and the GSHLPS

- continue to run litter prevention programs that engage with residents, visitors and community groups to reduce litter at hotspots and undertake litter enforcement when required
- reviewing and improving public place cleansing and beach cleaning services to meet community expectation.

Willoughby City Council

Willoughby City Council is in northern Sydney and has six creeks flowing both into Middle Harbour and the Lane Cove River ([Willoughby catchment location finder](#)).

The Council area covers 22.43km² with a population density of 3,619 persons/km² ([profile.id.com.au/Willoughby](#)).

Community

The Willoughby City Council population forecast for 2022 is 83,488, and is forecast to grow to 91,848 by 2036 ([forecast.id.com.au/Willoughby](#)).

In 2016, 45.4% of people in Willoughby City were born overseas ([profile.id.com.au/Willoughby](#)). In 2018, 52% of the population were couples with children ([Our Future Willoughby 2028](#)).

Willoughby's Community vision is a City of Diversity: diverse landscapes, people and businesses.

Willoughby has several community environment groups who are active in litter clean-ups and prevention. These include:

- Willoughby Environment Protection Association (WEPA)
- Scotts Creek Bushcare group.

Policy

Council's Our Green City Plan 2028 outlines a goal for litter free parks and streets. Council actions are that Council will actively participate in the NSW anti-litter campaign. Council has a draft Litter and Anti-Dumping Strategy.

Council is a member of the Northern Sydney Regional Organisation of Councils (NSROC) and was implementing the NSROC Regional Litter Plan 2016-2021.



Figure 21: Willoughby City Council (Profile ID)

Projects

Council runs periodic clean up events and provides support for Clean Up Australia Day events (usually up to 10 events each year).

Council runs periodic social media campaigns using campaign material other than the the NSW EPA's in public places.

Council rangers enforce anti-littering through fines. In 2021 209 fines were issued, 124 for on-the-spot littering and 85 for depositing litter from a vehicle.

Council is increasing infrastructure with more recycling bins in public places and general waste bins. Council has increased cigarette butt bins in hotspot areas and provided dog poo bags in several parks. Council does not have Return and Earn machines.

The litter prevention project Green Caffeine has had some success.

Council has banned single use plastics in the weekly market and at Council events and has a Sustainable Events Policy.

Council received a round 5 litter grant from the NSW EPA to target litter in the Chatswood CBD. The project had a focus on improving hotspot sites and their amenities, graffiti removal, preventing litter escaping from bins, improving the presentation of

bins, and moving them to better locations and improved servicing practices.

Council also received funding from the NSW EPA for a butt litter project including signage.

A project in Artarmon Reserve targeted dog poo litter and included signage, enforcement officers attending, give away bags with messaging, social media, and letter box drops around the reserve on keeping the area clean.

Hotspots

Council identifies hotspots on a project basis using the local litter check methodology.

- litter within the Artarmon industrial area
- Chatswood business precinct.

Potential projects and the GSHLPS

- an audit of litter captured in street cleaning and gross pollutant traps. Current GPT data measures floatable litter separately in tonnes. Council average 3% floatable litter, 55% vegetation and 47% silt.
- a more methodical approach to understanding and tackling industrial litter including partnerships with businesses around Artarmon and links to the Better Business Partnership program
- allocating litter prevention responsibility within Council.

Woollahra Municipal Council

The Woollahra Municipal Council borders on the southern side of Sydney Harbour. Its total area is 12.25 km².

Community

The Woollahra Municipality estimated resident population for 2020 is 59,431, with a population density of 4,851 persons/km². In 2016, 32.3% of people in the Woollahra Municipality were born overseas.

Policy

In 2018, the Council adopted the [Woollahra – 2030 Our Community, Our Place, Our Plan](#) which includes the Council's updated environmental targets and commitments in relation to the five key priority action areas (energy & emissions, water, biodiversity, waste, transport). The Council aims to:

- 75% waste diversion from landfill by 2022
- litter collection devices and services throughout the LGA increase by 5% each year (% by volume).

The Council targets single use plastic litter in the [Single Use Plastics Policy](#).

The Council supports the South Sydney Regional Organisation of Councils (SSROC) [Regional Waste Avoidance and Resource Recovery Strategy \(2014-2021\)](#).

Projects and hotspots

16 GPTs and 4 litter nets are installed throughout the municipality. These traps and nets collect organic waste, litter and other waste washed into the drains and stormwater network before it enters the harbour. In 2020/21, [180.78 tonnes](#) of waste was removed from GPTs, beaches and rain gardens as well as waste from contractor high Pressure & Combo Works.

The Council is progressively integrating raingardens across the stormwater network

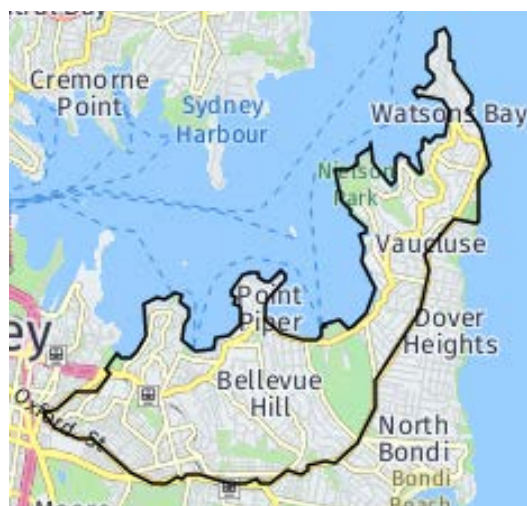


Figure 22 Woollahra Municipal Council
(Profile ID)

and water catchments to help reduce the amount of pollutants entering the waterways and the harbour. To date, eleven raingardens have been installed across the municipality.

Council beach cleaners carry out daily cleaning of the beach. The level of cleaning is dependent on the tides and includes the use of a tractor/beach rake 3 times a week and hand raking/litter picks on the remaining days.

The Council partnered with the Cruising Yacht Club of Australia (CYCA) to install six marine-cleaning SeaBin devices around the Club premises in Rushcutters Bay to collect marine litter and maintain the cleanliness of the local beaches and foreshores. Using the NSW EPA Council Litter Prevention Round 5 Grant, the SeaBins project aimed to remove 8.4 tonnes of marine litter from the bay each year. Cigarette butt bins and corresponding signage have been progressively installed at targeted locations.

Council provides free dog poo collection bags and cigarette butt bins in a number of Council parks to encourage residents to keep dog poo and cigarette butts out of the drains and harbour.

The [2020 Clean Up Australia Day](#) brought together more than 100 people to clean the Rose Bay Beach and Tingira Memorial Park. In total 40kg of litter was collected, 82%

of which was plastic and more than 2,000 cigarette butts were collected.

The Total Environment Centre (TEC) has run a number of mobile exhibitions, called [Ocean Action Pod](#), at Rose Bay and Rushcutters Bay to engage the community through waste reduction educational activities and interactive displays.

[Splash Without the Trash](#) has recently received the 2021/22 Community Environmental Grants from the Council to run monthly harbour and beach cleans to remove litter from Rose Bay, the harbour waters and the surrounding beaches.

Potential projects and the GSHLPS

- harnessing the strengths and achievements of other dedicated organisations that contribute to litter prevention in the site through partnerships and collaborations
- great potential in extending the HarbourCare program which has excellent community engagement across the harbour
- innovative and creative waste education initiatives to instill the idea that street litter make its way to impacting the quality of beaches and waterways
- financial arrangements to account for the costs of ongoing maintenance of initiatives.