



# COOKS RIVER LITTER PREVENTION STRATEGY

*50% less  
litter by  
2025*

**FINAL**

**NOVEMBER 2021**

*Prepared by Civille for the NSW River  
Canoe Club and the Cooks River Alliance*



This Litter Prevention Strategy has been prepared for the River Canoe Club of NSW in collaboration with the Cooks River Alliance and support of local councils, government agencies and community groups including:

- Bayside Council
- City of Canterbury-Bankstown
- Inner West Council
- Strathfield Council
- Sydney Water
- NSW Environment Protection Authority
- Cooks River Valley Association
- Wollie Creek Preservation Society
- The Mudcrabs
- Crab Walkers

This project is a NSW Environment Protection Authority, Waste Less Recycle More initiative funded from the waste levy.



**Client:** River Canoe Club of NSW  
**Project Name:** Cooks River Litter Prevention Strategy  
**Project Number:** 2045  
**Date:** 05.11.2021  
**Report Author:** Alexa McAuley  
**Other contributors:** Jean Brennan, Thomas Hawthorne

Revision	Status	Date	Checked
A	Preliminary draft	15.04.2021	AM
B	Draft for project management team review	30.06.2021	AM
C	Draft for EPA review	29.07.2021	AM
D	Draft for distribution to project reference group	08.08.2021	AM
E	Final draft for project management team review	01.09.2021	AM
F	Final draft for distribution	08.09.2021	AM
G	Final	05.11.2021	AM



mail@civille.com.au  
 Suite 104, 27-39 Abercrombie St  
 Chippendale NSW 2008  
[www.civille.com.au](http://www.civille.com.au)



enquires@rivercanoeclub.org  
 Richardsons Crescent  
 Marrickville  
[rivercanoeclub.org.au](http://rivercanoeclub.org.au)



info@cooksriver.org.au  
 c/o City of Canterbury-Bankstown  
 137 Beamish Street  
 Campsie NSW 2193  
[cooksriver.org.au](http://cooksriver.org.au)





# CONTENTS

<b>1.</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	A plan for the Cooks River	2
1.2	Focused on the catchment	4
1.3	Supported at state and local level	6
1.4	Targeting 50% less litter by 2025	8
<b>2.</b>	<b>THE PROBLEM OF LITTER</b>	<b>11</b>
2.1	What is litter?	12
2.2	How litter gets into the River	13
2.3	Litter in the Cooks River	16
2.4	Impacts of litter	17
<b>3.</b>	<b>WHERE TO TACKLE LITTER</b>	<b>19</b>
3.1	Sources of litter	20
3.2	Littered items and littered places	22
3.3	Hotspots	26
3.4	Litter monitoring	28
<b>4.</b>	<b>HOW TO TACKLE LITTER</b>	<b>31</b>
4.1	EPA's litter prevention framework	32
4.2	Example projects	33
4.3	Cooks River catchment highlights	34
4.4	Features of successful projects	36
<b>5.</b>	<b>WHO TACKLES LITTER</b>	<b>39</b>
5.1	Current situation, challenges... ...and opportunities	40
5.2	Enabling the CRA and its members	43
5.3	Building partnerships	44
5.4	Expanding the network	45
<b>6.</b>	<b>STRATEGIC DIRECTIONS</b>	<b>47</b>
6.1	The three strategic directions	48
6.2	Potential actions	50
<b>7.</b>	<b>REFERENCES</b>	<b>51</b>
	<b>APPENDIX A: PILOT PROJECT IDEAS</b>	<b>53</b>





## Acknowledgement of Country

*We respectfully acknowledge the Wangal, Cadigal and Gameygal, the Traditional Custodians of the Cooks River catchment, and also acknowledge other Aboriginal and Torres Strait Islander people who have made the river their home. We pay respect to Elders past, present and future.*

*For over a thousand generations, the Cooks River catchment has been home to Aboriginal people who have fostered cultural and spiritual connections to the river as it evolved over many millennia.*

# EXECUTIVE SUMMARY

## *This strategy targets 50% less litter reaching the Cooks River by 2025*

This strategy aims to **reduce the amount of litter in the Cooks River** by focusing on preventing litter from materialising in the catchment.

Litter begins its journey as a product, and becomes litter when it is used and disposed of in such a way that it enters the environment. When litter is deposited anywhere within the Cooks River catchment, it can make its way into the River, via the stormwater drainage system.

Litter can be:

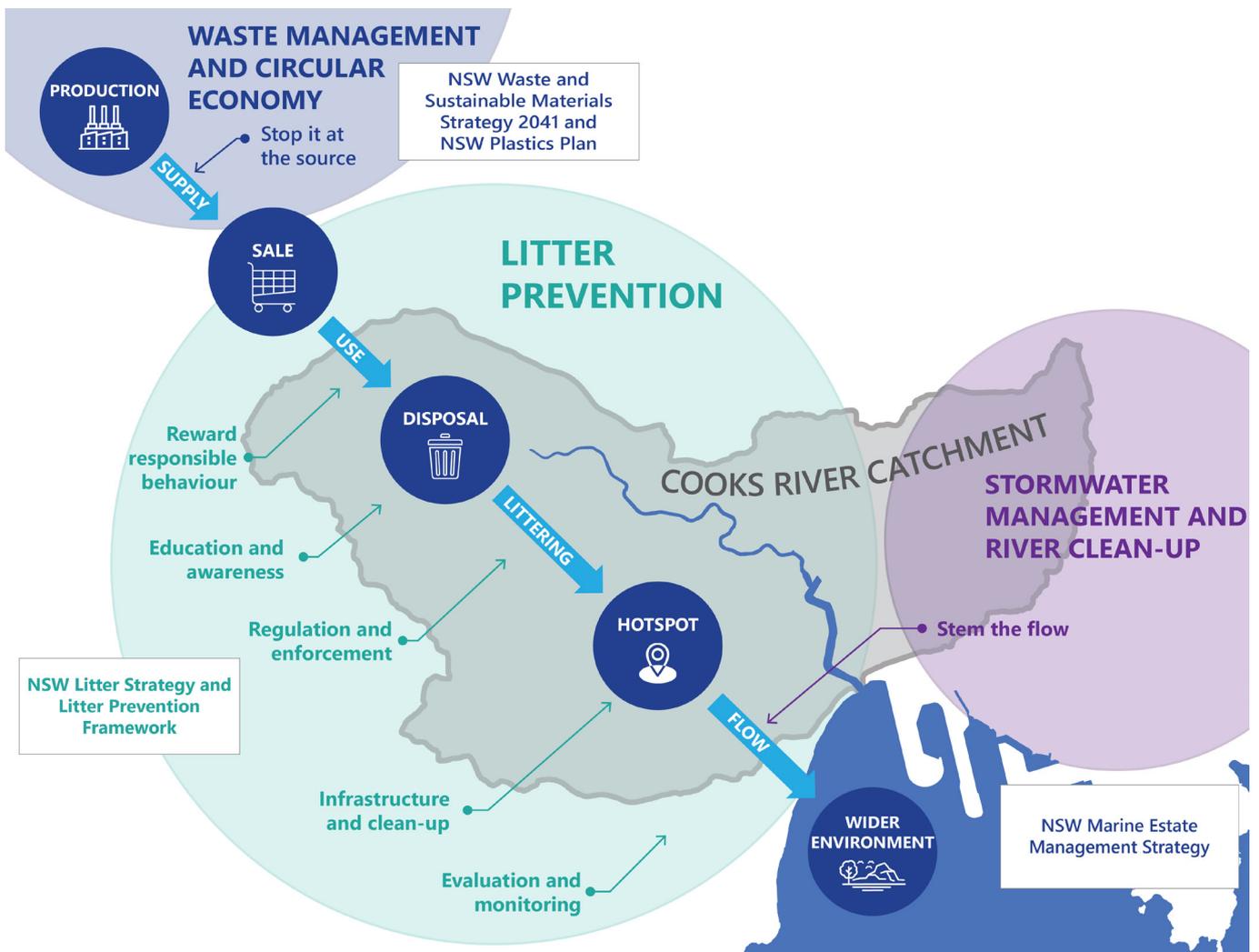
- Stopped at the source (for example, the NSW Government has made a commitment to phase out certain problematic plastics, including single use plastic items).
- Intercepted in the stormwater system or the River (using devices like gross pollutant traps, trash racks and litter booms)

However, the focus of this strategy is on reducing the amount of litter in the catchment, before it flows into the River.

The target is **50% less litter by 2025**. This complements statewide litter reduction targets of a 60% reduction in total litter by 2030 and a 30% reduction in plastic litter by 2025.

The Cooks River Alliance and community collaboratively developed the 2030 vision for the Cooks River: **“a loved and healthy river valley enriching the heart of Sydney”**. Local councils, in their Community Strategic Plans, have also set goals for a healthy environment, healthy waterways and clean public places. Reducing litter is important to meet these goals.

Hundreds of volunteers help remove tonnes of litter from the River and the catchment each year. People are concerned about the **impacts of litter from local places to the broader marine environment**. Once seen as largely an aesthetic issue, litter is now understood to have significant impacts on estuarine and marine ecosystems. The NSW Marine Estate Management Strategy (NSW Government 2018) identifies litter, waste,



## It builds on past successes, aiming for sustained, coordinated action

debris and microplastics as one of the top three threats or stressors to social, cultural and economic benefits of the marine estate.

Litter prevention is an evolving practice, which has received increased attention in NSW over recent years. In 2015, litter reduction became a NSW Government commitment with a target set to reduce litter by 40% by 2020. Following a \$50 million State Government investment in litter prevention over 2012-2021 (NSW Government 2019), the 2020 target was recently exceeded (DPIE 2021a).

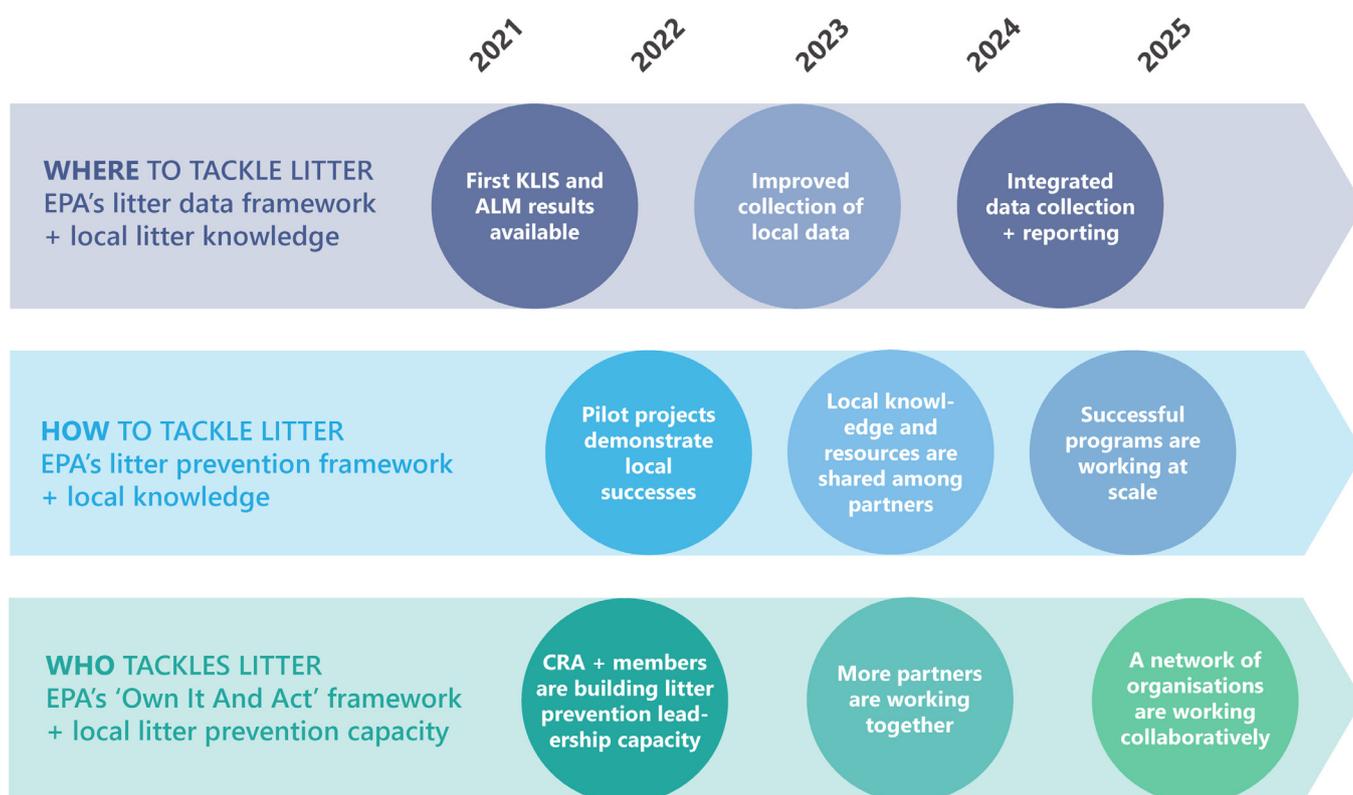
The Cooks River catchment councils have played a key role in delivering litter prevention projects over this period, including cleaning up hotspots, upgrading bin infrastructure, working with local businesses and community organisations, and encouraging behaviour change to reduce litter.

However, while past projects have each been successful in their own right, **current approaches to litter prevention are limited by fragmented responsibilities and limited resources**. Litter prevention has lacked the sustained, coordinated effort required to tackle such a

complex, multi-faceted and spatially distributed problem. **To meet the target of 50% less litter by 2025, litter prevention activities in the Cooks River catchment will need to step up to a new level.** This strategy charts the direction towards an approach:

- Better informed by local monitoring data, including information on where litter is most prevalent in the catchment and information on the key items making their way into the River.
- Proven to work in the local context, with local knowledge and locally-tailored resources accessible to all.
- Where more people and organisations can get involved and work together collaboratively within a supportive network.

This will enable strategic efforts to be targeted where they are likely to have the greatest effect, as well as enabling small efforts to be scaled-up across the catchment. By 2025, more people and organisations should be able to see their role in litter prevention, and to take effective action as part of a coordinated program.



## The Strategy tackles the how, where and who of litter prevention

### HOW TO TACKLE LITTER

#### EPA's litter prevention framework + a local approach



The EPA's Litter Prevention Toolkit outlines four main strategies to prevent littering, all of which involve actions aimed at changing littering behaviour. Over the past seven years, the EPA's litter prevention grants have funded projects that use these strategies to deliver local litter prevention outcomes.

The most effective actions consider the specific local drivers of littering behaviour and the actions most likely to lead to sustained improvements in the local context. Future litter prevention projects should build on past successes and the strategies proven to work locally.

### WHERE TO TACKLE LITTER

#### EPA's litter data framework + local litter knowledge



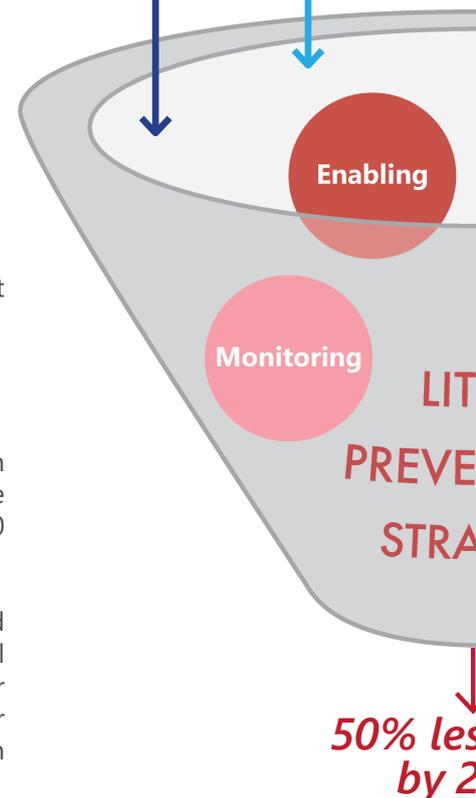
The EPA's Litter Data Framework includes:

- The Australian Litter Measure (ALM) - to monitor litter in the Cooks River catchment
- The Key Littered Items Study (KLIS) - to monitor litter in the Cooks River estuary.

These will provide a new baseline measure of litter in 2021.

Ongoing data from the ALM and KLIS will show how litter quantities are changing in the future, including progress towards the target of 50% less litter by 2025. The State Government will use the same tools to monitor progress towards its 2025 and 2030 litter targets.

Local data can be gathered using the same framework to supplement the ALM and KLIS and contribute to a richer picture of litter in the Cooks River catchment. Local knowledge should also continue to be used to identify and prioritise hotspots for targeted action. At hotspots, the existing EPA 'Local Litter Check' and 'Butt Litter Check' tools can then be used to characterise the litter problems at these places in more detail.



*It outlines how NSW EPA frameworks + local approaches could work together to shape more effective local action*

## WHO TACKLES LITTER

### EPA's 'Own it And Act' framework + local litter prevention capacity

Government

Businesses

Community organisations

Others

The NSW EPA's Own It And Act (OIAA) framework aims for "Individuals, organisations and cross-sector networks [to] take ownership of the litter issue and act on preventing litter for the long-term." (NSW EPA Litter Prevention Unit 2021). OIAA emphasises a partnership approach and collaborative action.

In the local context, existing litter prevention capacity is limited. However, the Cooks River catchment features an established alliance of core stakeholders with a shared commitment to the Cooks River, and existing partnerships with relevant community organisations, businesses and others. A targeted injection of funding would build the capacity of this network for litter prevention action.

### THREE STRATEGIC DIRECTIONS + future evaluation and review

The Litter Prevention Strategy therefore proposes three strategic directions for litter prevention over the next five years to 2025:

- 1. Enabling a litter prevention network:** building local litter prevention capacity towards a network of organisations working collaboratively
- 2. Piloting projects** to trial new ideas, building towards a set of successful projects that can be scaled-up to litter prevention programs operating across the catchment.
- 3. Monitoring** to gather evidence and evaluate progress, building towards integrated data collection and reporting at catchment scale.

Piloting

TER  
NTION  
ATEGY

ss litter  
2025





# 1. INTRODUCTION

*Over several decades, the Cooks River community has invested a significant effort into cleaning up the River. As its condition improves, it is time to take a more strategic approach to litter prevention in the catchment.*

# 1.1 A PLAN FOR THE COOKS RIVER

## ***Focused on reducing litter***

This Cooks River Litter Prevention Strategy was commissioned by the River Canoe Club of NSW (RCC) with funding from the NSW Environment Protection Authority (EPA). The RCC has a strong association with the Cooks River with its clubhouse located on the banks of the River in Marrickville. Over the past few years, the RCC has been working to clean up the River by organising clean up events including:

- Annual Paddle Against Plastic (Figure 1)
- Mullets monthly clean ups (Figure 2)

Building on the success of these activities, the RCC commissioned the Litter Prevention Strategy to focused on reducing the amount of litter in the Cooks River, where its persistent presence affects people’s enjoyment and perceptions of the River, detracting from local amenity and highlighting the River’s poor condition.

*Litter is commonly understood as the small pieces of rubbish left lying on the ground in public places*

This strategy has been prepared for all the people and organisations with an interest in improving the health of the River with a current or potential role to play in litter prevention in the catchment.

## ***For a loved and healthy river***

The Cooks River is much loved by the local community and there has been a significant effort over several decades to clean up the River and its catchment. A significant part of this effort has been focused on litter:



**Figure 1: 2020 Paddle Against Plastic event.**

- The Mudcrabs volunteers (Figure 3) clean up litter where it gets trapped in the mangroves.
- Local councils have developed litter collection programs.
- Councils and Sydney Water have installed gross pollutant traps and litter booms to intercept litter in the River and its tributaries
- The Cooks River community played a notable role in the campaign to introduce the beverage container deposit scheme in NSW.

Other improvements in and around the Cooks River include bank naturalisation and revegetation (for example, Sydney Water’s Cup and Saucer Creek project pictured in Figure 4), new wetlands and rain gardens, parkland and park improvements. Paths and bridges have been upgraded, and in 2020 a new kayak launch was installed at Ewen Park, making it easier for the community to access and enjoy the River.

While these changes have improved community perceptions of the River, there are still greater aspirations to continue improving the health of the River and its catchment. In collaboration with community representatives, the CRA developed this 2030 Cooks River vision:

*“A loved and healthy river valley enriching the heart of Sydney”*

This vision statement is supported by four directions:

1. A biodiverse river valley supporting a clean river
2. Aboriginal ways of thinking are valued from Yana Badu to Kamay



**Figure 2: The Mulletts outside the RCC clubhouse.**

3. Every community accessing and enjoying the river
4. Holistic and cooperative approaches are guiding river restoration

These directions have informed the development of this litter prevention strategy, with the goal to reduce litter contributing to the vision of a loved and healthy river.

### **Tackling a complex problem**

Litter in the Cooks River is part of a large-scale and complex problem. Litter comes from all over the River's catchment - this is all of the land uphill from the River, a total area of 100 km<sup>2</sup> (see Figure 5), densely urbanised with a population over half a million. Different items become litter for many reasons, and make their way down to the River via the stormwater system.

Litter also has broader environmental impacts that extend well beyond the River. The Cooks River flows into Botany Bay, conveying litter into the Bay and the Tasman Sea. In the world's oceans, a significant proportion of marine debris is derived from land-based litter. This issue has become more visible and well-known in recent years due to the ubiquity and increasing quantities of litter, especially plastics. Across the planet, the persistence of plastic in the environment and the harm it can do to marine life is clearly apparent. Addressing litter in the River needs to consider these complex and interconnected issues.

The care and control of the Cooks River and its catchment is shared between local councils, the Metropolitan Local Aboriginal Land Council, Sydney Water, the NSW State Government, industry and community groups. The management of litter is also complex. From its sources in the catchment to its fate in the marine environment, responsibilities for litter are fragmented. While many

organisations work on different aspects of the problem, no one organisation has the capacity to tackle the problem as a whole, and with each organisation constrained by available resources, effective coordination is a challenge.

### **By taking a collaborative approach**

The Cooks River Litter Prevention Strategy addresses these challenges by partnering with responsible organisations and identifying how coordinated local action can play a bigger role in litter prevention. To ensure that the strategy responds to the important aspects of the litter problem and addresses the needs of key stakeholders, this strategy was developed in partnership with the CRA member councils and Sydney Water, NSW EPA and community groups. A project reference group provided input throughout its development; this group included representatives from all the CRA's members:

- Bayside Council
- City of Canterbury-Bankstown
- Inner West Council
- Strathfield Council
- Sydney Water Corporation

The project reference group also included representatives of these local community groups with a particular interest in litter prevention:

- Cooks River Valley Association
- Wolli Creek Preservation Society
- The Mudcrabs
- Crab Walkers

Broader community input was also sought via the Community Litter Forum held in March 2021, and a community survey in August 2021.



**Figure 3: The Mudcrabs after a clean up.**



**Figure 4: Bank naturalisation by Sydney Water.**

# 1.2 FOCUSED ON THE CATCHMENT

The Cooks River, its main tributaries, its 100 km<sup>2</sup> catchment area and local government areas are shown in Figure 5. The catchment includes all the land that is uphill from the River and drains towards it.

The Cooks River begins as a series of small water-courses near Graf Park in Bankstown and flows 23 km in a generally easterly direction to enter Botany Bay just south of Sydney’s Kingsford Smith Airport. Its catchment includes some of the most heavily urbanised and industrialised areas in Australia.

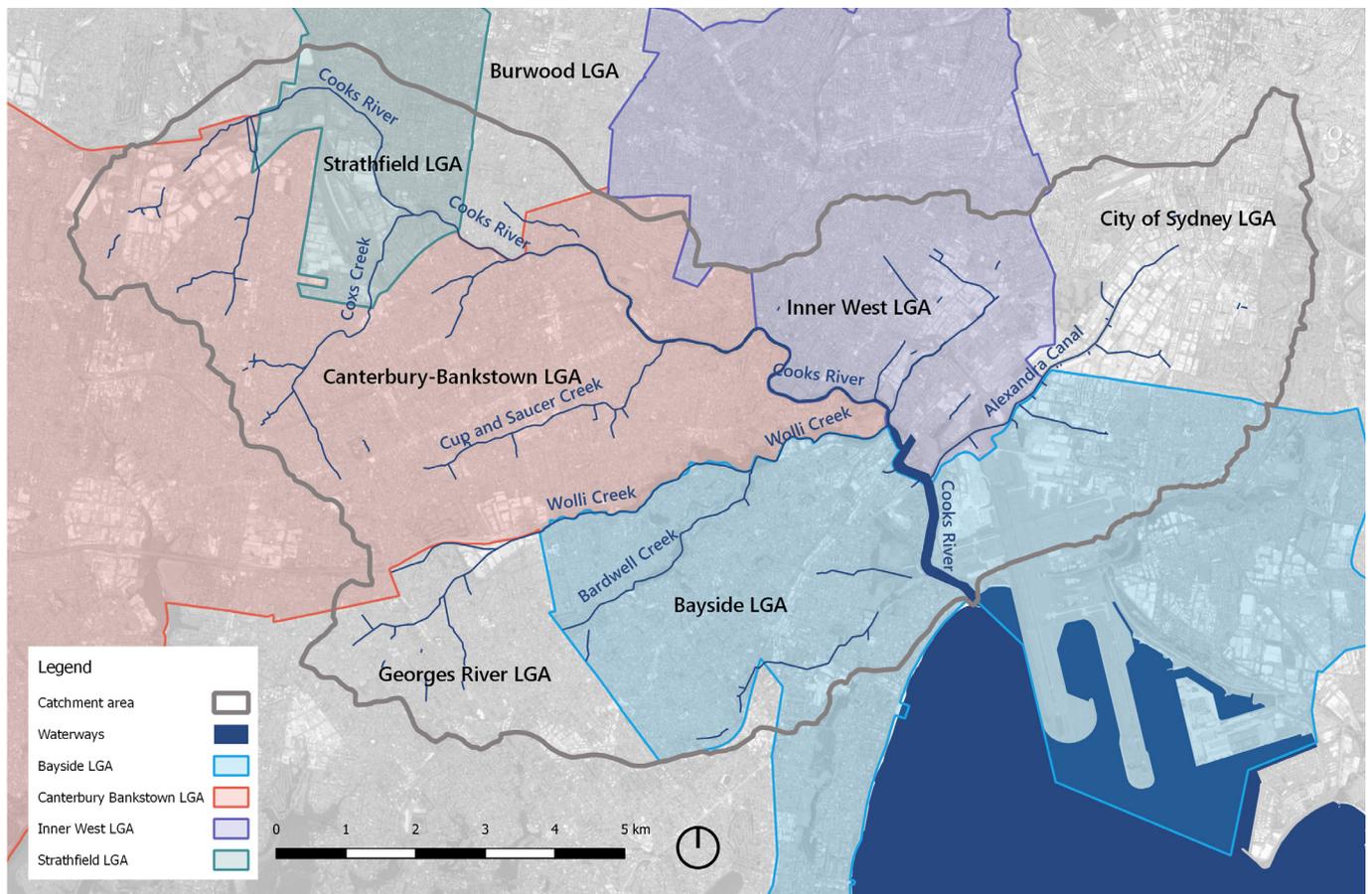
Litter has been a persistent issue in the Cooks River and its tributaries for many years. While river clean ups and in-stream measures, such as litter traps and booms, are making a difference, significant quantities of litter continue to flow into the Cooks River and its tributaries from all over its catchment. Therefore, to reduce the amount of litter reaching the River, this strategy looks to the River’s catchment, aiming to reduce the amount of litter before it reaches waterways.

The transport and fate of litter in the environment can be thought of as a journey, “from its inception as something produced through a manufacturing process... [all the way] into the wider environment – into drains, waterways, estuaries, and perhaps out to sea.” (Lavarack 2021, p. 5). Along its journey (see Figure 6), litter is:

- **Produced, supplied and sold** - for example, packaged products are manufactured, supplied to retail outlets and sold to consumers.
- **Used** - at which point the packaging can either be disposed of thoughtfully, or may become litter.
- **Littered items** - found anywhere across the catchment but tend to be more concentrated in hotspots.
- **Litter flows into waterways** - via the stormwater system. Once in the environment, litter is subject to wind and rain. It tends to break up into smaller pieces and becomes increasingly dispersed. Once washed into waterways, it can travel vast distances from where it originated.

*This strategy is focused on litter prevention in the Cooks River catchment*

As well as the steps in the litter journey, Figure 6 also shows how this Litter Prevention Strategy is focused on the central part of the litter journey: the steps from the moment a piece of litter is disposed of inappropriately, to the point at which it flows into waterways.



**Figure 5: Cooks River catchment showing local government areas. CRA member councils are highlighted.**

Beyond the catchment, shown in the top left of Figure 6, there are potential measures that could stop litter at the source. These include stronger packaging rules, bans on single-use items and better recycling. These sorts of measures are best implemented at national or state level, and are beyond the scope of this strategy. However, the new [NSW Waste and Sustainable Materials Strategy 2041](#) and the [NSW Plastics Action Plan](#) are relevant here.

Measures to trap litter within the stormwater system and clean up litter from waterways are indicated on the right in Figure 6. These measures are also important but are not the focus of this strategy. Stormwater management is part of local government and Sydney Water’s activities.

The strategy is focused within the Cooks River catchment, where local action can help prevent litter by changing littering behaviour. Litter prevention at this catchment scale can involve measures such as:

1. **Rewarding responsible behaviour** (e.g., with incentives to avoid single-use items)
2. **Education and awareness** (e.g., local litter campaigns)
3. **Regulation and enforcement** (e.g., fines for littering)
4. **Infrastructure and clean-up** (e.g., upgrading bins and cleaning up public places to encourage people to dispose of litter correctly)
5. **Evaluation and monitoring** (to understand litter distribution and quantities, littering behaviour and the effectiveness of litter prevention measures at a local level better)

These five litter prevention action areas are defined in the NSW EPA’s litter prevention framework and discussed further in Section 4. While the EPA’s litter prevention framework applies statewide, these types of litter prevention measures are most effective when applied locally, by local organisations, involving local people.



**Figure 6: The litter journey (adapted from Lavarack 2021) showing the focus of this strategy on litter prevention in the Cooks River catchment.**

# 1.3 SUPPORTED AT STATE AND LOCAL LEVEL

## State level support

While the NSW State Government is taking action to stop litter at the source and support local litter prevention, it is also focused on the marine environment and the impacts of litter there. The [NSW Marine Estate Management Strategy](#) (NSW Government 2018) identifies litter, waste, debris and microplastics as one of the top three threats or stressors to social, cultural and economic benefits of the marine estate. It includes an initiative to improve water quality and reduce litter, including an action to implement a targeted marine litter campaign and establish a Marine Litter Working Group.

In 2015, litter reduction became a NSW Government commitment with a target set to reduce litter by 40% by 2020 (based on volume and a 2013-14 baseline). The 40% reduction target was exceeded in 2020, with a 43% reduction achieved (DPIE 2021a). To reach this goal, the NSW Government provided grant funding and developed tools to help people tackle litter in local places. Several projects have been funded within the Cooks River catchment.

The 2019 [NSW Litter Prevention Strategy](#) (NSW Government 2019) summarises the main activities under the program. This strategy continues until 2022, however the program has been refreshed with the new [NSW Waste and Sustainable Materials Strategy 2041](#) (DPIE 2021a). This sets new targets for litter reduction including:

- A new overall litter reduction target of 60% by 2030
- A plastic litter reduction target of 30% by 2025

The Waste and Sustainable Materials Strategy makes a number of commitments to support these targets including support for local litter prevention:

- \$38 million for litter prevention programs over the next six years. The strategy indicates that this will be

used to establish partnerships “designed to support capacity building and empower industry, community organisations and stakeholders to take ownership of local litter”.

- Continued support for councils’ litter reduction and illegal dumping prevention activities with more than \$10 million in grants.
- A new litter data framework.

Actions that tackle litter at the source, including phasing out problematic plastics and tackling problem littered items, are detailed in the [Plastics Action Plan 2021](#) (DPIE 2021b). This action plan:

- sets out a timetable to phase out lightweight shopping bags in 6 months and various other single use plastics in 12 months (including plastic straws, stirrers, cutlery, expanded polystyrene food service items, and cotton buds with plastic sticks).
- promises to investigate a new Extended Producer Responsibility scheme that will make tobacco companies take responsibility for the litter impacts of their products (to align with the Australian Government’s recently announced taskforce on cigarette butt litter).
- commits \$500,000 to help plastic manufacturers install systems to prevent nurdles (very small pellets of plastic used as raw material in manufacturing plastic products) entering our waterways and to provide guidance for councils that regulate plastics manufacturers about best-practice management of nurdles.

These actions, summarised in Table 1, will all help support litter prevention efforts in the Cooks River catchment.

**Table 1: NSW Government commitments to litter prevention.**

NSW Government programs	Litter targets		Commitments	
		Stopping litter at the source	Supporting local litter prevention	Reducing litter in the marine environment
NSW Marine Estate Management Strategy (NSW Government 2018)				Targeted marine litter campaign and Marine Litter Working Group
NSW ‘Waste Less Recycle More’ initiative and the Litter Prevention Strategy (NSW Government 2019)	Reduce the volume of litter by <b>40% by 2020</b>	\$50 million was committed to litter prevention from 2012 to 2021 (NSW Government 2019)		
NSW Waste and Sustainable Materials Strategy 2041 (DPIE 2021a) and the NSW Plastics Action Plan 2021 (DPIE 2021b)	Overall litter reduction target of <b>60% by 2030</b>  Plastic litter reduction target of <b>30% by 2025</b>	Phase out of problematic plastics (including single-use plastics); Investigation of cigarette butt Extended Producer Responsibility; Action on nurdles	<b>\$38 million</b> for litter prevention programs to 2027; <b>\$10 million</b> in council grants; New litter data framework	Progress to litter reduction targets is monitored using a marine litter measure (Key Littered Items)

## Local commitments

The Cooks River catchment councils (see Figure 5) have adopted goals for healthy waterways, clean public places and improved waste management in their community strategic plans (CSPs) as shown in Table 2.

The structure of the CSPs reflects the structure of local councils, where responsibilities for healthy waterways, public spaces and waste management are typically divided across different sections of each organisation. Litter prevention is a topic that cuts across all these areas, and litter prevention has a role in achieving all of these outcomes.

Some of the councils are currently working on more detailed strategies and plans for healthy waterways, clean public places and improved waste management. For example, the City of Canterbury-Bankstown has begun working on a 'Clean City Strategic Plan', a 'Catchment and Waterways Strategic Plan' and a 'Resourceful City Strategic Plan' (City of Canterbury-Bankstown 2020).

## Community views

In 2021, two key surveys have captured community views on litter. In August-September the Cooks River Alliance conducted a major survey of the catchment community, which received 1,100 responses. Respondents were asked about their priorities for improving the Cooks River, and 35% ranked "cleaning up litter and debris" as either their first or second priority. Compared with other priorities, "cleaner water" was ranked the highest overall and "waterway naturalisation" was second (44% and 40% respectively ranking these at #1 or #2). Various access and facility improvements ranked lower.

During August-October 2021, the River Canoe Club also conducted a small community survey on the Draft Litter Prevention Strategy. Of the 53 respondents, 90% saw it as extremely important to reduce the amount of litter reaching the Cooks River. They had a high level of concern about the impacts of litter and strong support for the concept of litter prevention in the catchment and the target of a 50% reduction by 2025.

**Table 2: How council CSPs call for healthy waterways, clean public spaces and improved waste management.**

CRA member councils (current CSP title)	Relevant directions in the CSPs	Relevant goals/outcomes/pathways in the CSPs		
		Healthy environment and waterways	Clean public places	Improved waste management
<b>Strathfield</b> ( <a href="#">Strathfield 2030</a> )	"High quality, well planned, sustainable, clean and well maintained urban and natural environments ..."	Thriving and resilient environment <ul style="list-style-type: none"> <li>Conserve, restore and enhance Strathfield's biodiversity and ecological health and resiliency</li> <li>Develop environmental programs to educate and inform the community</li> <li>Encourage sustainability and resource efficiency</li> </ul>	Clean, attractive and well maintained neighbourhoods: <ul style="list-style-type: none"> <li>Maintain and enforce clean public areas and health standards</li> </ul>	<ul style="list-style-type: none"> <li>Reduce waste and improve reuse and recycling</li> </ul>
<b>Canterbury-Bankstown</b> ( <a href="#">CB City 2028</a> )	"A clean and sustainable city with healthy waterways and natural areas"	Improve local waterway health <ul style="list-style-type: none"> <li>Improve the ecological condition of our waterways</li> <li>Be leaders in catchment management</li> </ul>	Clean the City using advanced recycling and waste services: <ul style="list-style-type: none"> <li>Keep the streets clean</li> <li>Prosecute polluters and illegal dumpers</li> </ul>	<ul style="list-style-type: none"> <li>Encourage and support initiatives that save our natural resources</li> <li>Collect and manage waste and recyclables</li> </ul>
<b>Inner West</b> ( <a href="#">Our Inner West 2036</a> )	"An ecologically sustainable Inner West"  "Unique, liveable, networked neighbourhoods"	The community is water sensitive, with clean, swimmable waterways <ul style="list-style-type: none"> <li>Collaborate to deliver water-sensitive plans, decisions and infrastructure</li> </ul>	Public spaces are high-quality, welcoming and enjoyable places, seamlessly connected with their surroundings	Inner West is a zero waste community with an active share economy <ul style="list-style-type: none"> <li>Support people to avoid waste, and reuse, repair recycle and share</li> <li>Advocate for comprehensive Extended Producer Responsibility</li> </ul>
<b>Bayside</b> ( <a href="#">Bayside 2030</a> )	"In 2030 Bayside will be green, leafy and sustainable"	Waterways and green corridors are regenerated and preserved	Our waste is well managed: <ul style="list-style-type: none"> <li>Illegal dumping is a thing of the past</li> </ul>	<ul style="list-style-type: none"> <li>I can reduce my waste through recycling and community education</li> </ul>

# 1.4 TARGETING 50% LESS LITTER BY 2025

*This strategy aims for 50% less litter in the Cooks River catchment by 2025*

Section 2 outlines the thinking behind this goal, explaining what is meant by 'litter' in this strategy (Section 2.1), and the reasons this strategy is focused on reducing litter in the catchment, particularly in the public domain.

Section 3 explores the current state of litter in the catchment. However, many gaps remain before establishing a credible baseline for the current quantity of litter in the catchment. This is one of the priority strategic directions recommended for early action.

The following sections outline the proposed approach to work towards the 2025 goal, in terms of:

- **Where** to tackle litter (Section 3) based on available evidence about the types of litter, key littered items, littered places and litter hotspots in the catchment.
- **How** to tackle litter (Section 4) based on the EPA's litter prevention framework and examples of past successes in the catchment and in similar contexts.
- **Who** will tackle litter (Section 5) and how the capacity for litter prevention can be improved amongst the network of organisations and individuals involved.

Figure 7 illustrates how all these elements come together to form the approach to the Litter Prevention Strategy. The strategy is shown as a funnel which takes a wide range of ideas and filters them down to a set of strategic directions. Figure 7 also shows how evaluation and

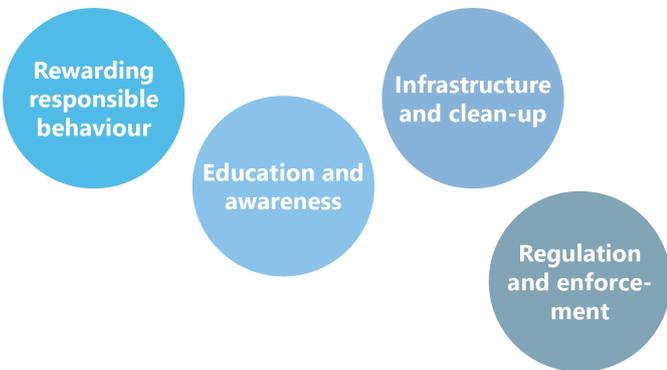
review should be used to refine the strategy over time based on the outcomes from the first round of actions.

The strategic directions presented in Section 6 are focused on:

- **Enabling a litter prevention network:** building the capacity of the network of organisations and individuals that will work in partnership to reduce litter in the catchment. This includes developing the leadership capacity of key organisations, strengthening partnerships throughout the network and growing the community of individuals and organisations involved in litter prevention in the catchment.
- **Piloting projects** to trial new ideas, building towards a set of successful projects that can be scaled-up to litter prevention programs operating across the catchment.
- **Monitoring** to develop a sound understanding of litter in the local context: its sources, types, the places it accumulates, its transport and fate in the River. As mentioned above, establishing baseline litter data is a high priority. Monitoring will also be used to design local litter prevention projects, test their effectiveness and report on progress.

This strategy is a blueprint for action, but implementation is dependent on the key players in the catchment committing to litter prevention, allocating resources, applying for funding and taking action. It identifies certain actions in which the CRA and its members are engaged in the short-term, as well as ideas for further actions, not yet adopted.

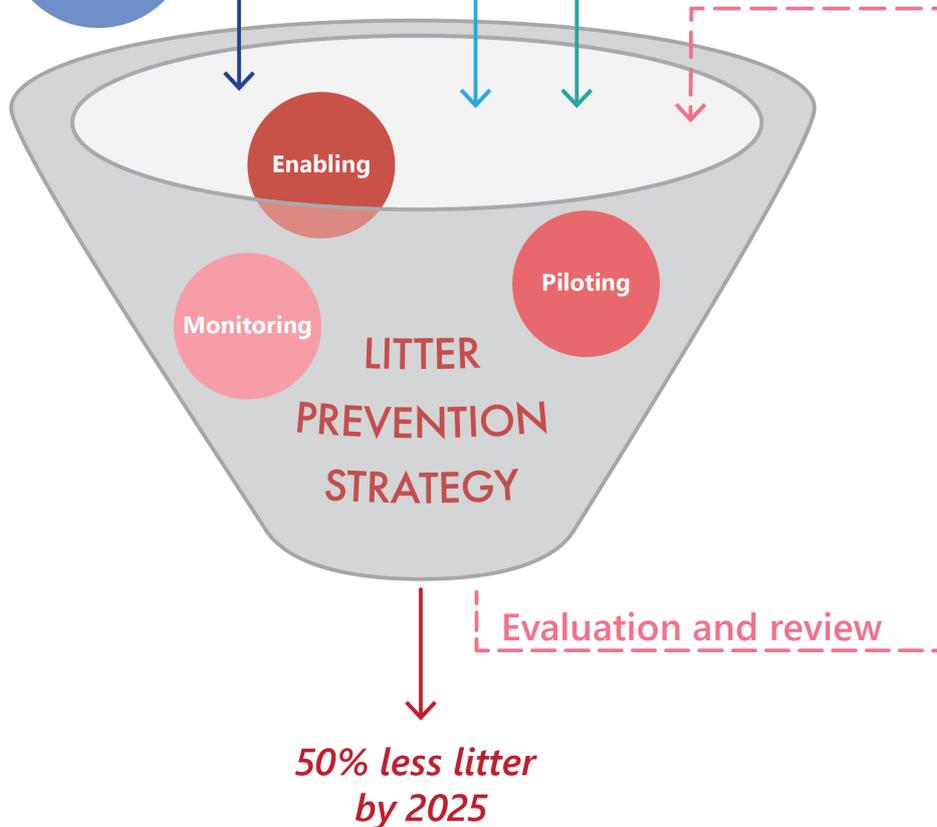
**HOW TO TACKLE LITTER**  
 EPA's litter prevention framework  
 + local knowledge



**WHERE TO TACKLE LITTER**  
 EPA's litter data framework  
 + local litter knowledge



**WHO TACKLES LITTER**  
 EPA's 'Own It And Act' framework  
 + local litter prevention capacity



**Figure 7: Approach of this Litter Prevention Strategy.**



## **2. THE PROBLEM OF LITTER**

*Litter is widespread in urban areas, and detracts from local amenity. As litter inevitably moves from urban catchments into waterways and the marine environment, it also has serious environmental impacts.*

# 2.1 WHAT IS LITTER?

Litter is refuse, debris or rubbish deposited in a place. It is defined in NSW legislation (section 144A of the *Protection of the Environment Operations Act 1997*) as:

*"a) 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*

*b) 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."*

This strategy is focused on litter up to the size of a shopping bag. This type of litter is a significant issue. DPIE (2021a) states that "in FY 2020, an estimated 575 million items of plastic litter generated in NSW made its way into our waterways and terrestrial and marine environments".

The strategy does not specifically address illegal dumping, which involves larger items, although litter and illegal dumping often occur together. It is also focused on litter in the public domain, where land management is a public responsibility.

The definition of litter above includes natural materials such as sediment, which has a range of sources in the urban environment. However, this litter prevention strategy focuses on items deposited in a place by people, rather than materials which are derived from erosion, wear of surfaces, or atmospheric deposition. While litter can be a stormwater pollutant, this strategy does not attempt to cover all types of stormwater pollutants.

Microplastics are also closely related to litter but are not a specific focus of this strategy. Microplastics are small plastic pieces, normally defined as being less than 5 mm long. Microplastics come from a variety of sources including:

- Primary sources such as microfibres, microbeads and plastic pellets used in various materials
- Secondary sources, where larger plastic products (including many littered items) break down into microplastics in the environment.



**(a) Typical littered items**



**(b) Typical illegal dumping**



**(c) Microplastics**

**Figure 8: Types of litter.**

## 2.2 HOW LITTER GETS INTO THE RIVER

Litter in the Cooks River has its sources all over the catchment. The catchment and its main waterways are shown in Figure 9. Wherever litter occurs in the catchment, it has the potential to wash into the stormwater drainage system and be transported into the River. Litter's journey from the catchment to the marine environment is shown in Figure 10 which also shows where various measures are working to address litter throughout its journey, as well as where litter 'leaks' through and continues to escape into the environment.

Before litter washes into the stormwater system, it may be intercepted within the catchment in the following four ways:

### *Litter may be picked up by people*

Council crews regularly clean up litter from public places. Litter picking tends to be particularly focused on well-used public places such as parks and town centres. The total time that council staff spend picking up litter is not known, however in one example, the City of Canterbury-Bankstown identified that staff were spending more than 8 hours per week picking up litter in six parks along the Georges River. This was reduced to less than 5 hours per week after a litter prevention project (City of Canterbury-Bankstown 2018a).

In partnership with the CRA, Correctional Services also undertakes litter clean-up activities in the catchment. From 2014 to 2020, almost **15,000 bags** of rubbish and weeds were collected by Correctional Services crews within the catchment. This was primarily litter from the riparian corridor and green space.

In the Cooks River catchment the Crab Walkers also pick up litter in local streets. In 2018, their first full year of crab walking, the group collected **667 bags** of litter.

Events such as Clean Up Australia Day encourage people to pick up litter in local places. Unfortunately, Clean Up Australia Day data is not reported on a catchment basis. Other people may also pick up litter, either individually or as part of a group/organisation or local business.

Key limitations of litter picking are:

- It is labour intensive
- It is easier to pick up larger items such as takeaway litter, and more difficult to pick up smaller items such as cigarette butts.
- It exposes people to potential hazards including contamination and sharps.

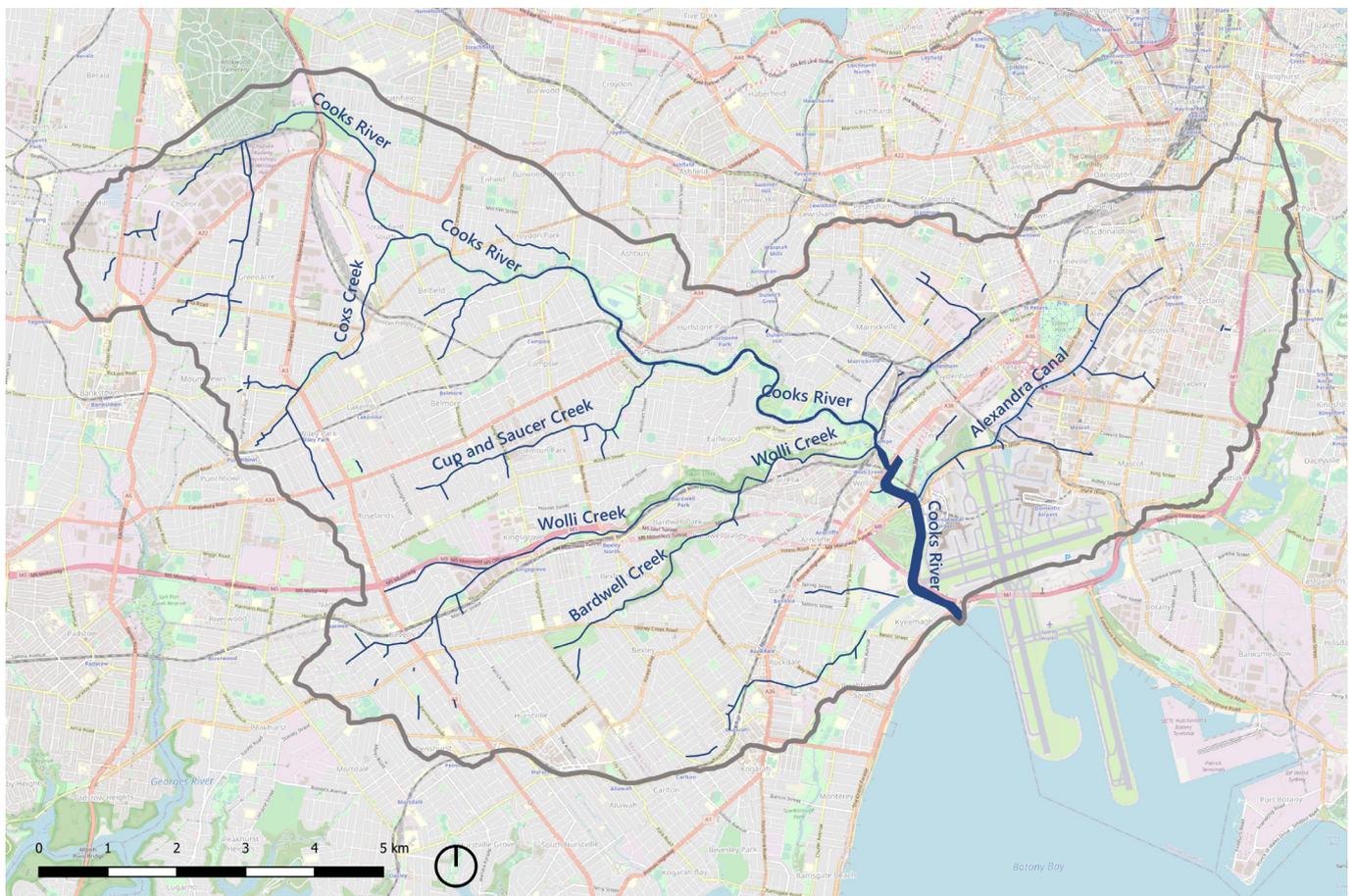


Figure 9: Cooks River catchment and its waterways.

### Litter may be collected by street sweepers

Council crews use street sweeping vehicles to pick up litter from roads and other paved areas. Street sweepers can cover large areas relatively quickly and can pick up many smaller items such as cigarette butts. However, they cannot reach all places. They can only operate on paved surfaces and in spaces where there is enough room for the vehicles to access.

Between the catchment and the River, litter moves through the stormwater system. There are still further points at which it may be intercepted, however each of these are also limited in what they can achieve:

### Litter may be intercepted in stormwater devices

The CRA councils and Sydney Water maintain gross pollutant traps (GPTs), trash racks and litter booms across the catchment. Sydney Water removes an average of **190 cubic metres** of litter per year from its GPTs and trash racks across the catchment, and **200 cubic metres** of litter per year from its litter booms in the Cooks River and Muddy Creek.

Gross pollutants are typically defined as debris over 5 mm size. Being designed to target these pollutants, GPTs typically include a screen, which may have a mesh size as small as several millimetres. They can therefore often intercept materials as small as cigarette butts.

However, GPTs are not located on every drainage system and they cannot treat all flows. They are typically sized to filter runoff from frequent rain events, while runoff in larger storm events bypasses these devices.

Trash racks are usually located on open stormwater channels. They need to cope with higher flows and larger debris than GPTs, and their racks are robust structures with wide openings. Therefore, they cannot intercept smaller litter items. They are also bypassed or overtopped in large storm events.

Litter booms float on the surface of the River and intercept floating litter such as beverage containers and polystyrene pieces. They do not trap all the litter in the water column, nor do they necessarily span the entire width of the channel.

### Litter may be picked out of the River

As noted in Section 1.2, there are several regular events focused on cleaning up litter from the River, including:

- The Mudcrabs volunteers clean up litter from the mangroves near Close Street and near the Racecourse in Canterbury. In the 2019-20 financial year, **176 volunteers** removed **232 bags** of litter from the river.
- The Mulletts volunteers clean up litter from the River by canoe (data unavailable at 2021).



**Figure 10: Litter’s journey from the catchment, through the stormwater system to the River.**

- The Paddle Against Plastic is an annual river clean up organised by the River Canoe Club. It includes a clean-up of 'heavy-duty' debris from the River, as well as litter collection. During the 2020 Paddle Against Plastic, **429 volunteers** removed **1.2 tonnes** of litter.

Limitations of the river clean ups are:

- By the time litter has made its way into the River, it is already having an impact on the health and amenity of the waterway.
- Litter gets caught in hard-to-reach places where it is difficult to collect.
- The longer litter spends in the environment, the more it breaks into smaller pieces that are harder to collect.
- Collecting litter relies on a significant amount of voluntary time, which could be spent on other important work.

*As litter travels further from where it was deposited, cleaning it up becomes more and more challenging. Interventions **closer to the source** can be more targeted*

Once litter is left in the catchment, there is some chance it will be removed from the environment via one of the

interventions described above. However none of these interventions are (or ever can be) completely effective as litter **leaks through** each step in this system. Some items, particularly smaller items, are harder to intercept and more likely to end up in the broader environment.

Furthermore, as litter makes its way from the catchment to the ocean, it becomes **increasingly dispersed** in the environment: litter breaks into more pieces and travels to more distant places.

Taking action in the catchment, before litter reaches the stormwater system, means that:

- **Some litter may be avoided altogether**, also avoiding its impacts on local places.
- **Litter can be addressed before it becomes dispersed in the environment**, where there are lower costs and effort involved in its collection.
- **Litter can be addressed before it becomes contaminated**, potentially at a point where it can still be recycled or reused, and therefore where there are lower costs involved in its disposal.



## 2.3 LITTER IN THE COOKS RIVER

While litter in the catchment may be intercepted on its way to the River as explained above, none of the measures can ever be 100% effective at intercepting litter, and much of it still 'leaks' through these systems and into the River.

The Mudcrabs told us that the most common types of litter they see in the Cooks River are all types of plastic:

- Wrappers, plastic bags, straws, bottle caps and tamper evident bands, microplastics.
- Bottles are less common since the NSW Container Deposit Scheme was implemented but still significant.

Notable is the prevalence of consumer packaging amongst the litter items found in the Cooks River mangroves.

### Key Littered Items Study (KLIS)

Since 2017, the Key Littered Items Study (DPIE 2021c) has been monitoring the marine debris that accumulates in estuaries and at beaches along the NSW coast. One of the study sites is along Muddy Creek in the Cooks River catchment.

Findings from the KLIS to 2021 support the observations of the Mudcrabs. DPIE (2021c) states:

- "The 4 [four] most common litter types found in urban estuaries are confectionary and snack packaging, plastic lids and bottle tops, straws and cigarette butts. These 4 [four] items can make up almost 50% of the consumer items found.
- "In 2019, consumer items accounted for half of all the items in the KLIS. These are things like takeaway containers, plastic bags and straws. 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."

The prevalence of common consumer packaging items is therefore reflected in this larger study. Notably, around half of all the items identified were small fragments, indicating the extent to which littered items are breaking up and the fragments persisting in the environment.

Nevertheless, the data available from the KLIS has suggested both a reduction in containers since the NSW Container Deposit Scheme was implemented, and a reduction in single use grey plastic shopping bags since major supermarkets introduced a voluntary plastic bag ban in July 2018 (DPIE 2021c).

KLIS data contributed to developing the projections underpinning the NSW Government's new litter reduction targets (DPIE 2021a), and the KLIS data will

be made available to partner organisations via an online dashboard.

*The most common littered items accumulating in the Cooks River are **common consumer items** including all sorts of packaging*



**Figure 11: Typical litter in the Cooks River mangroves.**

## 2.4 IMPACTS OF LITTER

Litter causes environmental and social impacts from local to regional and global scales.

**Local** - Litter impacts the amenity of **local places** including parks, plazas, streetscapes and bushland/natural areas. It detracts from people's ability to use and enjoy public places. Litter also degrades the ecological functioning and biodiversity in these places. Local councils and other organisations invest significant resources cleaning up litter in these places.

**Regional** - In the **Cooks River**, litter mainly accumulates in the mangroves, particularly in the Canterbury area. Litter also collects in mangroves of two Cooks River tributaries, Wollie Creek and Muddy Creek. It impacts human use and enjoyment of the River, water quality, and the health of the River's wildlife and ecosystems. Although litter is not the only pollutant of the River, it has been a long-term focus of River clean-up efforts. Mudcrabs and Mulletts volunteers invest significant time and energy doing regular litter clean-ups in the mangroves.

**Global** - Litter that does not get trapped in the mangroves flows to the broader **marine environment** where some materials can persist for many decades, breaking down slowly. Over its lifetime, litter can be transported far from its source, causing widespread impacts on marine life. Microplastics are a particular concern in the marine environment due to their ease of ingestion and accumulation in the food web.

The NSW Marine Estate Management Strategy (NSW Government 2018) identifies litter, waste, debris and microplastics as one of the top three threats or stressors to social, cultural and economic benefits of the marine estate. In the ocean, plastic makes up the vast majority of marine debris, and a significant proportion of it comes from land-based sources including litter.

*"It is estimated that, on average, around **80–90% of ocean plastic comes from land-based sources**, including via rivers, with a smaller proportion arising from ocean-based sources such as fisheries, aquaculture and commercial cruise or private ships." (Gallo et al 2018).*



(a) Local amenity



(b) Habitat within the Cooks River



(c) Broader marine environment downstream

**Figure 12: Places impacted by litter.**



The background image shows a graffiti-covered wall with a ladder leaning against it. A trash bin is visible on the left side. The text is overlaid on a dark blue circular graphic.

### 3. WHERE TO TACKLE LITTER

*Litter is distributed throughout the Cooks River catchment, however it is more concentrated in some areas than others. If we can understand where litter comes from, we can focus our efforts to greatest effect.*

# 3.1 SOURCES OF LITTER

Litter is not evenly distributed across the catchment, but is more concentrated in some places than others. An understanding of the sources of litter helps identify where to focus litter prevention efforts.

Sources of litter can be understood by:

1. The behaviours that contribute to littering
2. The types of items littered
3. The places that are littered

The diagram in Figure 13 below, from the NSW EPA's litter prevention toolkit (NSW EPA 2019a), illustrates various sources of litter.

Central to this picture is littering behaviour. All litter originates from people. Whether litter comes from dumping, events, vehicles or pedestrians, people's behaviour is at the heart of the problem. Therefore, to prevent litter, it is important to understand littering behaviour, and to understand behaviour change methods.

However, there are some non-human factors in spreading litter, for example:

- Wildlife rummaging in bins and dispersing litter
- Litter escaping from bins during kerbside collection
- Wind dispersing litter

- Stormwater runoff moving litter from one place to another

## Why do people litter?

There is a significant body of research on littering behaviour. NSW Office of Environment and Heritage (2013) published a useful review of NSW and international litter research, "Lessons from the litter-ature". Based on this review, NSW EPA (2017, p.11) explains that "research shows that there is no such thing as a typical litterer. The same person may litter in one place but not in another. Their behaviour can change even with the same piece of litter."

**Everybody litters: something, somewhere, some time**

In its review of litter behaviour research, the NSW EPA (2017) found that different people have different ideas about what litter is, and their views can change depending on the context. Whether someone thinks of a particular behaviour as littering depends on:

- The type of item
- The type of place and its cleanliness
- Whether bins are available and signage is clear

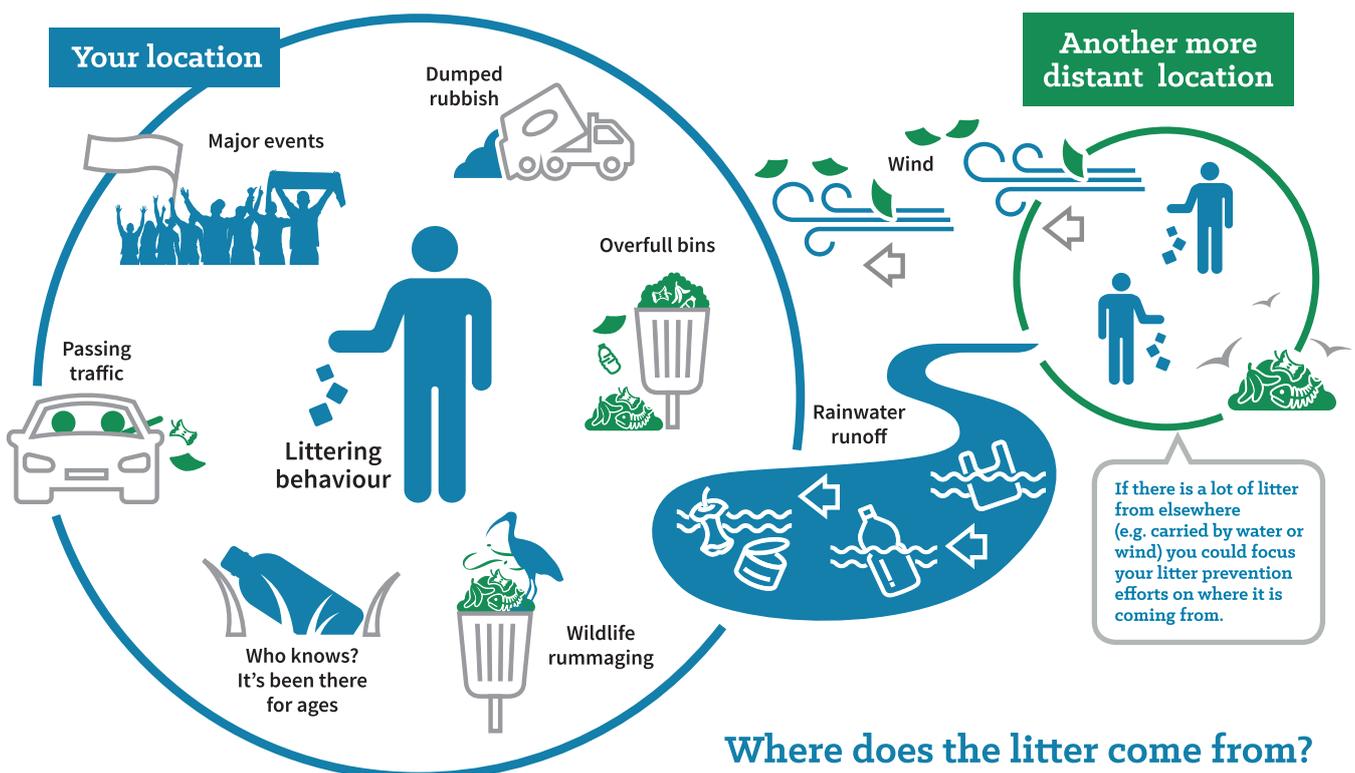


Figure 13: Sources of litter (NSW EPA 2019a, p.5).

- What they understand about where their litter may end up
- What other people are doing

Canterbury-Bankstown Council (2018b) undertook some local behavioural research focused on takeaway litter, and found that “50 per cent of people eating takeaway in their car littered the packaging, doubling to 100 per cent after dark”. They found that people littered takeaway packaging because:

- there were no available bins
- they didn’t want mess or the takeaway smell in their car
- they didn’t want a family member to find rubbish in the car
- they simply didn’t think about consequences

**What do people litter?**

People are most likely to litter cigarette butts, as shown in Table 3, partly because they may be seen as ‘only small’. NSW EPA (2013) explains that “size, mess and degradability are some factors that influence what people perceive as litter:”

- Organic litter (such as apple cores, orange peel) can be seen as more acceptable than other types of litter.
- Messy rubbish (such as a cup with some coffee remaining in it) can be difficult to carry, so is seen by some as more justifiable to litter.
- Small pieces of litter are more likely to be littered because they can be littered discreetly.

**Where do people litter?**

People are most likely to litter in places where:

- they think they will not be seen
- it is not clean or appears uncared for (e.g. where there is graffiti and vandalism)
- there are no bins nearby or when they can’t find a bin
- it is clear that others are also littering

(See Table 3). A typical example is shown in Figure 14.

**Table 3: Littering behaviour (NSW Government 2019, p.11).**

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.



**Figure 14: An example of a place with characteristics conducive to littering.**

## 3.2 LITTERED ITEMS AND LITTERED PLACES

### Recent National Litter Index data

The National Litter Index (NLI) currently provides the best available long-term data on litter in Australia. It has been conducted twice annually for 15 years and has provided quantitative data including:

- Litter volume
- Number of littered items
- Types of items littered
- Litter quantities for different types of sites

Selected NSW NLI data for 2020 is summarised in Figure 15 to Figure 18:

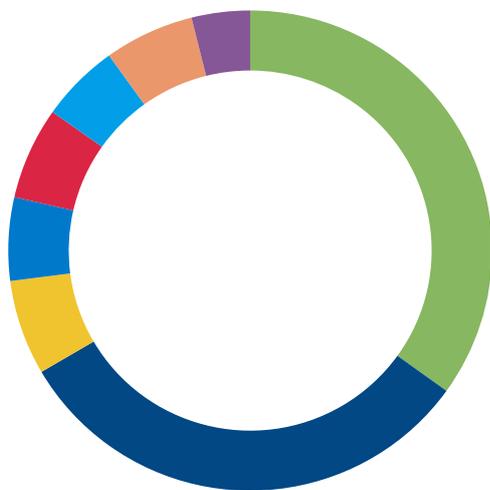
- **Volume (Figure 15)** - Beverage and takeaway containers were the most significant items by volume.
- **Item count (Figure 16)** - The most significant littered items by number were cigarettes and “miscellaneous” items, followed by takeaway containers.

Despite still representing a significant volume, the quantity of beverage containers has been reducing over

recent years. NSW’s container deposit scheme (CDS) was introduced in December 2017, and had an immediate impact, with around 67 per cent of all eligible containers supplied into NSW in the period March to May 2018 being collected through the scheme (NSW EPA media release, 7 August 2018). NSW Government (2021) shows how the quantity of CDS beverage containers has been decreasing across all site types since 2016-17.

The NLI does not provide data specific to the Cooks River catchment; however, the NLI does include information on litter volumes and number of items for different land use types. NSW EPA (2020) includes litter quantities for different types of sites, based on NLI data for 2012-2017.

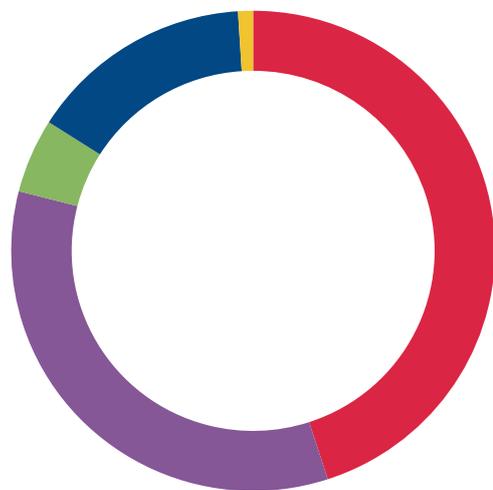
*NLI data indicates the biggest sources of litter (by land use) are **industrial areas, major roads, car parks and retail/shopping areas***



#### Percentage by volume:

- CDS beverage container 34.9%
- Takeaway container 31.6%
- Print and advertising 6.4%
- Non-CDS beverage container 5.6%
- Miscellaneous 6.2%
- Industrial container 5.3%
- Domestic container 6.0%
- Cigarette 3.9%

**Figure 15: Composition of litter volume (EPA categories) per 1,000 m<sup>2</sup> in NSW in 2020 (adapted from NSW Government 2021).**



#### Percentage by item count:

- Miscellaneous 45%
- Cigarette 34%
- CDS beverage container 5%
- Takeaway container 15%
- Print and advertising 1%
- Non-CDS beverage container 0%
- Industrial container 0%
- Domestic container 0%

**Figure 16: Composition of littered items (EPA categories) per 1,000 m<sup>2</sup> in NSW in 2020 (adapted from NSW Government 2021).**

If litter is measured by **volume**, the top three site types by volume are:

1. Industrial sites
2. Highways
3. Car Parks

If litter is measured by **number of items**, the top three site types are:

1. Industrial sites
2. Retail sites
3. Car Parks

In terms of item count, highways and shopping centres are a close 4th and 5th.

Therefore, based on the data from the NLI, industrial areas, retail areas, major roads and car parks in the Cooks River catchment are expected to be more significant sources of litter than other parts of the catchment. These land uses have been mapped in Figure 19. This shows a

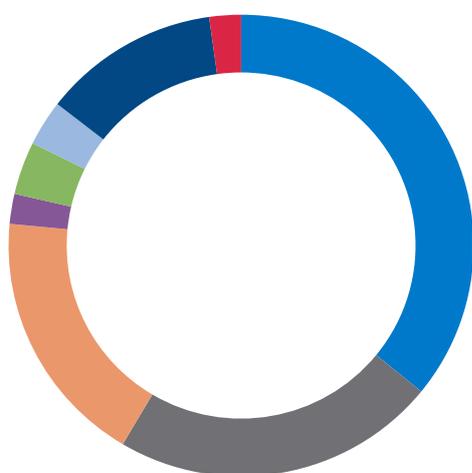
concentration of industrial, retail and commercial land uses in a few distinct areas, including:

- In the upper part of the catchment at Chullora, Greenacre and Strathfield South
- At Kingsgrove in the Wolli Creek catchment
- In the Marrickville Valley
- In the Alexandria Canal catchment

There are also smaller areas elsewhere.

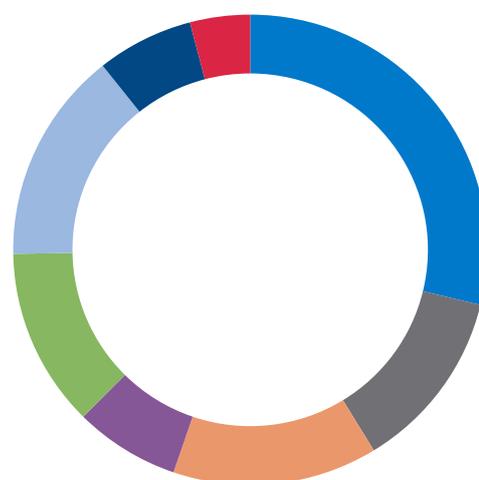
A general picture showing parts of the catchment that are likely to be higher sources of litter is provided in Figure 19. However, there are significant uncertainties relating NLI data to the Cooks River catchment. A key uncertainty is that land use types vary significantly from one place to another, within the Cooks River catchment and beyond. Industrial land uses are particularly variable.

Given this variability, it is not known how well the NLI data for different land use types (i.e. the values in Figure 17 and Figure 18) represent the conditions in the Cooks



**Litter Volume (%)**

- Industrial 35.9%
- Highway 22.6%
- Car Park 18.0%
- Beach 2.1%
- Shopping Centre 3.7%
- Retail 3.2%
- Residential 12.3%
- Recreational Park 2.2%

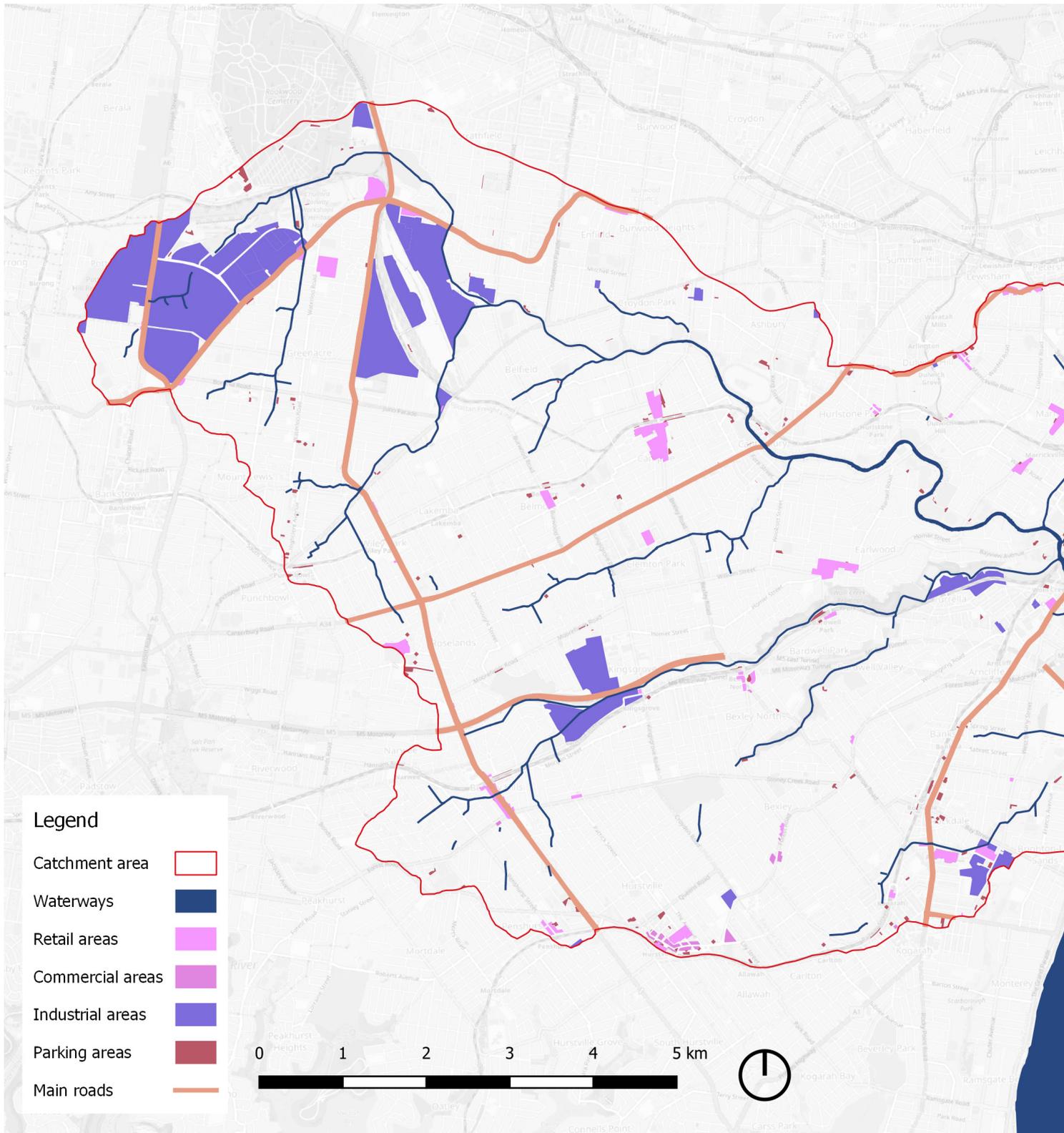


**Litter Items (%)**

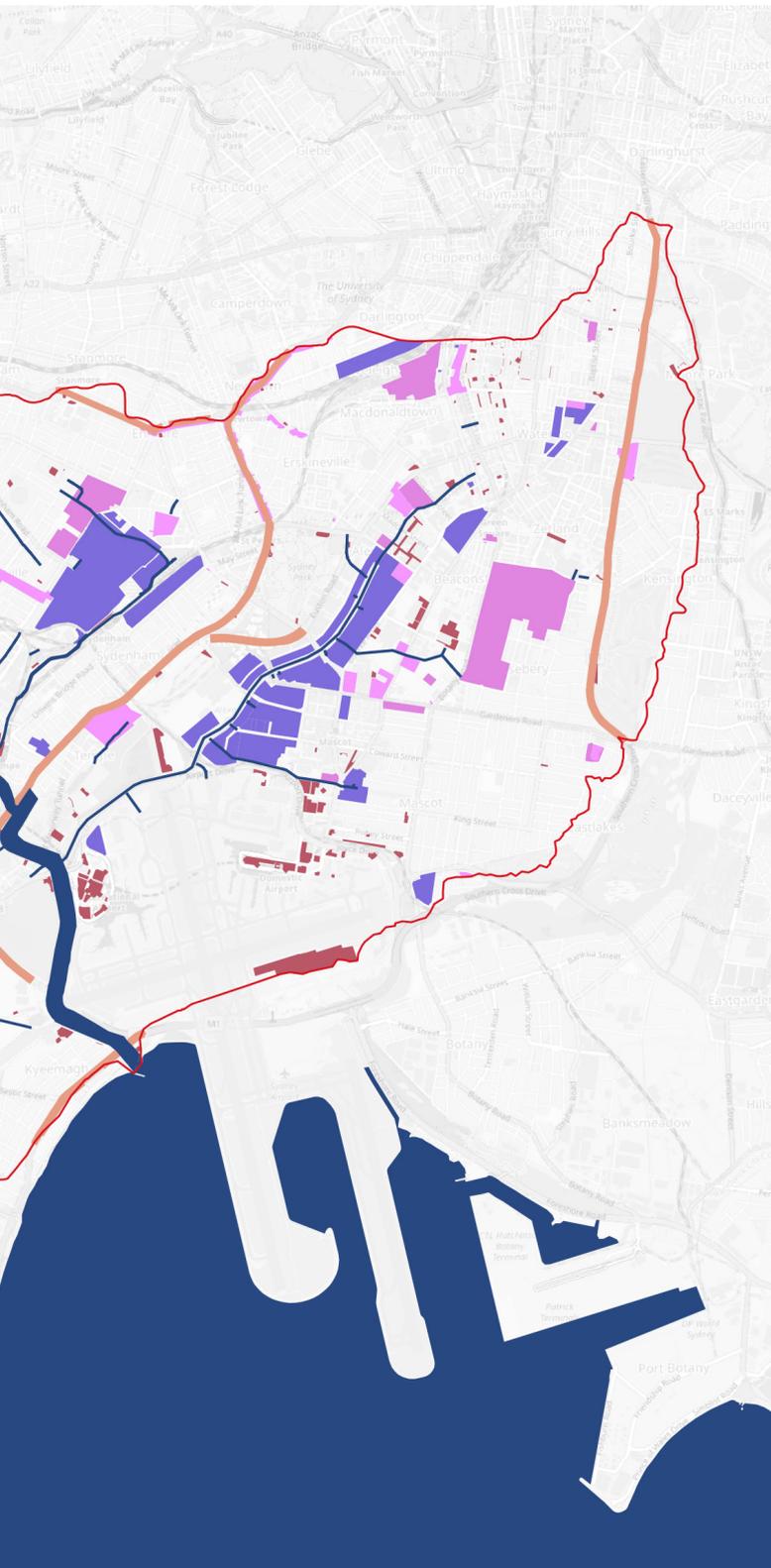
- Industrial 28.8%
- Highway 12.5%
- Car Park 14.0%
- Beach 7.2%
- Shopping Centre 12.3%
- Retail 14.6%
- Residential 6.6%
- Recreational Park 4.1%

**Figure 17: Composition of litter volume across site types in NSW in 2020 (adapted from NSW Government 2021).**

**Figure 18: Composition of littered items across site types in NSW in 2020 (adapted from NSW Government 2021).**



**Figure 19: Cooks River catchment land uses expected to be associated with larger quantities of litter.**



River catchment. A quantitative estimate of litter in the catchment based on NLI data is therefore not considered reliable; however, anecdotal evidence supports the general picture that the land uses as shown in Figure 19 have relatively high litter volumes.

Each of the councils and community groups that participated in the development of this strategy provided information about where litter is most prevalent in their areas. Litter hotspots identified by the project’s participants are shown on the following pages. Many of these are located in industrial areas and town centres (i.e. retail/commercial areas) and several are car parks and major roads.

Participants also identified open space, including parks and sports fields, as an important land use type associated with litter in the catchment. Council staff noted that litter volumes in parks and open space may fluctuate significantly, as they tend to be cleaned up regularly. However, they would like to see more effort put into litter prevention at these sites to reduce the need for cleaning up.



**Figure 20: Litter left around spectator seating areas at Bennell Field, Belfield.**

# 3.3 HOTSPOTS

Within the land use areas that tend to have higher litter quantities, project participants identified a number of hotspot locations, as shown in Figure 21.

Most of the locations in Figure 21 were visited in the field to verify that it is a location with a notable litter problem. However, Figure 21 does not show a complete picture of litter hotspots across the catchment. It provides a partial view, showing some of the known hotspots, based on anecdotal observations.

This exercise has provided a useful picture of the typical hotspot types in the catchment. The five different types of hotspots identified are:

1. Town centres
2. Parks
3. Industrial areas
4. Urban edges
5. Main roads

'Urban edges' are interfaces between two different land uses, for example the urban/bushland interface or residential/industrial interface. These sites did not fall easily into other categories.

### Common issues at hotspots

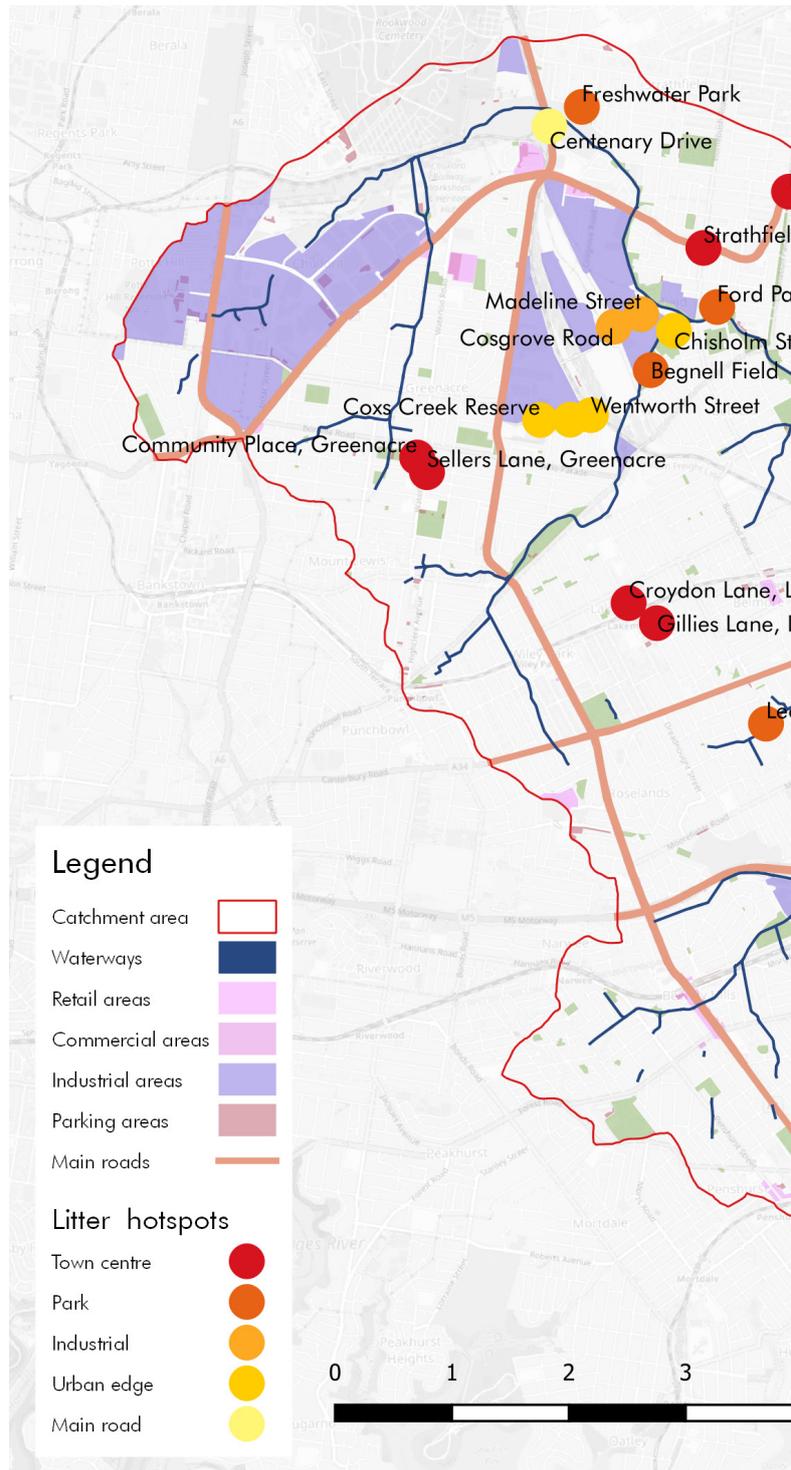
Within each of the hotspot types shown in Figure 21, smaller, more specific hotspots can also be identified. For example, at town centres: laneways, carparks, public transport stops and seating areas could all be identified as separate hotspots with different litter issues. Common issues identified at multiple hotspots are listed here:



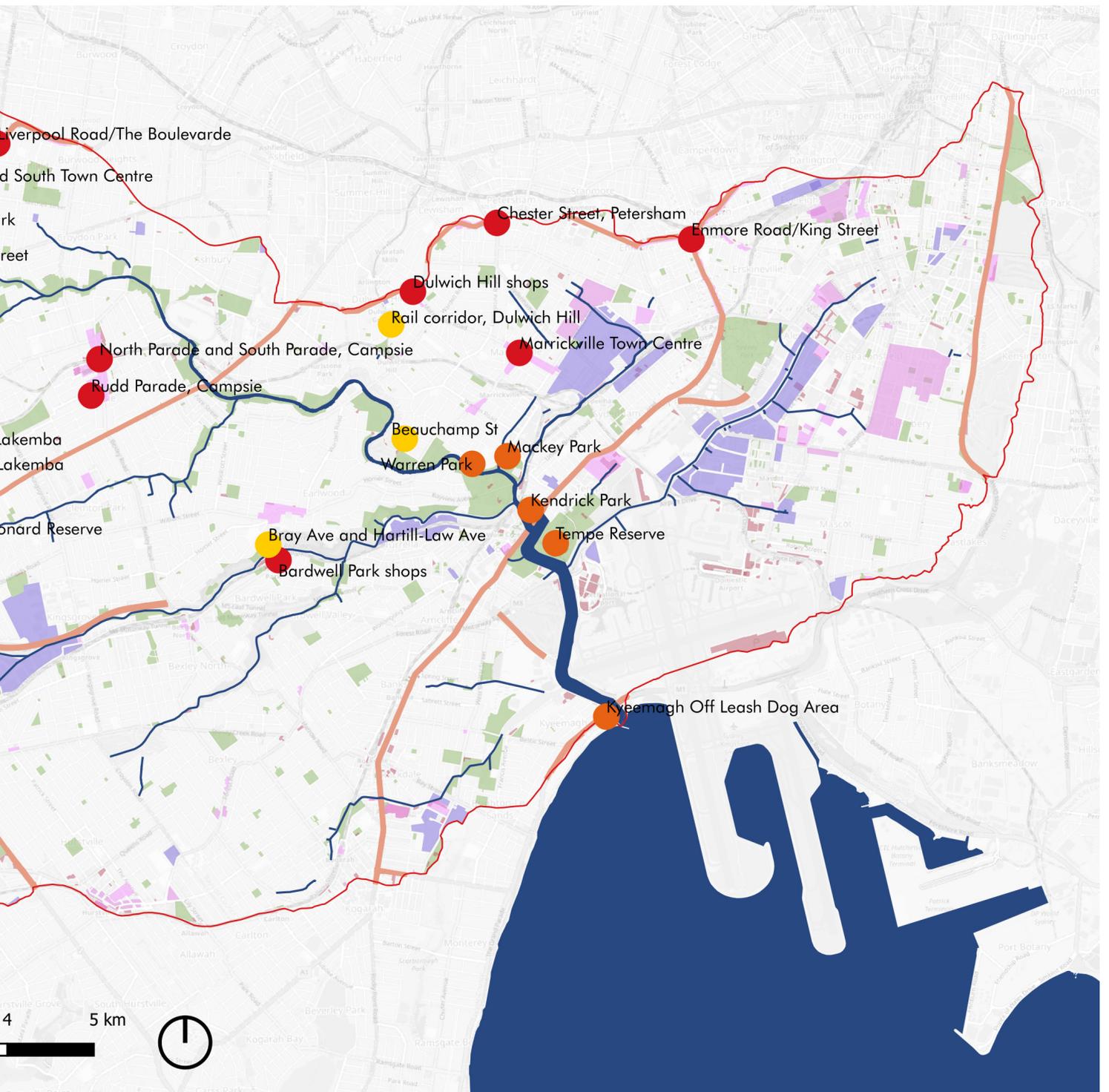
**Takeaway litter was more common than industrial waste on industrial verges and at urban edges.** These may be locations where people park to eat takeaway food, or simply drive by and dispose of their takeaway litter.



**Some of the litter in commercial laneways was associated with poor waste management practices** including dumping, overflowing bins or poorly contained piles of waste at the rear of businesses.



**In the car parks and laneways around town centres, takeaway and other food packaging was also common.** Most of these locations had no public bins.



**Figure 21: Cooks River catchment litter hotspots.**



**In town centres, some garden beds had high numbers of cigarette butts.** However, these may have accumulated over a long period of time. Cigarette butts were also distributed throughout town centres.



**In parks, most litter was located around picnic and seating areas.** In some parks, parking areas and edges also had significant litter.

## 3.4 LITTER MONITORING

While the NLI provides a general picture of where litter is most likely to be found in the catchment (in terms of major land use types) and local stakeholder knowledge has helped to identify a number of litter hotspots across the catchment, there is an information gap between the high-level data in the NLI and the local knowledge of hotspots.

The key needs are:

- An estimate of the baseline quantity of litter in the catchment.
- A better understanding of the distribution of litter across the catchment to understand where targeted action could be most effective.
- A method to measure how the quantity of litter changes over time.

To address these gaps, **new litter monitoring tools** are being developed by the EPA. The EPA's litter data framework includes several tools, including:

- The **Australian Litter Measure**, discussed below, which will provide data on litter in the catchment
- The **Key Littered Items Study** (see Section 2.3), which provides data on litter in the estuary

Both the ALM and KLIS will provide an ongoing series of measurements so they can be used to establish the baseline and monitor progress towards the target of 50% less litter by 2025. As shown in Figure 22, these two measures can also be supplemented with other local information.



**Figure 22: Applying the EPA's litter data framework to the Cooks River catchment.**

### ***The Australian Litter Measure (ALM)***

The National Litter Index is no longer used by the EPA; however, from November 2021, a new tool called the 'Australian Litter Measure' (ALM) will be used. Like the NLI, the ALM measures litter quantities in the catchment, and data collection will be coordinated across the state and funded by the NSW State Government. It is being developed in collaboration with other Australian States and Territories for consistent use across the country. However unlike the NLI, it is understood that the ALM will provide:

- More specific and detailed data than the NLI, including more detail on littered items as well as spatial detail.
- Open access to the data, allowing data to be extracted for local areas (e.g., for the Cooks River catchment) and on items of interest.
- A peer reviewed methodology.
- Open access to the method so that data provided by the EPA can be supplemented with additional local data collection using the same method.
- Data that relates to the Key Littered Items Study (see Section 2.3), meaning that, over time, a picture may be built of the flow of litter from the catchment to the River.

Note that Keep Australia Beautiful NSW is also offering a new product, based on the NLI, targeted at local government. Its 'Local Government Litter Index' promises detailed litter data, brand data and audit site clean-ups to local government, including 16 sites per LGA twice per year. This is no longer funded by the EPA but can be purchased by individual councils. It is not clear whether this new tool will be as well suited to the key needs identified above; however, it could be considered for other purposes.

### ***Key Littered Items Study (KLIS)***

The Key Littered Items Study was introduced in Section 2.3. This will also provide an ongoing measure of littered items, focusing on those items accumulating in the estuary. As with the ALM, the KLIS will provide detailed data on littered items, open access, and a peer reviewed methodology.

It may also be possible to supplement the KLIS with local data from other locations in the catchment, for example, when litter is cleaned up from the mangroves in the Cooks River, collected litter could be sorted into the same categories or targeted monitoring could be undertaken for particular items of concern.

### ***Hotspot identification and characterisation***

The CRA, its members and partners should consider how the tools above, as well as other methods, might improve the identification and prioritisation of hotspots across the catchment.

Once hotspots are identified, the EPA's existing Local Litter Check and Butt Litter Check tools can be used to:

- measure litter in these hotspots
- plan litter prevention projects
- measure site-specific results

### ***Litter project reporting***

When litter prevention projects are completed in the catchment, it would be valuable to have a standard format to consistently capture basic information about each project, and make it available to others. The EPA has some information on past litter prevention grant recipients included on its [website](#), and some of these include written case studies. However, an improved database would make it easier to quickly identify project locations, site types, actions undertaken and results. A standard case study template could also make it easier to understand each project.

Ideally, an improved database of past projects would be a statewide resource so a pilot version for the Cooks River catchment could be a useful step in this direction.

A catchment-specific view of past projects (whether it is based on a standalone database for the catchment or information extracted from a larger database) could also help to identify consistent themes - approaches that are or are not working in the local area, and ideas that could be scaled-up.

### ***Litter clean-up data***

Litter clean-up data (i.e., data on the quantities of litter removed from gross pollutant traps, trash racks, litter booms and river clean-ups) is already collected by various organisations that undertake these activities.

It would be beneficial to collate all of this data so that it can be reported on as a whole for the catchment, including as part of the CRA's forthcoming Cooks River Report Cards.



## 4. HOW TO TACKLE LITTER

*Litter defies simple solutions. The right approach in the right place can have a significant local effect, but widespread and long-term change is more challenging. As a problem with many sources, tackling litter requires many and varied approaches.*

# 4.1 EPA'S LITTER PREVENTION FRAMEWORK

The NSW EPA's litter prevention framework is shown in Figure 23. This framework is used by the EPA to prioritise funding and action to reduce litter, based on its research into litter prevention. Note that the 40% target by 2020 (shown in the centre of the diagram in Figure 23) has been achieved and now replaced by new targets in the Waste And Sustainable Materials Strategy 2041 (DPIE 2021a).

The framework includes five approaches to litter prevention, including examples of each:

- **Rewarding responsible behaviour:** The Container Deposit Scheme is an example of a program that rewards appropriate disposal behaviour, and has resulted in a significant drop in the number of beverage containers found in the litter stream.
- **Education and awareness:** This includes a whole range of communication strategies. The NSW EPA's *Tosser!* campaign is an example. Working with partners is also mentioned here, as partnerships help spread anti-litter messages further.
- **Infrastructure and clean-up:** This is about providing infrastructure such as well-designed, clean, well-maintained bins, that make it easy to dispose of

waste correctly. It is also about 'cleaning up' littered sites - not simply to remove litter, but to invest in other public infrastructure upgrades and maintenance (e.g. pavement cleaning, new furniture, graffiti removal, public art) This signals that these places are cared for and not places to leave litter.

- **Regulation and enforcement:** The main law concerning litter is the Protection of the Environment Operations Act 1997 (POEO Act). It can be enforced via litter penalty notices, which include fines. Penalty notices can be issued by state agencies and local government. Anyone can report littering from vehicles, and the EPA can issue penalty notices based on these public reports.
- **Evaluation and monitoring:** NSW EPA has developed tools which are accessible to anyone to assist with evaluation and monitoring, including the Local Litter Check and Butt Litter Check. The new Key Littered Items Study measures litter in waterways and a dashboard has been created by the NSW EPA so that its partners, such as community groups and councils, can view and investigate the data. The Australian Litter Measure, which will measure litter on public land, is also currently in development.



Figure 23: EPA's litter prevention framework (NSW Government 2019).

## 4.2 EXAMPLE PROJECTS

Many of the litter issues highlighted in Section 3 have already been tackled to some extent through past litter prevention projects. Some examples of recent litter prevention projects in the Cooks River catchment and elsewhere in similar contexts are listed in Table 4. The examples have been organised by the type of hotspots and litter issues they aimed to address, including many hotspot types and litter issues identified in Section 3.3.

Many of these projects were funded by NSW EPA litter prevention grants and led by councils although there are some notable exceptions; for example, the programs on offer for schools. Keep Australia Beautiful runs anti-litter projects across Australia, and the number of organisations running litter prevention programs and projects is growing.

**Table 4: Litter prevention strategies and project examples.**

Hotspot type	Typical issues	Typical litter prevention strategies	Project examples
Industrial	Takeaway litter	Signage New bins Clean up Surveillance and enforcement	Tackling Takeaway Litter (City of Canterbury-Bankstown)
Industrial and Town Centres	Poor waste management practices by businesses	Business education/awareness Surveillance and enforcement	Clean Street Clean Creek (CRA and Strathfield Council) We Like Greenacre Litter Free (City of Canterbury-Bankstown)
Town Centres	Takeaway litter and other packaging	Signage Clean up New bins Education/awareness Surveillance and enforcement Business outreach	Tackling Takeaway Litter (City of Canterbury-Bankstown) Lakemba Tackles Takeaway Litter (Canterbury City Community Centre) We Like Greenacre Litter Free (City of Canterbury-Bankstown) Keep Greenacre Clean & Green (Greenacre Community Centre) Responsible Cafés Buses, Trains and Automobiles project at Blacktown Transport Interchange (Blacktown City Council)
Town Centres	Cigarette butt litter	Signage Butt bins Education/awareness Surveillance and enforcement Artwork, street theatre	Bayside Council cigarette butt bin infrastructure project WSROC 2018 project to reduce cigarette butt litter in shopping strips Butt Free Byron, Butt Free Tweed
Roadsides	Takeaway litter	Clean ups Signage Surveillance and enforcement Business outreach	Central Coast Roadside Litter Project (Central Coast Council) WSROC, EPA, RMS and council partnership project in Western Sydney
Parks	Picnic litter	Signage Bin upgrades Education/awareness Pledges	We Like Our Parks Litter Free (City of Canterbury-Bankstown) Stop Litter in the Bay (Canada Bay Council) Tackling Takeaway Litter (City of Canterbury-Bankstown) Lakemba Tackles Takeaway Litter (Canterbury City Community Centre)
Sports fields	Sports game litter	Signage Portable game day bins Education/awareness	Clean Clubs program (Keep Australia Beautiful WA)
Residential areas	Drive-by litter Overflowing bins	Stewardship by local residents	Crab walking Picutup initiative (Blacktown City Council) Love Your Lane/Living Lanes (Inner West Council)
Schools	Playground litter	Education/awareness Litter checks Litter workshops Nude food promotion	Keep Australia Beautiful's EnviroMentors workshops for schools Total Environment Centre's Ocean Action Pod Taronga Conservation Society's Litter Free Rivers campaign Cooks River Rescue School Stormwater Action Plan (CRA)

## 4.3 COOKS RIVER CATCHMENT HIGHLIGHTS

Some of the things that make the Cooks River catchment special are also the things that make litter prevention a unique challenge in the local area:

- A highly urbanised catchment
- A dense patchwork of land uses
- A diverse community

Some recent examples of litter prevention projects undertaken across the Cooks River catchment are highlighted below.

Both 'Keep Greenacre Clean and Green' and the 'Living Lanes'/'Love Your Lanes' projects have made the most of strong community relationships and connections to place. These elements are likely to be present elsewhere in the catchment, and could form the foundations of other successful litter prevention projects.

### **Clean Street Clean Creek** (CRA and Strathfield Council)



Figure 21 shows many litter hotspots in the upper Cooks River catchment, including a cluster along Coxs Creek. Recently, CRA and Strathfield Council completed a litter prevention project that focused on this area, including industrial areas in Strathfield South and South Lakemba. The project aimed to get local businesses involved in management of litter on the road verges fronting their premises. The project included education, questionnaire surveys, action plans, monitoring and acknowledgement of positive behaviour (Burton 2021).

The project team found that litter prevention was challenging in these industrial areas, where there was a wide range of different businesses, significant turnover in occupancy, and variable attitudes towards litter. The area was also influenced by the behaviour and attitudes of the wider community who passed through the area. They suggested that litter compliance (which was not part of this project) may be critical to successful outcomes in these industrial areas (Burton 2021).

### **Keep Greenacre Clean & Green** (Greenacre Community Centre and the City of Canterbury-Bankstown)



Greenacre town centre was the focus of a Council-led litter prevention project during 2015-17 ('We Like Greenacre Litter Free') and this is currently being followed up by a new project led by the local community centre, in partnership with the City of Canterbury-Bankstown.

The 2015-17 project was important to understanding littering behaviour in Greenacre, and it clearly identified that "support and leadership from within the community was needed to do more to stop littering" (City of Canterbury-Bankstown, undated).

Therefore, the current project builds on this key finding, and is being led by the local community with the support of the Council. The current project includes events, stalls, community clean ups, workshops to promote recycling and caring for the environment, a new bin, litter prevention signage, and a pledge for the community to sign.

The 'Clean Street Clean Creek' project highlights the challenge of reducing litter in an area that lacks strong community relationships or connections to place. Similar areas are likely to exist elsewhere in the catchment, and these will require a different approach.

Bayside Council's cigarette butt litter prevention project builds on the findings of a recent EPA trial of cigarette butt litter prevention strategies (EPA 2019b). The EPA's final report recommends "engaging smokers in the social compact - through conversation, discussion of the

positioning of prompts, talking to rangers, and collecting suggestions for improving butt-binning" (EPA 2019b, p.8). Bayside Council achieved this through the use of the Butt Litter Check tool, surveys and on-site conversations.

Inner West Council participated in the EPA cigarette butt litter prevention trial in 2018 (EPA 2019b). It achieved strong results at a site in Petersham where it trialled a "pride and ownership" approach to create a positive environment in a designated smoking area, achieving a 68% higher binning rate of cigarette butts.

### ***Living Lanes and Love Your Lanes*** *(Inner West Council)*



Laneways are identified in Section 3.3 as one of the places where litter is often concentrated. Inner West Council has worked with local community members on a few laneway projects, including Turtle Lane, Campbell Lane, Wilford Lane and Kayes Avenue East. Each laneway was used as a pedestrian thoroughfare; however, graffiti, dumped rubbish and litter detracted from their amenity.

Each of the lanes had residential surroundings, and local residents were closely involved as partners in each project. Residents took a holistic view of the lanes, and were interested in holistic solutions that would substantially improve amenity. Each project included public art and planting to show that these spaces were loved and respected, and encourage people to change their behaviour in the lanes. The intention was also that residents, having gained more ownership of their local lanes, would continue to play a role in long-term maintenance.

### ***Cigarette Butt Litter Prevention*** *(Bayside Council)*



Bayside Council is currently running a litter prevention project focused on reducing cigarette butt litter in the LGA.

Council aims to engage and reduce the overall littered number of butts and create a social compact (where smokers perceive a beautification in the area) by targeting local factors to encourage smokers to bin butts and discourage them from butt littering. Smokers will feel catered for and not ostracised. It will also indicate to non-smokers that there are facilities in place within the vicinity for smokers to use.

Thirty cigarette bins and related infrastructure have been installed. Infrastructure is combined with modified EPA signage, particularly those which direct and create a safe community space for smoking. In the first 12 weeks of the project, there was a 56% reduction in the number of cigarette butts at the bin installation sites and 42,720 butts collected via the infrastructure.

## 4.4 FEATURES OF SUCCESSFUL PROJECTS

Some of the key features that are repeated across many successful litter prevention projects are outlined here.

### ***Understand the drivers behind littering***

Before taking action, the most effective projects took the time to understand the particular litter issue they were trying to address, including the drivers affecting littering behaviour. This understanding could come from:

- Published literature (e.g. NSW EPA resources)
- Using Local Litter Checks to gather data
- Using other research methods, including interviews with people close to the issue, including residents, businesses, land managers, litterers

The City of Canterbury-Bankstown's Tackling Takeaway Litter project (City of Canterbury-Bankstown 2018b) is a good example of where a project is informed by research. Behavioural research identified the key reasons people were littering takeaway packaging from their vehicles.

### ***Combine multiple strategies***

Most of the litter prevention projects listed in Table 4 used multiple strategies from the EPA's litter prevention framework, and each of these strategies reinforced the others. Blacktown City Council's 'Buses, Trains and Automobiles' project (Andrei 2021) is a good example, which includes:

- Partnership with other land managers
- Upgraded bin infrastructure
- Improved cleansing regime
- Outreach to businesses (to tackle shopping trolleys)
- Direct engagement with commuters, including giveaways of reusable bottles and cups
- Social media campaign
- Surveillance and enforcement

### ***Work in partnership with the community***

The 'Keep Greenacre Clean and Green' and 'Love Your Lane'/'Living Lane' projects highlighted on the previous pages are good examples of this approach. At 2021, the Canterbury City Community Centre is also working on a litter prevention project focused on takeaway litter in Lakemba. Working with community leaders and local community groups, Canterbury City Community Centre aims to engage with the local culturally and linguistically diverse (CALD) community to promote responsible disposal of rubbish. These local community groups are better-placed than councils to engage directly with people and encourage behaviour change.

Working in true partnership with the community may mean expanding the focus beyond litter. Litter hotspots do not always occur in isolation from other issues, and people may be more inclined to get involved in a project that overlaps with their interests.



Image: Canterbury-Bankstown Council

**'Tackling Takeaway Litter' in Canterbury-Bankstown.**



Image: Blacktown City Council

**'Buses, Trains and Automobiles' project at Blacktown.**



Image: Greenacre Community Centre

**'Keep Greenacre Clean and Green' poster.**

### **Make it fun to get involved**

Taking an active role in litter prevention can be a catalyst for behaviour change. When more people get involved, litter prevention messages spread further. To get more people involved:

- **Make it easy:** identify some simple actions that are accessible to most people.
- **Make it fun:** offer experiences like art and citizen science for people to participate.
- **Make it social:** social connection and a sense of belonging are strong motivators.

The 'Lollipop Ladies' of Parramatta have started a project focused on lollipop stick litter. To raise awareness, they have created a giant lollipop from littered plastic sticks, counting the sticks they collected in local places along the way. They are taking their campaign online and to local events, offering activities and free lollipops (on biodegradable sticks) in return for a promise to 'pop' the stick in the bin.



Image: Litter Free Parramatta River

**The Lollipop Ladies' 'Pop it in the Bin' campaign.**

### **Make it easy to change behaviour**

Well-designed, well-located bins and clear signage make it easier to dispose of waste appropriately. For example:

- Bayside Council recently installed new beach litter bins at popular spots around Botany Bay. These supplement conventional bins in adjacent parkland, providing a more convenient option for people to dispose of their rubbish at the beach. They are located near walkways as well as on the beach.
- Inner West Council has recently installed 'tangle bins' in foreshore parks for safe disposal of old fishing line. These were supported with clear and appropriate signage to encourage proper use of the new bins.



Image: Bayside Council

**Beach bins in Bayside LGA.**

### **Pledge before punishment**

Many litter projects have successfully used an anti-litter pledge. For example, as part of the 'We Like Our Parks Litter Free' project (City of Canterbury-Bankstown 2018a), council staff gave picnickers litter bags, at the same time asking them to sign an anti-litter pledge. Amongst the combination of strategies used in the project, the council found that the pledge had the biggest impact on litter (City of Canterbury-Bankstown 2018a). This approach was demonstrated to be highly effective in reducing littering behaviour in a sustained way.



Image: Canterbury-Bankstown Council

**Clean Park Educators in Canterbury-Bankstown with litter pledges signed by picnickers.**





## 5. WHO TACKLES LITTER

*Currently, local councils and some community groups are active in litter prevention and clean ups. They could expand their activities to some extent but to reach the 2025 goal of 50% less litter, more organisations and people will need to get involved.*

# 5.1 CURRENT SITUATION, CHALLENGES...

## **Key players in litter prevention**

In the Cooks River catchment, key players in litter prevention today include:

- NSW EPA, that provides funding and other resources
- The CRA, with its focus on coordinated management of the Cooks River and its catchment
- Local councils, including CRA members and others
- Community groups, including those that have participated in developing this strategy: the River Canoe Club, Cooks River Valley Association, Wollie Creek Preservation Society, Mudcrabs and Crab Walkers
- Sydney Water, that maintains stormwater infrastructure including gross pollutant traps and litter booms, and who has an interest in waterway health projects in the catchment
- Transport for NSW (and other agencies within the Transport cluster), that are responsible for major roads, railway land and railway stations
- Owners of large private sites, such as Sydney Airport, the Enfield Intermodal Logistics Centre, and shopping centres, who manage litter on their properties

## **The current approach and its limitations**

Examples of litter prevention projects being completed across the Cooks River catchment are discussed in Section 4. They include projects run by councils, community groups and the CRA, sometimes working in partnership. Most of these projects have been funded and supported by the EPA, employing similar methods and ideas from the EPA's litter prevention toolkit and framework. Therefore, there is some consistency in the approaches taken. However, they have been completed in relative isolation for these reasons:

- Ad hoc funding - Being funded by short-term grants, there are gaps between projects. Few opportunities exist to follow up completed projects or carry through longer-term actions.
- Loss of corporate knowledge - Project outcomes and key lessons are not always recorded or disseminated in an accessible format. If staff move on, knowledge is easily lost.
- Limited opportunities for coordinated effort - In resource-constrained environments, opportunities for those involved in litter prevention to come together, share knowledge and experiences are rare.

All of the above have been exacerbated by ongoing change brought about by council mergers and constraints imposed by Covid-19, which have created an environment of uncertainty over the last several years. Organisational knowledge has been lost, relationships have been disrupted and collaboration has become more difficult over this period.

Reaching the goal of 50% less litter across the Cooks River catchment by 2025 will require a significant step up from relatively small, isolated projects, to coordinated action across the catchment. To get there, three key challenges identified by stakeholders throughout engagement for this strategy need to be overcome.

## **Challenge 1: fragmented responsibilities**

As noted earlier, responsibilities for litter are fragmented:

- The EPA provides funding and guidance for local litter prevention. However, with a statewide focus, the EPA has limited capacity to work directly with people in the Cooks River catchment or tailor its resources to specific local needs.
- To some extent, local councils fill this gap. Nevertheless, litter prevention responsibilities are also fragmented within councils and between sections, with resources to implement ongoing litter prevention programs typically very limited.
- While the CRA has a key strategic role in catchment management, resource constraints have often limited its involvement in coordinated litter prevention.

## **Challenge 2: making time to collaborate**

Many stakeholders have expressed an interest in sharing more information about local litter data, local projects and ideas from elsewhere. This strategy has brought together the readily available relevant local information; however, it has also identified many gaps and a major need for ongoing collaboration amongst the key stakeholders:

- to build local knowledge of relevant litter information, tools and frameworks, their applicability and potential adaptations for effective local use.
- to continue improving the collection, collation and interpretation of local litter data.
- to continue sharing the findings of local litter prevention projects.

In a resource-constrained environment, ongoing collaboration is a challenge - the key stakeholders are often time-poor with competing priorities, making it hard to find the time to come together, share information, build knowledge and develop partnerships.

## **Challenge 3: getting more people involved**

Stakeholders also pointed out potential benefits in getting more people, including more community organisations, involved in litter prevention. Currently, quite a few community groups are involved in litter clean up (mainly in the accessible parts of the river and riparian edge, particularly in the mid and lower parts of the river) but very few are actively involved in litter prevention. While EPA litter prevention grants are available to community groups, few have the capacity or motivation to take up these opportunities.

# ...AND OPPORTUNITIES

## ***Building on local strengths***

The 2025 goal becomes attainable if the challenges above can be addressed. This strategy envisages how to achieve the goal with an approach that builds on local strengths:

### ***A shared commitment to the Cooks River***

A key strength of the Cooks River catchment community is a shared commitment amongst a diverse network of stakeholders to improving the health of the Cooks River. Litter prevention has not previously been coordinated on a catchment basis, but this is seen as a key strategic move for the future, as:

- Waterways such as the Cooks River are a natural focal point for action on local environmental issues.
- Litter has many similarities to other catchment management challenges with diffuse sources while impacts are concentrated in waterways and the marine environment.
- Governance arrangements focused on the management of the Cooks River and its catchment are established - this is discussed further below.

### ***An established alliance of core stakeholders***

Litter is a diffuse problem with distributed responsibilities, therefore effective litter prevention necessarily requires many people and organisations working together to enact effective change. For this approach to work well, leadership is required to coordinate the efforts of many players.

The CRA is an established alliance of four councils (covering approximately 80% of the catchment area) and Sydney Water. The CRA and its members also have established relationships with relevant stakeholders, including government agencies and community groups. These relationships are key to building collaborative partnerships for litter prevention.

The CRA also has:

- experience co-ordinating the management of complex, catchment-wide problems with fragmented responsibilities and no easy solutions.
- a somewhat separate identity to government, which potentially enables more productive working relationships with individuals, businesses, clubs, community groups and other local organisations.

Consequently, the CRA is seen as being well-placed to coordinate litter prevention across the catchment. However, it is presently staffed by a small team. It could only take on this role with ongoing member support, and preferably a dedicated litter prevention officer, and sustainable source of funding to do the work.

## ***To build a strong litter prevention network***

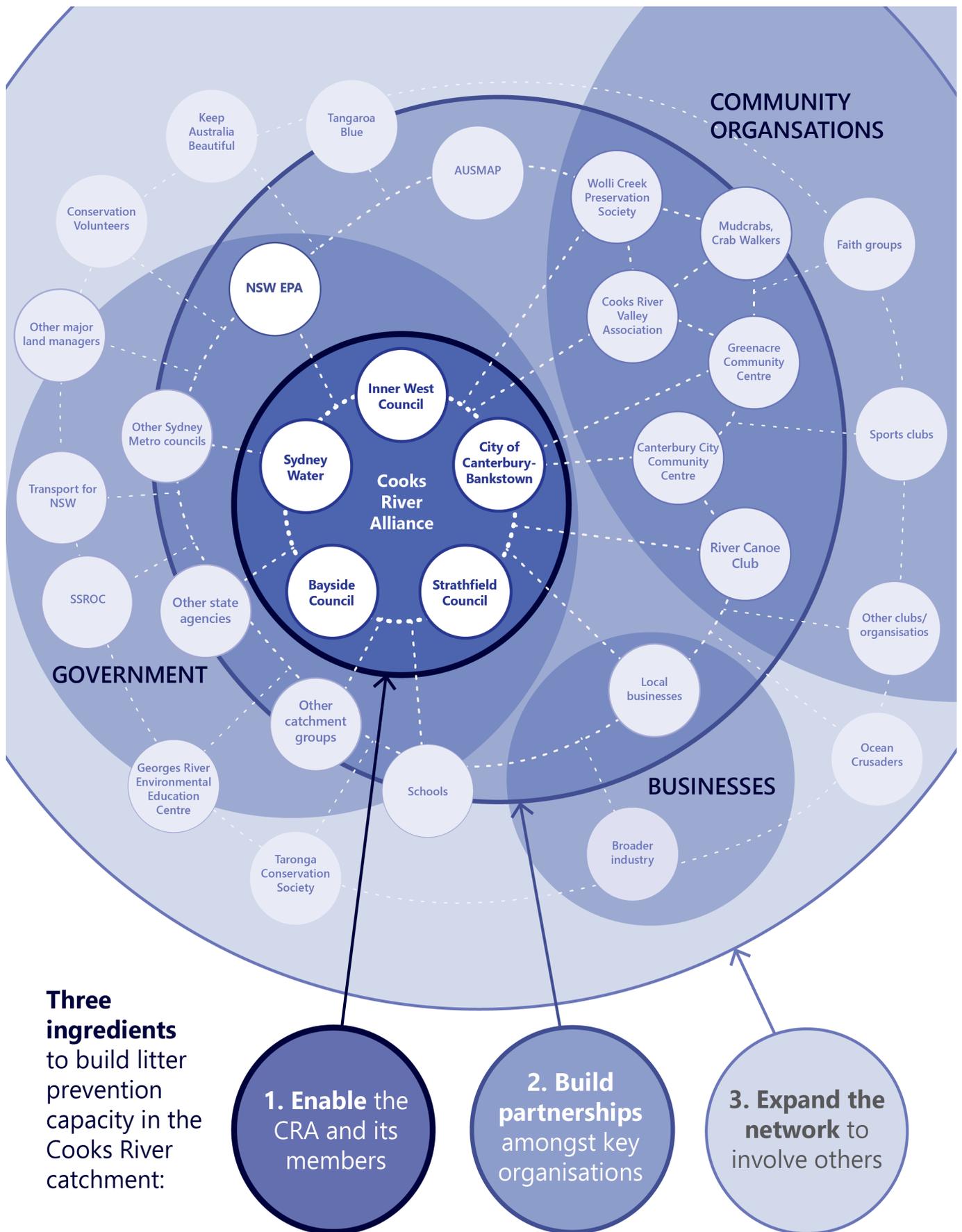
By 2025, the CRA and its members should aim to build a network of people and organisations collaborating and partnering on litter prevention. This has the potential to achieve much more than the individuals working in isolation.

The core members of this network are already in place as noted above. What is needed now is to build their capacity for litter prevention and enable them to grow this litter prevention network. The three key ingredients needed to make this happen are:

1. ***Enable the CRA and its members*** to give litter prevention the focus it needs. This will require leadership, commitment and resources. Importantly, this will need to be directed not only to implementing on-ground litter prevention projects, but also towards capacity building. Leadership, commitment and resources are needed to set up and run networking, knowledge-sharing and collaborative opportunities and build shared resources.
2. ***Build partnerships*** to improve collaboration amongst all the organisations involved. This goes beyond the CRA and its members to strengthening partnerships with community groups, businesses, government agencies and other organisations involved in litter prevention. While relationships with many of these organisations exist, there is a need to build partnerships that include a focus on litter prevention.
3. ***Expand involvement in litter prevention*** beyond the existing players, to include a range of land managers (individuals and organisations). Schools are a good example, where some are already actively involved in programs to reduce litter in their school grounds.

Figure 24 illustrates how these ingredients would work together to build capacity from the core group of CRA members to an expanding litter prevention network. The following three sections provide more information on each of the ingredients.

This approach is consistent with the NSW EPA's ***Own It And Act*** (OIAA) framework, which aims for "individuals, organisations and cross-sector networks [to] take ownership of the litter issue and act on preventing litter for the long-term" (NSW EPA Litter Prevention Unit 2021). OIAA emphasises a partnership approach and collaborative action.



**Figure 24: Building litter prevention capacity in the Cooks River catchment.**

## 5.2 ENABLING THE CRA AND ITS MEMBERS

The first ingredient is to enable the CRA and its members, as shown in Figure 24. This is important as these are the central organisations for leading, coordinating and running the local litter prevention network. When these organisations are enabled to take leadership on litter prevention, then they can build the capacity of the whole network, including building partnerships and expanding the network - the other two ingredients, as shown in Figure 24.

The OIAA 'Self Assessment Discussion Tool', summarised in Box 1, is designed to help organisations similar to the CRA and councils to focus on their capacity building needs. The OIAA framework is organised into four 'enablers' of litter prevention, as also shown in Box 1: leadership, commitment, permission and process.

The CRA completed an OIAA self-assessment in May 2021. This provided a picture of the current capacity strengths and gaps within the team.

Key findings from the self-assessment are:

- **A key strength is an established commitment** to litter prevention. With a clear focus on improving the health of the Cooks River, commitment to litter prevention is a natural position for the CRA to take.

- **Leadership is a potential strength; however, litter prevention is not currently a core activity.** While the CRA is a strong leader in its catchment and waterway management role, litter prevention has not been its focus to date as other priorities currently take precedence. The CRA has potential for litter prevention leadership, however currently lacks the capacity to resource litter prevention as a core activity.
- **Mixed capacity in processes** - the CRA's network is a clear strength, which theoretically makes it well-placed to lead litter prevention efforts across the catchment, but the CRA does not yet have a strong established track record in litter prevention.
- **Limited capacity in terms of 'permission'.** The key gap here is that the CRA has no formal litter prevention role. It is constrained by resources, with a small team of staff and no funding focused on litter prevention.

Actions to build CRA's capacity are included in Section 6, and focus on addressing these gaps. The self-assessment should also be completed by the Cooks River catchment councils, to help identify appropriate actions for them.

### Box 1: Main elements of the EPA's Own it and Act (OIAA) organisational self-assessment tool for litter prevention (NSW EPA Litter Prevention Unit 2021)

#### Leadership for litter prevention (LP)

A best-practice organisation would:

- Have a clear **vision** for litter prevention
- Publicly **promote** litter prevention.
- Aim to improve litter prevention **practices** to change the status quo
- Provide clear internal **communication** on how to implement litter prevention
- Allocate **resources** to include litter prevention as a core activity

#### Commitment to LP

A best-practice organisation would:

- Understand the **benefits** of a commitment to long-term litter prevention
- Have a **track record** of involvement in long term litter prevention
- Be committed to **future involvement** in litter prevention
- Be committed to litter prevention **outcomes** for our community and the environment
- Be committed to **collaboration** as a key element to long term litter prevention

#### Permission to engage in LP

A best-practice organisation would:

- Have formal litter prevention **roles** and descriptions
- Provide **induction and training** in litter prevention
- Allow people to make **decisions** about litter prevention
- Include litter prevention in **policy/plans/strategy/priorities/targets**
- Allocate **budget** specifically for litter prevention programs

#### Processes to support LP

A best-practice organisation would:

- Understand and deliver NSW EPA integrated litter prevention **strategies**
- Be involved and collaborate with **partners**
- Have a track record of litter prevention using **EPA's framework and resources** (such as the Local Litter Check)
- **Monitor and evaluate** litter prevention
- **Celebrate successes** and share outcomes

## 5.3 BUILDING PARTNERSHIPS

Table 5 considers how the principles from the EPA’s Own it and Act framework would transfer from an individual organisation across to a whole network of litter prevention actors in the Cooks River catchment.

Table 5 refers to a **“community of practice”** that would bring together relevant organisations in a semi-formal way, to work in partnership to implement litter prevention actions.

This community of practice would require:

- Leadership (e.g., by the CRA as outlined above).
- Resources (e.g., a funded position within CRA) to do all the work that would support it - from everyday

communications to organising meetings and events, facilitating knowledge-sharing and access to resources

- Active participation of key organisations in the network

The proposed approach is set out in Section 6.

**Table 5: Strategies to build litter prevention capacity throughout the Cooks River catchment community.**

Elements of Own it and Act	What might this look like across the whole catchment?
<b>Leadership</b>	<b>Co-ordination of strategic action amongst a network of actors</b>
<ul style="list-style-type: none"> <li>• Vision</li> <li>• Public promotion</li> <li>• Improvement in practice</li> <li>• Communication</li> <li>• Resources</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting the vision and directions set out in this strategy both to other organisations and publicly</li> <li>• Leading the network of actors in a community of practice</li> <li>• Connecting the community of practice to external sources of knowledge in a broader litter prevention community beyond the catchment</li> <li>• Communicating within the community of practice</li> <li>• Helping facilitate access to resources</li> <li>• Aggregating information from individual projects to collate catchment-wide monitoring and evaluation</li> </ul>
<b>Commitment</b>	<b>An active network of collaborators</b>
<ul style="list-style-type: none"> <li>• Understanding benefits</li> <li>• Track record</li> <li>• Future involvement</li> <li>• Outcomes</li> <li>• Collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting regularly</li> <li>• Helping communicate goals, actions, benefits and outcomes to the broader community</li> <li>• Working together collaboratively to build a documented track record</li> <li>• Actively seeking out new opportunities (e.g. grants)</li> </ul>
<b>Permission</b>	<b>A wide range of people and organisations enabled to take action on litter</b>
<ul style="list-style-type: none"> <li>• Roles</li> <li>• Training</li> <li>• Decisions</li> <li>• Policy and strategy</li> <li>• Budget</li> </ul>	<ul style="list-style-type: none"> <li>• Supporting individual organisations to create formal roles, policies and strategies, including:               <ul style="list-style-type: none"> <li>◦ Defining responsibilities for litter prevention</li> <li>◦ Developing internal organisational policies and strategies</li> <li>◦ Allocating funding</li> </ul> </li> <li>• Organising capacity building workshops and training on litter prevention</li> <li>• Running collaborative litter prevention projects, where project administration is centralised but project delivery is distributed</li> </ul>
<b>Processes</b>	<b>A well-functioning community of practice</b>
<ul style="list-style-type: none"> <li>• Delivering this strategy</li> <li>• Collaborating with partners</li> <li>• Using EPA’s framework and resources</li> <li>• Monitoring and evaluation</li> <li>• Celebrating successes</li> </ul>	<ul style="list-style-type: none"> <li>• Working towards a shared litter prevention target</li> <li>• Delivering actions that support the directions outlined in this strategy</li> <li>• Working with the EPA, using their tools and monitoring data to track progress in reducing litter</li> <li>• Fostering collaboration - putting people in touch with each other</li> <li>• Sharing knowledge - putting people in touch with the right resources</li> <li>• Reporting on individual projects into a common database</li> <li>• Celebrating successes together and sharing them with the broader community</li> </ul>

## 5.4 EXPANDING THE NETWORK

Achieving a 50% reduction in litter across the catchment requires a level of effort beyond each of the existing organisations involved in litter prevention. With a catchment population of more than half a million, actions that involve more people in the community have the potential to achieve more substantial outcomes.

Some of the ways people can currently get involved in litter prevention projects are:

- as part of events (e.g., Clean Up Australia Day has been running for many years and always attracts large numbers of volunteers).
- through community groups they are part of, such as their school communities, sporting clubs, faith-based groups and community centres.
- individuals being inspired to start up their own projects.

However, rather than waiting for individuals and small organisations to step up to litter prevention on their own, a healthy community of practice could facilitate easy involvement by many. At the Community Litter Forum engagement for this strategy, participants indicated that they would get involved in litter prevention more readily if they had:

- access to resources including funding
- a bigger program to be part of
- time to get involved
- support/mentorship from someone who's done it before

Therefore, the strategic directions proposed in Section 6, including several of the pilot projects, focus on providing these mechanisms to get more people involved.



Image: Bayside Council

**Clean Up Australia Day gets people involved.**



Image: Canterbury City Community Centre

**Environment Lakemba taking action on litter.**



Image: facebook/Crab Walking

**The Crab Walkers pick up litter around the River and in local streets. This map shows where current volunteers are participating.**



Image: Cooks River Alliance

**The Cooks River Changemakers course enables the kind of people who might start up a new litter prevention project.**



## 6. STRATEGIC DIRECTIONS

*Three key directions are proposed, building towards:*

- 1. A network of organisations working collaboratively*
- 2. Catchment-scale programs for litter prevention*
- 3. Integrated data collection and reporting at catchment scale*

# 6.1 THE THREE STRATEGIC DIRECTIONS

This strategy has brought together available information to present a picture of where, how and who will tackle litter in the Cooks River catchment. However, it also highlights the gaps in this picture. The strategic directions, discussed in Sections 3, 4 and 5, are summarised here and illustrated in Figure 25 below.

Section 6.2 provides ideas for initial actions that align with these directions and could be implemented in the short-term in the Cooks River catchment.

### Integrated data collection and reporting

As discussed in Section 3, the EPA is releasing new litter monitoring tools and fresh data (the KLIS and ALM), which will help to build a better picture of the litter problem in the Cooks River catchment.

Over the next five years, given adequate funding and the support of local organisations, the KLIS and ALM data

could be supplemented by additional local data. By 2025, the aim should be for integrated data collection and reporting on litter quantities and litter prevention at the catchment scale.

### Catchment-scale programs

The EPA’s combined litter prevention toolkit and litter prevention framework is a good starting point for local litter prevention projects. Cooks River councils and community groups have some experience running local litter prevention projects.

However, most projects have been relatively isolated. Over the next five years, given adequate funding and the support of local organisations, the aim is that large-scale litter prevention programs will be developed to work across the catchment.

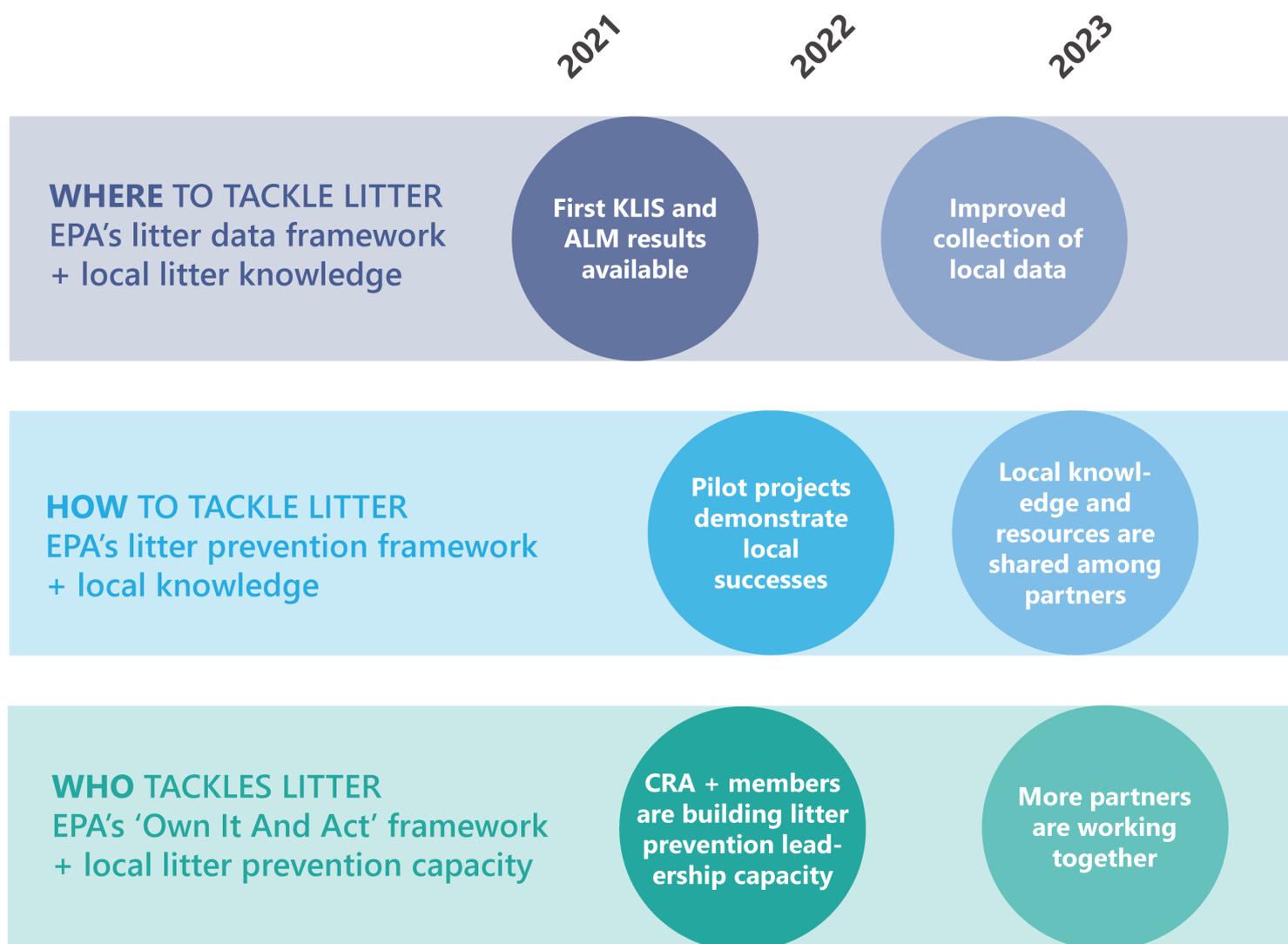


Figure 25: Strategic directions for litter prevention in the Cooks River catchment.

This would begin with testing 'pilot projects', focused on ideas with the potential to be scaled-up and replicated across the catchment. Taking successful pilot projects as their model, transferrable resources would be developed and shared with partners to enable projects to be repeated and developed into ongoing programs.

### **A network of organisations**

The aim over the next five years is to build the capacity of a network of organisations across the catchment so that litter prevention would become less dependent on a few organisations, instead being supported by the coordinated actions of many.

The CRA members are already aligned in their vision for a loved and healthy Cooks River. They also have well-established relationships with other organisations involved in waterway health and catchment management. This

forms a strong starting point for a litter prevention network in the catchment.

The missing ingredients are:

- capacity for litter prevention in the CRA and its members.
- litter prevention partnerships with other organisations.
- a large network of people and organisations involved in litter prevention.

The ways to address these gaps (outlined in Section 5) include enabling the CRA and its members to take a greater leadership role. This will require funding. Ideally, funding would pay for a project officer, who would be responsible for organisation and coordination of capacity building activities, pilot projects, monitoring and review.

### **Monitoring, review and reporting**

The CRA, its members and partners should continue to work with the NSW EPA on using and developing data such as the KLIS and ALM. These are the key tools to measure progress towards the 2025 target of 50% less litter.

As well as monitoring litter quantities in the catchment and the estuary, other potential key indicators to measure the implementation and effectiveness of this strategy could include:

- Individual engagement (e.g. the number signed up to litter prevention updates)
- Organisational engagement, e.g.:
  - Number participating in litter prevention events and activities.
  - Number adopting or endorsing the 2025 target and the litter strategy itself.
  - Number adopting litter prevention policies and/or committing resources.
- The number of litter prevention projects completed.

The CRA will report on litter prevention outcomes (e.g. total litter loads, litter collection) as part of its forthcoming Cooks River Report Cards.

The CRA may also formally review and report on this litter prevention strategy as part of its Annual Reporting once it is included in its new Strategic Plan for 2021-2024.



## 6.2 POTENTIAL ACTIONS

This section suggests some simple actions that the CRA could implement within 2021-22, as well as some ideas for the next round of EPA grant applications, expected to open in October 2021.

This is not a comprehensive action plan - the intention is that action plans will be prepared by individual organisations in the catchment to support this strategy.

### **Initial actions - no or low cost**

The Cooks River Alliance has identified the following ten simple actions that could be undertaken before additional resources are available:

1. Include litter prevention explicitly as a goal in the CRA's 2021-2024 Strategic Plan and other key governance documents.
2. Include metric-based goals and KPIs for litter prevention in the Strategic Plan.
3. Advocate and identify funding opportunities to support litter prevention projects.
4. Execute the Communications Framework to publicly promote litter prevention to stakeholders, including via website, news articles, etc.
5. Include litter prevention explicitly as a key content issue within CRA's forthcoming Advocacy Plan and Communications Framework. The Plan and Framework will include commitment to actively seek out opportunities to promote and support litter related events and programs.
6. Develop a framework and action plan to publicly promote litter prevention to stakeholders via website, news articles, etc.
7. Advocate for additional external and internal resources to ensure effective implementation of the Litter Prevention Strategy and other litter prevention actions.
8. Establish track record amongst councils and other key players to understand litter prevention successes and failures.
9. Administer community surveys and engagement on the value of clean environments and litter prevention.
10. Assist with coordination of on-ground monitoring where feasible.

CRA members and other organisations in the catchment should consider how to support the CRA officers with these actions, as well as identifying similar actions suitable for their organisation.

### **Grant applications for capacity building**

If the EPA's 2021 round of grant funding includes opportunities to fund capacity building projects, the CRA and its members should aim to apply, targeting funding (if possible) for:

- A **Project Officer** at the CRA to focus on litter prevention at catchment scale, with role to include organisation/co-ordination of capacity building activities, pilot projects, monitoring and review.
- Establish a catchment-based litter prevention **working group** to develop projects and actions, increase the local network knowledge base, and share success and failures.

Based on the litter prevention capacity assessment of local organisations:

- develop further tools and actions on an iterative basis to address key gaps for organisations (e.g., templates, tools, materials)
- consider litter prevention capacity building workshops, training or events for councils and community groups
- continue to advocate for development of a regional (e.g., Sydney Metro) litter prevention network.

### **Grant applications for pilot projects**

The EPA's litter prevention grants may also fund pilot projects. Eight pilot project ideas are presented in Appendix A for consideration by the CRA, its members and partner organisations:

- **Sorting out single use:** a project to sort and classify litter from clean-ups.
- **Simple local litter reporting:** a project to make it easy to report on litter hotspots.
- **Love your home ground:** a project to enable sports clubs to reduce litter at their home grounds.
- **Love your school ground:** a project to enable schools to reduce litter at their school grounds.
- **Love your verge:** a campaign to encourage people to make a habit of taking care of the verge in front of their home or business.
- **Take away and clean up:** a project to expand the focus on takeaway litter.
- **Cleaning up commercial lanes:** a project to clean up commercial laneways.
- **Local litter campaign resources:** a project to develop locally appropriate campaign materials.

These pilot ideas can be scaled across the catchment. Some can also build in opportunities to get more people and organisations involved and to improve local litter data.

## 7. REFERENCES

- Andrei, B 2021 "The Buses, Trains and Automobiles Project – Frustration came before the achievement" Proceedings of the Litter Congress 2021, Keep Australia Beautiful NSW.
- City of Canterbury-Bankstown 2018a We Like our Park Litter Free Case Study. Online: <https://www.cbccity.nsw.gov.au/resident/waste-recycling/litter-prevention>.
- City of Canterbury-Bankstown 2018b Tackling Takeaway Litter Case Study. Online: <https://www.cbccity.nsw.gov.au/resident/waste-recycling/litter-prevention>.
- City of Canterbury-Bankstown 2020 Connective City 2036: Local Strategic Planning Statement (Final, March).
- Gallo, F., Fossi, C., Weber, R. *et al.* Marine litter plastics and microplastics and their toxic chemicals components: the need for urgent preventive measures. *Environ Sci Eur* **30**, 13 (2018).
- Lavarack, J 2021 "The Litter Journey: Big picture for litter prevention" Proceedings of the Litter Congress 2021, Keep Australia Beautiful NSW.
- NSW Department of Planning, Industry and Environment (DPIE) 2021a NSW Waste and Sustainable Materials Strategy 2041.
- NSW Department of Planning, Industry and Environment (DPIE) 2021b Plastics Action Plan 2021.
- NSW Department of Planning, Industry and Environment (DPIE) 2021c "Key Littered Items Study" web page: <https://www.environment.nsw.gov.au/research-and-publications/our-science-and-research/our-research/water/coastal-and-marine-research-and-monitoring/marine-debris/key-littered-items-study> [accessed August 2021].
- NSW EPA 2013 NSW Litter Prevention Kit: Things you should know about litter and litterers.
- NSW EPA 2019a EPA Litter Prevention Kit Part 2: Delivering effective local litter prevention projects.
- NSW EPA 2019b Identifying effective strategies to reduce cigarette butt litter: Findings from the NSW EPA-led Cigarette Butt Litter Prevention Trial.
- NSW EPA Litter Prevention Unit 2021 Own It & Act Self Assessment Discussion Tool.
- NSW Government 2018 Marine Estate Management Strategy 2018-2028.
- NSW Government 2019 NSW Litter Prevention Strategy 2019–2022. NSW Environment Protection Authority, Sydney, December 2019.
- NSW Government 2020 NSW Litter Report 2012-2017.
- NSW Government 2021 NSW Litter Report 2016-2020.



A scenic photograph of a river at sunset. The sun is low on the horizon, creating a bright glow and shimmering reflections on the water. A kayaker is visible in the distance on the left. The right side of the image is dominated by a large, dark blue circular graphic overlay with a white border. The text 'APPENDIX A: PILOT PROJECT IDEAS' is centered within this circle in white, bold, sans-serif font.

# **APPENDIX A: PILOT PROJECT IDEAS**

## Sorting out single use

A project to sort and classify litter from clean-ups



The need:

- Collect local data on key littered items that are making their way into the River
- This could be used to:
  - Identify local problem items
  - Track the effectiveness of litter prevention actions that target particular items
- Present key messages back to community and stakeholders. Make the connection between key littered items and marine/river impacts. Inform a campaign targeting key litter types

The idea:

- Build on the EPA's Key Littered Items Study. For example, litter could potentially be sorted into the top 5 items from the KLIS.
- Offer training to volunteers
- Give people a simple method to sort litter into key types
- Ask Mudcrabs, Mullets, Crab walkers to participate as part of their clean ups

Considerations:

- Trial the method and make sure it works in different contexts and can be done relatively quickly
- Investigate if there is potential to connect with AUSMAP's project in Cup and Saucer Creek catchment
- If the same classification method is used elsewhere, this will enable bigger stories to be told and comparisons to be made

Precedents to learn from:

- [Strain the Drains](#) - Sustainability Victoria and Tangaroa Blue project with litter traps in Melbourne. Their approach made the sorting/classification task fun and social.
- Beverage containers - focusing on particular items helps the messaging cut through.
- [Lollipop Ladies](#) - take the key items, turn them into art and use them as a campaign piece.

## Simple local litter reporting

A project to make it easy to report on litter hotspots



The need:

- Knowledge of litter hotspots is currently patchy
- Current processes to report littering are designed for other purposes:
  - Council tools to enable reporting of local issues are designed for issues that need a swift, targeted response. These tools do not welcome or make it easy to report on chronic issues, such as litter hotspots.
  - EPA's tool to report littering from vehicles is only useful for this specific circumstance.
  - The Australian Litter Measure (see Section 3.4) is likely to require a relatively high level of commitment by individuals wishing to use it. There could be a role for simpler more accessible tools as well.

The idea:

- Create a simple method to report a litter hotspot. Make it quick, easy and consistent everywhere
- The promise should not be immediate action, but be clear that it is a contribution to monitoring and understanding hotspots. Then hotspots can be prioritised for action.
- Create simple, consistent signage with QR codes - signs can be placed in places identified as potential hotspots, to encourage people to submit more information and also alert litterers that the place is being monitored

Considerations:

- Needs a nominated role to collate data and analyse it
- Need to present findings to councils and other stakeholders to show its value and demonstrate how data can be used
- Potential to combine with a regional litter network website to create a uniform reporting and knowledge sharing system across Metropolitan Sydney and ease reporting burden on councils

Precedents to learn from:

- [Littergam](#) (UK)
- [Litterati](#)

## Love your home ground

A project to enable sports clubs to reduce litter at their home grounds



### The need:

- Councils have told us that sports fields can be litter hotspots
- Many sports clubs have a home ground, where they may have a sense of ownership and pride
  - an incentive to take care of the place
- Sports clubs have a large membership base and strong standing in the community

### The idea:

- Create a simple action plan for sports clubs. Give them templates for every step, including:
  - Take a pledge
  - Identify the issues
  - Make a plan
  - Take action
  - Celebrate participation at each step of the way
- Beyond the pilot, aim to have all the clubs working towards a common goal, sharing ideas and aggregating their results to tell a bigger story

### Considerations:

- The River Canoe Club could potentially run this pilot at its clubhouse and surrounding part of the river bank

### Precedents to learn from:

- Clean Clubs - Keep Australia Beautiful WA

## Love your school ground

A project to enable schools to reduce litter at their school grounds



### The need:

- Schools manage significant sites and have strong community relationships
- Many schools are already active in reducing waste and managing litter, and there is potentially scope to expand this, e.g., to other schools, into the surrounding neighbourhoods including drop off and pickup zones, routes to and from school

### The idea:

- Use existing resources available for schools (see below). Most of these resources present litter management as part of a bigger package, to make it more interesting to schools, e.g.
  - With a more holistic approach towards zero waste
  - With a focus on the river/ocean
  - As part of a sustainability program
- Create a litter action plan to pair with existing resources, including templates schools can use with students
- Beyond the pilot, aim to have all the schools working towards a common goal, sharing ideas and aggregating their results to tell a bigger story

### Considerations:

- CRA has good connections to schools
- Schools are already involved in other programs so connect with things they are already doing to make it easy
- Several schools have been participating in the 'Cooks River Rescue: School Stormwater Action Program' recently
- Bayside Council has been organising KAB to run its program in local schools

### Precedents to learn from:

- Keep Australia Beautiful's [EnviroMentors](#) workshops for schools
- [Plastic-free school canteen support program](#) in Northern Beaches LGA
- Total Environment Centre's [Ocean Action Pod](#)
- Taronga Conservation Society's [Litter Free Rivers](#) campaign (including a [schools toolkit](#))
- CRA and GREEC's [Cooks River Rescue School Stormwater Action Program](#)

## **Love your verge**

*A campaign to encourage people to make a habit of taking care of the verge in front of their homes or businesses*



### The need:

- Residential areas represent the majority of the land use in the catchment
- Although litter volumes/item counts tend to be lower than other land uses by area, litter is still present and distributed throughout residential areas
- In many residential streets, residents could be inspired to take some ownership of their verges
- Businesses with a public front and street presence could also be inspired to take some ownership

### The idea:

- This could primarily be a social media campaign - start simple
- Encourage people to make a pledge to keep their verges clean
- Encourage people to share their own stories
- Encourage whole streets to participate
- Celebrate those who clean up outside the front of their properties
- Understand why they care, to encourage others to take action

### Considerations:

- Potential for this program to be broader than litter - this may give it more appeal, but also increase complexity

### Precedents to learn from:

- [Crab Walking](#)
- [Picitup](#) program (running in several NSW councils including [Wollongong](#))
- [Sustainable Streets](#) (Inner West Council)

## **Take away and clean up**

*A project to expand the focus on takeaway litter*



### The need:

- Takeaway litter is a key issue in several hotspots
- These are typically places where few people are likely to care (e.g., car parks, industrial area verges, dead end streets) therefore, they need a different approach

### The idea:

- Start with a rapid survey to identify the worst spots across the catchment. Key suspects are industrial streets (e.g., Strathfield Council had several areas of concern) and car parks in and around town centres and parks (several of these are identified in the hotspot map in Figure 21).
- Next, there is a need to understand more about what is happening at these spots, to be able to identify what might change behaviour and how to make sure it does not simply move elsewhere.
- Work with takeaway outlets. Look at companies' policies and actions on packaging, waste and litter and seek opportunities to get them involved

### Considerations:

- In some cases, there is a clear connection between particular takeaway outlets and littered places
- In others, the connection is less clear

### Precedents to learn from:

- The City of Canterbury-Bankstown's ['Tackling Takeaway Litter'](#) project
- CRA and Strathfield Council's industrial areas project
- Zero Waste Scotland's [Tackling Takeaway Litter Guide](#) - focused on businesses
- [Swap for Good](#) (Northern Beaches Council) - working with takeaway outlets

## **Cleaning up commercial lanes**

*A project to clean up commercial laneways*



The need:

- Commercial laneways are significant hotspots
- There are particular issues in lanes that require a targeted approach, e.g., commercial waste management, litter from shoppers, smokers, etc.
- The laneways tend to be places with low levels of ownership or social responsibility
- However, some are pedestrian thoroughfares between car parks and shops; these are quite visible to the public

The idea:

- The City of Canterbury-Bankstown is already planning a project focused on commercial laneways. It is understood that its project will include six laneways within the Cooks River catchment:
  - Mill Lane, Hurlstone Park
  - Croydon Lane, Croydon
  - Redman lane, Campsie
  - Church Lane, Canterbury
  - Gillies Lane, Lakemba
  - Oneata Lane, Lakemba
- Education and awareness, regulation and enforcement will be important
- Potential to work with the businesses backing onto the lanes

Considerations:

- Some of the lessons are potentially transferable to other town centre hotspots, including car parks, bus stops, smoking spots, rail corridors (though the issues in each of these places are somewhat different)

Precedents to learn from:

- Inner West Council's Love your Lanes, and Living Lanes programs
- EPA [illegal dumping resources](#)
- *Back of Business* – putting litter in its place (City of Canada Bay)
- [Get the Site Right](#) is a good example for a similar compliance issue

## **Local litter campaign resources**

*A project to develop locally appropriate campaign materials*



The need:

- Materials for campaigns, signage, etc. that is locally relevant and appropriate in CALD communities
- Share this cost across the catchment

The idea:

- Get the community involved, e.g.,
  - Ask the community to contribute ideas
  - Run a competition to develop ideas
  - Invite people to participate via a vote
- Generate a wide range of resources available to anyone who wants to use them

Considerations:

- Different people respond to different types of messaging
- The EPA's Tossler! resources are available, however, local resources could target groups which are not so responsive to the Tossler! campaign.

Precedents to learn from:

- Zero Waste Scotland has a good [toolkit](#) of anti-litter collateral

