



Environmental Sustainability Progress Report

2017–2021



**CITY OF
PARRAMATTA**

**Implementing the Environmental
Sustainability Strategy**



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Acknowledgment of Country

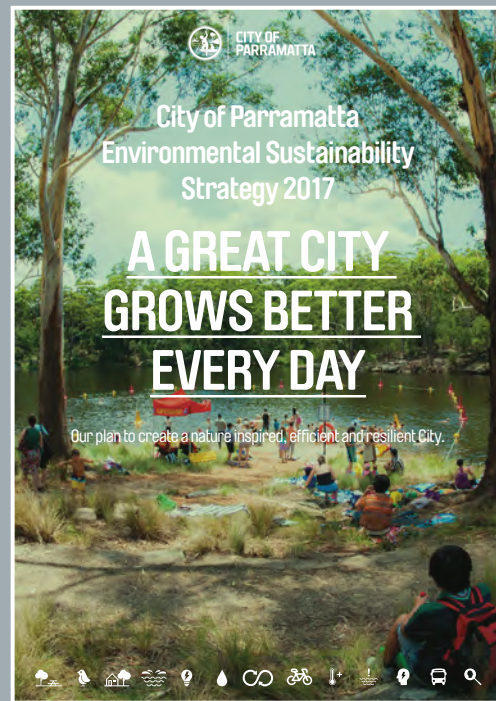
City of Parramatta Council acknowledges the Dharug people who are the Traditional Custodians of the land of Parramatta.

Council pays respect to the Elders past and present of the Dharug nation and extends that respect to other Aboriginal people.

Disclaimer

While every reasonable effort has been made to ensure this document is correct at the time of printing, the City of Parramatta, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance upon the whole or any part of this document. In some graphs the 2020/21 data is missing, as it had not been provided to Council at the time of publication.

Environmental Sustainability Strategy



In 2018 the City of Parramatta was awarded the Overall Winner of the NSW Local Government Environmental Excellence Awards for its Environmental Sustainability Strategy 2017 and its commitment to implementation and monitoring.



The City of Parramatta Environmental Sustainability Strategy (Strategy) was endorsed in 2017. The Strategy set the bar high and committed the Council to ambitious goals and strong actions across four key environmental themes:

1. **A City in Nature**
2. **Built for the Future**
3. **Connected and Resilient Communities**
4. **Leading by Example**

As part of endorsing the Strategy in 2017, Council also committed to annually reporting on the Strategy's implementation progress. City of Parramatta's annual environmental reports are available on Council's website.

This Progress Report closes-out the 2017 Strategy and includes a review of actions within the four-year plan and assesses overall progress until 30th June 2021.

Part 1: Snapshot



To close out the 2017 Strategy's four-year action plan, Council has created this report which includes both a snapshot of overall goal progress as well as more detailed information on individual action tracking. Through the review of our progress Council is seeking to set the groundwork for updating and setting our priorities and actions for the next four years.

Council has tracked action progress using a range of qualitative and quantitative measures.

Key measures have included data from our Community Satisfaction Survey as well as targets in alignment with state government reporting including the Pulse of Sydney, Resilient Sydney, Premier's Priorities, and the NSW State Plan.

The implementation of these 98 actions has provided Council a strong foundation for identifying progress on the 20 long-term goals, with 55% of goals progressing favourably (Figure 1) and 63% of actions completed or on-track (Figure 2).

Goal progress has been a shared effort across Council, community groups, other agencies and industry. Whilst Council's role has varied amongst the different actions and priorities we have set a strong agenda and demonstrated leadership in many areas.

Our experience, success and the results of this progress report provide a strong foundation for setting new focus areas for Council that will maximise our efforts moving forward.

The future action plan will reaffirm Council's long-term commitment to creating a nature inspired, efficient and resilient City, with updated targets aligned to the latest government policy and community needs.

Figure 1: Goal progress

Progressed: 55% (11)
Progress made but needs review: 45% (9)

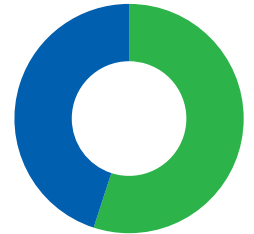


Figure 2: Action implementation

Completed: 10% (10)
On-track: 53% (52)
Need attention: 37% (36)



¹ Actions have been classified as 'needs attention' if the progress on the action has been limited and needs some attention. This may be due to issues such as COVID-19, resourcing, changes in action priority and relevance, or limitations in Council influence. See Appendix for further detail on individual action status

Progress Summary

Council has tracked the action progress for all four themes (Figure 3) and the table below provides detail for each of the 20 long-term goals.

A wide range of environmental, social and economic measures were reviewed in determining action¹ implementation and goal progression from the first four years of implementation.

Figure 3: Action Progress

Theme	Action Progress	Priority	Goal	4-year Progress
A City in Nature Completed: 5.6% On track: 58.3% Needs attention ¹ : 36.1%		1. Parks & Green Space	1. Protect, enhance and increase our parks and green spaces to make them a community feature	●
		2. Bushland & Biodiversity	2. Protect and enhance the health of our unique natural ecosystem of plants and animals	●
		3. Urban Forest	3. Increase canopy cover to 40% by 2050 (Based on 2016 levels)	●
		4. River & Waterways	4. Make the Parramatta River Swimmable again by 2025	●
Built for the Future Completed: 6.25% On track: 56.25% Needs attention ¹ : 37.5%		5. Community Energy & Carbon	5. 60% emissions reduction by 2038 (based on 2015 levels)	●
		6. Community Water Use	6. 50% of electricity demand to be met by renewable energy by 2038	●
		7. Community Waste & Litter	7. No net increase in potable water consumption by 2038 (based on 2015 levels)	●
			8. Reduce resource consumption from 8.1kg to 6.1kg per person by 2038 (based on 2015 levels)	●
			9. Increase diversion from landfill to 85% by 2038	●
		10. Reduce the volume of litter by 40% by 2020	●	
		8. Sustainable Transport	11. 10% of trips made by walking and cycling by 2038	●
Connected and Resilient Communities Completed: 19% On track: 67% Needs attention ¹ : 14%		9. Urban Heat	12. Improve liveability by cooling the City and protecting people and communities from heat stress	●
		10. Flooding	13. Minimise the impact of flooding on the community	●
		Leading By Example Completed: 12% On track: 32% Needs attention ¹ : 56%		11. Council Energy & Carbon
12. Council Water Use	15. 60% Emissions reduction by 2038 (based on 2015 levels)			●
	16. No net increase in potable water consumption by 2038 (based on 2015 levels)			●
13. Council Waste & Resource Recovery	17. 90% diversion rate for Council waste by 2038			●
14. Council Fleet & Staff Travel	18. Reduce Council fleet emissions by 20% by 2038 (based on 2015 levels)			●
	19. Reduce single-occupancy car commutes to and from work by Council staff to 35% by 2023 (based on 2016 levels)	●		
15. Responsible Investment & Procurement	20. Sustainability criteria are considered in all of Council's procurement activities	●		

Key

●	Progressed 11 (55%)	●	Progress made but needs review 9 (45%)
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¹ Actions have been classified as 'needs attention' if the progress on the action has been limited and needs some attention. This may be due to issues such as COVID-19, resourcing, changes in action priority and relevance, or limitations in Council influence. See Appendix for further detail on individual action status

What we did well



Council has made some significant progress on its environmental goals and actions over the last four years. This progress has been made despite some key challenges such as COVID, which has had a big impact on services and staffing.

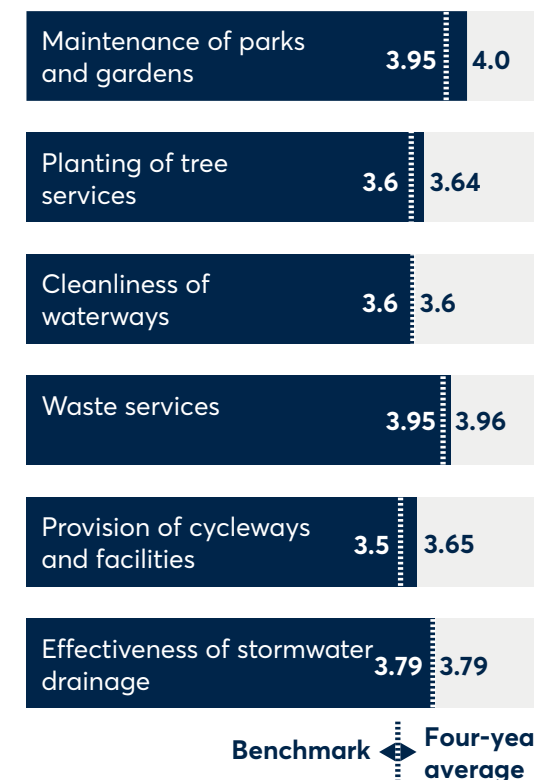
Figure 4 provides the annual Community Satisfaction Survey² benchmarks for the six environmental measures on a 5-point satisfaction scale. Results for each measure over 4 years rate the community's satisfaction with Council at or above these benchmarks.

Council has also shown leadership in key areas such as open space planning, environmentally sustainable development controls, energy reduction and progress towards becoming carbon neutral.

A selection of some of our key achievements include:

- Supporting growth and our communities with new open space through the Community Infrastructure Strategy.
- Providing a natural swimming site and regionally recognised attraction at Lake Parramatta.
- Delivering more walking and cycling with the Escarpment Boardwalk, the last piece in a continuous 20km dedicated connection on the northern side of the Parramatta River.
- Cleaning our waterways with the removal of over 1,237 garbage trucks of litter.
- Increasing shade by planting 5,298 trees in streets, parks, and playgrounds.
- Future proofing new development through city leading, energy efficiency, recycled water, urban heat shading and electric vehicle planning controls.
- Improved flood resilience and community flood preparedness with the FloodSmart Parramatta service.
- Increasing our energy efficiency with a 33.2% reduction in electricity, particularly through upgrading 53% of our streetlights to energy efficient LEDs.
- Making key steps towards our goal of becoming carbon neutral by 2022.

Figure 4: Community Satisfaction Survey benchmarks achieved



Future planning work will continue to strengthen alignment between the Environmental Sustainability Strategy and key Council documents such as the Community Strategic Plan (CSP) and the Delivery Program and Operational Plan (DPOP).

Council is looking to commence development of the next 4-year actions (2022–2026) and will be seeking to simplify and update the strategic statements and targets to align with the latest government policy, community needs and other strategic Council documents.

The quality and resilience of our environment is critical to the future success of Parramatta. As Council sets its strategic vision and direction for the next four years, we look forward to working with our community to continue our environmental leadership, providing a strong and resilient foundation for our role as Sydney's Central River City.

² The annual Community Satisfaction Survey is research conducted by over 60 councils to measure their resident and business satisfaction with governance, services, facilities and community perceptions of Council

Action Highlights (2017–2021)

A City in Nature

\$52.8m
park upgrades

\$1.2m
Bushcare investment in natural areas through **25,117** volunteer hours

269,289 swimmers enjoy a dip in the cool and clean waters of Lake Parramatta

Built for the Future

Future proofing new development through energy efficiency, dual piping, urban heat and electric vehicle planning controls

9.18% increase of **waste diverted** from landfill from 45.13% in 2017 to 54.31% in June 2020

Multimillion-dollar water treatment wetland Milson Park, Westmead opening in 2022/23

Connected and Resilient Communities

35% trips made by walking and cycling

\$20.24m invested in flood and drainage management and mitigation infrastructure

Developed and launched Parramatta's first and **award-winning flood warning service** in partnership with NSW State Emergency Service – FloodSmart Parramatta.

Leading by Example

NO CO₂ On-track to be **carbon neutral** by 2022

53% (over 8,000) streetlights upgraded to energy efficiency LED lights

64% diversion from landfill for Council's Works depot (average)

Partnerships & Advocacy

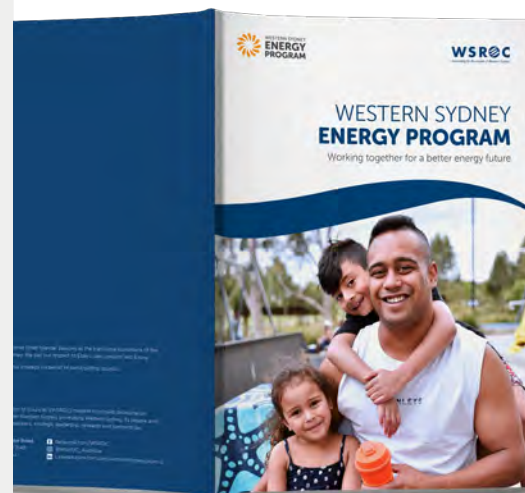
Council has collaborated with other local government areas, NSW Government agencies and community organisations to implement our action plan and make progress towards our long-term goals. These key partnerships have been critical in our success.

Resilient Sydney Program



Resilient Sydney is a collaboration of all 33 metropolitan councils of Greater Sydney and NSW State Government agencies, to develop and implement a city-wide resilience strategy. The Resilient Sydney Strategy (2018) identified five directions (people centred city; live with our climate; connect to strength; get ready; and one city) for responding to acute shocks and chronic stresses which impact the communities of the Greater Sydney region.

Western Sydney Energy Program



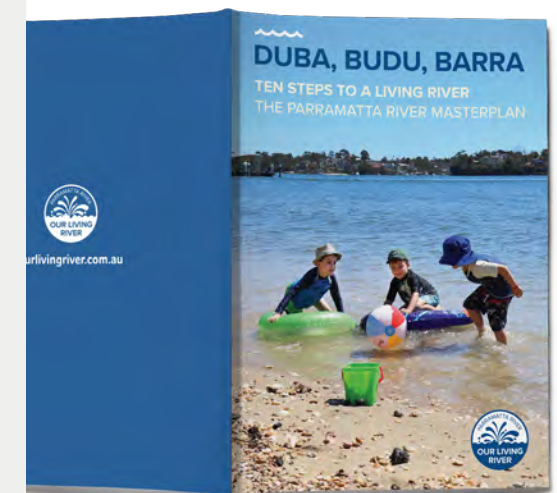
The Western Sydney Energy Program is coordinated by Western Sydney Regional Organisation of councils (WSROC) and is a collaboration of nine Western Sydney councils who are aiming to reduce emissions by 200,000 tonnes of CO₂ each year through renewable energy, transport, facilities and supporting our community. This equates to taking 46,000 cars off the road annually.

Turn Down the Heat



The Turn Down the Heat initiative is a collaborative, multi-sector approach to tackling urban heat in Western Sydney. The Turn Down the Heat Strategy (2018) is coordinated by WSROC and has five focus areas (take action together; design and plan to cool the built environment; cool with green space and water; build a community that is healthy and prepared; and innovative and responsive infrastructure) that contribute to a cooler, more liveable, and resilient community.

Parramatta River Catchment Group



The Parramatta River Catchment Group (PRCG) is an alliance of Councils, government agencies and community groups who are working together to make Parramatta River swimmable by 2025.

The PRCG's Duba, Buda, Barra: Ten steps to a Living River – The Parramatta Masterplan (Plan) was launched in October 2018 and is a comprehensive plan based on robust science, collaboration, cultural sensitivity, and community decision making. The 'ten steps' include improvements in stormwater runoff, planning controls, reducing sewer overflows and community engagement.

Part 2: Goal and Priority Progress





Overview



Part 2 presents each of the four themes and the progress of the 15 priorities. Each priority has been separated into its own section that provides an overview of the relevant goal/s, the action progress, key achievements and data insights that we have available.

Implementation of the 98 actions has been through Leadership, Advocacy, Partnership and Delivery (Figure 5).

The following key has been used throughout this section to indicate the role Council has played in key actions and achievements.

Key:

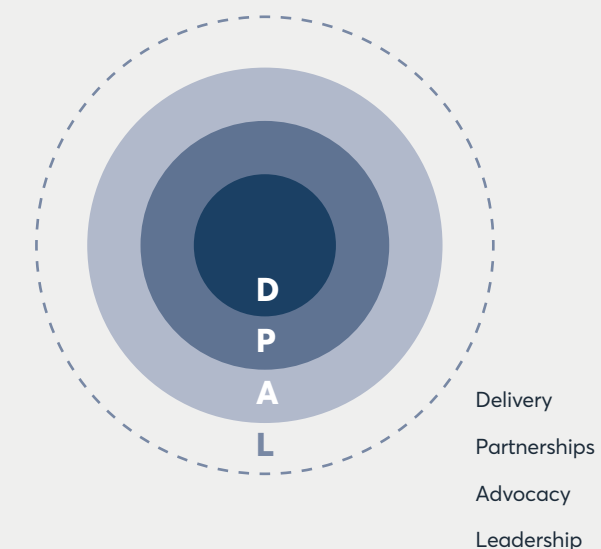
Leadership (L) – through our own actions, and by driving innovative approaches in the built space and natural environment, and in the management of resilience.

Advocacy (A) – for changes in policy and action at different levels of government and industry for community benefit.

Partnership (P) – with commercial, government and community stakeholders to deal with a broad range of environmental issues.

Deliver (D) – programs, services, and policies to achieve positive outcomes for the City.

Figure 5: Council's roles



A City in Nature

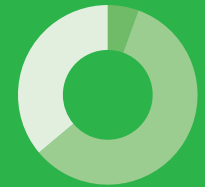


Twenty three City in Nature actions have progressed towards the goal with two completed and 21 on-track for completion.

Our community cherishes nature, and they would like Council to protect and enhance green spaces and the environment. Creating a City in Nature takes planning, and the City of Parramatta has identified four priorities to create a City where nature abounds:

1. Parks & Green Space
2. Bushland & Biodiversity
3. Urban Forest
4. River & Waterways

Action progress



- Completed : 5.6%
- On-track: 58.3%
- Needs attention: 36.1%

For further detail on individual action status see Appendix

Context

As a City in nature, Council manages 863ha of green and open space including 389ha bushland, 64 sporting fields and numerous beautiful and diverse parks. Included within our bushland and riparian reserves are 12 endangered ecological communities, 32 threatened fauna species, 600 species of plants and 230 species of animals.

The trees within the urban forest provide essential urban infrastructure services by keeping temperatures cool, supporting erosion control, slowing stormwater flows, and reducing nutrient loads in our urban waterways. Our 22.6% tree canopy cover also plays a vital role in providing us with a social, healthy, and liveable place to live work and play.

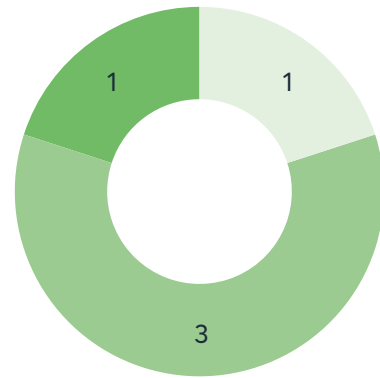
The Parramatta River is one of Australia's most iconic waterways, being central to Australia's Indigenous and colonial history, and to the development of modern Australia. There are 105km of waterways, including 88.2km of natural waterways within the local government area. The key to making the river swimmable again is to limit pollutants from entering the river through the stormwater, drainage systems and the sewer system across our catchment.

Priority 1 Parks & Green Space

Goal 01

● **Progressed**

Protect, enhance and increase our parks and green spaces to make them a community feature



Actions

1.1.3 Implement Parra Play policies through formal play spaces
1.1.2 Develop a new Open Space & Recreation Plan
1.1.4 Promote the use of shared green space by educating and engaging our community
1.1.5 Continue to activate our parks and opens spaces via our bike and walking networks

1.1.1 Maximise quality green and open space in new growth precincts

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Council manages a total of 863ha of green open space including 165 parks and reserves and 64 sporting fields. In planning for the future, Council has advocated for new development to be aligned with the delivery of new open space. Additional work focused on identifying local priorities and increasing the quality of existing parks and reserves. Council will continue to negotiate with NSW Government and developers for better open space outcomes and seek funding to deliver quality open space for our growing communities.

Key achievements

- \$52.8m investment in park enhancement
- Created 2.3ha of new green space

Community Infrastructure Strategy (L, D)

The Socially Sustainable Parramatta Framework (2018) and Community Infrastructure Strategy (2020) have been developed to guide our priorities around the provision and upgrade of parks and open space infrastructure.

Park Masterplans and Investment (L, D)

Through proactive planning Council has successfully attracted millions in federal and state government funding for significant park upgrades along with the provision of new open space.

Completed upgrades include West Epping, John Wearn, Rydalmere and Ollie Webb reserves along with 20 playgrounds across the North Rocks and Epping wards.

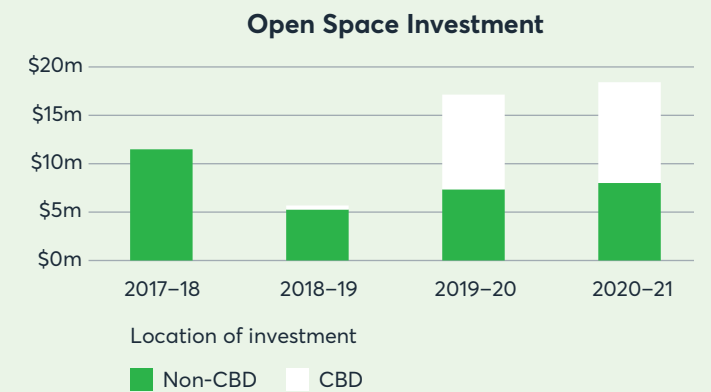
Major upgrades funded and in planning include Acacia, FS Garside, George Kendall Riverside, Newington, Robin Thomas and Sturt parks.

Since 2017, nine parcels of land totalling 2.3ha have been made available as open space including Maple Tree Drive Reserve (Westmead), Kestrel and Osprey parks (Carter Street), Alfred St Reserve (Parramatta), Thallon St East and West reserves (Carlingford Town Centre) and Putt Putt Park (Melrose Park).

Data insights

COVID-19 restrictions showcased the value of 91% of households within a 5-minute walk to green open space, resulting in 75% of people enjoying a local public space in the past 12 months (Source: Our City My Life Survey)

Figure 6: The \$52.8m in upgrades and enhancements since 2017, were achieved through Council funding and securing numerous grants especially within the CBD.



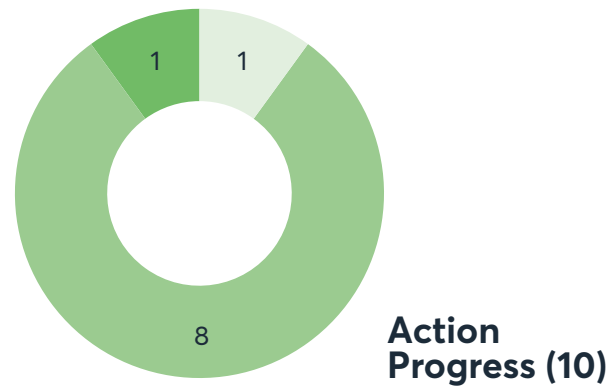


Priority 2 Bushland & Biodiversity

Goal 02

● **Progressed**

Protect and enhance the health of our unique natural ecosystem of plants and animals



Actions

1.2.4 Review bio banking potential for sites in bushland areas	1.2.7 Grow our bush regeneration and Bushcare volunteers program
1.2.1 Develop management plans for bushland areas across the Local Government Area covering fire hazard management, restoration and rehabilitation works, preservation of flora and fauna and iconic species, feral animal control, increased revegetation and protection of endangered flora and fauna species	1.2.8 Continue working with our neighbouring councils, via the Parramatta River Catchment Group, to build connected habitat corridors across boundaries, and provide sanctuaries for all species, including our five iconic species
1.2.2 Expand the bushland regeneration program to improve vegetation conditions	1.2.9 Continue to collaborate across all land tenures to promote biodiversity and bushland conservation including State Government land, land owned by utilities, University of Western Sydney land, industrial, commercial and residential land
1.2.5 Continue our "get into nature" program to get more people enjoying our natural surrounds	1.2.10 Continue managing the interface between conservation areas and other land uses through planning, policy, compliance, education and preservation activities
1.2.6 Manage threatened species with threat abatement and recovery action plans	1.2.3 Continue to deliver the Council's biodiversity strategy "Life in our City", creating new targets for the Local Government Area

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Parramatta's 389ha of bushland network is a key asset to our city, supporting over 600 flora and 230 fauna species as well as valued connections to nature for our community. Managing this bushland network takes a lot of time and effort which is heavily supported by our dedicated Bushcare volunteers. In response to changes in what we manage and to ensure ongoing management is effective as possible Council has been reviewing the condition of our reserves and how we manage them.

Key achievements

- 187ha (40%) of bushland with management plans.
- Planting 388,203 indigenous plants, including 49,298 trees.
- 25,117 Bushcare volunteer hours.

Bushland management (D)

Following amalgamation, and changes to the bushland reserves under our management, Council undertook on-ground mapping, auditing, and site condition reporting to establish flora richness and weed density for 187ha of Council's core bushland reserves. This process is establishing baseline data (2021/22) for monitoring as well as informing development of Council's updated Natural Areas Management Plan.

Bushcare Program (D)

A strong contingent of committed Bushcare participants across 38 groups, have assisted staff with 25,117 volunteer hours of bushland restoration including weeds control, plantings, mulching and seed collection.

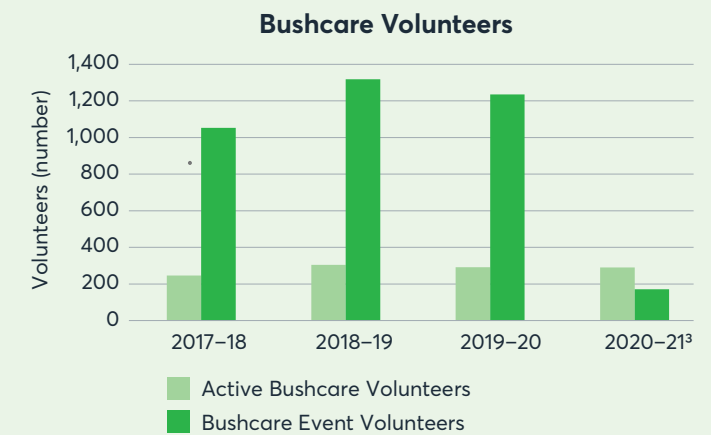
Creating homes for local wildlife (L, D)

Council has a strong focus on creating key habitat for our tree hollow dependant fauna and since 2017 has:

- Installed over 450 nest and roost boxes, increased the range of natural hollows.
- Created fish breeding, waterway wildlife habitat and bank stabilisation through re-snagging programs and the expansion of endangered salt marshes at Baludarri wetlands.

Data insights

Figure 7: Bushcare's \$1.2m volunteer investment has been achieved through 25,117 volunteer hours including 1,000 one-off volunteers (e.g. National Tree Day) and 300+ regular volunteers annually improving our bushland reserves.



Source: Council's Bushcare volunteer register

Partnership approach (P, D)

Council undertakes many activities in partnership with state government, land managers, researchers, and adjoining local governments, examples include:

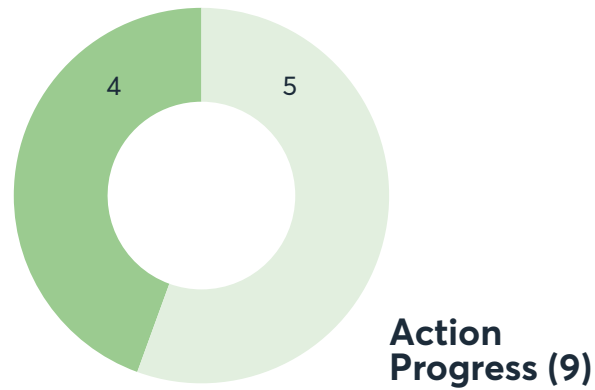
- Sydney North Vertebrate Pest Animal Committee's annual threat abatement fox and rabbit control program.
- Ensuring protection of key species include Dural Land Snail during annual hazard reduction burning.
- Parramatta River Catchment Group (PRCG) partnership improving water quality, swimming and the habitat for the River's mascot fauna species.
- Natural resource management programs undertaken with Sydney Olympic Park, Parramatta Park and Western Sydney Parklands committees.

**Priority 3
Urban Forest**

Goal 03

Progress made but needs review

Increase canopy cover to 40% by 2050 (based on 2016 levels)



Actions

1.3.2 Prioritise street tree planting along cycleways and the Parramatta Ways walking network	1.3.1 Develop an Urban Forest Strategy to help meet our canopy target and determine the best trees for locations and purpose
1.3.3 Plant more diverse street tree species to withstand pests, disease and the changing climate	1.3.4 Work with energy providers to reduce conflict between street trees and power lines
1.3.7 Continue to plant tube stock in Council reserves	1.3.5 Review and improve planning and development controls to protect existing trees and maximise the opportunity for new ones
1.3.8 Get our community more involved in National Tree Day and similar events	1.3.6 Regulate planting on new growth precincts to ensure canopy trees are planted in streets and on private properties
	1.3.9 Develop a community engagement program to provide information and improve understanding of the value of trees in our City

Key (Actions table & Actions Progress pie chart):

Completed On-track Needs attention

Additional information

In 2016⁴, Parramatta's had a 22.6% tree canopy cover and a total vegetation cover of 36.7%. Changes in NSW Government mapping has impacted Council's ability to assess progress against the goal.

Despite these challenges Council has continued to; advocate for the retention and provision of tree canopy within major infrastructure projects, begun delivery of our largest urban planting program, and improve canopy planning controls.

Key achievements

- Increasing shade and canopy in streets, parks, and playgrounds with 5,298 new trees.
- Recent Community Satisfaction surveys rate Council's tree planting services 3.6 + meeting benchmarks.

Tree Canopy Planning and Research (L, D)

Council undertook an analysis of the Office of Environment and Heritage (OEH) data sets. Between 2014 and 2016 canopy cover in Council-managed public land increased. Canopy cover in private and residential land, decreased.

Council has progressed the following planning controls:

- Land use planning harmonisation project to create a clear and more consistent set of planning controls around tree provision and protection.
- New design excellence clauses which include the principles of ecologically sustainable development, with protection and enhancement of urban tree canopy and green infrastructure.
- Incorporation of canopy tree considerations into precinct-specific planning in new growth areas.
- A new public domain guideline with specific requirements for tree planting in new precincts.

+ More information about the [Turn Down The Heat Partnership \(page 17\)](#)

Data insights

Figure 8: The 54,596 trees planted (5,298 in streets and parks and 49,298 within bushland reserves) assist in reducing heat-related illnesses, provide urban cooling and connection to nature.



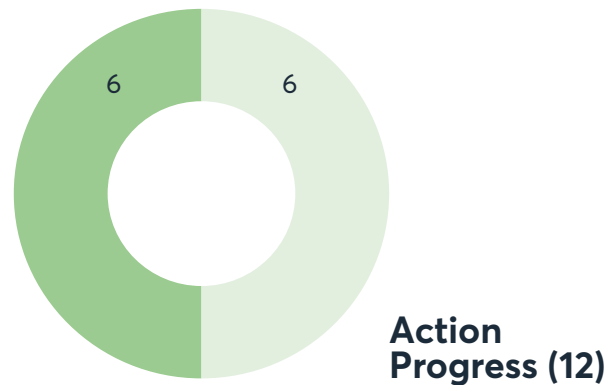
⁴ The 2016 OEH canopy dataset was the only dataset available for the period between 2017-2021. NSW Government released a new tree canopy dataset Dec 2021 for the 2019 year, utilising a different collection methodology. Further review of this more recent data is required to determine if we are progressing towards the goal.

Priority 4 River & Waterways

Goal 04

● Progress made but needs review

Make the Parramatta River swimmable again by 2025



Actions

1.4.1 Continue to provide a high-quality swimming environment at Lake Parramatta	1.4.4 Update the "Rivers of Opportunity" Water Strategy to identify and prioritise local initiatives to support the broader catchment goal
1.4.2 Continue working with the Parramatta River Catchment Group to deliver the Parramatta River Masterplan, the Riverkeeper Network and River Aware program, and to enhance priority habitat corridors for our five iconic species and native fish	1.4.5 Continue compliance initiatives to reduce pollution entering the river
1.4.3 Review needs and opportunities for the Lane Cove River Catchment which ultimately feeds into the Parramatta River	1.4.7 Create water sensitive urban design that filters pollution from stormwater runoff
1.4.6 Construct new wetlands to create new animal habitats	1.4.8 Implement recommendations from Water Sensitive Urban Design policy and practice review
1.4.9 Increase stormwater harvesting and reuse on public and private land	1.4.10 Work with water utilities to improve stormwater and sewer infrastructure
1.4.12 Continue acting on the Parramatta River Estuary Coastal Zone Management Plan, and contribute to future revisions	1.4.11 Further investigate the delivery of the four new natural swimming facilities on the river

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

The health of the Parramatta River catchment is a key issue for our City and community. The goal to bring swimming back to the Parramatta River was established in 2017, supporting a commitment to improving water quality. Council opened Lake Parramatta for swimming and recreation in 2015. It had been closed to the public for 72 years.

Key achievements

- 1,237 garbage trucks (11,133 tonnes) of litter and sediment removed to improve water quality and aesthetics⁵.
- Multimillion-dollar water treatment wetland Milson Park, Westmead opening in 2022/23.

Swimming at Lake Parramatta (L, D)

Visiting Lake Parramatta continues to be in the top three things to do in Parramatta (Trip Advisor) and with 269,289 swimmers, is NSW's most popular lifeguard-supervised natural freshwater swimming location.

Plans & Action (D)

Council took a lead role in establishing the Parramatta River Catchment Group (PRCG) including hosting staff, developing the vision and Master Plan.

Waterways Maintenance and Rehabilitation Masterplans have been developed to maintain the ecological integrity of the waterways.

Reducing Pollution (D)

In addition to litter and sediment removal, Council annually implements the Get it Right on Site and Catchment Management Environmental Review campaigns and the Sydney Water Waterwatch and Streamwatch community programs.

+ More information about the Parramatta River Catchment Group Partnership (page 17)

Data insights

Figure 9: The bushland surrounding Lake Parramatta helps filter the rain and stormwater, providing a majestic natural swimming location within the Parramatta River catchment. Council's water monitoring program ensures the lake's water is safe for swimming:

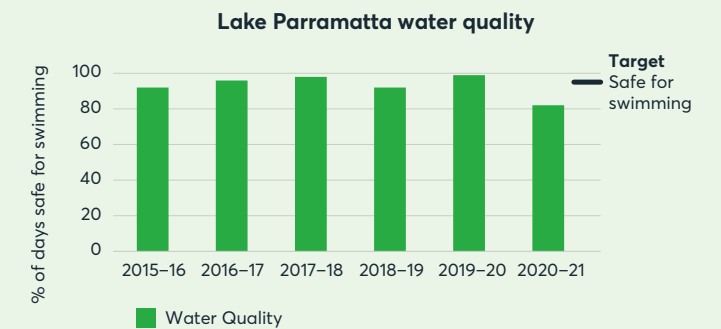
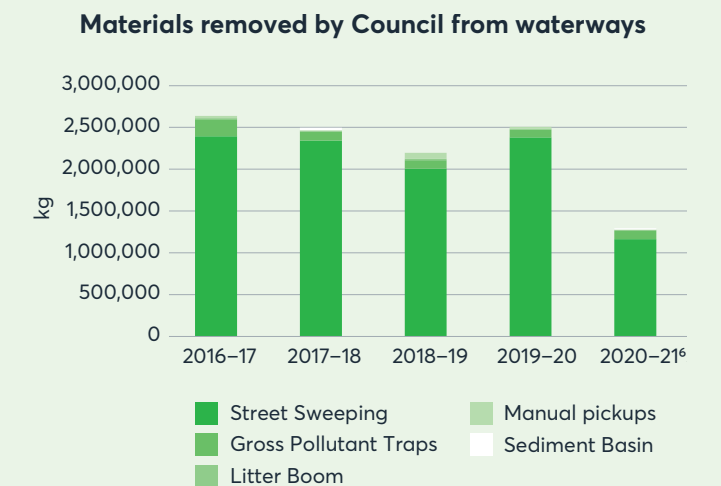


Figure 10: Council has removed 1,237 garbage trucks (11,133 tonnes) of litter and organic nutrients from our streets and waterways, a step towards bringing swimming back to Parramatta River by 2025.



5 Visit YouTube to watch our Cleaning Parramatta River of plastic litter video ([youtube.com/CityofParramatta](https://www.youtube.com/CityofParramatta))

6 In 2020-21 COVID-19 restricted litter collection opportunities



Built for the Future



Ten Built for the Future actions have progressed towards the goal with one completed and nine on-track for completion.

Our built environment is the foundation on which we can seek to make our lives more efficient, connected, affordable, and comfortable. Three community Built for the Future priorities have been identified:

1. Energy & Carbon
2. Water Use
3. Waste & Litter

Action progress



- Completed: 6.25%
- On-track: 56.25%
- Needs attention: 37.5%

For further detail on individual action status see Appendix

Context

Built for the future is about sustainable design that improves energy and water efficiencies in existing buildings, new buildings, and growth precincts, and across major infrastructure investments. We also need to design our City to adapt to the impacts of climate change.

Council has taken a leadership role embedding sustainability objectives into planning controls. Council is also working with partners to advocate for water savings and reduced carbon emissions through resident and business programs.

Our built for the future approach is about working with the community to embrace new thinking, design and technology.

Priority 5 Community Energy & Carbon

Goal 5

● **Progress made but needs review**

**60% emissions reduction by 2038
(based on 2015 levels)**

Goal 6

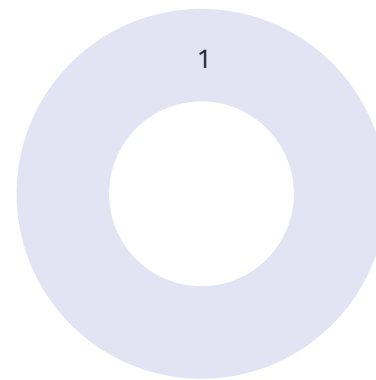
● **Progressed**

**50% of electricity demand to be
met by renewable energy by 2038**

Actions

	2.1 Develop an Energy Implementation Plan
--	---

Action Progress



Action Progress (1)

Key: Table and pie chart

■ Completed ■ On-track □ Needs attention

Additional information

While per person carbon emissions have dropped, the overall community emissions have risen by 12,660 TCO₂-e (from 2014/15 baseline) in response to growth and development. Energy supply in Parramatta has benefited from over 28.5% of NSW grid demand now being met by renewables.

Key achievements

- 3,653 Electric Vehicle (EV) ready apartments.
- 28.5% grid electricity supplied through renewable energy.

Greening our Buildings (L, A)

With 70% emissions generated by buildings, Council has updated the planning instruments to improve the performance of new developments. New clauses mandate sustainable design, energy efficiency, electric vehicle charging infrastructure, urban heat and solar reflectivity. Council now has a total of 30,276m² of commercial gross floor area and 3,653 apartments, electric vehicle (EV) ready. Our leadership on planning control has now been recognised by other councils through their replication of our controls.

Greening the grid (A, L)

There has been a 52% increase in annual roof top solar installations with a steady increase in larger systems (4.5kW and above) demonstrating the economic value of solar for businesses, industry, and commercial enterprises.

Partnerships & Community programs (D, A)

Council actively advocates and delivers projects in partnership with Resilient Sydney and Western Sydney Energy Program to reduce city emissions.

Council has also supported the community through:

- Solar my Schools with 102kW of solar PV installed.
- 120 home energy assessments and 25 solar PV installations totalling 128kW through the Australian Energy Foundation.
- Western Sydney Business Energy Advice Program

Data insights

Figure 11: While per person community emissions have reduced (columns), overall community emissions have increased due to increases in population growth (line).

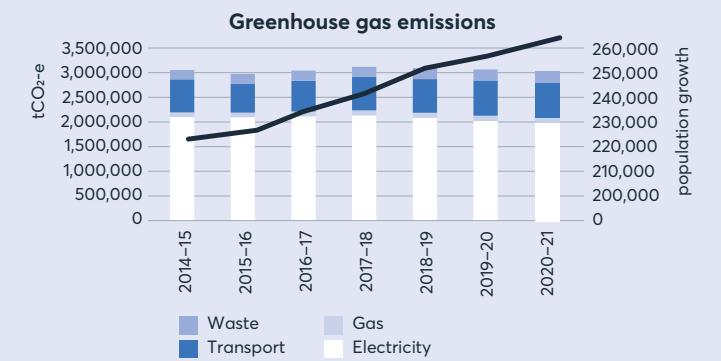
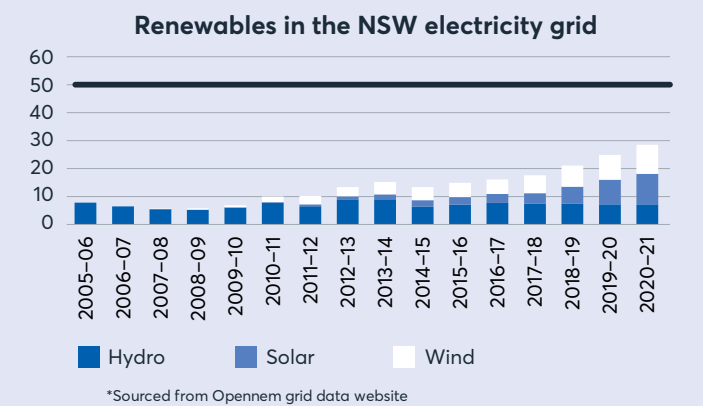


Figure 12: Starting in 2005-06, small-scale solar installation commenced the decarbonisation of the NSW electricity grid. From 2014-15, large scale installations have created the exponential growth that is on-track to achieve 50% renewables by 2038.



*Sourced from Opennem grid data website

Target

— 50% electricity demand to be met by renewables by 2038

(BEAP).

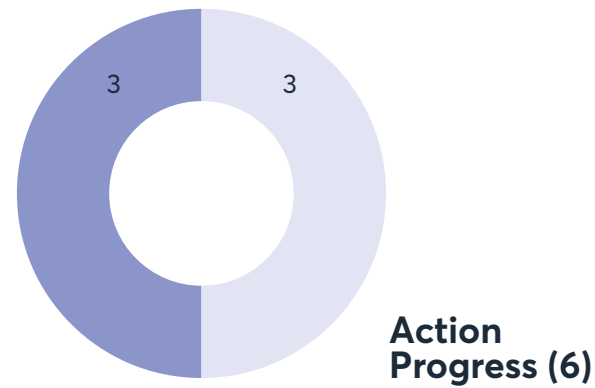
- + **More information about these Partnerships:**
- + **Resilient Sydney (page 16)**
- + **Western Sydney Energy Program (page 16)**
- + **Turn Down the Heat (page 17)**

Priority 6 Community Water Use

Goal 07

● Progress made but needs review

No net increase in potable water consumption by 2038 (based on 2015 levels)



Actions

2.2.1 Investigate planning and development controls for higher water efficiency in our growth precincts	2.2.2 Work with developers and water utilities to encourage recycled water options in new developments and key growth precincts
2.2.4 Develop a retrofit program for existing buildings to improve their water efficiency and cost savings	2.2.3 Advocate for higher BASIX Water targets for all new residential developments
2.2.6 Work with all levels of government, industry and education to identify future technology and infrastructure opportunities for the Local Government Area	2.2.5 Increase water sensitive urban design and rain gardens in developments and in public domain

Key: Table and pie chart

■ Completed ■ On-track ■ Needs attention

Additional information

While per person potable water consumption dropped, the overall potable water consumption has risen by 1,817 ML (from 2014/15 baseline) in response to growth and development. Council is taking steps to future-proof new development through water efficient planning clauses, as well as advocating for alternative water supply, and stronger efficiency planning standards.

Key achievements

- 5,066 new apartments and hotel rooms and 476,353m² of new commercial gross floor area approved to include dual water pipes for future connection to a recycled water network.
- 5.7GL recycled water supplied to Camellia, Sydney Olympic Park Authority and Newington.

Alternative water supply (L, A, D)

Council is advocating for an alternative water supply in Parramatta through our relationships with key stakeholders and partners.

For buildings to be future-ready, Council has been updating its planning instruments for new buildings to have dual (purple) piping to service all non-drinking water uses, such as toilet flushing and irrigation.

Partnerships & Community programs (D, A)

Council, in partnership with Sydney Water, is supporting local businesses with high water-use to improve their water efficiency. The Water Saving Partnership program is working with 50 businesses and is targeting 150KL in water savings each day. To date, 34 small to medium sized businesses have been assessed, and water consumption has been reduced by 10KL each day.

Data insights

Figure 13: Council's future-ready dual pipe planning clauses for residential and hotels (example below) and commercial buildings within growth precincts will reduce potable water consumption, when connected to the future recycled water network.

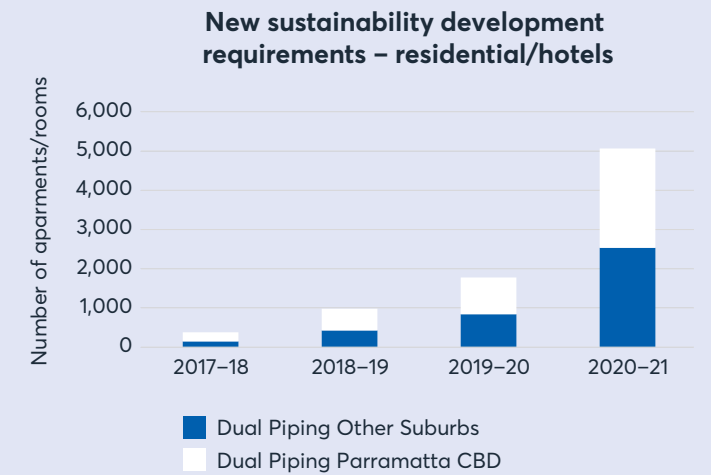
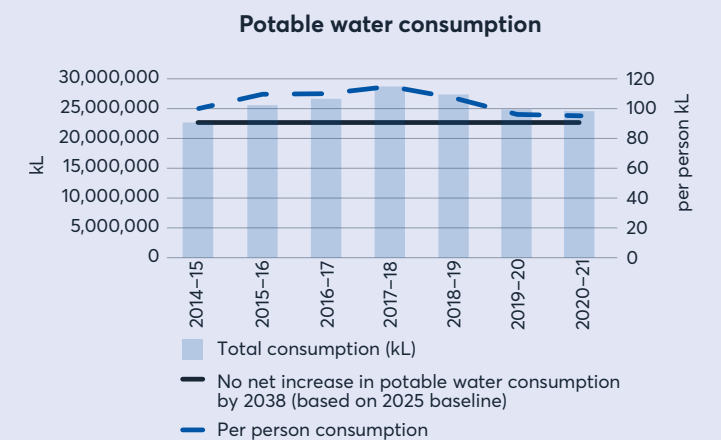


Figure 14: Potable water consumption has increased from the baseline due to development but has shown some improvement in recent years.



Priority 7 Community Waste & Litter

Goal 8

● Progressed

Reduce resource consumption from 8.2kg to 6.1kg per person by 2038 (based on 2015 levels)

Goal 9

● Progressed

Increase diversion from landfill to 86% by 2038

Goal 10

● Progressed

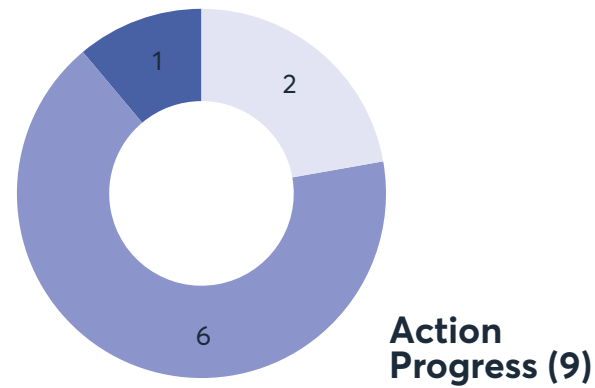
Reduce the volume of litter by 40% by 2020

Actions

2.3.1 Revise Waste Avoidance & Resource Recovery (WARR) Strategy to 2021, to address issues including public domain litter, illegal dumping and future technology	2.3.5 Expand the Bower's "Rehoming and Collection Service" to increase the amount of items rehomed before they're recycled through Kerbside Cleanup
2.3.2 Work with business and industry to reduce plastics and packaging including plastic bag bans	2.3.6 Increase waste diversion from landfill through various treatment processes, and investigate waste-to-energy, both bio-digestions and gasification
2.3.3 Advocate for policy changes at State and Federal Government levels to reduce plastics and packaging	2.3.9 Continue public place litter education and recycling programs and the strategic use of street sweeping, gross pollutant traps and enforcement that targets hotspots
2.3.4 Continue community education programs targeting various waste streams from the perspective of avoidance, reuse, repair and recovery	2.3.7 Investigate alternative systems to divert food organics and nappy waste from red bins
	2.3.8 Continue working with the NSW Government and local business to target commercial and industrial (C&I) waste

Key: Table and pie chart

■ Completed ■ On-track ■ Needs attention



Additional information

By 2021, Council achieved the interim waste consumption target for 2023 - reducing waste to 7.6kg per person per week. Our diversion from landfill result - 54% - shows good progress on achieving our 2023 target of 70% resource recovery.

Key achievements

- Waste & Resource Recovery Strategy 2019–2023 adopted in 2019.
- 1.41kg (17.16%) reduction in resource consumption per person per week from 8.1kg in 2017 to 6.79kg in 2020.
- 80% reduction in litter volume.

Waste and Recycling programs (D)

The Waste Guideline for New Development which accompanies Council's Development Control Plans (DCPs) has been updated providing specifications for both the design and servicing arrangements of new developments prior to occupation.

Council has supported 784 local businesses to divert an estimated 252 garbage trucks (2,272 tonnes) from landfill through the Bin Trim⁷ program.

Council's mobile Community Recycling Centre (CRC) for problem waste⁸ collected more than 28 garbage trucks of material.

A food organics collection trial was implemented at Parramatta Farmer's Market diverting 318kg from landfill in 2020, with the aim to continue this service into future years.

The Bower Re-use and Repair Centre have also conducted over 30 reuse and repair workshops for residents per year which have proved very popular while Council also supports annual initiatives including the Garage Sale Trail and Compost Revolution.

Data insights

Figure 15: Starting with a 2014-15 baseline of 8.1kg of landfill waste per person per week, Council has achieved the 2023 interim target of 7.6kg and is progressing towards the 2038 target of 6.1kg.

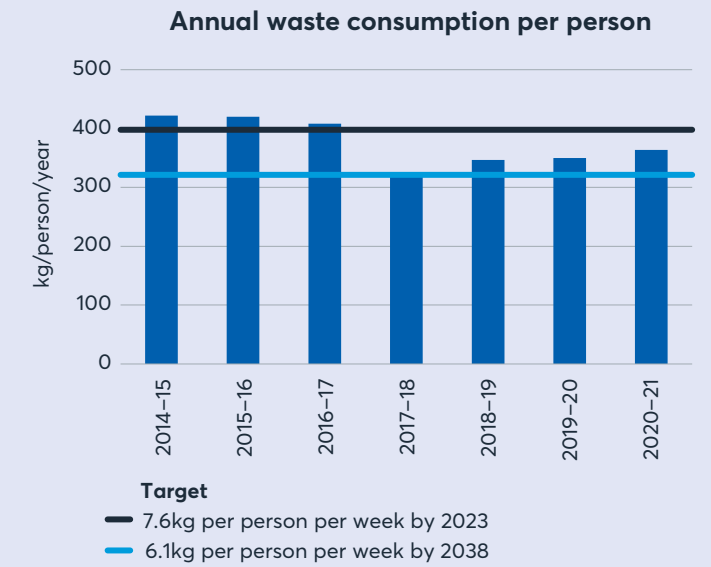
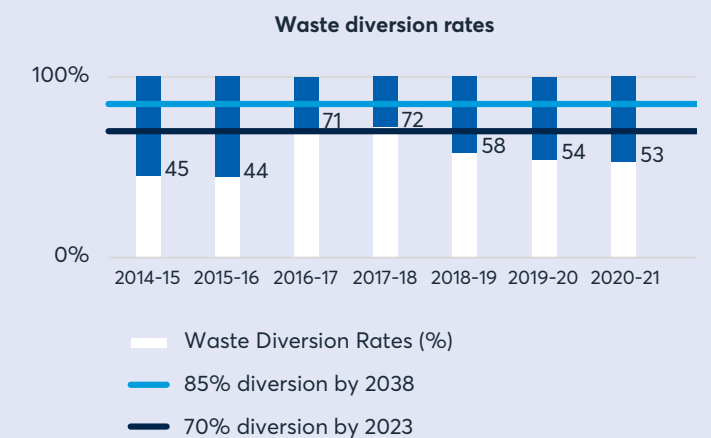


Figure 16: Starting with a 2014-15 baseline of 45% diversion rate, Council has successfully progressed to 71-72% from 2016 – 2018. EPA changes in 2018-19 reduced diversion rates for all metro councils. Council is 9% above baseline and is progressing towards the 2023 interim target of 70% diversion from landfill.



7 Bin Trim is implemented by local governments through financial support from the NSW government

8 Problem waste includes paint, oils, batteries, e-waste, gas bottles and fluorescent globes



Connected and Resilient Communities



Eighteen Connected and Resilient Communities actions have progressed towards the goal with four completed and 14 on-track for completion.

As our City grows and our environment changes, we face new challenges. The following three priorities will help secure the long-term liveability of our City and develop resilient communities:

1. Sustainable Transport
2. Urban Heat
3. Flooding

Action progress



- Completed: 19%
- On-track: 67%
- Needs attention: 14%

For further detail on individual action status see Appendix

Context

Our community has identified transport, congestion, and getting around as one of its top three concerns. Sustainable transport options such as walking, cycling and public transport will help connect our communities while improving health, increasing equity through increased low-cost travel options, reducing congestion and carbon emissions.

Heatwaves are Australia's deadliest natural hazard and many of us are unprepared. Since 2013, Parramatta, has experienced a 12% increase in the average annual number of hot days above 30°C and a 27% increase in the average annual number of very hot days above 35°C.

While resolving urban heat will require a collaborative approach between all levels of government, businesses and community, the City of Parramatta has been advocating for and implementing solutions to improve liveability and protect people and communities from heat stress, now and in the future.

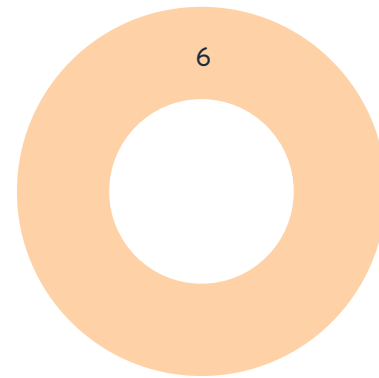
The Parramatta CBD is the most flash flood affected major CBD in NSW, and at worst case with only minutes warning of a forthcoming flood. This limits emergency response time and the ability to protect our homes, businesses, and communities. In recent decades, significant floods have occurred in Parramatta in 1986, 1988, 1991, 2015, and 2016.

Priority 8 Sustainable Transport

Goal 11

● **Progressed**

10% of trips made by walking and cycling by 2038



Action Progress (6)

Actions

	3.1.1 Support implementation of the Parramatta Bike Plan, including \$1M from the Stronger Community Fund for the Epping to Carlingford cycleway connection
	3.1.2 Support Implementation of the Parramatta Ways Walking Strategy
	3.1.3 Support the delivery of Stage 1 – Parramatta Light Rail to ensure that active transport connects to light rail stops and that high quality amenity is provided for user comfort
	3.1.4 Develop an Integrated Transport Plan, including demand management and advocate for its delivery
	3.1.5 Review planning and development controls for car share, electric vehicle and active transport facilities and connections across the Local Government Area
	3.1.6 Advocate for major public transport initiatives such as Sydney Metro West rail link and other projects

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Annual data from the NSW Government Household Travel Survey identifies 35% of trips were made by walking and cycling, well exceeding the 10% by 2038 goal.

Key achievements

- Created 20km of continuous off-road walking and cycling path from Sydney Olympic Park to Parramatta Park along Parramatta River.
- Installed 4.41km of shared pathways.

Sustainable Transport Advocacy (L, A)

Public transport is a key contributor to sustainable transport outcomes and Council welcome the following NSW Government infrastructure commitments:

- Stage 1 of the Parramatta Light Rail connecting Westmead to Carlingford via Parramatta CBD and Camellia, including walking, and cycling outcomes.
- Sydney Metro West with stations at Westmead, Parramatta, and Sydney Olympic Park.

Infrastructure investment (L, P, D)

Through grant funding, Council has implemented a multimillion-dollar infrastructure upgrade program delivering walking and cycling infrastructure aligned with the City River Strategy, The Parramatta Bike Plan, and the Parramatta Ways Walking Strategy.

Projects include Escarpment Boardwalk, Rydalmere Ferry wharf pathway, Toongabbie Crossing walking trail, Milson Park Masterplan, Alfred Street cycleway and bridge and FS Garside upgrade.

Council is recording an increase of pedestrians and cyclists along our river foreshores, especially during periods of COVID-19 lockdown.

Data insights

Figure 17: The state government's Household Travel Survey⁹ identifies that trips made by walking and cycling are increasing. Council's future Integrated Transport Plan for Parramatta CBD could provide an updated target.

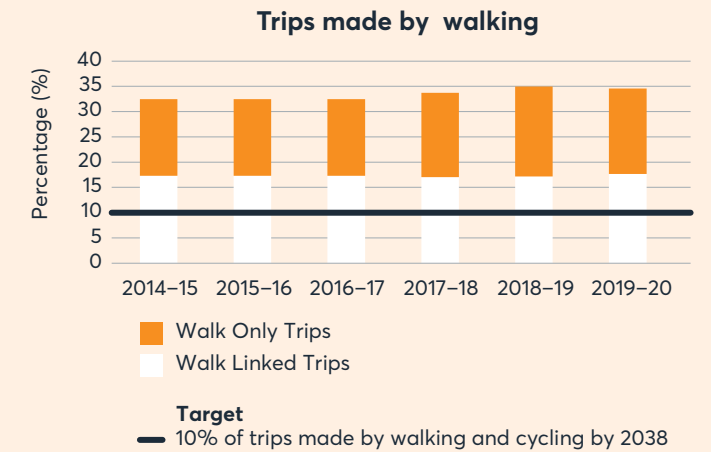
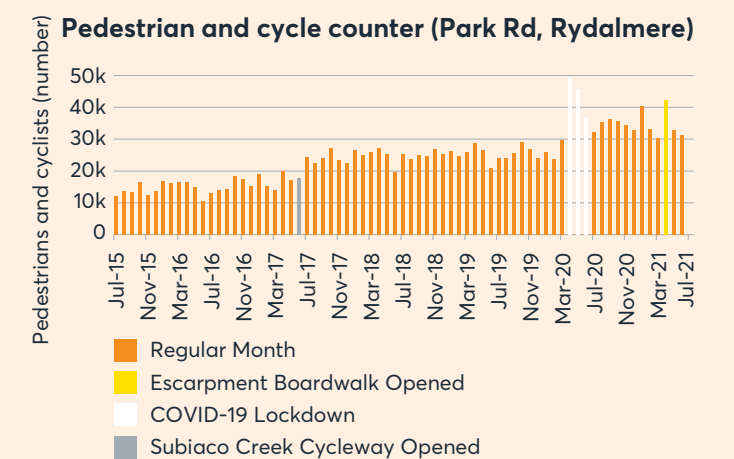


Figure 18: The Parramatta Valley cycleway counter (Park Road, Rydalmere) demonstrates the continual increase of pedestrians and cyclists corresponds with the completion of connecting sections and COVID-19 restrictions.



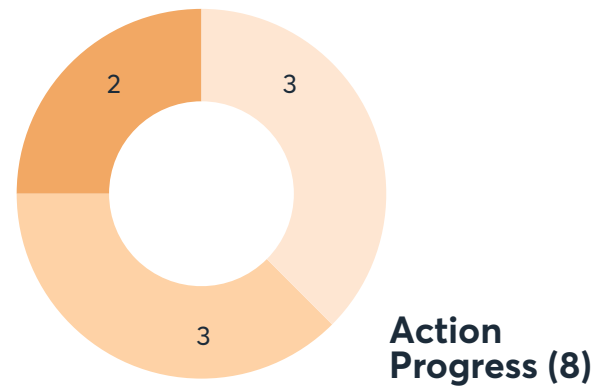
9 State government 2020/21 household travel data set was not available when progress report compiled

Priority 9 Urban Heat

Goal 12

Progress made but needs review

Improving liveability by cooling the city and protecting people and communities from heat stress



Actions

3.2.2 Continue to deliver the Cool Parramatta initiative, which promotes cool and safe places to our community to go during extreme heat	3.2.5 Develop a Community Resilience Plan and incorporate into Council's Disaster Management Plan
3.2.4 Undertake a baseline study and determine monitoring approaches to measure progress	3.2.7 Improve public and community space design to reduce summer heat by incorporating shade structures, drinking fountains, water features, and by capturing rainwater to irrigate trees and plants and cool public spaces
3.2.1 Protect, enhance and increase our existing bushland, parks and green spaces	3.2.8 Encourage and promote green infrastructure such as green roofs and walls and water sensitive urban design
3.2.3 Investigate planning and development controls to help reduce urban heat across the Local Government Area	
3.2.6 Continue to build partnerships and innovation to tackle Western Sydney heat	

Key (Actions table & Actions Progress pie chart):

Completed On-track Needs attention

Additional information

Council has been playing a lead role through the development of our own urban cooling planning controls, as well as working in partnership to advocate for raising regional planning standards that can better mitigate urban heat stress in Western Sydney.

Key achievements

- Future proofing new developments through urban cooling planning controls.
- Cool Parramatta and Beat the Heat campaigns and Cool Roads Trial.

Urban Heat Planning Controls (L, P, D, A)

Council has drafted innovative Development Control Plan (DCP) urban cooling clauses based on best practice Australian and international evidence to reduce the heat reflectivity of build structures, minimise the heat rejection from heating and cooling systems, encourage natural wind flow and reduce turbulence.

Already there is a total gross floor area of 406,579m² with urban cooling controls with development application approval. The clauses have been trialled and refined through the Design Excellence process on several developments within the Parramatta CBD.

Council advocated for a range of planning and building instruments to be reviewed and updated with best practice urban cooling, thermal comfort, and energy and water efficiency controls and clauses. These instruments include the State Environmental Planning Policy (Building Sustainability Index, known as BASIX), National Construction Code (NCC) and the Nationwide House Energy Rating Scheme (NatHERS).

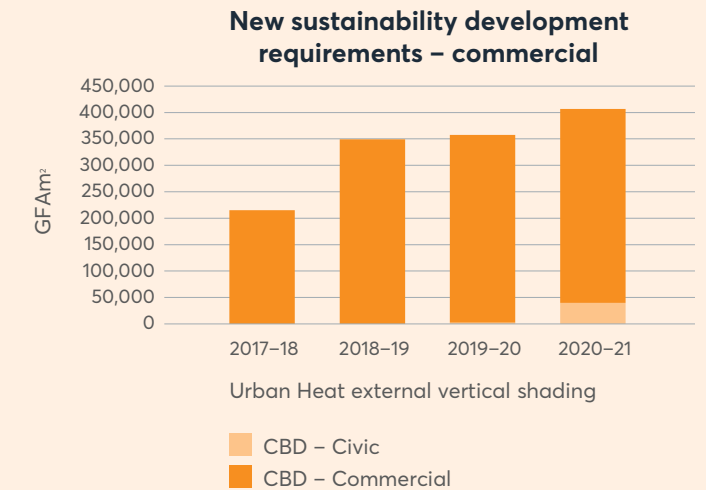
Partnerships (L, P, D, A)

As an active participant in the WSROC [Turn Down the Heat Strategy](#) and [Resilient Sydney Strategy](#), Council has been involved in the following:

- [Heat Smart for Vulnerable Communities Resilience Framework](#) – a multisector, coordinated approach to heatwave management, that supports vulnerable communities and individuals.
- [Cool Suburbs Tool](#) – a voluntary design-support tool to identify the most appropriate urban heat interventions (adaptation, mitigation, resilience), to existing and new developments.

Data insights

Figure 19: Council's external vertical shading for commercial buildings within growth precincts demonstrates future-ready design excellence to improve thermal comfort within the buildings.



- [Urban Heat Planning Toolkit](#) – identifies design measures and planning controls to reduce the impacts of urban heat.

Initiatives (D, P)

Council delivered the 5-year Cool Parramatta campaign (2015–2020) to raise community awareness of urban heat in a fun and interactive way that other councils have replicated.

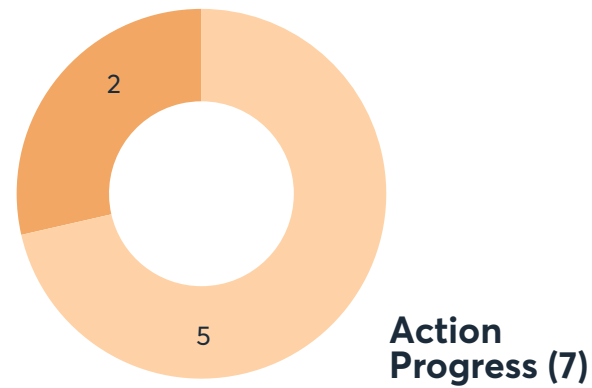
Commenced in 2019, the [Western Sydney Cool Roads Trial](#) sought to test reductions in the amount of heat being absorbed by asphalt roads within Parramatta, Blacktown, and Campbelltown City Councils through the use of CoolSeal, a heat-reflecting surface sealant.

Priority 10 Flooding

Goal 13

● Progressed

Minimise the impact of flooding on the community



Actions

3.3.2 Launch Flood Information System Hub (FISH), including a public warning service and access to river and rain gauge information	3.3.1 Complete the Parramatta River Flood Modelling and Risk Management Plan, including mainstream and overland flows
3.3.4 Develop community engagement and awareness on how to identify and respond to flood risks	3.3.3 Continue to improve our drainage network
	3.3.5 Work with partners including Sydney Water, Bureau of Meteorology, Local Land Services and State Emergency Service around flood management and evacuation
	3.3.6 Update the planning controls to appropriately manage flood risks as the City grows
	3.3.7 Continue to coordinate the Parramatta River Floodplain Risk Management Committee

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Council continues to work towards minimising flooding impacts on our community through; an extensive program of flood mitigation infrastructure, leading flood warning services and best practice flood study and planning processes.

Key achievements

- \$20.24 million invested in flood and drainage.
- FloodSmart Parramatta service.

FloodSmart Parramatta (L, P, D)

Floodsmart Parramatta¹⁰ was launched in August 2018 and is a public warning system and flood emergency response dashboard. It has access to river level, rain gauge, and forecasting information that allows real time alerts to be communicated to flood response organisations and to residents who could be at risk.

Accolades for the FloodSmart Parramatta service include the Highly Commended Smart City Award 2018 and being featured in ABC's *Big Weather and how to survive it* program, (Ready Together episode).

Protecting our Community (L, D, P)

The Floodplain Risk Management Plan has been drafted to support the Parramatta CBD Planning Proposal and details management of flood risks within the Parramatta CBD.

Reduction of flood depths in Parramatta CBD have been identified as part of over \$79m in infrastructure upgrades nominated to be funded through the draft Parramatta CBD Local Infrastructure Contributions Plan.

The Parramatta Floodplain Risk Management Committee continues to provide advice to Council on flood modelling and policy. Council has advocated to the NSW Government on flood concerns relating to critical infrastructure strategy.

Data insights

Figure 20: Parramatta is one of the most flash-flooded CBD areas in Australia and flooding occurs when river heights within the CBD exceed 2.2 metres AHD[^].

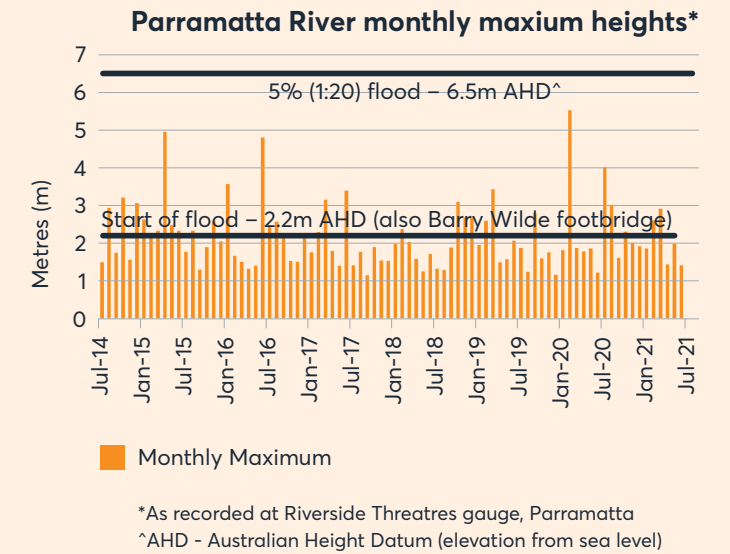
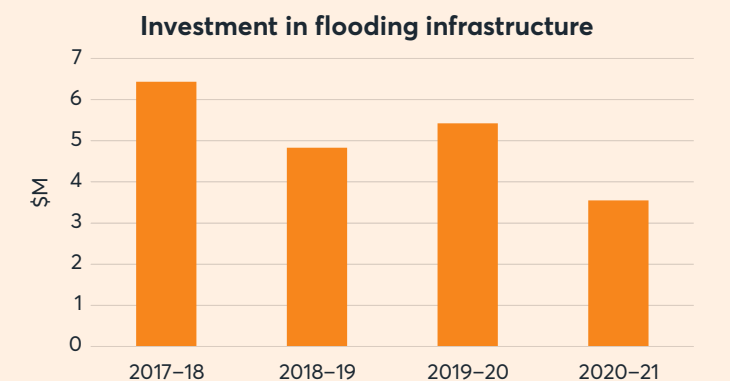


Figure 21: The \$20.24m invested in flooding infrastructure includes drainage and dam improvements, flood mitigation, drainage construction and delivering the FloodSmart Parramatta warning service.



10 FloodSmart Parramatta is a partnership between federal, state, and local government and includes SES, Department of Planning, Industry and Environment (DPIE), Bureau of Meteorology (BOM), Sydney Water and Council. Visit YouTube to watch our Floodsmart Parramatta video ([youtube.com/CityofParramatta](https://www.youtube.com/CityofParramatta))



Leading by Example



photo credit: Endeavour Energy Light Years Ahead project



Fourteen Leading by Example actions have progressed towards the goal with three completed and eight on-track for completion.

Leading by Example is about reducing our running costs, minimising the use of valuable resources and playing our part in mitigating against climate change and its impacts through implementing the following five priorities:

1. Energy & Carbon
2. Water Use
3. Waste & Resource Recovery
4. Fleet & Staff Travel
5. Responsible Investment & Procurement

Action progress



- Completed: 12%
- On track: 32%
- Needs attention: 56%

For further detail on individual action status see Appendix

Context

As Sydney's Central River City, we want to lead the way in sustainability and environmental performance. Our community expects it, and we are committed to it. This includes the energy and water we use, how we minimise our waste, how we manage our fleet and staff travel, and the purchasing and investment decisions we make.

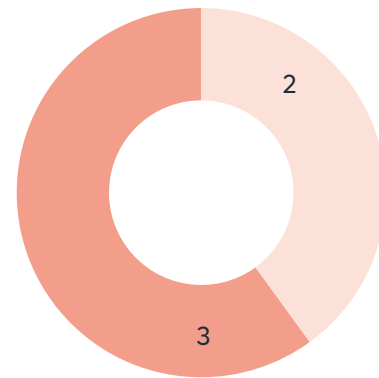
By showing how it is done, we can inspire best practice among local businesses and our residents. We can also have an impact beyond our borders, inspiring councils in our region, our state, interstate, and even other countries to take the lead on sustainability.

Priority 11 Council Energy & Carbon

Goal 14

● **Progressed**

Carbon neutral by 2022



Goal 15

● **Progressed**

**60% emissions reduction by 2038
(based on 2015 levels)**

Actions

	4.1.1 Deliver Phases 2 and 3 of the Light Years Ahead LED streetlight replacement program
	4.1.2 Continue with energy efficiency upgrades across our buildings and facilities
	4.1.5 Investigate and implement renewable energy opportunities on our Council buildings and facilities

	4.1.3 Validate existing audits based on asset type and new technologies available
	4.1.4 Develop Green Building Policy to ensure new assets are designed and built to maximise energy efficiency, increase renewable energy and reduce urban heat impacts

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Council has demonstrated leadership through constructing and upgrading energy efficient buildings, streetlights, purchasing renewable electricity and committing to being a carbon neutral organisation.

Key achievements

- On-track to be carbon neutral in 2022
- Reduced grid electricity use by 33.2%
- 53% (over 8,000) streetlights upgraded to energy efficient LED lights.

Carbon neutrality progress (D)

Council is seeking carbon neutral certification through the Climate Active program for 2022/23, using the 2020/21 financial year as the baseline inventory. Our emissions inventory identified street lighting, asset electricity, professional services and diesel consumption as the largest source of emissions.

LED Upgrades (L, D, A, P)

In 2015 Council commenced a multimillion-dollar LED energy efficient upgrade program to drastically reduce the 50% of corporate emissions generated from the 15,379¹¹ streetlights and providing Council financial savings¹².

Renewable Electricity (D)

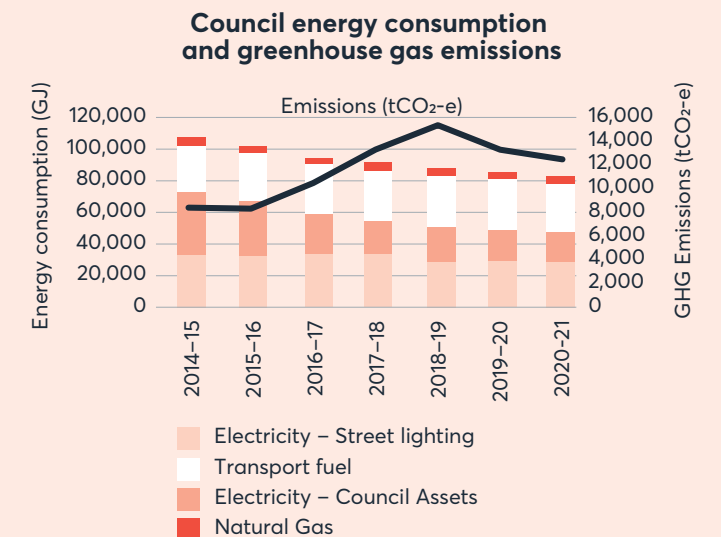
Through a combination of energy efficiency projects, 341kW rooftop solar and asset divestment, Council has reduced grid electricity use by 33.2% between the 2014/15 baseline year and 2020/2021.

On 1 July 2019 Council entered a 25% renewable energy Power Purchase Agreement for solar sourced from Moree NSW. From the 1 July 2022 this will increase to 100% renewable energy for all of Council's electricity through the Southern Sydney Regional Organisations of Councils (SSROC) collaborative procurement project.

Data insights

Council's carbon neutral certification is on-track to be achieved for 2022, and then for each subsequent year.

Figure 22: The left graph axis below¹³ demonstrates Council's 33.2% reduction in grid electricity from 2014-15 baseline. The black line correlates to the right graph axis and shows emissions increased in 2017-18 when Council stopped using greenpower. The commencement of our 25% renewable electricity in 2018-19 decreased emissions, and the 100% renewable electricity contract commencing July 2022 will set Council on course to achieving 60% reduction by 2038.



11 Number of streetlights as at 29/4/20

12 Visit YouTube to watch our 'Here's a bright idea' video ([youtube.com/CityofParramatta](https://www.youtube.com/CityofParramatta))

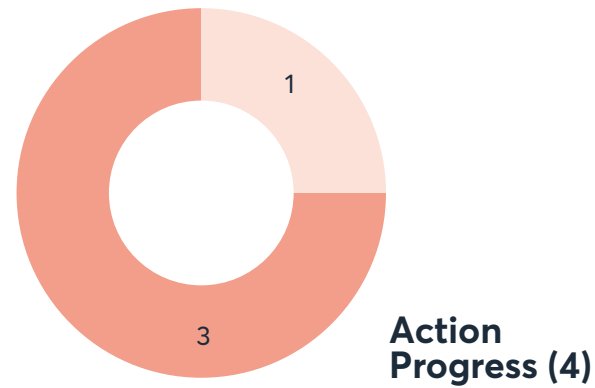
13 Complete 2020/21 data set was not available when progress report compiled

Priority 12 Council Water Use

Goal 16

● **Progressed**

No net increase in potable water consumption by 2038 (based on 2015 levels)



Actions

4.2.2 Increase the supply of recycled water for irrigation and other uses where appropriate	4.2.1 Continue to install rainwater and stormwater tanks on Council buildings
4.2.3 Continue with water efficiency upgrades at Council buildings and facilities	
4.2.4 Continue to improve the water efficiency of our parks through improvements to soil structure, irrigation systems, and management practices	

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Council achieved a 35% reduction in potable water use¹⁴ through irrigation upgrades, swimming pool closures, and storm and rainwater harvesting.

Key achievements

- 35% decrease in potable water consumption from 226,341kL in 2015/16 to 139,493kL in 2020/21.

Stormwater Harvest and Reuse (D, P)

Since 2017, an average of 1ML of potable water per annum is saved by the Doyle Ground stormwater harvesting scheme that captures, treats, filters, disinfects and reuses stormwater for on-site irrigation purposes.

Council continues to operate and maintain seven stormwater harvesting and reuse schemes and a series of rainwater tanks across 11 Council sites providing an estimated 50,000 litres of non-potable water per day during summer months.

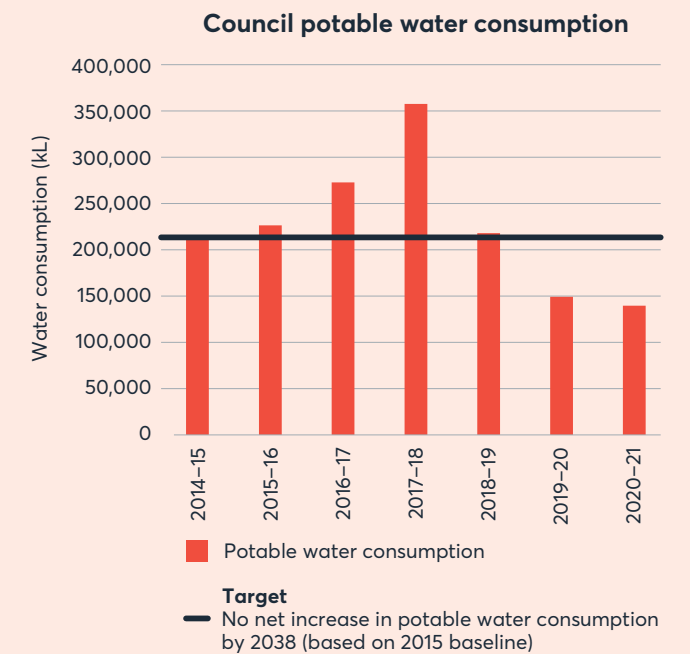
Green Space water savings (D)

Water savings at high use sporting fields and reserves have been achieved through:

- Upgrading several irrigation systems with efficient heads, timers, and automatic controllers.
- Topdressing ovals and reserves with an organic compost, created from processing the contents of kerbside garden bins, that promotes soil moisture retention and growth of turf.
- Trailing real-time smart water metering to optimise potable water use, identify water use patterns, and leak detection.

Data insights

Figure 23: While the graph below demonstrates that potable water consumption has reduced, the retirement of Council assets contributed to reducing potable water consumption. Council notes that there will be additional potable water use when the new Parramatta Aquatic Centre and the Epping Pool upgrades are completed.



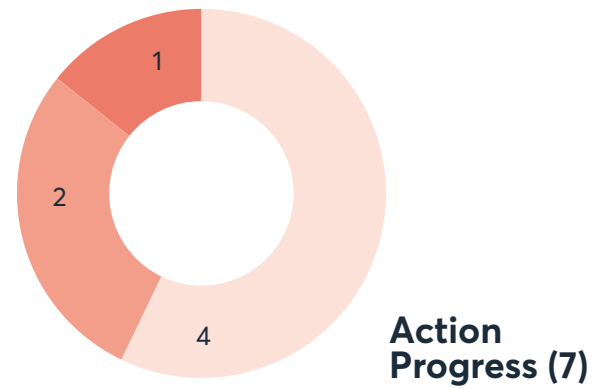
14 Council's potable water consumption accounts for less than 1% of the total local government area consumption

Priority 13 Council Waste & Resource Recovery

Goal 17

● Progress made but needs review

90% diversion rate for Council waste by 2038



Actions

4.3.4 Develop a business case to procure screening and sorting equipment for civil works waste at Council's Operations Centre	4.3.1 Introduce requirements into all capital and civil works tenders to require reuse and recycling of waste and reporting on diversion rates
4.3.5 Investigate systems to divert food waste from the general waste stream	4.3.2 Ensure all waste contracts enable tracking and reporting of waste streams
4.3.6 Collect and report on data from all corporate waste streams	4.3.3 Work with staff to improve resource recovery
	4.3.7 Increase staff understanding of waste avoidance, disposal options and contamination

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Work has progressed on establishing the baseline waste and recycling data across Council facilities and services but further data is needed to determine Council's overall diversion rate.

Key achievements

- 64% average diversion from landfill for Rydalmere Operations Centre.
- Riverside Theatres increased diversion rates from 37% to 76% by weight, and from 10% to 72% by volume.

Waste and Recycling Audit (D)

In 2018, a review of Council's operational waste and recycling practices at eight Council facilities and across three service areas (city works, parks and cleansing) to establish baseline data. A landfill diversion rate of 90% was identified at Parramatta Library, with 42% average diversion across other facilities and services.

The audit findings have initiated a wide range of recycling and reuse opportunities to be implemented for staff and public use, including commingled, paper and cardboard, nappies, batteries, mobile phones, CDs and DVDs, e-waste, printing toners and reading glasses.

Single-use Plastics (A, D)

Council's *Waste and Resource Recovery (WARR) Strategy 2019-2023* includes the directive to phase out single-use plastics in Council operations and events. Reusable cups have been used at Riverside Theatres and events including the 2019 Parramatta Lanes Festival where the reusable cups, with a return rate of 82%, replaced the need for 6,256 single-use plastic cups.

Ten water refill stations have been installed in parks across the local area to reduce litter and use of single-use plastic bottles during recreational activities.

Recycling and Reuse Trials (D, L)

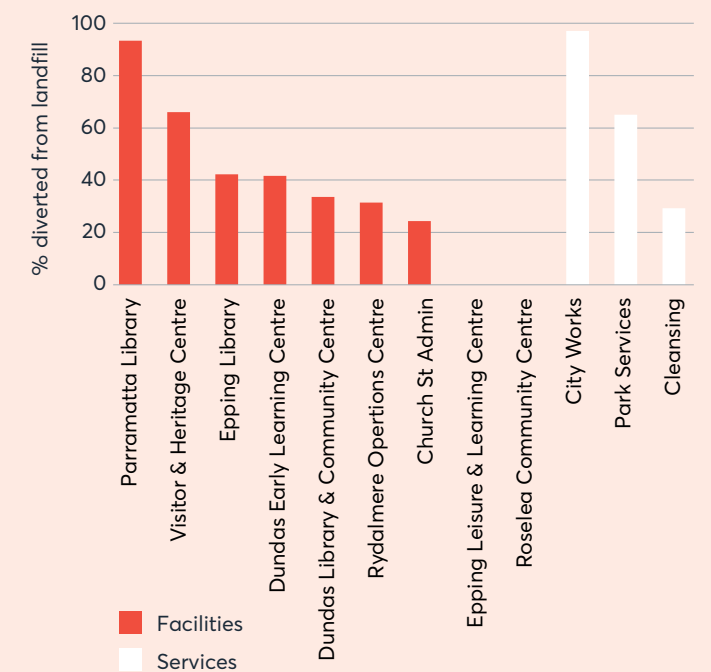
To transition Council to maximum resource recovery¹⁵ the following trials have been conducted:

- Use of Reconophalt asphalt made from recycled soft plastics, waste glass and waste toner cartridges on two roads in Epping and Ermington.

Data insights

Figure 24: The results from the operational waste and recycling audit identified one facility (Parramatta Library) and one service (City Waste) achieving a waste diversion above 80% in 2018.

Council (corporate) waste diversion baseline (2018)



- Collection and screening of 211 garbage trucks (1,900 tonnes) of street swept material per year to recover gravel, sand, and organic matter for reuse.
- Warp It (office furniture rehoming) and Worn Up (old uniforms) which are estimated to collectively divert approximately 2 tonne per year from landfill.

¹⁵ Visit YouTube to watch our 'Circular economy: Giving your waste a second life' video ([youtube.com/CityofParramatta](https://www.youtube.com/CityofParramatta))

Priority 14
Council Fleet & Staff Travel

Goal 18

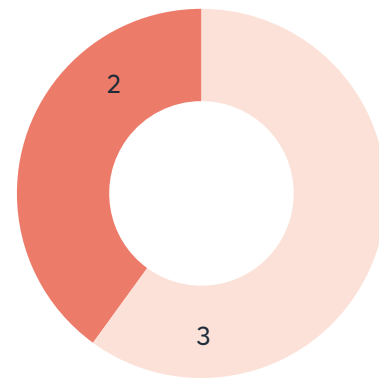
● **Progress made but needs review**

Reduce Council fleet emissions by 20% by 2038 (based on 2015 levels)

Goal 19

● **Progress made but needs review**

Reduce single-occupancy car commutes to and from work by Council staff to 35% by 2023 (based on 2016 levels)



Actions

4.4.2 Promote on-going ride sharing initiative such as Western Sydney carpool	4.4.1 Transition passenger and heavy vehicles to low carbon options as technology improves
4.4.4 Promote video conferencing	4.4.3 Investigate incentive schemes to support the transition to low carbon travel to and from work for staff
	4.4.5 Investigate adding bikes or e-bikes to our fleet for short trips during the day

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track ■ Needs attention

Additional information

Over the four year review period to 2021, Council experienced a 2.8% increase in fleet emissions. Council introduced a new fleet policy in 2022 and a reduction in vehicle numbers and a transition to hybrid and electric vehicles (EVs) is expected. Funding for EV chargers at Rydalmere Operations Centre in 2021/22 has been secured, in readiness for the fleet transition.

The 2018 baseline for single-occupancy staff car commutes recorded 56% of staff drive alone. A follow up survey is being conducted to track progress.

Key achievements

- 25 petrol-electric hybrids in fleet and electric vehicle study completed.
- Membership in the Greenfleet emission offset program for 185 passenger vehicles.

Transition to Electric Vehicles (P, L)

Council was active in the development of the Western Sydney Electric Vehicle Roadmap, to position Western Sydney at the forefront of the EV transition.

Council's draft public land electric vehicle guidelines will be on exhibition in 2021/22 outlining the conditions for the provision, installation, management, maintenance, and removal of electric vehicle charging infrastructure on public land across the local government area.

Council's fleet includes 25 Hybrid (Toyota Camry, Corolla and RAV4, and Subaru XV) passenger vehicles, 90% with CO² emissions of <110 g/km. In 2020, Council resolved to purchase and trial a passenger battery EV for business use, and this process has commenced.

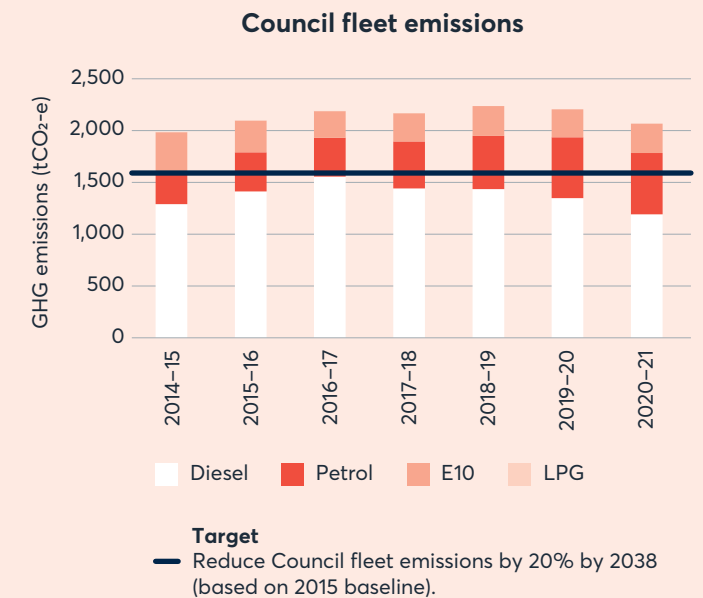
Since 2020, Council's new passenger fleet business case utilises the total cost of ownership (TCO) not upfront costs.

Key Policy review (D)

Council's flexible working arrangements policy was updated in 2020 to support employees balance work and personal responsibilities. As an outcome from this update and the COVID-19 pandemic, staff commuting emissions have reduced. Attending online meetings has further reduced travel emissions, a trend that is likely to continue into the future.

Data insights

Figure 25: 2.8% increase in fleet emissions from 2,116 tCO₂-e in 2014/15 to 2176 tCO₂-e in 2020/21.

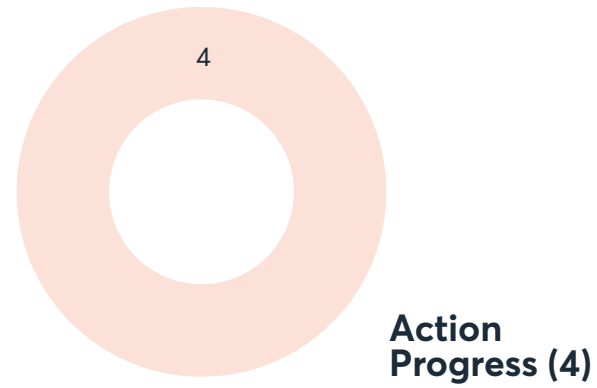


Priority 15
Council Responsible Investment & Procurement

Goal 20

● **Progressed**

Sustainability criteria are considered in all of Council's procurement activities



Actions

4.5.1	Ensure sustainability considerations in all procurement decisions, including mandatory weightings in tenders
4.5.2	Improve procurement guidelines, processes and tools to support staff to actively engage in sustainable procurement
4.5.3	Measure and report on the sustainability of procurement practice
4.5.4	Investigate divestment options with the intention of developing a divestment policy

Key (Actions table & Actions Progress pie chart):

■ Completed ■ On-track □ Needs attention

Additional information

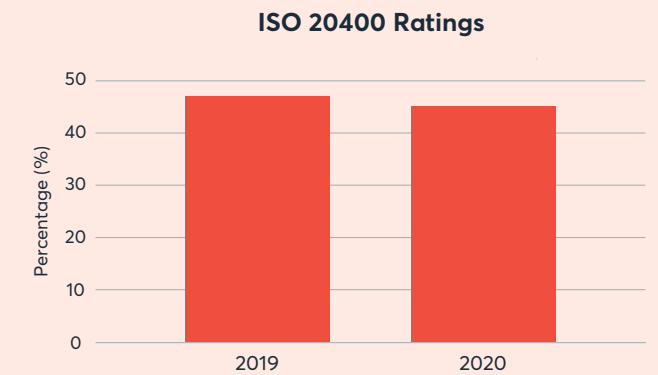
Council's Procurement Policy has been updated with sustainability principles and Council is working with suppliers to provide goods and services that are high quality, competitive and sustainable.

Key achievements

- 22% of Council's investments are sustainable¹⁶ (2020).
- Developed a draft Environmentally Sustainable Development (ESD) Buildings Policy containing sustainable design elements for Council buildings and major retrofits.
- Commenced initiatives to eliminate polystyrene cups across the workplace.
- Council also advocates for Indigenous businesses through Supply Nation and the local business directory.

Data insights

Figure 26: Council participates in the ISO 20400:2017 survey that tracks an organisation's delivery of sustainability within procurement decisions and processes. Results since 2019 show a slight decrease in rating.



16 Classified sustainable on the basis of zero exposure to fossil fuels

Appendix

City in Nature Action Progress

Key

Completed 2 (5.6%)	On-track 21 (58.3%)	Needs attention 13 (36.1%)
63.9%		36.1%

Action No.	Action	4-year Progress
Theme 1: City in Nature		
Priority 1: Parks & Green Space		
Goal 1: Protect, enhance and increase our parks and green spaces to make them a community feature		
1	1.1.1 Maximise quality green and open space in new growth precincts	Implementing Community Infrastructure Strategy within new growth precincts
2	1.1.2 Develop a new Open Space & Recreation Plan	Development of Plan has commenced
3	1.1.3 Implement Parra Play policies through formal play spaces	Policy developed and adopted
4	1.1.4 Promote the use of shared green space by educating and engaging our community	Community engaged
5	1.1.5 Continue to activate our parks and opens spaces via our bike and walking networks	Activation continued
Priority 2: Bushland & Biodiversity		
Goal 2: Protect and enhance the health of our unique natural ecosystem of plants and animals		
6	1.2.1 Develop management plans for bushland areas across the Local Government Area covering fire hazard management, restoration and rehabilitation works, preservation of flora and fauna and iconic species, feral animal control, increased revegetation and protection of endangered flora and fauna species	On-ground biodiversity assessments and bushfire risk completed. Management Plans developed for some locations
7	1.2.2 Expand the bushland regeneration program to improve vegetation conditions	Bushland regeneration program implemented
8	1.2.3 Continue to deliver the Council's biodiversity strategy "Life in our City", creating new targets for the Local Government Area	On-ground biodiversity assessments completed, and new Plan to be developed for whole LGA
9	1.2.4 Review bio banking potential for sites in bushland areas	Investigated but not feasible within LGA
10	1.2.5 Continue our "get into nature" program to get more people enjoying our natural surrounds	Get into Nature Program continued, even during COVID-19 lockdown
11	1.2.6 Manage threatened species with threat abatement and recovery action plans	Plans implemented
12	1.2.7 Grow our bush regeneration and Bushcare volunteers program	Bushcare participant targets achieved each year
13	1.2.8 Continue working with our neighbouring councils, via the Parramatta River Catchment Group, to build connected habitat corridors across boundaries, and provide sanctuaries for all species, including our five iconic species	Active member of the Parramatta River Catchment Group
14	1.2.9 Continue to collaborate across all land tenures to promote biodiversity and bushland conservation including State Government land, land owned by utilities, University of Western Sydney lands, industrial, commercial and residential land	Collaboration continued, especially catchment-wide fox and rabbit control programs
15	1.2.10 Continue managing the interface between conservation areas and other land uses through planning, policy, compliance, education and preservation activities	Partnerships with Parramatta River Catchment Group, Parramatta Park and Sydney Olympic and golf courses

Action No.	Action	4-year Progress
Priority 3: Urban Forest		
Goal 3: Increase canopy cover to 40% by 2050 (Based on 2016 levels)		
16	1.3.1 Develop an Urban Forest Strategy to help meet our canopy target and determine the best trees for locations and purpose	2019 DPE data received in 2021 and data analysis and background research commenced
17	1.3.2 Prioritise street tree planting along cycleways and the Parramatta Ways walking network	Tree planting aligns with walking and cycling network
18	1.3.3 Plant more diverse street tree species to withstand pests, disease and the changing climate	Species selection considers pests, disease and climate
19	1.3.4 Work with energy providers to reduce conflict between street trees and power lines	Continued to work with Ausgrid and Endeavour Energy
20	1.3.5 Review and improve planning and development controls to protect existing trees and maximise the opportunity for new ones	Trees considered in planning and development controls
21	1.3.6 Regulate planting on new growth precincts to ensure canopy trees are planted in streets and on private properties	Where resourcing allows
22	1.3.7 Continue to plant tube stock in Council reserves	Planting continues in Council reserves
23	1.3.8 Get our community more involved in National Tree Day and similar events	Community involved
24	1.3.9 Develop a community engagement program to provide information and improve understanding of the value of trees in our City	Website updated with value of trees
Priority 4: River & Waterways		
Goal 4: Make the Parramatta Swimmable again by 2025		
25	1.4.1 Continue to provide a high-quality swimming environment at Lake Parramatta	High-quality swimming provided at Lake Parramatta
26	1.4.2 Continue working with the Parramatta River Catchment Group to deliver the Parramatta River Masterplan, the Riverkeeper Network and River Aware program, and to enhance priority habitat corridors for our five iconic species and native fish	Active member of the Parramatta River Catchment Group
27	1.4.3 Review needs and opportunities for the Lane Cove River Catchment which ultimately feeds into the Parramatta River	As part of Parramatta River Catchment Group
28	1.4.4 Update the "Rivers of Opportunity" Water Strategy to identify and prioritise local initiatives to support the broader catchment goal	Background research completed
29	1.4.5 Continue compliance initiatives to reduce pollution entering the river	Compliance initiatives continue
30	1.4.6 Construct new wetlands to create new animal habitats	Baludarri Wetland restoration and expansion completed
31	1.4.7 Create water sensitive urban design that filters pollution from stormwater runoff	Implemented in specific locations
32	1.4.8 Implement recommendations from Water Sensitive Urban Design policy and practice review	Commenced implementation
33	1.4.9 Increase stormwater harvesting and reuse on public and private land	Background scoping and research completed
34	1.4.10 Work with water utilities to improve stormwater and sewer infrastructure	Through the Parramatta River Catchment Group
35	1.4.11 Further investigate the delivery of the four new natural swimming facilities on the river	Exploratory water quality sampling conducted
36	1.4.12 Continue acting on the Parramatta River Estuary Coastal Zone Management Plan, and contribute to future revisions	Actions from plan implemented

Built for the Future Action Progress

Key

Completed 1 (6.25%)	On-track 9 (56.25%)	Needs attention 6 (37.5%)
62.5%		37.5%

Action No.	Action	4-year Progress
Theme 2: Built for the Future		
Priority 5: Community Energy & Carbon		
Goal 5: 60% Emissions reduction by 2038 (based on 2015 levels)		
Goal 6: 50% of electricity demand to be met by renewable energy by 2038		
37	2.1 Develop an Energy Implementation Plan	Background research completed
Priority 6: Community Water Use		
Goal 7: No net increase in potable water consumption by 2038 (based on 2015 levels)		
38	2.2.1 Investigate planning and development controls for higher water efficiency in our growth precincts	Planning controls for alternative water (dual pipes) and water efficiency implemented
39	2.2.2 Work with developers and water utilities to encourage recycled water options in new developments and key growth precincts	Working in partnership with Sydney Water for an alternative water supply to be constructed within LGA
40	2.2.3 Advocate for higher BASIX Water targets for all new residential developments	Advocacy through WSROC and Resilient Sydney initiatives
41	2.2.4 Develop a retrofit program for existing buildings to improve their water efficiency and cost savings	Delivered through Sydney Water business program
42	2.2.5 Increase water sensitive urban design and rain gardens in developments and in public domain	Included on an individual site and project basis

Action No.	Action	4-year Progress
43	2.2.6 Work with all levels of government, industry and education to identify future technology and infrastructure opportunities for the Local Government Area	Through WSROC and Resilient Sydney initiatives
Priority 7: Community Waste & Litter		
Goal 8: Reduce resource consumption from 8.1kg to 6.1kg per person by 2038 (based on 2015 levels)		
Goal 9: Increase diversion from landfill to 85% by 2038		
Goal 10: Reduce the volume of litter by 40% by 2020		
44	2.3.1 Revise Waste Avoidance & Resource Recovery (WARR) Strategy to 2021, to address issues including public domain litter, illegal dumping and future technology	WARR Strategy adopted 2019
45	2.3.2 Work with business and industry to reduce plastics and packaging including plastic bag bans	Through WSROC initiatives
46	2.3.3 Advocate for policy changes at State and Federal Government levels to reduce plastics and packaging	Through WSROC initiatives
47	2.3.4 Continue community education programs targeting various waste streams from the perspective of avoidance, reuse, repair and recovery	Education programs continued
48	2.3.5 Expand the Bower's "Rehoming and Collection Service" to increase the amount of items rehomed before they're recycled through kerbside cleanup	Bower's service expanded
49	2.3.6 Increase waste diversion from landfill through various treatment processes, and investigate waste-to-energy, both bio-digestions and gasification	Through WSROC initiatives
50	2.3.7 Investigate alternative systems to divert food organics and nappy waste from red bins	Nappy waste trial commenced, and food organic diversion being investigated for next waste collection contract
51	2.3.8 Continue working with the NSW Government and local business to target commercial and industrial (C&I) waste	Continued to work with NSW government and local businesses
52	2.3.9 Continue public place litter education and recycling programs and the strategic use of street sweeping, gross pollutant traps and enforcement that targets hotspots	Programs continued

Connected and Resilient Communities Action Progress

Key

Completed 4 (19%)	On-track 14 (67%)	Needs attention 3 (14%)
86%		14%

Action No.	Action	4-year Progress
Theme 3: Connected and Resilient Communities		
Priority 8: Sustainable Transport		
Goal 11: 10% of trips made by walking and cycling by 2038		
53	3.1.1 Support implementation of the Parramatta Bike Plan, including \$1M from the Stronger Community Fund for the Epping to Carlingford cycleway connection	Implementation continued
54	3.1.2 Support Implementation of the Parramatta Ways Walking Strategy	Implementation continued
55	3.1.3 Support the delivery of Stage 1 – Parramatta Light Rail to ensure that active transport connects to light rail stops and that high quality amenity is provided for user comfort	Stage 1 commenced
56	3.1.4 Develop an Integrated Transport Plan, including demand management and advocate for its delivery	Draft CBD Integrated Transport Plan on public exhibition
57	3.1.5 Review planning and development controls for car share, electric vehicle and active transport facilities and connections across the Local Government Area	Planning controls for electric vehicle charging infrastructure within new development implemented
58	3.1.6 Advocate for major public transport initiatives such as Sydney Metro West rail link and other projects	Advocacy continued
Priority 9: Urban Heat		
Goal 12: Improve liveability by cooling the City and protecting people and communities from heat stress		
59	3.2.1 Protect, enhance and increase our existing bushland, parks and green spaces	See a City in Nature section
60	3.2.2 Continue to deliver the Cool Parramatta initiative, which promotes cool and safe places to our community to go during extreme heat	Cool Parramatta initiative successfully implemented
61	3.2.3 Investigate planning and development controls to help reduce urban heat across the Local Government Area	Planning controls for urban heat (office building vertical shading) within CBD implemented
62	3.2.4 Undertake a baseline study and determine monitoring approaches to measure progress	Background research completed
63	3.2.5 Develop a Community Resilience Plan and incorporate into Council's Disaster Management Plan	Background research completed
64	3.2.6 Continue to build partnerships and innovation to tackle Western Sydney heat	Partnerships with WSROC and Resilient Sydney
65	3.2.7 Improve public and community space design to reduce summer heat by incorporating shade structures, drinking fountains, water features, and by capturing rainwater to irrigate trees and plants and cool public spaces	Commenced implementation
66	3.2.8 Encourage and promote green infrastructure such as green roofs and walls and water sensitive urban design	Advocacy continued

Action No.	Action	4-year Progress
Priority 10: Flooding		
Goal 13: Minimise the impact of flooding on the community		
66	3.3.1 Complete the Parramatta River Flood Modelling and Risk Management Plan, including mainstream and overland flows	Flood modelling and risk management commenced
67	3.3.2 Launch Flood Information System Hub (FISH), including a public warning service and access to river and rain gauge information	FloodSmart Parramatta successfully launched
68	3.3.3 Continue to improve our drainage network	Implementation of annual capital works program to improve drainage network
69	3.3.4 Develop community engagement and awareness on how to identify and respond to flood risks	FloodSmart Parramatta service
70	3.3.5 Work with partners including Sydney Water, Bureau of Meteorology, Local Land Services and State Emergency Service around flood management and evacuation	Partnerships through FloodSmart Parramatta service
71	3.3.6 Update the planning controls to appropriately manage flood risks as the City grows	Planning controls for managing flood risk implemented
72	3.3.7 Continue to coordinate the Parramatta River Floodplain Risk Management Committee	Coordination continues

Leading By Example Action Progress

Key

Completed 3 (12%)	On-track 8 (32%)	Needs attention 14 (56%)
44%		56%

Action No.	Action	4-year Progress
Priority 11: Council Energy & Carbon Goal 14: Carbon Neutral by 2022 Goal 15: 60% emissions reduction by 2038 (based on 2015 levels)		
74	4.1.1 Deliver Phases 2 and 3 of the Light Years ahead LED streetlight replacement program	Over 50% streetlights upgraded to LEDs Endeavour Energy: Phase 2 completed and Phase 3b commenced. Ausgrid: Phase 3a commenced
75	4.1.2 Continue with energy efficiency upgrades across our buildings and facilities	Upgrades continued
76	4.1.3 Validate existing audits based on asset type and new technologies available	Some auditing validated
77	4.1.4 Develop Green Building Policy to ensure new assets are designed and built to maximise energy efficiency, increase renewable energy and reduce urban heat impacts	Draft Environmentally Sustainable Design Policy developed
78	4.1.5 Investigate and implement renewable energy opportunities on our Council buildings and facilities	Solar and battery storage implemented at Operations Centre
Priority 12: Council Water Use Goal 16: No net increase in potable water consumption by 2038 (based on 2015 levels)		
79	4.2.1 Continue to install rainwater and stormwater tanks on Council buildings	Implemented where resourcing allowed
80	4.2.2 Increase the supply of recycled water for irrigation and other uses where appropriate	Construction commenced at Milson Park with recycled water for irrigation to be available when completed
81	4.2.3 Continue with water efficiency upgrades at Council buildings and facilities	Implemented where resourcing allowed
82	4.2.4 Continue to improve the water efficiency of our parks through improvements to soil structure, irrigation systems, and management practices	Implemented where resourcing allowed
Priority 13: Council Waste & Resource Recovery Goal 17: 90% diversion rate for Council waste by 2038		
83	4.3.1 Introduce requirements into all capital and civil works tenders to require reuse and recycling of waste and reporting on diversion rates	Baseline of all tender requirements established
84	4.3.2 Ensure all waste contracts enable tracking and reporting of waste streams	Baseline of all waste contracts established
85	4.3.3 Work with staff to improve resource recovery	Capital works contracts achieving diversion rates
86	4.3.4 Develop a business case to procure screening and sorting equipment for civil works waste at Council's Operations Centre	Business case developed, not achievable
87	4.3.5 Investigate systems to divert food waste from the general waste stream	Investigations commenced
88	4.3.6 Collect and report on data from all corporate waste streams	Investigations commenced
89	4.3.7 Increase staff understanding of waste avoidance, disposal options and contamination	On hold due to COVID-19 working from home restrictions

Action No.	Action	4-year Progress
Priority 14: Council Fleet & Staff Travel Goal 18: Reduce Council fleet emissions by 20% by 2038 (based on 2015 levels) Goal 19: Reduce single-occupancy car commutes to and from work by Council staff to 35% by 2023 (based on 2016 levels)		
90	4.4.1 Transition passenger and heavy vehicles to low carbon options as technology improves	Through WSROC Electric Vehicle RoadMap
91	4.4.2 Promote on-going ride sharing initiative such as Western Sydney carpool	Active participant for first couple of years. Since withdrawn from initiative
92	4.4.3 Investigate incentive schemes to support the transition to low carbon travel to and from work for staff	On hold due to COVID-19 working from home restrictions
93	4.4.4 Promote video conferencing	Large increase through COVID-19 working from home restrictions
94	4.4.5 Investigate adding bikes or e-bikes to our fleet for short trips during the day	A focus for next 4 years
Priority 15: Council Responsible Investment & Procurement Goal 20: Sustainability criteria are considered in all of Council's procurement activities		
95	4.5.1 Ensure sustainability considerations in all procurement decisions, including mandatory weightings in tenders	A focus for next 4 years
96	4.5.2 Improve procurement guidelines, processes and tools to support staff to actively engage in sustainable procurement	A focus for next 4 years
97	4.5.3 Measure and report on the sustainability of procurement practice	A focus for next 4 years
98	4.5.4 Investigate divestment options with the intention of developing a divestment policy	A focus for next 4 years

