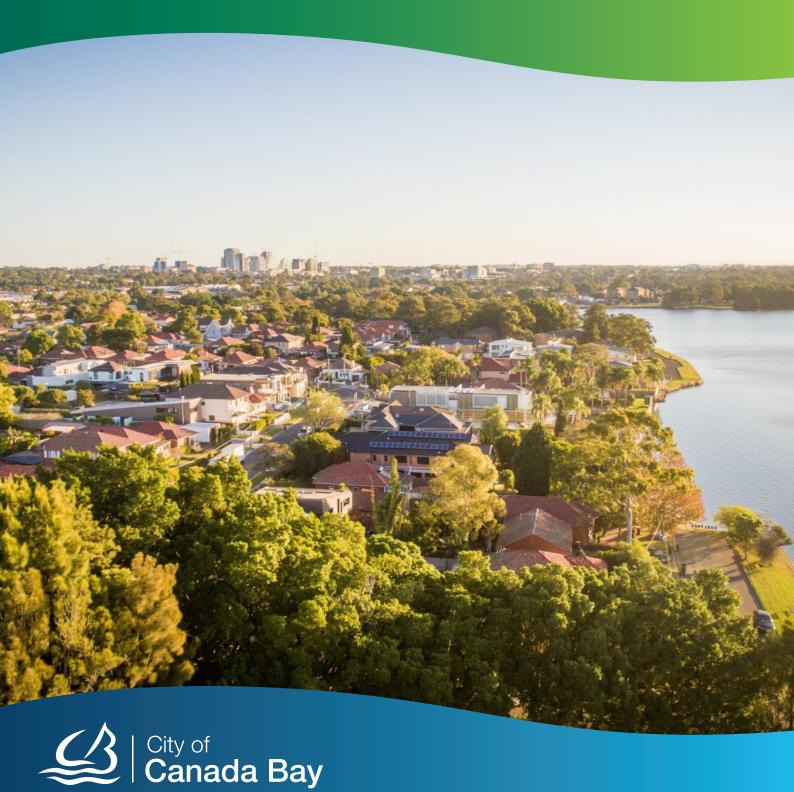
# Environmental Strategy

Our Sustainable City



This Environmental Strategy is written about the land currently known as the City of Canada Bay. We acknowledge this land is the traditional home of the Wangal people of the Eora nation. We recognise their stewardship of this place. We acknowledge the vital contribution that indigenous people and cultures have made and still make to the nation that we share.



# Our sustainable City

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### I. Strategy outline

The City of Canada Bay's long standing commitment to best practice environmental management is evident from its history of industry recognised programs. These include the Water for Our Community water security project, action on climate mitigation and behaviour change programs targeting biodiversity, litter and waste.

Council undertakes a broad range of functions on behalf of our community, delivering key services such as waste management and planning whilst also delivering programs which respond to community needs and challenges our community will face as our population and climate changes. It also has a role in advocating for legislative reform and working at a regional level to effect change on a larger scale. We also value collaboration and are part of innovative regional projects such as the Power Purchase Agreement which secures renewable energy for Council, and the Our Energy Future and Solar My Schools programs which are assisting our community to increase solar PV.

This strategy aims to build on the delivery strategies outlined in Council's long-term community plan, YOUR future 2030, by exploring community feedback in more detail. It sets out our environmental direction by identifying key actions we will take to work with our community and achieve our targets.

The strategy groups Council's environmental commitments into four key themes:

- Connected to nature biodiversity, urban canopy and waterways
- · Resilient City climate change adaptation and transport
- Resource efficient community water, energy and waste
- Leading by example energy, water, fleet and procurement in Council operations

We also talk about education and collaboration as two other key areas which are critical to the success of this plan.

Within each theme there are several focus areas. For each of these we assign measurable targets and goals, Council's achievements to date, and list our key actions over the next five years.

By setting targets, we have a platform to measure our performance. Each year we will report back to the community through a snapshot report which will outline how we are tracking against our targets.

Throughout this document we have mapped the strategy areas against the United Nations Sustainable Development Goals (UNSDG) to illustrate our commitment and contribution to a number of the targets set within this framework. The relevant goals are mapped at the beginning of each theme and the targets are further explored in Appendix 1.

This document as a whole, contributes to following United Nations Sustainable Development Goal's:







This document will be reviewed by 30 June 2025 and draws together many of the strategies, plans and frameworks which outline Council's commitment to enhancing the local environment.



### 2. Our vision and strategic context

YOUR future 2030, Council's Community Strategic Plan (CSP), sets out the community's vision for the City of Canada Bay as well as long-term goals and strategies.

There are five key themes that our community told Council they would like us to focus on.



How does this strategy relate to the Community Strategic Plan?

### Strategic framework

This strategy exists in the context of the City's greater vision, and the other strategies that seek to deliver on it.

Local Smart City Strategy Movement Strategy Strategy Biodiversity Strategy

### **Community Strategic** Plan Goals addressed in this plan:

Goal 2.1 - Working together, we adopt practices that sustain our environment

**Delivery Strategy 2.1.1** -Respond to the impacts of **Climate Change** 

**Delivery Strategy 2.1.2 Engage with the community** through innovative community environment programs

**Delivery Strategy 2.1.3** – Protect and enhance natural resources and biodiversity

Delivery Strategy 2.1.4 -Provide efficient and effective waste and resource recovery

**Delivery Strategy 2.1.5** Manage drainage and stormwater infrastructure

Goal 2.2. - Attractive, well maintained and accessible parks a range of active and passive recreation uses

**Delivery Strategy 2.2.1 – Plan** for, and maintain, parks and open space

Goal 3.1 – Regional and local infrastructure is well planned and resourced to enable connectivity across our City

**Delivery Strategy 3.2.3** -Provide efficient lighting for

streets, public spaces, parks and sporting fields

Goal 4.2 - High quality sustainable urban design results in innovative development sensitive to existing local character

**Delivery Strategy 4.2.1** –

Provide strategic and land use planning which considers environmental sustainability

### Community Strategic Plan

10+ years

Highest level plan that a Council will prepare - the purpose of this plan is to identify the community's main priorities and aspirations for the future and the plan strategies for achieving these goals.

### Resourcing Strategy

Sets out the sufficient resources - time, money, assets and people to actually carry out Council's strategies and plans.

### Delivery **Program** 4 years

Sets out the principal activities that Council will deliver to the community during the Council term.

### **Operational** Plan

Annual

Sets out the details of the Delivery Program – the individual projects, activities and budget.

> **Perpetual Monitoring** and Review **Framework**

**Annual** Report





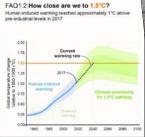
### Global



The Paris Agreement and C40 global network seek to hold the increase in global average temperature to 1.5 degrees Celsius or less.

The Intergovernmental Panel on Climate Change published a report which seeks to limit warming 1.5 degrees Celsius.

UN Sustainable Development Goals seeks to address global challenges such as climate change, environmental degradation, clean energy and sustainable cities and communities.



**Federal** 

20%

26-287.

Renewable Sources by 2020 Emission reduction from 2005 levels by 2030

### State



by 2050

**ANNUAL ENERGY** SAVINGS

16,000 GIGAWATT HRS

by 2020

### **WASTE DIVERSION TARGET**

(for commercial, industrial and municipal solid waste)



by 2020/21

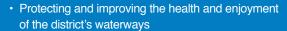
### **District**

### Local

The Guiding Principles for Councils within the Local Government Act 1993, Chapter 3, 8A State that councils are obliged to consider the long term and cumulative effects of actions on future generations and that they should consider the principles of ecologically sustainable development.

### The Greater Sydney Commission Eastern City District

Plan includes:



- · Creating a parkland city urban structure and identity, with South Creek as a defining spatial element
- · Protecting and enhancing bushland, biodiversity and scenic and cultural landscapes
- Increasing urban tree canopy cover and delivering Green Grid connections
- · Delivering high quality open space
- · Reducing carbon emissions and managing energy, water and waste efficiently,
- · Adapting to the impacts of urban and natural hazards and climate change.











### 4. Facts and Figures

Key Facts - City of Canada Bay

Population expected to grow to almost

120,000 by 2036

(a growth rate of > 1% per year)



348ha of open space

**Canopy cover** 18.1%



**37**%

63% medium/high density dwellings



fauna species



sports grounds



Average weekly waste produced across approx. 37,000 households

10kg

general waste

5.1kg co-mingled waste

2.5kg garden organics



135 community facilities



Community greenhouse gas emissions

in FY2016-17

8.6 tonnes of CO2 e



along the Parramatta River and Iron Cove with two swimming sites



The average household used

(197,000 litres)

of water

in FY2017-18



### 5. What has the community told us?

At our Community Strategic Plan engagement sessions and environmental feedback sessions, we asked the community how you wanted us to improve our local environment and what services, programs and issues concerned you. Here is what you told us:

"Abundant green corridors and unbroken public access to foreshores."



"Future proofing: white solar reflective paint on tops of high rises or artwork to negate heat sinks and urban heat have been shown to lower electricity by up to 30%."



"Integrate healthy sustainable environments that support active living."



"Staying as green and leafy as it currently is."







"Residents committed to a clean, green environment."







"Retain local biodiversity and replace vegetation."









"Sensitive large scale residential development."



"Rethink the way we plan our roads - making the majority of our roads push bike friendly so that they are a transport



"...water front and being able to access it through bike and walking paths."



"Plan for a foreshore trail around the entire Canada Bay boundary to Parramatta River and the harbour."



"Establish facilities to support increased use of electric cars."

"Organisational efficiencies to realise financial opportunities directed to community."



"Bolder Council, more progressive voice."





"Include the provision of EV charging points in all new developments."





"Council should set an aspirational goal of 100% reduction in carbon emissions, which equals a 'carbon neutral' or 'net zero' goal no later than 2030."



"Providing proper facilities, green space, schools and catering for people to work and live in the area are priorities."

"Protect our heritage."



"Increased natural filtering wetlands, swales, reed beds etc."













"Encourage more native flora and fauna bush regeneration."



"Educate residents on the benefits of trees they increase property prices, cool the area







"Introduce a ban on single use plastics."



"Tackle food waste, reduce single use plastics and lobby for infrastructure."



"Incentivise rainwater tanks and harvesting."

### 6. How are we tracking against our current targets?

The City of Canada Bay is committed to reducing its impact on the environment and assisting our community to do the same thing. To deliver on this commitment, Council supports and delivers a wide range of programs, policies and plans designed to achieve positive environmental outcomes through the community and across Council's own activities. To ensure we are tracking towards our current targets, Council measures its performance. In the following sections we report on our progress towards the targets outlined below.

Council's first Greenhouse Action Plan (2014) included several targets for Council operations which are highlighted below in the table.

Council is expecting to reach a greenhouse gas emissions reduction of 22.5% from the baseline year 2011-12 by the end of the 2019-20 financial year based on current data.

Council will meet its target to replace 30% of traditional energy with renewable sources by the end of the 2019-20 financial year and has already achieved a 28% reduction in fuel consumption and 95% reduction on the emissions from paper.

In relation to energy consumption, the target to reduce consumption by 30% has proved difficult to meet with an increase in community facilities in the area.

### Did we meet the targets?

Target	Current performance as at 30 June 2019	Actual/projected date target met
Reduce greenhouse gas emissions by 35% (based on 2011-12 levels) by 2023	1% reduction on baseline	22.5% reduction by end of FY 2019-20
Replace 30% of traditional energy supply with renewable sources by 2020	1.7% of electricity consumed is from a renewable source	34% by end of FY 2019-20
Reduce fuel consumption by 10% (based on 2011-12 levels) by 2023	28% reduction on baseline	10% reduction achieved in 2013-14
Reduce emissions from paper consumption by 10% (based on 2011-12 levels) by 2023	95% reduction on baseline	27% reduction achieved in 2013-14
Reduce energy consumption by 30% (based on 2011-12 levels) by 2023	5% increase on baseline	13% reduction by end of FY2019-20

Table 1: Table of tracking towards previous targets

### 7. Our recognised environmental achievements

The City of Canada Bay is well advanced in its environmentally sustainable activities and performance and continues to be recognised for these achievements. Our environmental practices have been recognised in a range of industry awards over the previous four years. These include the Local Government Shires Association, Keep New South Wales Beautiful, Local Government Professionals, Stormwater NSW and Local Government New South Wales among others.



### Summary of awards

Awarded by	Award
Local Government Shires Association	2015 Local Sustainability – Division C
Keep NSW Beautiful	2015 Waste Less, Recycle More Award
Keep NSW Beautiful	2015 Sustainable Cities
Keep Australia Beautiful NSW	2015 Community Action and Wellbeing Award
Keep Australia Beautiful NSW	2015 Highly Commended – Dame Phyllis Frost Liter Prevention WM & RR
Local Government Procurement Professionals	2015 Water for Our Community
Stormwater NSW	2015 Excellence in Infrastructure - Water for Our Community
Local Government NSW	2015 Excellence in the Environment – Water for Our Community
Keep NSW Beautiful	2015 Blue Star Sustainable Cities Award for Metro Sydney
Place Leaders Asia Pacific	2015 Winner – Place Approach
NSW Local Government Excellence Awards	2016 Finalist – Bin Your Butts
Keep NSW Beautiful	2016 Winner – Blue Star Metro Award for Hey Tosser! Litter Reduction Award
Local Government NSW	2016 Winner and Overall Category Winner Division C – Bin your Butts
Local Government NSW	2016 Highly Commended Division C – St Luke's Park North soil reuse project
Local Government NSW	2016 Winner and Overall Category Winner Division C – Water for Our Community

Awarded by	Award
Local Government NSW	2016 Winner Division C – A Year of Strategy and Sustainability
Institute of Public Works and Engineering Australia	2016 Engineering Excellence
Institute of Public Works Engineering Australasia	2016 Awards – Water for Our Community, Environmental Initiative
Australian Asphalt Pavement Association State and National Awards	2016 Award for Pavement Innovation – Concord West Shopping Village white asphalt to reduce heat sink
Keep NSW Beautiful	2016 Sustainable Cities – litter prevention
Local Government NSW	2016 Local Government Excellent Award – litter prevention
Local Government Professionals NSW Awards	2017 Winner Local Government Professionals NSW Awards – Concord West Village White Roads Project
Keep Australia Beautiful NSW	2018 Keep Australia Beautiful NSW Sustainable Cities Awards – habitat and wildlife conservation
Keep Australia Beautiful NSW	2018 Keep Australia Beautiful NSW – Renewable Energy Award
Local Government NSW	2018 Communication, Education and Empowerment Winner Division C – Mind our Mangroves: Year 1
Local Government Professionals NSW	2019 Asset Management and Infrastructure Initiative – 5 Senses Garden
Local Government NSW	2019 RH Dougherty Award – Highly Commended Excellence in Communication, dog litter reduction program
Keep Australia Beautiful NSW	2019 Keep Australia Beautiful NSW – Environmental Communication Award: Love Your Place
Keep Australia Beautiful NSW	2019 Keep Australia Beautiful NSW – Community Spirit and Inclusion Award: 5 Senses Garden
Keep Australia Beautiful NSW	2019 Keep Australia Beautiful NSW – Heritage and Culture Award: Refresh Concord West



### **Funding allocations**

During 2014 - 30 June 2019, Council received \$2,074,387 of funding from external sources and has used this money to deliver waste, biodiversity and emission reduction programs. We regularly look for opportunities to apply for additional funding to support the key focus areas. Moving forward the City of Canada Bay will ensure this is prioritised to provide improved outcomes for the community.

### Summary of funding received 2015-19

Funding received/ funding stream	Awarded by	Project	Amount
Butt Out	NSW Environment Protection Authority	Retail litter prevention	\$26,026
Community drop-off centre – construction	NSW Environment Protection Authority	Construction of community drop-off centre	\$175,582
North Strathfield Rail Underpass	NSW Transport	Tree planting – bush regeneration	\$17,732
Bin Trim	NSW Environment Protection Authority	Two rounds of grants providing waste solutions for sustainable business	\$261,610
Yaralla Bushcare	Office of Environment and Heritage	Rehabilitation – bush regeneration	\$30,000
Council Litter Prevention – Round 3	NSW Environment Protection Authority	Back of Business	\$38,350
Mind Our Mangroves	NSW Environment Trust	Mangrove education	\$19,750
Home Power Savings Program 2013	Office of Environment and Heritage	Education and promotion of home power savings program	\$3000
Local Heritage Advisory Service and Assistance Funding	Office of Environment and Heritage	Consultancy, local heritage advice and small local conservation projects	\$16,000
Waste Less, Recycle More	NSW Environment Protection Authority	Funding aimed at increasing recycling rates and reducing waste to landfill	\$438,462
Love Food Hate Waste	NSW Environmental Trust	Two rounds of grants to work on food waste reduction for businesses	\$44,755
Compost Revolution	NSW Environmental Trust	Deliver a regional education program via an online portal and subsidise compost bins to residents who complete the workshop	\$998,555
RID Squad	NSW Environmental Protection Authority	Implementation of regional RID Squad with five surrounding Councils	\$350,000
Wood Smoke Reduction Grant	NSW Environmental Protection Authority	Wood smoke reduction	\$15,000
5 Million Trees Grant	Department of Planning and Environment	Grow our Canopy	\$210,000

### 8. Our Targets, Goals and Plan

### **Connected to nature**

Our quality of life depends on the natural environment that surrounds us. Nature supports the health and wellbeing of the community, offering benefits like stress reduction and supporting social connections in urban areas. When integrated within urban areas, nature can stimulate local economic growth by making spaces more appealing, and help us tackle environmental challenges like pollution reduction, stormwater management, buffering traffic and climate resiliency.

This theme contributes to the following United Nations Sustainable Development Goals:













along the Parramatta River and Iron Cove

### 440 trees

in Queen Elizabeth Park remove more than 250 kgs of pollution and provide oxygen equivalent to the amount used by 158 people each year



155.27ha of habitat (7.84% of the area)



18.1% Canopy cover

current swim sites at Cabarita Park and **Chiswick Baths** 



The City of Canada Bay manages

245ha of public open space

in 169 parks

and has 47ha zoned for environmental conservation

bushcare groups

with volunteers that have contributed

over 7,200 hrs to regenerate bushland in the last 5 yrs

Each year an average of

8 schools 120 residents

participate in National Tree Day

over 1,500 plants/trees planted

biodiversity urban canop waterwa of open space

348ha

sports grounds

6 linkage

142 recreation spaces

natural

threatened species

of bird, mammal and amphibian are listed under the **NSW Biodiversity** Conservation Act 2016

### **Biodiversity**

Despite being a highly urbanised area, the City of Canada Bay has a diverse range of natural assets supporting over 260 flora and fauna species. The long-term protection of biodiversity within the local area is critical to ensuring conservation of threatened and endangered ecological communities such as the Coastal Saltmarsh, Sydney Ironbark-Turpentine Forest, Swift Parrot, Bar-tailed Godwit and the Curlew Sandpiper.

To ensure local natural habitats are protected and enhanced for future generations, the City of Canada Bay adopted the Canada Bay Biodiversity Framework and Action Plan in 2019. The plan was designed to assist in the management, enhancement and protection of natural areas and biodiversity in the local area. This will benefit the community through the provision of connection to the natural environment and ecological services such as the capture of carbon dioxide, conservation, cooling of urban environments and a variety of recreational and cultural experiences.

### Ourtargets



# No decrease in native fauna species

compared to the 2014 Fauna Survey (104 fauna species recorded in 2014)



# No decrease in native plant species

as compared to those identified in the 2019 Biodiversity Framework (159 native plant species)



# No decrease in the area or number of vegetation communities

compared to OEH 2016 mapping (155.27ha of critical, significant and supporting habitat)



- Improve connectivity and protect the current habitat
- O Protect and enhance habitat for fauna
- Plant species that are characteristic of naturally occurring vegetation communities and habitat requirements
- Grow our bush regeneration and Bushcare volunteers program
- Increase and protect habitat areas, fauna and native species
- Empower residents to increase biodiversity on their own properties Increase involvement in citizen science programs
- Increase involvement in citizen science programs

# What have we achieved so far?

- Parramatta River Estuary Coastal Zone
  Management Plan and Flora and Fauna Report
- 45 volunteers and 950 hours per year from Bushcare groups
- 5 Grant-funded biodiversity projects delivered in the last five years
- Run the Bushcare volunteer program
- Engaging our community to get connected with nature and keeping it clean through the Love Your Place program
- Adoption of Canada Bay Biodiversity Framework and Action Plan
- Partnering with Parramatta River Catchment
  Group for the Our Living River project to expand,
  restore and manage native habitats along the
  Parramatta River catchment
- Developed nature strip policies and procedures to encourage residents to plant appropriate native species
- Delivery of the Protect Our Migratory Shorebirds and Mind Our Mangroves projects, educating schools and local residents about protecting threatened species such as the grey mangroves, Bar-tailed Godwits and the Curlew Sandpiper
- Engaging the community to support biodiversity in their backyards and schools through the Backyard Habitat and Bee Highway programs

# How are we going to get there?



- Implement the Canada Bay Biodiversity Framework and Action Plan
- Protect and enhance areas of high biodiversity value and critical habitat
- Continue weed control and ecological vegetation of native species
- Implement education, behaviour change and citizen science programs
- Deliver projects identified in the Our Living River program

### Our partners



- Parramatta River Catchment Group
- · Birdlife Australia
- Bayside Bushcare Volunteers
- Environment Advisory Committee

### **Urban canopy**

Over the next 20 years, the City of Canada Bay will experience a changing climate. The City will become increasingly warm and will be liable to more frequent extreme heat. Urban tree canopies play a critical role in creating healthy cities. They provide shelter, improve air quality, absorb carbon and rainfall, cool local environments, and support wildlife. Collectively, urban trees make up the urban forest. A healthy and well-managed urban forest provides multiple environmental, social, and economic benefits.

Our City contains large expanses of public open space including over 150 parks and reserves and significant areas of streetscapes, covering 18% of the Council area. This includes a mix of remnant bushland with stands of Sydney Turpentine-Ironbark Forest, active sporting fields and passive recreation areas. These natural assets are highly valued by the community.

Our vision is to support and enhance a healthy, resilient and diverse urban forest that would benefit the health and wellbeing of our community. The targets outlined in this strategy will guide decision making to create our future urban canopy to adapt for predicted climate change and provide the community with high quality open spaces.





Increase tree canopy cover from 18.2% across the City to 25% by 2040



- O Increase the number of trees by planting over 2,500 trees per year
- O Plant the right tree in the right place
- Move towards managing trees as an asset and as part of ecosystem approach
- O Increase trees on both public and private land

### What have we achieved so far?

- Adoption of the Urban Tree Canopy Strategy and action plan to guide decision-making, ensuring a resilient and diverse urban forest
- **Delivering National Tree Day events for schools** and the wider community
- Continuing the Bushcare volunteer program
- Responding to requests for tree removals, pruning and planting

# How are we going to get there?

- · Implement the Urban Tree Canopy Strategy action plan
- · Plant over 2,500 trees per year on public and private land
- · Deliver a community education program on the value of trees
- · Review and improve development controls to protect existing trees and maximise the opportunity for new ones
- · Implement the 5 Million Trees Grant
- · Ensure diversity in our street tree species to withstand pests, disease and climate
- · Work to reduce conflicts and risks with street trees
- · Increase participation in National Tree Day and support more opportunities for citizen science

### Our partners



- Bushcare volunteers
- · Local schools, residents and community groups
- · Environment Advisory Committee
- Sydney Local Health District

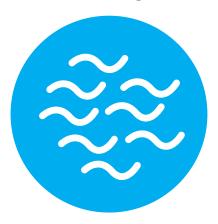


### Waterways

Healthy waterways support a healthy environment, economy and build resilient communities. With over 35km of foreshore along the Parramatta River and Iron Cove, water management is integral for our City. Our urban environments have expanses of constructed hard surfaces like roads, driveways, car parks, roofs and paving. When stormwater run-off flows over these hard surfaces, it readily accumulates pollutants. Stormwater pollutants originate from many different sources including fuel and oil on our roads, excess fertilisers and soaps from cleaning, litter dropped on our streets and sediment from building sites.

As our population grows, we must play a vital role in in how we manage the impacts of urban development and other recreational activities on our waterways. Council actively looks at ways to address water quality through catchment management initiatives such as the Catchment to Cove Project and participation in the Our Living River initiative.

### Ourtarget



# Make the Parramatta River swimmable again by 2025



- Maintain two current swim sites Cabarita
  Beach and Chiswick Baths
- Add proposed swim site Bayview Park
- Add proposed river activation site McIlwaine Park
- Increase the adoption of Water Sensitive Urban Design principles on private and public land
- Improve water quality in the Parramatta River

# What have we achieved so far?

- Parramatta River Catchment Group Our Living River initiative
- Catchment to Cove Project Sisters Bay and Half Moon Bay in Iron Cove
- Maintenance of 28 Pollution Control Devices in the City 120 tonnes of pollutants per year on average prevented from reaching our waterways
- Parramatta River Masterplan adopted and hosted launch
- Water Recycling Plant operational in 2015
- Industry recognition and tours with universities and international visitors
- Riverfest events Chiswick, Halliday Park and boat tours
- Powells Creek naturalisation
- Community water workshops and school education

### Our partners

- Parramatta River Catchment Group
- · Bayside Bushcare Volunteers
- River Keeper Network

# How are we going to get there?



- Catchment Group to deliver the Parramatta River Masterplan, the Riverkeeper Network, Get the Site Right Campaign and River Aware program, and to enhance priority habitat corridors
- Run community clean-ups along the foreshore and programs which focus on reducing the consumption of single-use plastic
- Continued partnership with Parramatta River Catchment Group
- Continue to provide swim sites at Chiswick Baths and Cabarita Park
- Undertake compliance initiatives to reduce pollution entering the river
- Investigate opportunities to increase water sensitive urban design to reduce stormwater runoff
- Increase stormwater harvesting and reuse on public and private land
- Advocate for improved stormwater and sewer infrastructure
- Deliver a new swim site at Bayview Park and activate the Parramatta River at McIllwaine Park
- Continue acting on the Parramatta River Estuary
   Coastal Zone Management Plan, and contribute to
   future revisions as part of the Coastal Management
   Program
- Deliver programs which involve the community protecting our waterways

### **9. Resilient City**

As our City transforms and grows there are new challenges that we face. The impacts of urban heat and climate change, increased demand for transport options and changes to rainfall patterns are all issues that need to be addressed to ensure that the local community is resilient, guaranteeing long-term liveability.

Council is committed to tackling climate change within our City and recently declared a climate emergency. Council has been taking climate action for a number of years now. We have an adopted emissions plan which addresses climate mitigation and a climate adaptation plan which focuses on reducing vulnerabilities to climate risks.

We are also a member of Resilient Sydney, which is a member of the 100 Resilient Cities initiative—pioneered by the Rockefeller Foundation. 100 Resilient Cities help cities around the world become more resilient to physical, social and economic challenges and we were part of developing a roadmap to resilience for Sydney.

This theme contributes to the following United Nations Sustainable Development Goals:







1% of trips made by cycling in 2016



39km of cycleway







Projected increase in mean temperature of **0.95°c** in 2030 to **2.47°c** by 2070

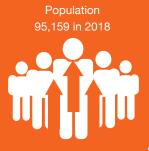


**Projected increase** in mean rainfall of **0.19mm** in 2030 to **0.51mm** by 2070

Population expected to grow to almost

120,000 by 2036

(a growth rate of > 1% per year)



33.537 workers in the with an additional **17,730 jobs** in 2036



### Climate change

Climate change adaptation is critical to reduce vulnerability to the effects of climate change. Where mitigation focuses on reducing the carbon emissions produced, adaptation is about responding to the predicted impacts of climate change.

By acting now to adapt to these projected impacts, we are increasing the resilience of our assets and community to withstand the impacts of climate change. We are doing this by adapting our assets, structures and buildings to reduce the risks and vulnerabilities and to respond to the needs of the community.

### How will climate change affect Australia?



Cyclones are likely to become more intense but less frequent



Extreme rainfall events are expected to become more intense



Hotter and drier conditions will lead to harsher bushfire weather



Heatwaves will become even longer and hotter



Higher sea levels will increase flooding in coastal cities and towns



Potential severe thunderstorm days are expected to increase



Droughts are likely to happen even more often

Source: Climate Council www.climatecouncil.org.au



- Embed climate resilience within Council's planning and management
- Minimise the impact of flooding to the community
- Improve liveability through cooling and heat mitigation measures
- Increase tree canopy
- Promote water sensitive urban design principles

- Educate the community on key climate risks and vulnerabilities and provide strategies to respond to these
- Emergency response for community, particularly members most vulnerable to the impacts of climate change (i.e. children and elderly population)
- Collaborate with businesses, utilities and other government agencies to strengthen our complex infrastructure network to withstand proposed climate change impacts

# What have we achieved so far?

- Council has delivered a range of actions to increase the resilience and liveability of our City, as well as working on adaptation projects to strengthen the resilience of our assets to climate change impacts, including: upgrading seawalls, naturalising stormwater canals, considering flood impacts, improving building design outcomes for community facilities, trialling cool pathways and delivering water security projects
- We also worked with the Australian Centre for Excellence in Local Government (ACELG) and developed a leading practice guideline for embedding resilience to climate change across Council operations
- We have also worked with the community to deliver programs which build the capacity of vulnerable communities. This has included a Red Cross and SSROC emergency management planning day for local childcare, attendance at net zero building and BASIX forums and Regional Heat mapping projects

### Our partners



- Resilient Sydney
- · SSROC

# How are we going to get there?



- Develop a Resilience Plan which builds on our current Climate Change Adaptation Plan which is then incorporated into Council's Emergency Management Plan
- Deliver projects which address climate vulnerabilities
- Keep up to date with the latest science, research and best practice
- Support, participate and collaborate with Resilient Sydney
- Deliver education programs which raise awareness for residents of climate risks
- Ensure resilience is integrated across Council by considering climate change risks in our everyday operations
- Encourage and promote green infrastructure such as green roofs and walls and water sensitive urban design
- Implement the urban tree canopy strategy
- Ensure Water Sensitive Urban Design principles are considered in Councils projects and promoted within the community.

### **Transport**

Ensuring that our City is connected as it grows is at the heart of sustainable transport. A connected City is one that offers walking, cycling and public transport opportunities. Making these options available and usable, helps to reduce congestion, improve health outcomes, and reduce carbon emissions and pollution.

Ourtargets



5% of trips made by cycling by 2036 (1% in 2016)



**20% of trips made by walking by 2036** (12% in 2016)



in LGA from 2019
baseline by 2030
(0 Council stations in 2019)



30% increase in total kilometres of cycleways from 2019 baseline by 2030 (39km of cycleway in 2019)



- Improved access to sustainable transport options
- Improved cycleway facilities
- Improved walkability and accessibly to ease congestion
- Improved health outcomes
- Reduced emissions and pollution

### What have we achieved so far?

- Advocated for improved bus and rail services in Rhodes
- Supported infrastructure upgrades such as the Bennelong Bridge and North Strathfield and Concord West railway station upgrades
- 61 bus shelter upgrades and 20 new bus shelters
- Transport Access Guides for Five Dock and
- New bike paths around Rhodes, Concord West, Concord and the Bay Run
- Community transport services to seniors and community groups
- Promoting car share operations

### How are we going to get there?

- Implement the Local Movement Strategy
- · Implement the Canada Bay Bike Plan
- · Review planning and development controls for car share and electric vehicle
- · Advocate for major public transport initiatives such as Metro West
- · Update and implement Pedestrian Access and **Mobility Plan**
- · Implement vehicle charging stations
- · Deliver education programs to encourage sustainable transport options

### Our partners

- Transport NSW
- BayBUG
- Greater Sydney Commission
- Surrounding councils



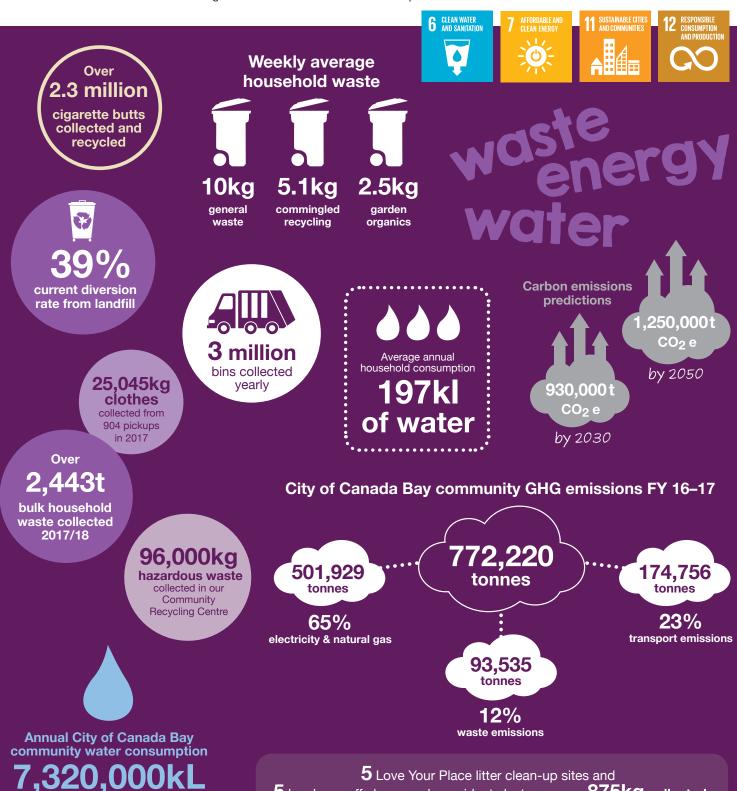


### 10. Resource efficient community

A resource efficient community is one that is designed to minimise the environmental footprint. Buildings during their lifetime have a significant impact on climate change and our City needs more sustainable designs that use less water, energy and materials. This will provide our community the opportunity to minimise consumption of water and energy and to improve resource recovery of materials.

Buildings need to be constructed to support waste minimisation and promote resource recovery and we need to shift our thinking in this space to one where waste is thought of as a resource. We need to create circular economies by consuming less, recovering what we use and investigating new technologies such as waste to energy to provide innovative solutions.

This theme contributes to the following United Nations Sustainable Development Goals:



5 local one-off clean ups by residents last year over 875kg collected

### Waste

The City of Canada Bay is focused on the responsible management of waste. This includes an emphasis on recycling and waste minimisation, as well as a focus on litter and illegal dumping. All households in the area are provided with a best practice waste, recycling and garden organics collection service, including two bulky waste collection services each year.

Council collects around **57,000 bins** and offers around **750 bulky clean up services** each week



80,000 bulk clean ups per annum

(Approximate annual total)



Our current diversion rate for household waste is 39%, which demonstrates that there are further opportunities to improve resource recovery outcomes. Council is developing a comprehensive Waste and Resource Recovery Strategy, which will provide a roadmap for reducing waste generation and boosting landfill diversion over the coming years.

Proactive litter management is integral to clean and healthy waterways, parks and open spaces. The presence of litter in our natural environment causes a variety of impacts. From waterway pollution to the visual amenity issues in parks and open spaces, litter needs to be managed to ensure we can meet our community aspirations of a swimmable river and clean open spaces. The City has developed programs such as Love your Place where Council officers engage with users of local parks, have conversations about littering behaviour and encourage people to make a pledge to love their place and keep our local parks and foreshore areas clean and free of litter.

Illegal dumping is a problem particularly around multi-unit developments. Council actively engages with residents providing clean-up opportunities and education to help eliminate illegal dumping of furniture, mattresses, e-waste and other household waste.

### Our targets (under review)



**Residential Waste** 

Increase waste diverted from landfill to 75%

of total waste by 2021–22 (State target)



Litter
50% reduction
in identified hotspot locations

- O Use innovation and technology to improve resource recovery
- Work with our community to reduce kerbside recycling contamination
- Reduce litter and illegal dumping
- Improve data collection, monitoring and reporting
- Influence building design to improve waste outcomes
- Increase community clean up participation
- Reduce emissions from waste through greater diversion from landfill
- Support the community to adopt waste avoidance behaviours

### What have we achieved so far?

- 57,000 bins collected every week across three waste streams: waste, recycling and garden organics
- Bulk household waste services offered to 750 properties each week
- Over 100 free WasteLess in the Bay workshops delivered to residents
- Engaged with over 2,000 residents on food waste education
- Run monthly repair cafes in partnership with The Bower
- Launched the MyWaste App, downloaded and used by over 5,000 residents
- Delivered waste education sessions for schools and childcare to 5,800 students
- Opened a Community Recycling Centre, recovering over 96,000kg of potentially hazardous materials
- **Launched Love Your Place litter** clean-up program with 6 active sites
- 68% of actions within the litter strategy resulting in bin upgrades and reduced litter in hot spots
- Removed over 50,000kg of waste from over 2,000 occurrences of illegal dumping

# How are we going to get there?

- Develop a Waste and Resource Recovery Strategy
- Advocate for policy changes at State and Federal Government levels to address waste issues
- Continue to deliver community education programs targeting key waste streams with a focus on avoidance, reuse, repair and recovery
- · Continue to support the Bower's "Rehoming and **Collection Service**"
- · Increase waste diversion from landfill through innovation and technology
- Investigate opportunities to access grants to deliver waste reduction projects which target local businesses
- Continue to implement Council's litter strategy action plan and deliver education programs
  - · Continue to deliver a maintenance service including street sweeping and gross pollutant traps
  - Continue enforcement of illegal dumping and litter in target hotspots
  - · Work with business and industry to reduce plastics and packaging including plastic bag bans

### OUr partners

- State Government
- Federal Government
- · SSROC
- · Waste and resource recovery industry
- The Bower
- Local businesses

### **Energy (emissions)**

Council is committed to helping our community reduce energy consumption and mitigate climate change. When we talk about mitigation, we are talking about the mitigation of carbon emissions. With expected population growth, the carbon footprint of our community could increase from the current level of 772,220 tonnes each year to exceed 930,000 tonnes by 2030, and nearly 1,250,000 tonnes by 2050.

### City of Canada Bay community greenhouse gas emissions FY 2016-17



To help us with this transition, we have developed a detailed Emissions Reduction Action Plan which outlines a community pathway to reduce overall greenhouse gas emissions to net-zero by 2050.

There are a variety of abatement opportunities that will help the community reduce its carbon footprint, such as energy efficiency, local renewable energy generation, waste management, sustainable food and transport, buying clean energy and grid decarbonisation.

### **Total Solar Capacity**

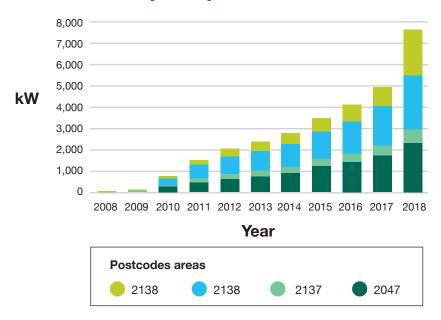
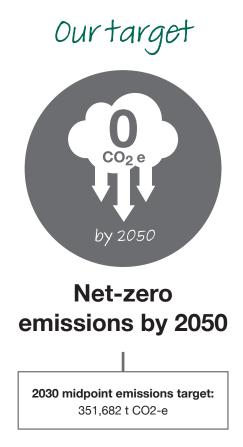


Figure 1 - Total solar capacity installed in the Council area

The food that we eat has a huge impact on our planet. The food sector accounts for over 20% of global greenhouse emissions, with a third of the food produced in Australia ending up in landfill. Council is working towards raising community awareness of food sustainability through encouraging the community to eat local and seasonal, reducing food waste, supporting sustainable food production, and reducing consumption of animal products.



- Support the community on their journey to reduce their emissions
- Council lead by example inspiring the community to reduce their own emissions
- Reduce energy costs for households and businesses
- Educating, training and supporting the community through programs to reduce emissions focusing on key areas:
  - · Energy efficiency
  - Renewable energy generation through solar PV
  - · Buying renewable energy
  - · Fuel switching from gas to electricity
  - · Transition to electric vehicles

# What have we achieved so far?

- Our Energy Future campaigns to 10,000 residents in July 2015 and 2017 resulting in 31 direct solar installations and many indirect
- Solar generation capacity across the City has increased from 16kW to 7680kW in the 10 years to 2018, as can be seen in Figure 1
- Solar My Schools launched in 2019, working with six local schools to install solar panels on their rooftops, reducing total energy use, providing a real life example to students integrated into their curriculum and lead by example within the local school community
- Community engagement activities including 'solar speed dating' and workshops on energy efficiency and renewable energy
- Support to the NSW Government's Home Power Savings Program which delivered 318 audits to residents in a free program for eligible residents
- In 2019 we launched the Multi Unit Development Energy Audit pilot program and are now working
  - with three strata committees to identify and action energy efficiency opportunities
- Delivered the Sustainable Food
  Strategy action plan with a total of
  4 community gardens established
  in this reporting period
- Provided workshops focussing on managing food waste and reducing food footprint

# How are we going to get there?



- Implement the community actions from the Emissions Reduction Action Plan
- Participate in the update of the SSROC renewable energy masterplan
- Investigate opportunities for community renewable energy projects
- Advocate for and support the community transition to electric vehicles through changes to planning controls and provision of charge stations
- Educating, training and supporting the community through programs to reduce emissions focusing on key areas:
  - Energy efficiency
  - · Renewable energy generation through solar PV
  - Buying renewable energy
  - Fuel switching from gas to electricity
  - · Transition to electric vehicles
- Lobbying/advocacy regarding BASIX, renewable energy, sustainable transport
  - Continue to facilitate and promote community gardens
  - Deliver workshops and events which encourage the community to grow food, reduce waste through composting
  - Investigate opportunities to collaborate with Concord Farmers Market

# Our partners

- · Solar My School
- · SSROC
- · Our Energy Future

### Water

Water is such an important resource which makes our City liveable and resilient. Water nourishes our environment and our bodies and having a stable and consistent supply of water is a priority for human health.

With our population expected to grow and the impacts of climate change being felt, so will the amount of water we use. Within our City in 2017-18 potable water use was 7.3 million kL and the breakdown of usage between sectors is shown below.

40% Houses

Houses 40%.

Units/Flats 40%

Commercial 13%.

Other 5%.

📗 Industrial **27.** 

We must as a community, conserve our valuable water resources to accommodate the impacts of climate change and look for alternate water resources to drought-proof our city. Residents' water use is part of this story and we need options to reduce the strain on the system such as rainwater tanks, grey and blackwater systems and increased water efficiency.

Council has an important role in encouraging our community to manage water responsibly and support them in implementing water efficiency initiatives, particularly in light of the current drought and water restrictions that are in operation.

The City of Canada Bay is performing slightly better than the Sydney metropolitan average for water consumption, as shown below.

### **During 2017-18:**

	Consumption kL for 17–18	Average Consumption kL per property/unit
City of Canada Bay	7,320,000	197
Sydney Wide	394,000,000	213

This is a 4.5% increase on the average household consumption of 188kL in 2013–14.

### Ourtarget



Community target of no net increase on average annual household water consumption

based on 2017-18 levels



Support the community to reduce potable water consumption

# What have we achieved so far?

- Council has a rainwater re-use policy for the community, including information on rainwater tanks and water sensitive urban design principles
- Council's greywater reuse policy provides guidance for residents in reusing wastewater from washing machines, laundry tubs, showers, hand basins and baths in the garden
- We have also run workshops on water-wise gardening and water efficiency in the home

### Our partners

- Sydney Water
- State Government



# How are we going to get there?



- Continue community education around water efficiency in the home and communications to encourage businesses to be water smart
- Carry out enforcement activities where it supports the correct use of water
- Promote reporting of individuals and businesses who are not following water restrictions
- Sharing Sydney Water's communications on water restrictions and water efficiency
- Investigate opportunities for water recycling in new and existing areas to support a reduction in community potable water consumption
- Work with all levels of government, industry and education to identify future technology and infrastructure opportunities for the Local Government Area



### II. Leading by example

Council has a key role in the community when it comes to modelling environmentally sustainable practices. We are committed to reducing our impact in all areas of Council operations, which are grouped into the following themes:

- · Emissions
- Water
- · Fleet,
- · Procurement.

Council recently modified its investment policy to put a greater emphasis on Environmental Sustainable and Governance (ESG) positive investments, so long as there was no substantive impact on risk or return within the investment portfolio.

"Green" Investments are certified by the Climate Bonds Standard and are designed for investors who want to genuinely contribute to addressing climate change. Projects funded by Green Tailored Deposits include renewable energy, low carbon transport, low carbon buildings and water infrastructure.

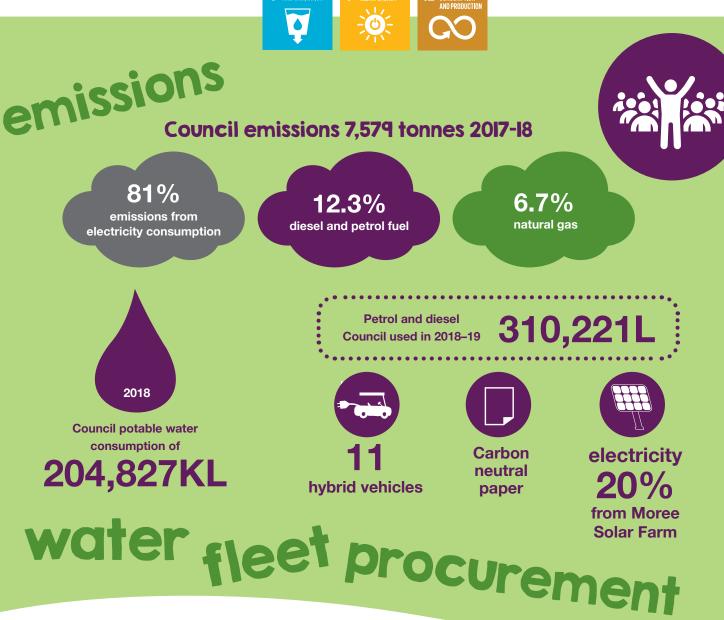
Council's "green Investments" currently amount to \$3M with a strategy in place to grow this allocation as opportunities arise.

This theme contributes to the following United Nations Sustainable Development Goals:









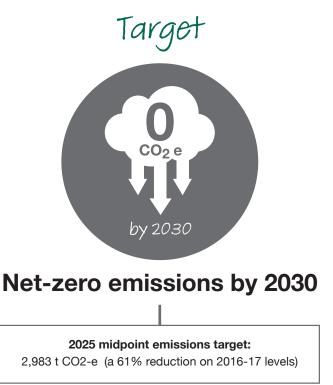
### **Emissions**

When we talk about emissions, we are referring to greenhouse gas emissions. Council has a long history of reducing greenhouse gas emissions across our top energy using facilities and we continue to investigate new and innovative ways to reduce emissions and costs. Council is well positioned to lead by example and to demonstrate to the community how to reduce emissions. For example by installing solar panels on top electricity using facilities such as community centres, libraries and the Civic Centre, Council can showcase the practical application of this technology. This also shows support and confidence in these technologies, to encourage more people and businesses in the community to reduce their emissions.

Corporate emissions include the following sources: Scope 1: Emissions from transport fuel in Council's fleet and natural gas used in Council facilities, Scope 2: Emissions from electricity consumed at Council facilities, including buildings, pools and sports fields and Council-owned street and park lighting; Scope 3: Emissions from Ausgrid-owned street lighting, also transmission and distribution losses for electricity and upstream emissions for natural gas, petrol and diesel.

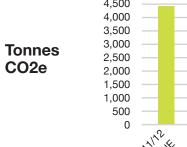
In 2017-18 Council operations consumed 44,017 gigajoules of energy from fossil fuels, resulting in greenhouse gas emissions of 7,574 tonnes of carbon dioxide equivalent (t CO2-e). This equates to around 1% of the total estimated greenhouse gas emissions by the whole City of Canada Bay local government area for this period.

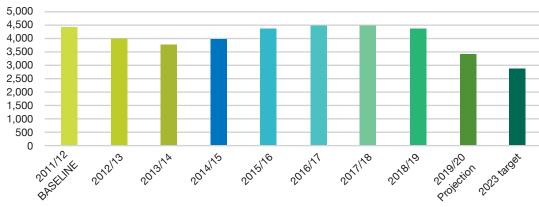
# Consumption of natural gas and transport fuel (19%) Electricity used on Council sites (45%) Electricity used by Ausgrid-owned street lighting (36%)



The 2014 Greenhouse Action Plan excluded emissions for Ausgrid-owned street lighting from Council emissions, as at the time, we had no scope to influence this figure. Since 2014 the energy landscape has shifted considerably: Council has had the opportunity to participate in the Accelerated Street Light Replacement program and there are more possibilities to cost-effectively offset these emissions by purchasing renewable energy. For these reasons we have decided to include Ausgrid-owned street lighting emissions in the scope of this Emissions Reduction Action Plan .

### Total greenhouse gas emissions (Scope I & 2)





# Our goals

- O Continue to implement energy efficiency projects and install energy efficient plant and appliances
- Install solar PV on Council facilities where suitable roof space is available
- Buy renewable energy to power Council operations as cost effective opportunities become available

# What have we achieved so far?

- Tracking our emissions through an online environmental management systems
- Tracking the impact of environmental improvement projects

These can be grouped into the following action types, which householders can also follow to reduce their emissions:

- Energy efficiency: including lighting and HVAC upgrades
- Generating renewable energy: via solar PV installations on Council facilities
- Buying renewable energy: in Council's case a Power Purchase Agreement (PPA) sourcing 20% of our electricity from Moree Solar Farm
- Transition to more efficient vehicles including hybrids

# How are we going to get there?



Over 60 emissions reduction actions will be implemented within Council over the years to 2030. These are detailed in Council's Emissions Reduction Action Plan and are grouped into the following priority areas:

- · Energy efficiency
- · Sports field lighting
- · Street lighting
- · Generating renewable energy
- Fleet
- · Sustainable procurement
- Buying renewable energy



- SSROC
- · Trellis Technologies



### Water

Water is a precious resource and with the continuing drought it is increasingly important for Council to work hard and implement best practice, leading by example when saving this important resource. There are many competing pressures on water. The community has high expectations of the quality of natural areas, passive and active parks and playing fields. Irrigation to maintain these areas to a high standard, places huge pressures on the way Council manages its water use. Council works hard to meet community expectations and manage water responsibly in today's changing climate.

Council uses large volumes of both potable and recycled water to maintain and operate our 21 sports fields, two golf courses, two pools, 169 parks and Council buildings. In 2018 we consumed 204,827kL of potable water and a further 41,890kL of water that was captured and recycled via the Water for our Community stormwater reuse system located at Cintra Park. The breakdown of consumption by facility type is shown in Figure 2 below.

#### **Water Consumption 2018**

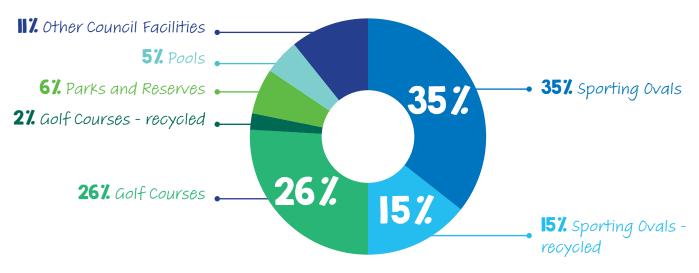
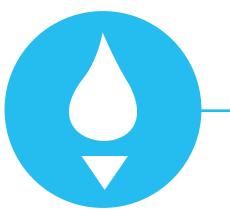


Figure 2 - Council operational water consumption in 2018 to the bottom of this diagram

## Ourtarget

25% reduction in potable water use based upon 2013 consumption



In 2013, a year where rainfall was close to the long term average, Council consumed 207,874KL of potable water.



## Our goals

- Reduce potable water consumption for **Council operations**
- Increase capture and usage of recycled water for Council usage

#### What have we achieved so far?

- Council adopted a Water Efficiency Plan in 2012 and implemented a number of water efficiency initiatives and hardware across our facilities
- A programmable and highly efficient irrigation management system
- A leak detection system that is currently monitoring 58 high usage sites
- Installation of water efficient hardware across Council facilities
- The multiple award winning Water for our **Community Stormwater Reuse System located** at Cintra Park which became operational in 2015
- Recycled water from the stormwater reuse facility is used to irrigate two 18 hole golf courses and 15 further sporting fields, see Figure 3 on the next page
- In 2016 the stormwater reuse scheme harvested 220ML of water for irrigation
- The St Luke's hockey complex includes a water reuse scheme that reduces the amount of potable water that is used at this wet-based hockey pitch

### How are we going to get there?



- **Revision of our Water Security Masterplan**
- Continue to monitor high usage Council sites using a leak detection system (SUMS)
- Upgrade of the Drummoyne Oval stormwater reuse scheme to reduce the demand on potable water used for irrigation at this high-profile oval



- · Smart Utility Management Solution
- · Trellis Technologies
- Sydney Water
- · NSW Department of Health





Figure 3 - Council sites irrigated by recycled water

Our previous water reduction target was to 'Reduce potable water consumption by 50% based on 2011-12 levels by 2023'. We were unable to reach this target and in 2018 our potable consumption was 83% greater than in 2011-12. A number of factors contributed to this increase in water consumption including addition of new sporting fields and increased use of existing fields, the challenge of successive years of drought, reduced stormwater inflows to the treatment plant and several large leaks at Council facilities.



#### **Fleet**

A significant source of greenhouse gases are from fossil fuels including fuel, petrol and diesel. These emissions all contribute towards Council's emissions profile. By leading by example Council can demonstrate to the community, some of the current technology aimed at reducing emissions from transport whilst also tackling climate change. Hybrid vehicles, currently form part of the Council vehicle fleet and Council are currently increasing the number of hybrid vehicles purchased for fleet and maintenance vehicles. Council continue to work hard to reduce fuel consumption, by reducing the size of vehicles in our fleet to more efficient models and investigating alternative technologies, such as electric vehicles.

In 2018-19 Council used 310.221 litres of petrol and diesel in its operations, which generated GHG emissions of 821 tonnes CO2e, around 10% of Council's overall emissions. This fuel is used in Council trucks, utes and staff vehicles.

# Our goals

- Increase the number of hybrid vehicles in our fleet
- O Continue to source fuel efficient vehicles for Council operations
- Move towards the adoption of electric vehicles for Council's fleet as these become a cost effective option

#### What have we achieved so far?

- We achieved our previous emissions reduction target of 'reduce emissions from fuel consumption by 10% based on 2011-12 levels' in 2013-14
- In 2018–19 our emissions from transport fuel were 28% lower than 2011-12 levels
- We achieved and surpassed our earlier target by continually researching and switching to more fuel efficient and less emissions intensive vehicles
- We currently have 11 hybrid vehicles in our fleet, including two trucks and have switched to using electric golf carts rather than diesel utes for maintenance at our golf courses

# How are we going to get there?



 Council's Emissions Reduction Action Plan includes actions that once implemented will reduce emissions from our fleet



- SSROC
- · Trellis Technologies

## Sustainable procurement

Just like a household, a Council can reduce its environmental impact by its procurement decisions. When purchasing goods and services we consider where things are sourced from, the impact they have on the environment during their lifetime and what happens to them when we no longer need them. Council is guided by the principles of Ecologically Sustainable Development. We aim to ensure the best value solutions are sourced, this way we can support the community and ensure sustainable and environmental options are at the forefront of our decision making. We achieve this by educating our staff and the people we deal with on our requirements, such as considering whole of product life cycle, investigating alternative technology and forward thinking for new opportunities. Taking responsibility for our decisions when establishing contracts, and encouraging the businesses we deal with to also consider sustainability as part of their business model.



# Our goal

Ensure sustainability considerations are in all procurement decisions

#### What have we achieved so far?

- In 2011 Council developed and adopted its first Sustainable Procurement policy, which was incorporated into the Procurement Operational Management Standard in 2013
- Council takes part in joint tendering processes with other councils to gain greater purchasing power and make savings for rate payers, allowing funds to be diverted to other projects
- Since 2015 Council has been part of SSROC's electricity joint tenders and the Program for **Energy and Environmental Risk Solutions** (PEERS), meaning that we have paid very competitive rates for our gas and electricity, one of Council's major expenses
- Since 1 July 2019 we have been buying 20% of Council's electricity from Moree Solar Farm

### How are we going to get there?



**Implement Council's Emissions Reduction Action Plan** which includes sustainable procurement actions in the following areas:

- Adopt an updated Sustainable Procurement policy
- · Add sustainable procurement requirement to all project briefs
- Develop a new Sustainable Buildings policy for new Council facilities and upgrade projects



- Local Government NSW

## 12. Collaboration and partners

Council recognises that strong partnerships and collaboration are a critical element to long-term sustainable environmental outcomes. We regularly work in partnership with government organisations, community groups, businesses and education facilities such as schools and childcares and want to continue to build these connections. We value community feedback as it provides us with an opportunity to learn from our community, shape programs to be more responsive to their needs and continually improve.

We are actively working to increase community capacity to deliver local environmental projects and provide forums to share knowledge, ideas and skills. Resident-led initiatives are an important way of delivering messages to the community which respond to important environmental issues.

Council also values working with other councils, government departments and organisations to achieve environmental improvements. We regularly work with Sydney South Regional Organisation of Councils (SSROC) on regional projects and programs which have delivered better outcomes for our community on issues such as energy, transport, waterways, waste and development.

This theme contributes to the following United Nations Sustainable Development Goals:







# I3. Education and behaviour change

Sustainability education and behaviour change programs are an important component of lifelong learning and are crucial to raising environmental awareness, building partnerships and inspiring community-led initiatives like community gardens, clean-ups and nature conservation.

The City of Canada Bay hosts a diverse range of environmental events, programs and workshops, designed to provide community members with skills and tools to reduce their impact on the environment. They also provide a place for the community to connect and meet like-minded people. All of our education and behaviour change programs are born out of commitments within this strategy or other relevant policies and frameworks.

Education and behaviour change programs underpin our commitment to deliver on the actions within this document and below is an outline of our achievements, goals and targets in this area.

This theme contributes to the following United Nations Sustainable Development Goals:





### Ourtarget



# Increase participation in community led environmental initiatives compared to 2017



# Our goals

- O Change behaviour to improve environmental outcomes
- Increase skills and knowledge to provide opportunities for environmental change
- Promote and support resident led initiatives

# What have we achieved so far?

- 3100 members subscribed to Sustainable Living ezine
- 95 sustainability workshops delivered to over 1900 community members in the last four years
- Delivery of the Sustainable Schools and Childcare Network
- \$55,335 worth of grants awarded to schools for environmental projects in the last four years
- Support community programs like Love Your Place, Bayside Bushcare and Garage Sale Trail
- Delivery of Small Environmental Grants for schools
- Engagement with over 140,000 community members at 13 Council event delivered in 2018
- Acknowledging individuals, businesses and community groups through the Sustainability

  Awards

# How are we going to get there?



- Delivering education and engagement to target groups
- Acknowledging and promoting sustainable leaders in the community
- Encourage community environmental protection, management and monitoring
- Support community-led initiatives
- Delivery of plastic waste reduction programs such as Plastic Free, It's How We Roll, Choose to Reuse, Coffee Cup Campaign, Boomerang Bags, Bagless in the Bay, Single use plastic program, Boomerang Bags and Love your place



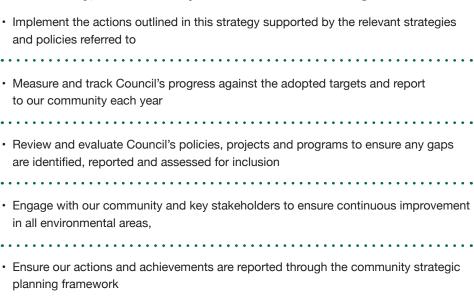
- Local schools and childcare centres
- Sydney Olympic Park Authority
- · Birdlife Australia
- Parramatta River Catchment Group
- · Environment Advisory Committee
- Local businesses and community groups
- SUEZ
- Boomerang Bags

## 14. Our Reporting

This Environmental Strategy will be reviewed by 30 June 2025 in line with the new delivery plan. Each year, we will produce a snapshot report which will outline to the community how we are tracking towards our targets.

We recognise that the area of environmental sustainability is complex and ever changing. As a result, we expect programs, policies and plans to adapt over time in response to feedback from program reporting, community needs, the City's strategic objectives and priorities and government policies.

#### In summary, the next steps include the following:





## 15. Appendix I

#### THE GLOBAL GOALS

For Sustainable Development





































# Mapping the United Nations Sustainable Development Goals to our themes

The figure below illustrates how our overall strategy and themes are guided by relevant United Nations Sustainable Development Goals (UNSDG). Individual goals are listed by theme below.

#### **Environmental Strategy**

11 SUSTAINABLE CITIES AND COMMONTIES  AND PRODUCTION  AND PROD					
Connected to nature	Resilient City	Resource efficient community	Leading by example	Education	Collaboration
6 CLEAN WATER AND SANITATION	11 SUSTAINABLE CITIES AND COMMUNITIES	6 CLEAN WATER AND SANTATION	6 CLEAN WATER AND SANITATION	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	11 SUSTAINABLE CITIES AND COMMUNITIES
11 SUSTAINABLE CITIES AND COMMUNITIES	13 CLIMATE ACTION	7 AFFORDABLE AND CLEAN BURKEY	7 AFFORDABLE AND CLEAN ENERGY	13 CHMATE ACTION	17 PARTNERSHIPS FOR THE GOALS
12 RESPONSIBLE CONSUMERTON AND PRODUCTION		11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION		
14 WATER		12 RESPONSIBLE CONSUMPTION AND PRODUCTION			
15 LIFE ON LAND					

#### whole document/strategic

- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.
- 16.6 Develop effective, accountable and transparent institutions at all levels.
- 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels.

#### Connected to nature











- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.
- 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

- 15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.
- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
- 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.
- 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.
- 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.

#### Resilient City





- 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.
- 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- 13.1 Strengthen resilience and adaptive capacity to climaterelated hazards and natural disasters in all countries.

#### Resource efficient community









- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
- 7.3 By 2030, double the global rate of improvement in energy efficiency.
- 7.A By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
- 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
- 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

#### Leading by example







- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
- 7.3 By 2030, double the global rate of improvement in energy efficiency.
- 7.A By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

#### Education





- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

#### Collaboration





- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- 17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

#### Source:

www.un.org/sustainabledevelopment/sustainabledevelopment-goals/





City of Canada Bay