



# Sustaining Our Environment

STATE OF THE ENVIRONMENT REPORT  
September 2012 – June 2017



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This report, *Sustaining Our Environment*, is the Council's State of the Environment Report. It reports on how Council has progressed towards achieving environmental outcomes between 2012 and 2017 as set out in Council's Community Strategic Plan, FuturesPlan20, and in Council's Environmental Strategy (2014).

It is prepared in accordance with the Local Government Act 1993, section 428(3) and regulation 217 of the Local Government (General) Regulation 2005.

The Report was tabled as part of Council's Annual Report, State of the Bay, on the 14 November 2017.

To obtain a copy:

- [www.canadabay.nsw.gov.au](http://www.canadabay.nsw.gov.au)
- Phone to request a copy (02) 9911 6555
- Visit the Civic Centre at  
1a Marlborough Street, Drummoyne
- Email: [council@canadabay.nsw.gov.au](mailto:council@canadabay.nsw.gov.au)

Photo front cover: Bronwyn Bell

Photo this page and next: Joel Mesas





# Sustaining Our Environment

STATE OF THE ENVIRONMENT REPORT  
September 2012 – June 2017



## Executive Summary

The State of the Environment (SoE) report is a mandatory requirement within the annual reporting framework.

The SoE report provides a detailed breakdown on Council adopted environmental targets. The reporting period for the SoE is the same as the annual report however all measurable figures used in this report are from 1 July 2012 to 30 June 2016 to ensure that data reporting is accurate and we have used a complete data set.

In 2014 Council adopted an Environmental Strategy which included a number of targets to reduce Council emissions including:

- Reduce greenhouse gas emissions by 35% based on 11/12 levels by 2023.
- Reduce energy consumption by 30% based on 11/12 levels by 2023
- Replace 30% of traditional energy supply with alternative renewable sources by 2030.
- Reduce fuel consumption by 10% based on 11/12 levels by 2023
- Increase the waste diverted from landfill to 75% by 2021/22
- Reduce emissions from paper consumption by 10% based on 11/12 levels by 2023
- Reduce potable water consumption by 50% based on 11/12 levels by 2023.

The targets set clear goals for environmental improvement throughout our City and are split into measurable figures or measurable actions.

Measurable figures are calculated using Council's utility consumption data which is tracked through an online environmental data management tool to determine Council's progress against the adopted targets.

In the past 5 years, Council has met two of its stated targets including:

- Maintaining a reduction of 10% in emissions from diesel and ethanol across the fleet through a number of significant changes implemented by fleet services
- Decreased emissions from paper consumption resulting in a 89% decrease (from 19.3 to 2.3 tonnes per year) across the reporting period as carbon neutral paper was rolled out across Council.

Council has committed to reduce greenhouse gas emissions by 35% based on 2011/12 levels by 2023. Over the reporting period, we had started to decrease our emissions through a number of key energy efficiency projects in 2013/14. However, with an increase in electricity usage at a number of our facilities and sporting fields due to increased demand, this has in turn led to us only achieving a 1% decrease over the reporting period. On a positive note, the emissions per resident (based upon emissions from gas and electricity) have decreased from 0.045 to 0.039 tonnes of CO<sub>2</sub>e/resident/year, a reduction of 12%.

Energy consumption across the City has increased by 15% overall since 2011/12 which includes consumption from gas and electricity.

A 4% increase in electricity can be explained through a number of new or upgraded facilities including the addition of the water treatment plant, the new Victoria Avenue Childcare, Drummoyne Oval and our libraries. The 38% increase in gas consumption can mostly be attributed to Drummoyne Pool, where there has been a change in the lease arrangement and therefore practices.

It is interesting to note that electricity consumption from Ausgrid-owned street lighting has reduced by 7% up to the end of 2015/16 (and 18% up to the end of 2016/17). This is due to a retrofit program which is being carried out using energy efficient LED fittings.

To address energy and emissions moving forward, Council has formed an internal energy management group which will assist in driving implementation of the Greenhouse Action Plan. Council is also committed to developing an energy security plan for the City and has joined a Sydney Southern Regional Organisations Councils (SSROC) program to mitigate energy issues. Monitoring will continue to occur across Council operations with further management reporting to encourage a continued focus on our targets.

Council's target is to replace 30% of traditional energy supply with alternative renewable sources by 2030. This forms part of a regional target adopted through a renewable energy masterplan. In 2011/12 we only had 1% of Council's electricity supplied via renewable sources and in 2016/17 this has increased to 4% since the installation of a 99.4kW system at The Connection, Rhodes. Moving forward, in 2018 Council is installing 4 new solar arrays at the water treatment plant, Concord Library, Concord Community Centre and Depot which should move us to around 13%.

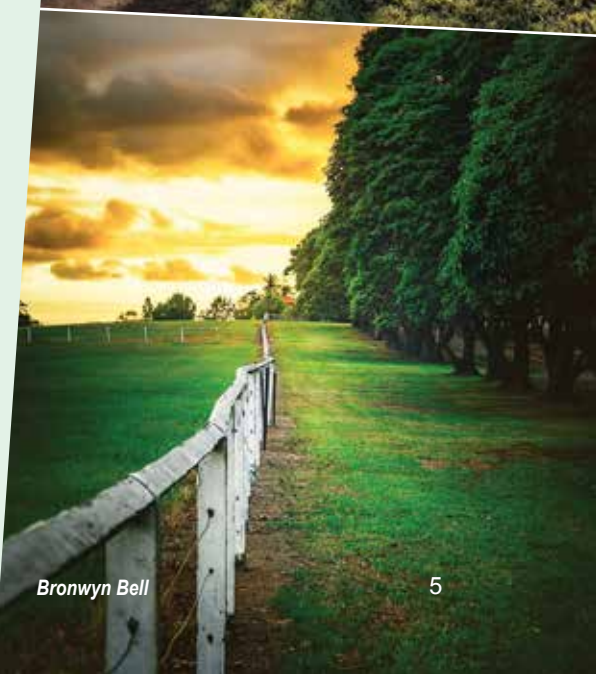
Council adopted the ambitious NSW target of diverting 75% of waste from landfill by 2021/22. The greatest diversion of waste from landfill can only be achieved by utilising modern and advanced waste processing technologies as alternatives to landfill. However, when Council tendered for this service/these technologies in 2015, we received no responses for any of these options as the marketplace was at capacity.



Ann Hodgson



Amy Carter



Bronwyn Bell



*Ann Hodgson*



Currently the diversion rate is the percentage of the total waste stream diverted from disposal. The diversion rate for 2016-17 is 41%. Council will continue to implement the successful 'Wasteless in the Bay' education program to the community and look for innovative ways to meet the adopted target.

The second half of the report uses qualitative elements to report Council's achievements from 1 July 2012 to 30 June 2017. This includes the headings measurable actions – Council and Community focused.

Some of the highlights outlined in the measurable actions - Council section include:

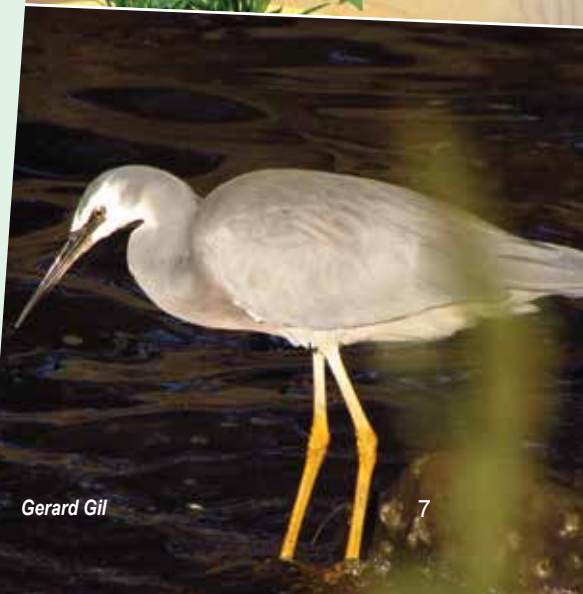
- A number of grant programs to address biodiversity in the area including mangrove projects, bush regeneration and conservation projects
- A range of unique projects to promote cultural and historical significance and assist in the preservation of over 500 heritage listed items and 20 heritage conservation areas such as 'Memory' a 3D projection artworks, Wangal Wall an indigenous artwork and Neighbourhood Stories audio histories
- The development of a leading practice Manual for Climate Change Adaption, in conjunction with the Australian Centre of Excellence in Local Government.
- The implementation of the Water for Our Community water recycling project
- Installed a sustainable road on Victoria Avenue, Concord West which included installing white asphalt to help reduce the heat of the road pavement and overall ambient temperature

Some of the highlights outlined in the measurable actions – Community section include:

- The adoption of a renewable energy masterplan and 'Our Energy Future' community solar program to encourage solar installations across the City. This has seen an increase of 98% of electricity exported to the grid from renewable sources as compared to 2011/12
- The implementation of the 'Our Living River Initiative to make the Parramatta River Swimmable by 2025' and key schools programs to highlight the issues in our catchment
- The adoption of a litter strategy and implementation of an extensive proactive litter program
- Opened a community recycling centre in Five Dock for household problem wastes items
- The delivery of a number of public transport enhancement projects, upgrades to walking and cycling paths and community education projects
- The delivery of an extensive community engagement program to the community across a variety of topics including business programs to over 380 businesses which has delivered environmental improvement including a diversion of waste to landfill of over 1,500 tonnes each year.



Caden Bachell



Gerard Gil

# Summary of Awards

Award	Awarded by	Project
2013 Highly commended	Institute of Public Works Engineers Australia	Diverted 8,000 tonnes of concrete, asphalt, sand, soil and rubble from landfill for car park reconstructions and through sending to a recycling facility for re-use
2013 Highly commended	Institute of Public Works Engineers Australia	Tiny Tag Leak reduction project
2013 Winner – NSW Sustainable Cities	Keep Australia Beautiful NSW	Sustaining our Environment program
2013 Winner – NSW Heritage Award	Keep Australia Beautiful NSW	'Our local heritage' - neighbourhood stories
2013 Winner – National Water Conservation	Keep Australia Beautiful Sustainable Cities National Award 2013	Water for our Community, resourcewise, water savings plan
2013 Highly commended – Heritage and Culture	Keep Australia Beautiful Sustainable Cities National Award 2013	'Our local heritage' - neighbourhood stories
2013 Highly commended - Young Legends	Keep Australia Beautiful Sustainable Cities National Award 2013	Sustainable Schools Network
2014 Finalist in the Local Government Arts and Culture Award	LGSA Arts and Culture	Community litter education through engaging environmental art installations
2014 Winner Litter Reduction Award	Keep NSW Beautiful 2014	Stop Litter in the Bay
2014 Finalist Sustainable Procurement Award	LGSA Environmental Excellence Awards	Continual improvement to procedures and purchasing
2015 Excellence in the Environment Winners Local Sustainability City of Canada Bay (Division C)	LGSA Environmental Excellence Awards	Overall commitment to sustainability
2015 Winner Waste Less Recycle More Award	Keep NSW Beautiful	WasteLess in the Bay
2015 Overall Metropolitan Sustainability Award Winner - Community Action and Wellbeing Award 2015 Highly Commended for Dame Phyllis Frost Litter Prevention Waste Management & Resource Recovery	National Keep Australia Beautiful	Overall commitment to sustainability
2015 Local Government Procurement Professional Award	Local Government Procurement	Water For Our Community
2015 Stormwater NSW – Excellence in infrastructure	Stormwater NSW	Water For Our Community



Award	Awarded by	Project
<b>2015 LGNSW Excellence in the Environment</b>	Local Government NSW	Water For Our Community
<b>2015 Blue Star, Sustainable Cities Award for Metro Sydney</b>	Keep NSW Beautiful	Overall commitment to sustainability
<b>2015 Finalist</b>	National Keep Australia Beautiful Award	Overall commitment to sustainability
<b>2015 Winner</b>	Place Leadership Award From Place Leaders Asia Pacific	Place approach
<b>2016 Finalist</b>	NSW Local Government Excellence Awards	Bin your Butts
<b>2016 Winner KNSWB</b>	Keep NSW Beautiful – Blue Star Metro Awards	Winner for Hey Tosser! Litter Reduction Award for Putting Litter in its Place
<b>2016 NSW Local Government Excellence Awards</b>	Finalist in the category of Excellence in Environmental Leadership & Sustainability	'Bin your Butts'
<b>2016 KNSWB Blue Star</b>	Sustainability Metro Awards	Winner for 'Hey Tosser!' Litter Reduction Award for Putting Litter in its Place
<b>2016 IPWEA</b>	Engineering Excellence Awards	'Water for our Community', environmental initiative
<b>2016 Australian Asphalt Pavement Association State and National Awards for Pavement Innovation</b>	Australian Asphalt Pavement Association State and National Awards for Pavement Innovation	Concord West Shopping Village White Asphalt to reduce heat sink.
<b>2017 Winner Local Government Professionals NSW Awards</b>	Local Government Professionals NSW Awards	Concord West Village – White Roads project



# External Funding Allocations

External funding is an important indicator of the relevance of projects and programs on the broader scale. During 2012-2017, Council was successfully awarded more than \$7.35 million in funding for environmental projects.

As a result of the positive outcomes and impacts, some programs initially funded by external sources have been able to continue with funding allocated from Council.

## Summary of environment funding received 2012-2017

Program/project	Awarded by	Project	Amount
Reclamation	Arts NSW	Creative research project with an environmental theme	\$40,000
Community Energy Efficiency Program (CEEP)	Department of Resources Energy and Tourism	Community facility energy efficiency project	\$720,000
National Urban Water and Desalination Plan	Department of Sustainability, Environment, Water, Population and Communities	Water security for Councils facilities	\$1.895 million
WaSIP	Environmental Protection Authority	Deliver a suite of environmental projects and programs in line with WaSIP requirements	\$937,470
Estuary Management Program	Office of Environment and Heritage	Mangrove protection	\$22,500
NSW Environmental Trust Program	Office of Environment and Heritage	Native habitat recovery in the Parramatta River	\$99,000
Caring for our Country Sustainable Environments Cumberland Plain and Estuaries	Greater Sydney Local Land services	Yaralla Bush Rehabilitation Project	\$30,500
NSW Climate Change Fund	Office of Environment and Heritage	Water security– stormwater harvesting	\$936,600
Litter Prevention	NSW Environmental Protection Authority	Stop Litter in the Bay	\$29,155
Litter Prevention	NSW Environmental Protection Authority	Litter prevention projects – Cabarita Park, Rhodes, Concord	\$56,026
Litter Prevention	NSW Environmental Protection Authority	Regional Hot Coal Litter Prevention Project	\$124,000
Fox Control Program	Office of Environment and Heritage	Bush regeneration	\$1,147
Iron Cove Saltmarsh Habitat Seawall	Department of Primary Industry	Mangrove protection	\$8,000

Program/project	Awarded by	Project	Amount
Butt Out	NSW Environment Protection Authority	Retail litter prevention	\$26,026
Community Drop-off Centre – Construction	NSW Office of Environment and Heritage	Construction of Community Drop-off Centre	\$155,582
Community Drop-off Centre – Construction	NSW Environment Protection Authority	Construction of Community Drop-off Centre	\$20,000
Eat Taste Create	NSW Environment Heritage	Love Food Hate Waste Program	\$24,129
North Strathfield Rail Underpass Tree Planting	NSW Transport	Bush regeneration	\$17,732
BinTrim	NSW Environment Protection Authority	Waste Solutions for Sustainable Business	\$134,510
Yaralla Bushcare Rehabilitation		Bush regeneration	\$30,000
Council Litter Prevention – Round 3	NSW Environment Protection Authority	Back of Business	\$38,850
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	\$3,000
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 Environmental Protection Authority	Funding aimed at increasing recycling rates and reducing waste to landfill	\$438,462
BINTRIM	NSW Environment Protection Authority	Business waste reduction funding aimed at increasing business recycling rates	\$126,800
Love Food Hate Waste - Business	NSW Environmental Trust	Business food waste reduction grant for Rhodes	\$38,470
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 Environment Protection Authority	Implementation of a regional RID Squad with 5 surrounding Councils	\$350,000
Wood Smoke Reduction Grant 2014	NSW Environment Protection Authority	Wood smoke reduction	\$15,000



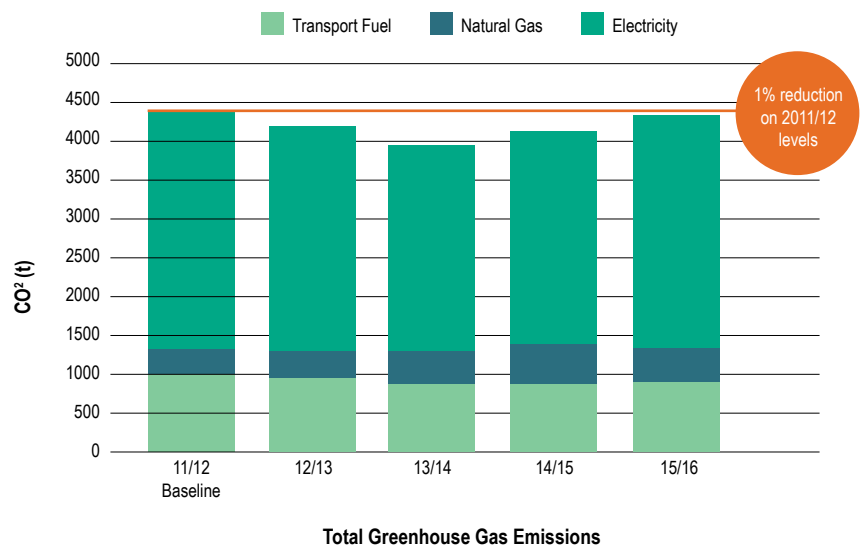
## Target Summary

In 2014 Council adopted environmental targets which allow Council to track and improve environmental progress. The targets set clear goals for environmental improvement throughout our City and are split into measurable figures or measurable actions. Measurable figures uses Council's utility consumption data which is tracked through an online environmental data management tool to determine Council's progress against the adopted targets.

Outlined below are Council's adopted quantitative targets, a graphical representation of progress and a short statement relating to the graph, which interprets the data.

Council is reporting on its targets against the baseline year of 2011/12 using data until 30 June 2016 as this is the most current and complete dataset that Council has to ensure each year is compared equally.

### Target: Reduce greenhouse gas emissions by 35% based on 2011/12 levels by 2023.



Emissions have steadily decreased from 2011/12 to 2013/14 which was mainly due to a decrease in electricity usage facilitated by the implementation of energy efficiency projects.



In 2014/15 there was an increase in emissions from natural gas due to increased consumption at two Council swimming pools, along with a slight increase in emissions from electricity across a number of sites.



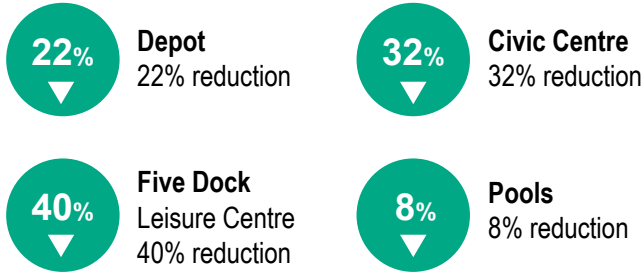
In 2015/16 we have seen a considerable increase in emissions from electricity due to increased consumption at sporting ovals and the addition of new facilities such as the water treatment plant and Victoria Avenue childcare centre.



Emissions from fuel declined initially to meet our 10% reduction target and have since plateaued.



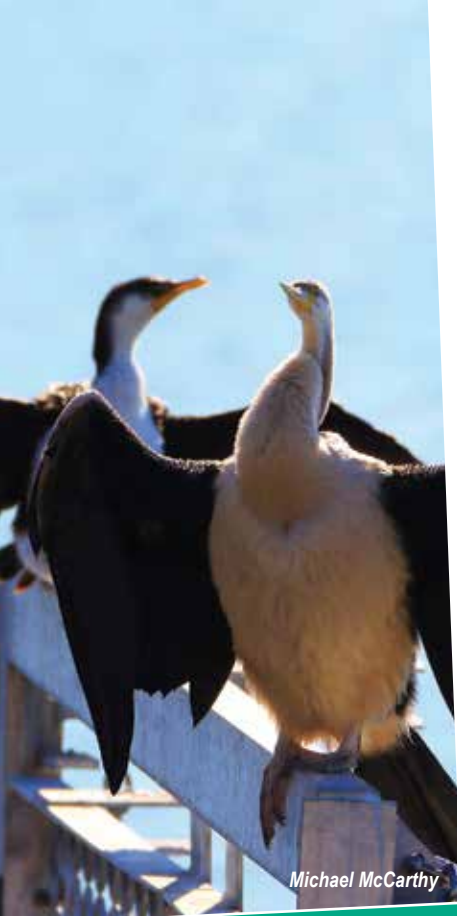
**Electricity:** There have been significant reductions in electricity consumption in some areas due to the Community Energy Efficiency Program (CEEP), upgrades and other efficiency projects, for example:



All of these savings have been offset by increases in electricity consumption in other areas. This includes the addition of new facilities at Victoria Avenue Childcare, the Cintra Park Water Treatment Plant and increased usage at sporting ovals (37% increase overall), in particular at Drummoyne Oval where there is more than a 700% increase in usage. Libraries have also increased electricity usage by 20% since the baseline year. We expect usage at the libraries to reduce in coming years as new energy efficient lighting were installed at both sites in late 2016. Overall electricity consumption, excluding usage from Ausgrid-owned street lighting, has increased by 4% compared with the baseline year.

*It should be noted that the population in the Local Government Area (LGA) has increased by 12,252 residents in the five years between 2011 and 2016. During this period the emissions per resident (based upon emissions from gas and electricity) has decreased from 0.045 to 0.039 tonnes of CO<sub>2</sub>e/resident, a reduction of 12%.*





Michael McCarthy

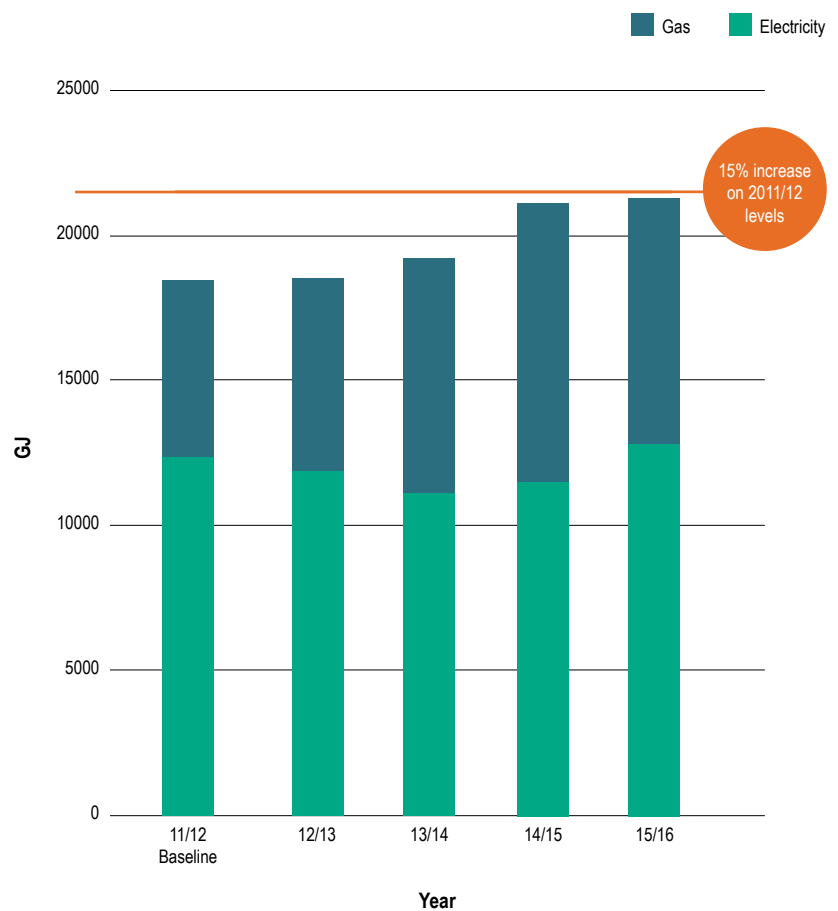
## Target: Reduce energy consumption by 30% based on 2011/12 levels by 2023

When we talk about energy for reporting purposes, this includes energy consumed from electricity and gas.

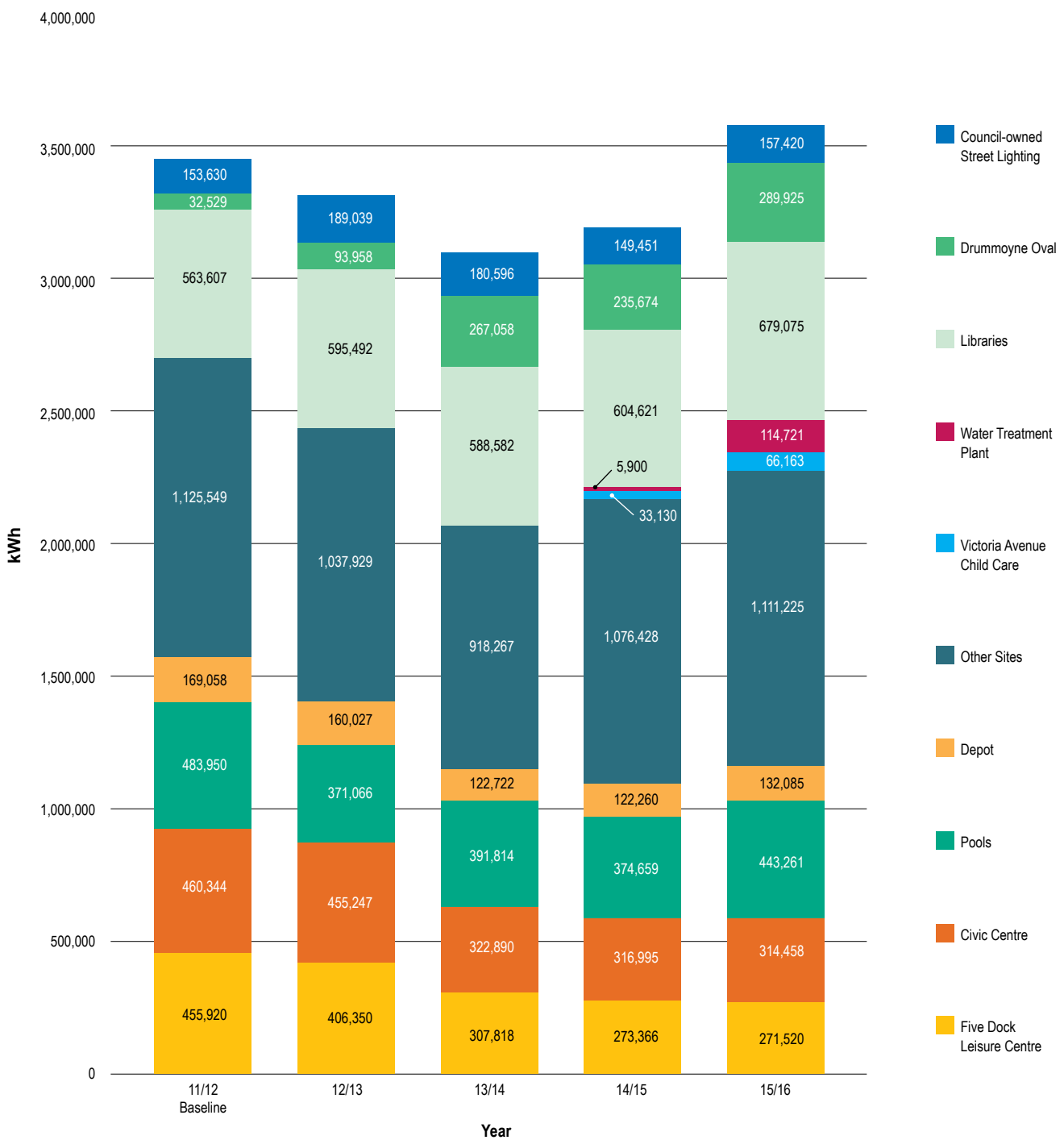
Both a 38% increase in gas usage and a 4% increase in electricity usage since the baseline year have resulted in an overall increase in energy consumption of 15%. To further explain this, the graphs below show an explanation of gas and electricity usage over the measurement period.

The graph below shows a break up of annual electricity usage for Council facilities from the base year 2011/12 to 2015/16.

### Annual Energy Consumption by Energy Source



## Annual Electricity Usage by Facility

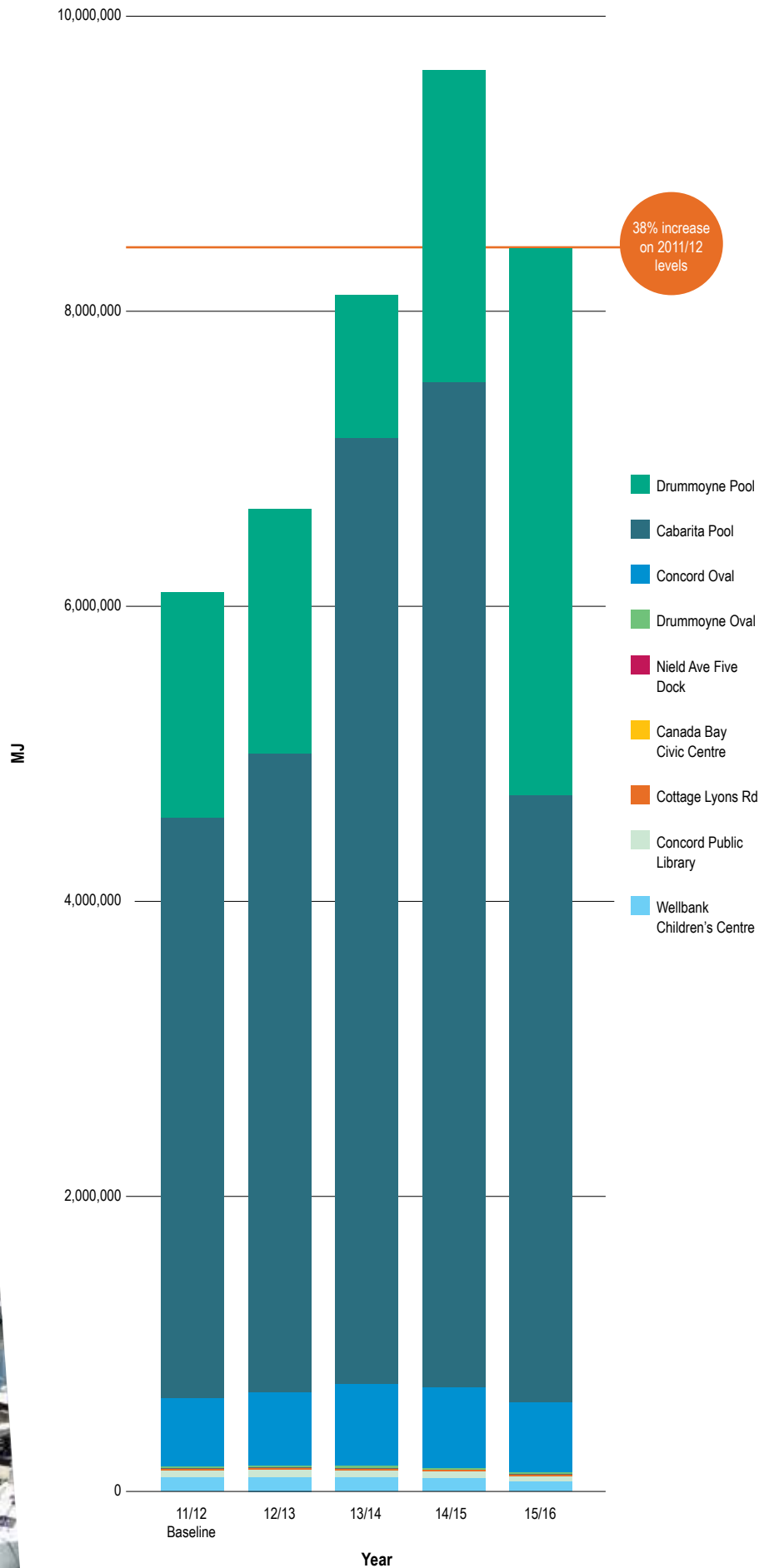


It is interesting to note that although Council is using more electricity than in the baseline year, its emissions from electricity have reduced slightly. This is because the 'emissions factor' for electricity generated in NSW has reduced over time. That is the average amount of CO<sub>2</sub>e produced when generating a kWh of electricity has reduced as the proportion of electricity generated from renewable sources increases.

The properties with the largest electricity consumption have changed since 2011/12. We have seen the introduction of the water treatment plant and Victoria Avenue Childcare and have seen a considerable increase in usage at Drummoyne Oval and our libraries. There has been a considerable decrease at the Civic Centre, Depot and Five Dock Leisure Centre since the introduction of the CEEP program.

***It is encouraging that electricity consumption from Ausgrid-owned street lighting has reduced by 7% up to end of 2015/16 (and 18% up to end of 2016/17). This is due to a retrofit program which is being carried out using energy efficient LED fittings.***

## Annual Gas Consumption



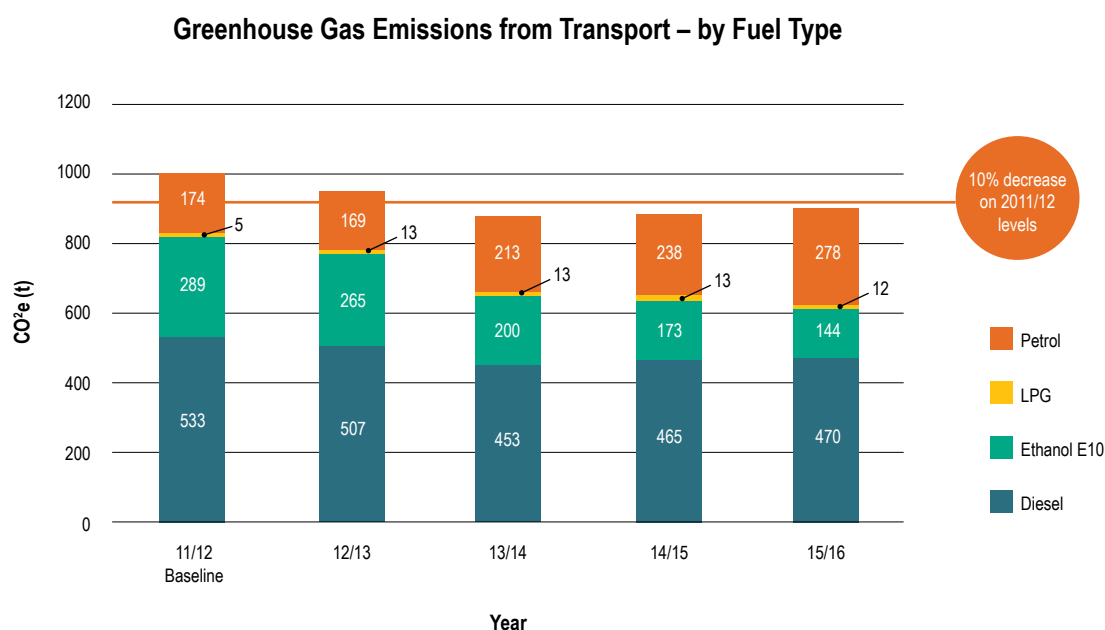


Gas consumption has increased by 38% compared to the baseline year. As can be seen from the graph above, almost all of this increased consumption was at Drummoyne Pool.

Gas consumption increased at Drummoyne Pool and decreased at Cabarita since changing our leasing arrangements at the pools. It should be noted that the first 6 months of 2016/17 showed a 28% reduction in gas usage at Drummoyne Pool.

In 2016 Council established thresholds for water and electricity consumption at both pools, and will be setting a threshold for gas usage for the coming season. Performance with regard to these thresholds will influence Council’s decision to continue with the current lessee or put the lease out for tender when the current lease expires.

## Target: Reduce fuel consumption by 10% based on 2011/12 levels by 2023



Emissions from transport fuels have been steadily declining since 2011/12, with Council meeting its target in 2013/14 and maintaining this level through to 2017.

***There has been a considerable decrease in emissions from diesel and ethanol across the fleet coupled with a number of significant changes implemented by fleet services over the past five years which have contributed to the decrease in emissions from fuel consumption by 10% including:***

- Shift from six cylinders to four cylinder vehicles – Council is continuing to renew its fleet with more fuel efficient vehicles with only seven six cylinder vehicles remaining out of a fleet of 85 lease back vehicles and 40 operational vehicles
- Fleet diversification - our fleet now includes a hybrid electric/diesel truck, two electric carts and the addition of a hybrid Camry. We are also currently trialling a diesel Subaru Outback as this variant uses less fuel and has lower emissions
- In 2014, Council also undertook a biodiesel trial at Massey Park Golf Course in an attempt to reduce emissions. The trial, whilst moderately successful was discontinued due to a range of factors including price uncertainty and an ease of permanent installation.

**Renewable Energy: replace 30% of traditional energy supply with alternative renewable sources by 2030**

Council is currently working towards an ambitious target to increase renewable energy by 30% for Council operations. From 2011/12 to 2015/16 Council has increased its energy derived from renewable sources to 13,324kWh/year produced by Council solar systems. This represents around 1% of Councils traditional supply which has been replaced. In 2016/17 to date, this has increased to 4% since the installation of a 99.4kW system at The Connection, Rhodes.

Council also has a portfolio of solar installations included in the 2016/17 capital works program which will significantly increase the renewable energy produced by Council facilities.

**Waste: increase the waste diverted from landfill to 75% by 2021/22**

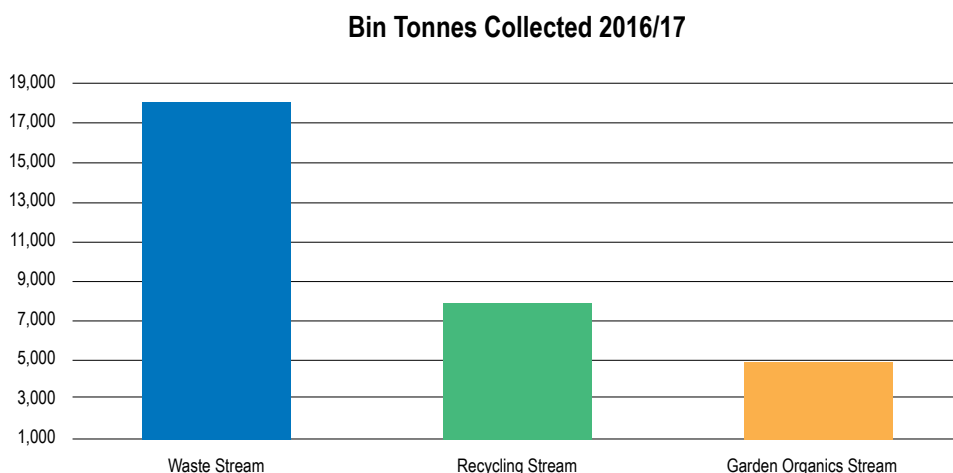
Council is currently working intensively towards an ambitious NSW target of diverting waste from landfill by 75% by 2021/22. The greatest diversion of waste from landfill can only be achieved by utilising modern and advanced waste processing technologies as alternatives to landfill.

Council tendered for these services in 2015, however received no responses for any of these options as the marketplace was at capacity. In the absence of a waste processing option, Council embarked on a major community awareness and education program in an effort to reduce waste to landfill and increase recycling, discussed in further detail within this report.

The diversion rate is the percentage of the total waste stream diverted from disposal. The diversion rate for 2016/17 is 41%.

*The recycling (recovery) rate is the amount of material recovered as a percentage of overall consumption. The recycling rate for 2016-17 is 74%.*

The total tonnes of waste collected have reduced by approximately 500 tonnes between 2015/16 to 2016/17 which can be attributed to the WasteLess in the Bay community education program, see the below graph.

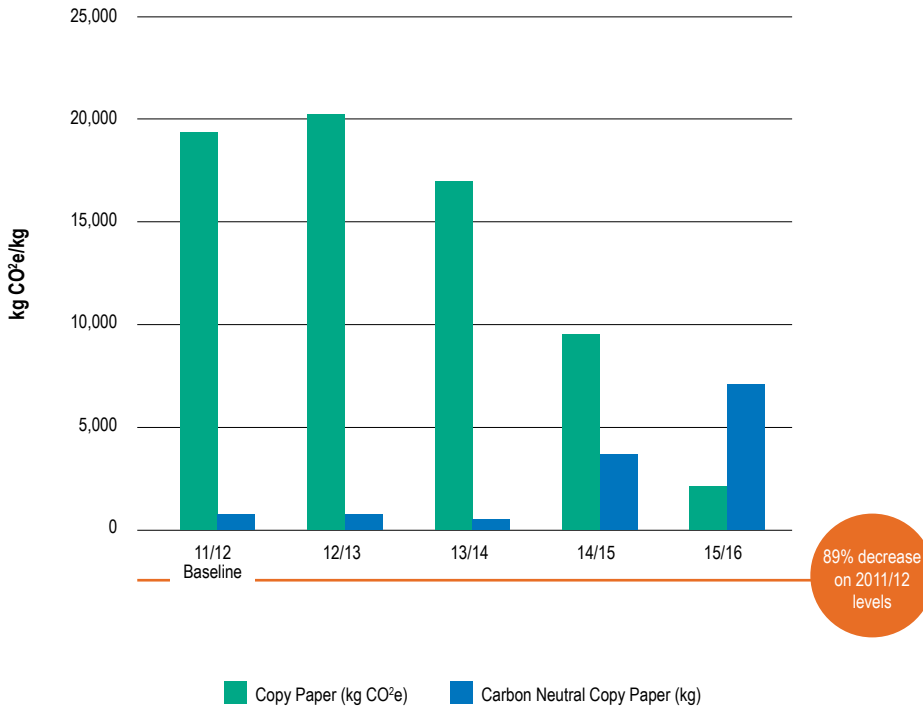


The total tonnes from 2016/17 can be compared historically, see the below table. The total tonnes of garden organic and recycling streams that have been collected and processed have remained consistent over the last 3 years. It is evident that waste to landfill is reducing despite the increasing population and number of households within the LGA.

Waste Stream	2016/17	2015/16	2014/15
Waste	18,431.80	19,083.28	18,418.13
Recycling	7,946.62	7,976.43	8,248.73
Garden Organics	4,874.44	5,192.18	5,121.9
Bulk Household Waste	2,320.89	2,799.32	1,873.28

## Paper: Reduce emissions from paper consumption by 10% based on 2011/12 levels by 2023

Annual Emissions from Paper Consumption



A Council policy was launched in 2015 encouraging the use of carbon neutral, 100% recycled paper across the organisation to replace our standard copy paper. The graph above shows how our emissions from paper consumption reduced by 89% (from 19.3 to 2.3 tonnes per year) over the measurement period as the adoption of the carbon neutral paper was rolled out across Council.

**Due to the program Council has met its target, however, Council is currently investigating other ways to reduce paper consumption.**



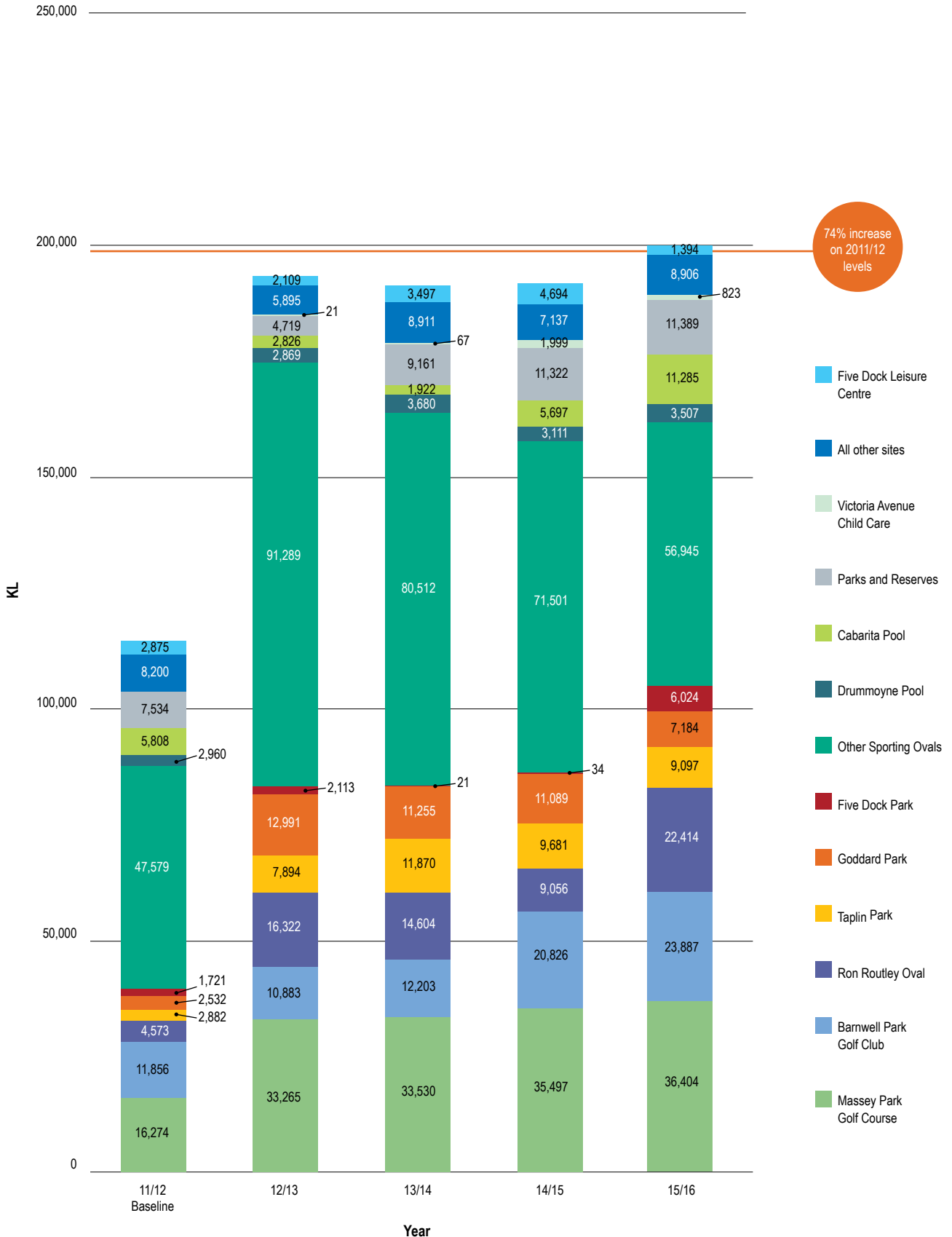
Joel Mesas



Joel Mesas

# Target: Reduce potable water consumption by 50% based on 2011/12 levels by 2023

## Annual Water Usage by Facility



Potable water consumption has increased by a total of 74% or 84,464KL since the baseline year as can be seen from the graph and table above. There have been large increases in usage at golf courses (114% increase) and sporting ovals (71%). Usage at pools has increased by 69% and parks and reserves have seen a 51% increase. The only facility to show a marked decrease in usage since the baseline year is Five Dock Leisure Centre, where usage has decreased by 52% (1,480KL. 1KL=1 thousand Litres).

It should be noted that the baseline year of 2011/12 had particularly high rainfall, 36% greater than the Sydney long term average.

The average water usage in the 5 years leading up to the baseline year of 2011/12 was 5% higher than the baseline year, demonstrating that the baseline year was reasonably representative of Council's normal level of water consumption 121,039KL compared to 114,795KL in 2011/12.

In the period since the baseline year we have experienced a number of large leaks at some of our sites. These have since been fixed, but would have accounted for considerable increases in usage ranging from 6,000KL to 23,000KL.

An explanation for the increased water usage at our sporting ovals is due in part to a new practice in managing the fields that began around 4 years ago; during the Feb-March period the fields are over-sown with rye grass. This process requires a considerable amount of watering to allow the seeds to germinate. This practice builds resilience in the turf, meaning that it can sustain increased usage and requires less renovation at the end of the winter sports season.

Our ovals and outdoor courts provide sporting facilities to around 35 local clubs and sporting organisations (approximately 24,000 participants in 2011) and have been maintained and enhanced to cater to these groups increasing memberships. A 2013 Recreation Facilities Strategy predicted that projected population increases as well as increases in participation would bring about a 26% increase in demand for sporting ovals and outdoor courts between 2011 and 2031. A survey of our sporting clubs indicates that they have already seen an average increase of 24% in the number of members and a 23% increase in the number of teams that they field during the five years since 2011. Council has met this increased demand by increasing the maintenance of existing fields (including increased watering) and adding new sporting fields at St Lukes North, Goddard Park, Lysaght Park and Taplin Park.









Thomas Buckwalter



Rebecca Cofrancesco

## Measurable Actions – Council Focused

In lieu of a quantitative or measurable target, in this section of the report we have outlined the qualitative elements under a variety of key headings which link to the ‘Sustaining our Environment’ Environmental Strategy and are primarily Council rather than community focused. It is recognised that all Council activities directly affect the community and in some cases could be reported in either section.

### Biodiversity

#### Target: Deliver projects which protect the biodiversity of our natural areas

Protecting and enhancing biodiversity is essential for the long-term sustainability of nature and our way of life. Despite the small size, isolation and relatively degraded condition of the City of Canada Bay's natural environment, the area retains a surprisingly diverse range of plants (flora) and native animals (fauna).

Throughout the reporting period, Council has been very active in the area of biodiversity with the following actions being undertaken;

Adoption of the Parramatta River Estuary Coastal Zone Management Plan in 2013, which was approved by the NSW Minister for Environment in 2016

Coordinated the Native Habitat Recovery within the Parramatta River Catchment Program which saw the regeneration of 39,500 m<sup>2</sup>, an improvement of 50,000 m<sup>2</sup> of vegetation corridor and 17,000 new plants

Council received a grant of \$99,000, in July 2013 from the NSW Environmental Trust. Run in collaboration with other River Councils, Sydney Olympic Park Authority and Birdlife Australia, saw Native Habitat Recovery programs implemented in the Parramatta River catchment. The following outcomes:

- Eight awareness presentations made to 359 council staff, volunteers, other stakeholders and community members
- 37 publicity articles potentially reaching over 2,300,000 people via newsletters, print, online, TV, radio, social media and two short videos
- 54 council staff trained in “biodiversity awareness”, with 38,352 m<sup>2</sup> regenerated
- Planting of over 20,308 native plants, weeding and monitoring by contractors, council staff and volunteers
- 19 sites monitored by Birdlife Australia
- Clear actions for the future baseline native bird data site monitoring
- Strengthened working relationships across the councils.



- Provided mangrove Protection, supported by the Office of Environment and Heritage's Estuary Management Program, with the following outcomes:
  - A brochure was developed and distributed to local residents
  - A mangrove information session was held with 25 residents attending
  - A mangrove nursery has been established with a total of 200 mangrove seedlings produced to be used in future restoration projects. A "Mangrove Conservation Plan", four interpretative signs and a communications plan and education policy supporting the project were developed and implemented 475 m<sup>2</sup> of saltmarsh has been protected by mangrove removal in a valuable saltmarsh environment.
- Delivered the Flora and Fauna Report, a strategy to achieve the protection and conservation of Canada Bay's native fauna and flora habitats. The information is being integrated with existing environmental restoration initiatives and has significantly increased the knowledge base of Canada Bay's Biodiversity Inventory.
- Created a Nature Strip Policy in response to Council's Sustainable City Committee. The policy, which was successfully tested by a local resident who built a pilot nature strip garden as a case study for the wider community, identifies opportunities for nature strip gardening.
- Facilitated over 45 volunteers who put in over 950 hours annually in taking care of native bushland as part of Bushcare Groups. Figtree Reserve (Chiswick), Quarantine Reserve (Abbotsford), Lovedale Reserve (Rhodes) and Prince Edward Park (Cabarita) all received regular attention and changes are now evident with native grasses, shrubs and trees starting to flourish.
- Implemented three funding grants worth \$78,500 awarded from the Greater Sydney Local Land Services for work undertaken by the Yaralla (Concord West) and Queen Elizabeth Park (Concord) bushcare groups. This funding focused on the protection of the endangered ecological community known as the Sydney Turpentine Ironbark Forest bushland remnant.
- Each year, Council organises National Tree Day events, the first being a schools Tree Day event which averages 10 schools and around 600 new plants planted annually. The second is a Council run day which averages 80 attendees where over 1,000 plants, trees, shrubs and grasses are planted in July each year.
- Established a Bush Tucker garden at Wellbank Children's Centre through a successful Coles Junior Landcare Garden Grant, allowing the educators at the Council run facility to create an active learning space for the children.
- A Fox Management Program was implemented in partnership with other Sydney Councils to manage the impacts of foxes. Fifteen southern Sydney Councils have come together to develop a regional and coordinated approach to fox management to address these problems. The project studied the behaviour of urban foxes, engaged local communities and mapped the distribution of foxes in southern Sydney enabling fox control to be undertaken at strategic locations.
- The Mind Our Mangroves project is a 2 year NSW Trust funded campaign to address vandalism and poor public perception of mangroves in Canada Bay which was launched in early 2017. The project will deliver:
  - Eight photography and eight walking tour workshops to raise local awareness and educate the community about the function of mangroves in maintaining aquatic ecosystem health: providing habitat for juvenile fish, producing organic litter as an integral part of the food chain, acting as coastal kidneys buffering strong tides and filtering nutrients, pollutants and sediment and sequestering carbon dioxide from the atmosphere.
  - Commission artists to work with children from two public schools to design public art about mangroves which will be displayed in passive foreshore parks.





## Culture and Heritage

In addition to our commitment to ongoing programs including the Local Heritage Assistance Fund, Local Heritage Awards Program and offering a free advisory service, we have cultivated a range of unique projects to activate community interest, promote cultural and historical significance and assist in the preservation of over 500 heritage listed items and 20 heritage conservation areas. These projects include:

- Neighbourhood Stories – audio histories celebrating North Strathfield Shopping Village, past and present
- Riverside Cultural Scoping Study – examined shoreline’s Indigenous and new settler history
- Observatory – sculpture using traditional weather techniques from Victorian era
- Annual NAIDOC week celebrations
- Reclamation – creative research project Cabarita Park
- ‘Growing Up in Canada Bay’ – photographic exhibition
- Innovations and Inventions in Canada Bay – exhibition
- Canada Bay Stories – over 40 video community stories
- The Italian Talking Poles – a public installation in Five Dock tracking the Italian migrants settler’s heritage
- *Wangal Wall* – a 50 meter long artwork celebrating indigenous history and the Mullet Festival which occurred in Rhodes every four years prior to colonisation
- The Serpent – public art which recognises Aboriginal cultural heritage on the Bay Run
- In Motion – also celebrates indigenous histories and weaves through The Connection site
- *Reformers* – a sculpture marking and recording name of the convict gang who built the Great North Road at Five Dock
- Memory – 3D projection artworks celebrating the heritage and culture of Cabarita Park projected for two hours nightly onto a fig tree
- Thirty murals installed across the City celebrating memories and place-many in partnership with local businesses who have provided the spaces
- Maintained and developed a local studies collection
- Supported a volunteer run City of Canada Bay Museum with property and professional advices.

Council has continued to recognise the contributions of the ANZACs each year, with an emphasis in 2015 on the Centenary of the ANZAC landing in Gallipoli. Significant projects as part of the Centenary included:

- Restoration of the Queen Elizabeth Park War Memorial - the compilation of a list of around 2,000 local men and women who served in the First World War
- Redevelopment of the Five Dock War Memorial
- Restoration of the Rhodes War Memorial – located at the Rhodes railway station
- Moved the Berger Memorial back to Berger Park in Rhodes from Concord
- Improvement to the Kokoda Track Memorial Walkway along both river foreshores and through open space – this also happened in 2016. On 19 April 2015, 100 years after the day ANZACs landed at Gallipoli, a special service was held at The Kokoda Track Memorial Walkway involving over 4,000 people and an interactive temporary artwork
- Delivered a schools program and short video project called 'More Than Just a Name', which engaged school students to research local service men and women who served in World War One to produce 56 videos commemorating their service
- Upgrading street sign blades and the installation of pavement plaques in Lirylea Estate at Russell Lea, where key battles from WWI such as Mons, Reims, Liege are recognised.

Council has invested in cultural facilities over this period. Of particular note are:

- The Connection - an innovative multi-purpose community precinct which has operated since December 2016. Located on the Rhodes foreshore, it integrates indoor and outdoor spaces to provide venues, services and programs for the City's growing population. Entirely funded by developer's contributions through voluntary planning arrangements, it incorporates ecologically sustainable design to deliver state of the art spaces.

The Connection includes four buildings:

- The Learning Space – a reimagined library, a new take on a paperless library with a dedicated digital gallery, accessible maker technology, digital image and sound studio, study spaces and classrooms
  - The Event Space – a multi-purpose community hall with outdoor terrace
  - The Meeting Space – a multi-purpose, configurable community space and meeting rooms with a purpose built children's area; and
  - a restaurant and café.
- The Conservatory – an adaptable arts and cultural facility designed with community collaboration to enable a range of cultural pursuits, including workshops, classes and exhibitions. It consists of a multi-purpose hall, courtyard with outdoor seating, storage, public toilets, kitchen, and food truck facilities. This was funded partially through a restricted developer contribution and section 94. The building is innovative, using recycled timber framing and smart glass, the design ensures vistas across the iconic Cabarita Park are maintained. Environmental features include reliance on natural heating and cooling, shade and rain water tanks to service the amenities.

## Cultural Events

Connecting our community is a critical role for Council and, with our partners we have attracted over 140,000 people annually to a range of events:

- Ferragosto (NSW premier Italian festival)
- Rhodes Moon Festival & Lunar New Year
- NAIDOC Week
- Concord Carnival
- VIVID ideas 2016
- Chiswick Splash celebrating 60 years of the river pool 2016
- Cinema events across the City (in the park, movie club, sustainability film club and foreign language movies).



## Resource Efficiency

### Target: Increase the number of goods and services procured in accordance with our sustainable procurement guidelines compared with sustainable choice data

Council continues to procure goods in accordance with the Sustainable Procurement Guidelines and Policy. In October 2012, the City of Canada Bay won the LGSA Environmental Excellence Awards for 'Overall Winner and Category C Winner for Sustainable Procurement'.

The Sustainable Procurement Policy and Guidelines have been integrated into an overarching Procurement Policy helping to embed sustainable practices into staff procedures. The Implementation Plan together with our Sustainable Event Management Policy, Sustainable Fleet Policy and staff training has created a culture of sustainable practices including:

- Offsetting major events
- Annual supplier survey for environmental credentials
- Indoor/outdoor staff event check lists
- Staples Automatic EarthSaver product substitution
- Sustainable Choice members
- Refurbishing infrastructure instead of replacing
- Recycling of oil filters and tyres
- Reuse of road base
- Biodiesel generator for annual Ferragosto festivals.

In 2012, Council became a member of the Sustainable Choice program and through this membership implemented a number of actions to improve our performance in sustainable procurement. These include:

- The creation of a pilot internal sustainable procurement team to drive the initial policy implementation
- Staff training for key procurement staff to encourage more sustainable procurement
- Commencing a review of the tendering process to include sustainable purchasing guidelines and assessment weighting.

We also commenced a trial of 50% recycled copy paper and 100% recycled and carbon neutral copy paper in 2014 which lead to a full scale rollout of carbon neutral, 100% recycled paper within Council seeing an 89% reduction in emissions from paper consumption.

Council's Infrastructure and Technical Services teams actively look for innovative ways to procure goods. A few examples of innovative and creative solutions include:

- Diverting over 8,000 tonnes of road renewal waste such as concrete, asphalt, sand, soil and rubble from landfill and using the material for car park reconstructions. This includes Concord Oval, Crane Street, Cintra



Park Tennis Court, Ron Routley Oval, Massey Park Golf Course and reusing the recycled road base for projects such as for the foundation of the Water For Our Community water tanks.

- Partnering in 2016 with Downer EDI to produce and install a sustainable road on Victoria Avenue, Concord West. The project included installing white asphalt to help reduce the heat of the road pavement by eight degrees Celsius and the overall ambient temperature in the village by two degrees Celsius. The new pavement incorporates 40% of recycled asphalt and utilises 8,000 toner cartridges from printers and photocopiers, which is 20% of cartridges used in the City of Canada Bay. Furthermore, the pre-existing asphalt was recycled locally to construct the new St Lukes Park North in Concord.

In 2017 Council participated in the Electronic Sustainable Spend Tracking and Measurement Tool Pilot Program with several other NSW Councils. This was an initiative of State Government, trialling ways to track, measure and report on general purchases, through some minor software enhancements to our Technology One platform. The findings of the pilot showed that a one-size-fits-all technology solution was not possible due to Council's different methods of procuring.

## Climate Change

### Implement projects which achieve climate change adaption and mitigation

In 2014, Council adopted a Greenhouse Action Plan (GAP) which outlines how the City can contribute to climate change mitigation by increasing energy efficiency and improving technology to reduce greenhouse gas emissions.

The mitigation of greenhouse gas emissions, achieved by improved energy management, efficiency and technology, goes hand in hand with financial savings. With gas, fuel and electricity prices predicted to continue rising, along with a growing population increasing demand for services and a number of planned new facilities, energy demand and its cost is set to increase. This gives a strong incentive to reduce costs, which can be achieved with the reduction of emissions.

Since the implementation of the strategy, Council has implemented the following actions:

- Quarterly reporting on progress towards achieving targets
- Water and energy reports sent to all managers of facilities
- Monitoring of top ten consuming sites
- Setting of thresholds for lease contracts to encourage energy and water management
- Assessing facilities' energy consumption to prioritise energy audits at seven sites.
- Since 2012, Council has implemented a number of infrastructure projects with a focus on energy efficiency and management practices for infrastructure and facilities. This includes the installation of:





Maria Poulos



Chris Dallami

- Variable speed drives at Drummoyne Pool with estimated savings of \$3,450 per annum and greenhouse gas savings of 16 tonnes of CO<sub>2</sub>e per annum
- Energy efficient LEDS in Council buildings and facilities, and upgraded heating, ventilation and cooling systems. Sub-metering was installed at top consuming energy sites to improve management. These initiatives saw savings of \$110,000 per year
- A 9.36 kW solar system at Concord Senior Citizens Centre, upgraded lighting at Cabarita Swimming Centre, Concord Senior Citizens Centre, Concord Community Centre, HVAC and lighting upgrades as part of the CEEP program, which has seen considerable decreases in consumption at the Civic Centre, Depot and Five Dock Leisure Centre.

In 2014, we also developed a leading practice Manual for Climate Change Adaption, in conjunction with the Australian Centre of Excellence in Local Government.

Internally, we have developed a program which identifies the key climate risks that the local government area will face in the medium to long term whilst also assessing the impacts that climate may have on Council assets, services, infrastructure and the community.

From the creation of this program, projects such as the following have been implemented:

- A capital works program in Concord West which led to cooling of up to 15 degrees of ambient temperatures and two degrees of pavement surfaces, extending usage on hot days
- A 20 year projection for upgrading the 12.3 km of seawalls within the Council area which saw seawalls in the Abbotsford, Chiswick, Iron Cove Bay, Exile Bay and Rodd Point areas upgraded with an expenditure of \$700,000.



## Water

In July 2012, we adopted a new Water Efficiency Plan (WEP) which identified high water consumption assets and infrastructure and recommended strategies to increase water efficiency and reduce overall usage.

The following activities were implemented:

- Irrigation landscape efficiency initiatives were introduced to reduce the irrigation demand of sports fields and ovals. They included wetting agents, thatch cutting (implemented at Concord Oval) and soil aeration (implemented at Queen Elizabeth Park, Goddard Park, Cintra Park, St Lukes Park, Concord Oval, Taplin Park, Drummoyne Oval and Powells Creek Reserve). These initiatives improved water infiltration into the soil profile, thus reducing water requirements.
- The following hardware was installed to reduce water consumption in Council's amenity buildings and offices:
  - AAA rated showerheads (installed at 6 public locations, Council's works depot and Civic Centre)
  - AAA rated urinal cisterns (at 5 public locations and Council's works depot and Civic Centre)
  - AAA dual-flush cisterns (at 6 public locations and Council's works depot and Civic Centre)
  - Tap aerators (at 6 public locations and Council's works depot and Civic Centre).

It is estimated that these features have saved 1.64ML (ML=1 million litres) of water per year.

Council installed an irrigation management system which is programmed to irrigate fields and open space efficiently, according to need rather than by static schedule. For example, planned irrigation is automatically cancelled if rainfall is forecast. Additionally, alarms are activated if a site's water consumption or use pattern changes.

Established in 2012, Council has an active leak reduction program using a number of Tiny Tag flow meters and data analysis software to monitor the water use of major sites within the area. A list was compiled of 60 assets that are council's biggest water users and the sites are regularly monitored. Analysis of the data shows if any baseflow is present (often representing a leak) or if the patterns of usage have changed. In the first year of the program, it is estimated that the program resulted in water savings of over 4ML.

Council also has a number of water reuse projects across the City which were implemented including:

- The Cintra Hockey Project, which takes run-off from the field (which has an artificial playing surface) and harvests it before it undergoes filtration and UV treatment. The recycled water is then re-used for irrigation. During optimum conditions the system can recycle over 75% of the water used on the field. The system saves an estimated 9ML of water per year. This was moved to the new hockey facility in early 2017.
- The Powells Creek Water Reuse Scheme collects stormwater from the Powells Creek Reserve car park using grassed swales. The water is then filtered by passing through special permeable pipes which remove contaminants. After this the water is then filtered further using sand filtration before stored and available to be used to irrigate the playing fields. The system saves an estimated 2ML of water per year.
- The Drummoyne Oval Stormwater harvesting project was implemented in 2012 to save up to 8ML of potable water annually. The system collects storm water from the Bayswater St catchment, treats it so it is suitable for use as uncontrolled spray irrigation and stores it in two 250,000 litre tanks for use on Drummoyne Oval and Taplin Park playing fields. This project is temporarily out of action.
- The Council Depot Rainwater Recycling Scheme, installed in 2012, harvests rainwater from the roof of several depot buildings and reuses it in misting sprinklers to reduce dust within the depot yard, to clean works vehicles and to water plants in the depot nursery.
- The Water for Our Community Project is an outstanding example of a big picture, forward thinking project, showing leadership in Local Government by securing an independent source of water and demonstrating how the Sustaining Our Environment Program reaches across all Council divisions. One of the largest stormwater harvesting projects in metropolitan Sydney, the project produces around 180 ML per year of recycled water for the irrigation of 15 sporting fields and 2 golf courses reducing our reliance on potable water. This improves water security and ensures local sports fields are able to be effectively maintained in the face of increasing demand and wear. See above for further details.



Ann Hodgson



## Measurable actions – Community Focused

Outlined below are the community focused qualitative targets that Council has adopted. The community targets provide key areas for Council to focus programs and projects on each year. The target makes us answerable to the community in how we are helping our community in these areas to make a more sustainable City.

### Energy and Renewable Energy

#### Target: Report on consumption

#### Target: Report on residential solar generated electricity to the grid compared to 2009/10

In 2013, Council adopted the Our Energy Future: Renewable Energy Master Plan which brings together eight pioneering councils in southern Sydney and the Institute for Sustainable Futures to identifying a range of practical and cost effective actions and delivery models for significantly increasing the uptake and deployment of renewable energy across the residential, business and government sectors in the participating local government areas. At this time, Council also adopted a target to replace 30% of traditional energy supply with alternative renewable sources by 2030. This is another example of how the City of Canada Bay actively collaborates across the region and supports new technology.

As a result of this, Council has implemented programs to support this including Our Solar Future, an initiative of eight Councils in the southern Sydney region which aimed to increase the proportion of energy consumed in the area that is derived from renewable sources. As part of the project, a website was developed which formed a one stop shop for residents to purchase solar panels, heat pumps and hot water through a trusted and reputable supplier which had been vetted by an independent body (the Australian Technology Association).

The vision for the project is to see an increase in the use of renewable energy across the area by residential, business and government sectors. This resulted in the Our Solar Future Project which was launched in December 2014. The City of Canada Bay actively participated in a campaign to promote this service in 2015 to our residents with seven of our residents installing solar installations.

After this campaign finished, an evaluation was carried out and the feedback indicated that the program was fairly labour intensive compared to the uptake and a varied model should be investigated moving forward. This has seen the creation of Our Energy Future, the new free energy service which was launched in June 2017.



***In 2015/16 FY the electricity exported to grid was 2574 MWh compared to 40MWh in 2009/10. Residential solar has increased by 98%.***

In 2013, Council promoted and supported the NSW Governments Home Power Savings Program which delivered 318 audits to residents in a free program for eligible residents. By participating in the program, households received an in-home power assessment by an energy expert, power savings kit and personal power savings action plan for their premises.

In 2014, we ran a solar energy speed dating event which was attended by 11 residents and in 2017 we ran 2 workshops targeting energy and renewable energy with 43 residents attending. Although feedback from residents indicates that energy and energy prices are a key concern, we have had to cancel a few workshops in previous years due to low attendance.

In 2016 Council participated in a Sydney Southern Regional Organisation of Councils (SSROC) pilot project with Urban EP for the development of an online tool that helped to heat map Council roof spaces. The mapping tool provided calculations of cost benefit and the prioritisation of solar panel installations.

Council also supported a carbon reduction and capacity building project in partnership with Parkes Shire Council which saved approximately 13 tonnes of CO<sub>2</sub>e p.a. The major focus of the project was to reduce greenhouse gas emissions through carbon management projects using shared resources and skills where necessary. The long-term goal is to enable greenhouse gas reduction through renewable energy projects, facilitate carbon sequestration through tree planting activities and ultimately to increase Parkes Shire Council's capacity to effectively implement principles of environmental sustainability in all future projects. Parkes delivered the following outcomes as part of the program:

- Revolving Energy Fund and solar installation at Peak Hill
- Revolving Energy Fund and solar installation at Trundle
- Revolving Energy Fund and solar installation at Tullamore
- Community tree planting and Sustainable School Network.

## Water

### Target: Report on consumption levels and deliver community engagement

In 2016/17 City of Canada Bay residences used an average of 192KL of water each year, as compared with a Sydney-wide average of 202KL. This represents a 2% increase on usage since 2013/14.

Launched in December 2014, the Parramatta River Catchment Group - Our Living River Initiative attracted great attention within and beyond the City. The mission, to make the River swimmable again by 2025, gained momentum with increased support from Sydney Water and the Environmental Protection Authority which saw the introduction of the Riverkeeper Project.

Since its launch, Council has hosted two community events to celebrate the river, one in 2015 at Bayview Park, Concord, and another in 2016 to celebrate the upgrade of facilities at the Chiswick tidal baths.

In 2016 and 2017 Council participated in two 'Get the Site Right' campaigns initiated by the Parramatta River Catchment Group. 'Get the site right' is a month-long campaign that targets erosion and sediment control on commercial and residential building sites across Sydney, as well as major infrastructure projects. It also aims to raise awareness about the effects of sediment run-off on our waterways, and highlight the important role developers and the community can play in improving water quality and protecting surrounding environments by maintaining their building sites and reporting pollution incidents.

In October 2016 and May 2017, Council conducted over 20 construction site visits to check compliance with sediment control requirements. As a result, Council issued 11 warnings and just under \$40,000 in fines.

Throughout the reporting period, Council has run a number of water education programs with students through its Sustainable Schools Network. This has included workshops delivered by a number of leading environmental education and advocacy groups including Keep NSW Beautiful (KNSWB) and Take 3.

We have delivered over 15 water focused workshops through Keep New South Wales Beautiful (KNSWB), including Drip Drop Splash, which focuses on the water cycle and strategies to conserve and share our water supply, and Catchment Action, where the harmful actions that affect water quality and biodiversity are



explored. In 2013/14 five schools participated with the delivery of seven classes to 160 students and in 2014/15 four schools participated, involving four classes and 90 students.

Council has also worked with Take 3, a not-for-profit organisation that aims to raise awareness of plastic pollution by encouraging each visitor to the beach, waterway or...anywhere to simply take 3 pieces of rubbish with them when they leave and dispose of it thoughtfully.

In 2014, Take 3 delivered a presentation to students about marine creatures and the impact litter is having on our waterways and then Council worked with the schools to develop action plans in their schools to reduce litter.

In 2016, Take 3 once again delivered an incursion about litter and the threat litter poses for marine life. Students then utilised this knowledge to create an anti-litter campaign called 'Project Dolphin', and became school advocates for marine creatures - in particular the dolphin. The program increased student knowledge of beach litter, threats to marine creatures and human activities that will help protect these animals. Each school received \$250 to fund their campaigns. The students then created a short presentation or video and presented it in front of all the schools who participated.

## Litter

### **Target: Deliver litter prevention actions to increase the amenity of the area by decreasing litter**

Outlined below are the actions which have been undertaken in the area of litter over the last five years. Each of our projects has been designed using a model that incorporates education, enforcement, infrastructure, cleansing and evaluation however, the projects below have been divided into their key areas as adopted in our Litter Strategy to showcase our achievements.

### **Strategy and Management**

In 2012, Council developed its first litter action plan which aimed to determine the extent and impact of littering in Canada Bay. It aimed to identify strategies including education, enforcement, incentives, infrastructure (signs, bins, recycling facilities), and services to reduce the incidence of littering. It also aimed to develop an integrated approach to litter prevention, including a community education campaign.

In 2016, Council adopted a litter strategy and implementation plan which provides a five year direction for preventative litter action across the City. The key theme of the strategy is to move Council to a proactive and preventative delivery program through the delivery of litter prevention actions and ongoing maintenance programs to increase the amenity of the area.

As part of this strategy development, Council has developed a target to reduce litter by 50% in hotspot areas by 2021. The key objectives are to; raise the profile of litter, shift the focus to “prevention” rather than “clean-up”, ensure litter initiatives are locally relevant but support regional and state initiatives, increase community pride, increase litter enforcement, and ensure effective evaluation and measurement is implemented.

Regional Litter Strategy – Our Places: Recreation and Retail – a Litter Prevention Plan for the Southern Sydney Region 2016-2021 was developed in conjunction with the 16 member councils of the SSROC. A Litter Prevention Plan working group was established to oversee the preparation of this plan on behalf of the group of councils. The plan was then endorsed by Council with the goal to implement some regional projects.

Council funded 10 preschool marine education incursions for around 300 children delivered by ‘Splash Into’. The incursion offered an opportunity for children to learn about marine animals and the impact of litter in our waterways.

Council has incorporated litter education into schools and ran art design workshops to engage the youth in our community on the topic. This has seen the creation of a local Concord High School Art Project which promoted the “don’t litter” message and designed footpath stickers which were placed across the City.

In the winter of 2016 Council launched the Hit Me With Your Bin Shot competition through local schools, sports facilities and businesses. The project aimed to engage teenagers on the subject of litter in a fun and active way: pick up a piece of litter, video your best trick shot trying to get that piece of litter in the bin and post it online.

## Infrastructure and Cleansing

Bin Your Butts – this project has achieved a staggering reduction of littered cigarette butts across Rhodes Town Square and Majors Bay Road, Concord – with a reduction of 87% of littered cigarette butts across the sites. Following the success of the trial, 15 new butt bins were installed across the City. Since January 2015, almost 380,000 or 212kg worth of butts have been collected.

We have continued to roll out cigarette butt infrastructure which encourages recycling. Across the City, we now currently have 30 butt bins and floor stickers which direct people to do the right thing. As infrastructure has been rolled out, we have also engaged street performers such as the “Aussie Butlers” to help promote the butt bins at three hot spot sites.

In 2016/2017 Canada Bay teamed up with the City of Canterbury Bankstown and Waverly Council in a SSROC, NSW Environmental Protection Authority (EPA) grant funded project to reduce litter at transport hubs. Canada Bay installed a total of five new bins, partially replacing old infrastructure. All the bins plus a shop window were wrapped in bright and clear litter messaging. Four sites were high pressure cleaned during the night even removing old chewing gum and one site had council staff doing litter picking in the surrounding greenery. The average reduction in litter across all five sites was 84% for weekends and 56% for weekdays.

Council implemented a ‘Back of Business’, EPA litter prevention grant for three carparks within the City. Through this grant we provided education on litter and enforcement to 33 businesses and engaged directly with 62 community members about the issue. Businesses with bins backing onto the carparks received an info pack with ‘nifty nabbers’ litter pickers, posters and bin stickers, educating on correct use of waste bins in order to stop litter occurring from overfull bins or bins without lids. The project saw a 65% increase in business awareness litter. Warning Letters under the Protection of the Environment Operations (POEO) Act were sent out to seven businesses.

In developing the litter action plan, we completed an audit of over 500 bins assessing their type, condition, requirements for upgrades and putting the location into an updated Geographic Information System (GIS) layer. This project has resulted in the purchased of 30 new bins to upgrade aging and dated infrastructure and enhance our public litter bins. There has also been a successful business case for the appointment of an additional labourer to increase the efficiency of the bin servicing by having two staff per compactor.

## Education and Communication

‘Stop Litter in the Bay’ is an EPA grant funded project that was implemented in Cabarita Park and ‘The Bayrun’. As part of the project, interactive chalk art litter messages were installed around the bay, onsite signage was placed at both sites including bilingual signage where identified, infrastructure upgrades were undertaken in Cabarita Park, and a schools education program was delivered. This resulted in a 40% reduction of litter on site in the audited area, a 100% reduction of discarded heat beads, 50% reduction of discarded cigarette butts and a 20% increase in onsite litter awareness.



Mortlake Public School students participated in a 'Healthy Waterways, Litter Education Workshop' where students learnt about native flora and fauna that keep waterways healthy. At the workshops the students learnt about the impacts of litter and pollution on local native habitat and were then asked to use their creative skills to illustrate what they had learnt. The result of this was an upcycled mosaic tile art installation at Cabarita Park.

A Take 3 litter related film event, 'Bag It - Is your life too plastic?' saw 60 local residents attend a film night on the effects of plastics in the ocean. This film promotion was linked to the Stop Litter in the Bay project. Tim Silverwood hosted a discussion and screening of the award-winning documentary 'Bag It'.

In 2015, the Sustainable City Committee (SCC) designed messaging for a water refill station sticker which was installed in 10 locations across the City and aimed to raise awareness of the issue of plastic bottles in our waterways, instead prompting users to refill.

Council partnered with Abbotsford Public School to run a litter art project called 'Litterarti'. The project was facilitated by Marrickville's The Bower Reuse Centre and involved 48 students from the school's Student Representative Council ranging from kindergarten to year six. The students collected specific items prior to the workshop, using litter and collected objects to create a large 'streetscape mural'. This mural was displayed at Concord Carnival before being permanently attached to a wall at the school.

During 2015/16, Council engaged KNSWB EnviroMentors program to deliver Litter Reduction workshops. Council funded eight primary schools, reaching over 350 students through a mobile incursion-based environmental education program. The program aimed at motivating the community to participate in simple and practical ways to reduce litter in the local environment.

In 2017, Council launched a local litter campaign, 'Lets Put Litter in its Place'. This branding has allowed consistent communication and messaging across Canada Bay with 98 footpath stickers installed, regular social media articles promoted, 20 bin wraps, and six Council trucks wrapped in the new design.

A webpage promoting Council's litter prevention projects was created to raise public awareness and interest in current and proposed projects. Currently we have 339 average visits per month to Council's Litter Prevention webpage.

## **Partnerships and Pride**

BagLess in the Bay is the flagship program developed by the SCC. This plastic bag reduction initiative encouraged business and residents to avoid single use plastic bags, and switch to sustainable alternatives. The following outcomes were as a result of this project:

- 108 art entries received for the BagLess art competition
- 65 businesses engaged into the Five Dock Campaign
- 435 pledges signed by residents
- 650 canvas bags distributed during launch and visits at Supabarn.

Council has also worked with the SCC to tackle coffee cup waste in an attempt to reduce litter. Cafes throughout the City of Canada Bay are now displaying posters with the 'Choose Refill over Landfill', encouraging the community to opt for a reusable cup for their coffee fix.

In 2014, Council was part of a regional EPA litter grant 'Trash it don't ash it' which saw Bankstown and Rockdale engage a consultant to undertake an observational study which considered the types of issues associated with the identified sites where hot coals were an issue. In Cabarita Park and McIllwaine Park, Council worked with a bin designer to develop a hot coal bin prototype and installed five new hot coal bins in hotspot areas within the parks. These allowed users to access with ease. The project also saw the implementation of temporary multilingual signage installed.

In 2015, Council worked with Russell Lea Infants School Parent & Friend association and the Friends of Cabarita Park and Wharf (FOCPW) to implement their successful Community Litter Grants which were funded by Keep NSW Beautiful.

Russell Lea Infants School delivered a project in Sibbick Reserve which saw local infrastructure upgraded through a community planting day and a clean-up of the site. The FOCPW delivered a project in which Cabarita Park saw a community awareness day, an increase in law enforcement, signage upgrades and a local volunteer clean-up.

Council partnered with Cabarita Mortlake Venture Scouts (CMVS) who undertook the "Contextual Landscapes" project to raise awareness of the harmful effects of littering and pollution in the local area. CMVS monitored the Rivendell Foreshore Area, Bayview Park and Quarantine Park and learned about pollution reduction processes already in place. As well as learning about litter and pollution, they collected litter items and used them to create clever images that depicted anti-littering messages. A series of these images were displayed in a photography exhibition at Concord Library as part of Youth Week. This was so well received that Council also put on a separate exhibition in Five Dock Library to share these artworks with a wider audience and further spread the anti-littering messages.

Council has actively promoted the EPA's 'Report Litter from Vehicles' campaign at events, and through publications (ezines, community newsletters) and surveys, which has resulted in a 57% increase in reporting litter from vehicles since June 2016.

City of Canada Bay partnered with EPA and Community Change (disposal behaviour specialists) to develop a Council Based Cigarette Butt Disposal Tool.

## Enforcement

We have also commenced a review of litter signage in Cabarita Park, a hotspot for coals, and developed a 'litter signage guideline' to ensure consistent signage is used for fines across all parks.

We have continued enforcement of littered trolleys in the Rhodes precinct with 220 trolleys collected in 2016. Council has also purchased a trolley trailer to assist with the impounding of trolleys which has led to behaviour change by Coles who have changed their trolley collection to in-house.

## Evaluation and Observation

Council evaluated the trial of eight Big Belly Solar Bins. The data obtained after six months of usage showed that the solar bins are emptied 1.8 times a week on average. Regular bins need to be emptied daily on average. The data also showed there are still some improvements to be made as 18% of collections were made when the bins were not actually full. It was noted that people walk past regular bins to dispose of their rubbish in the BigBelly bins as they look attractive and are noticeable. It was decided to continue trialling the bins at the current location.

To keep track of our progress and to evaluate the effectiveness of our actions in implementing the Litter Strategy, we annually survey residents on their attitudes and behaviours concerning litter. Council has so far conducted two surveys. The first was conducted in 2016 which had 335 respondents and established our baseline. The second took place a year later with 232 respondents and measured progress.

Both surveys showed that the main reasons for City of Canada Bay residents to litter are that there is no bin nearby or that the littered item is believed to decompose. It should be noted that in both surveys over 90% of respondents reported that they hardly ever or never litter.

In both surveys about 30% of respondents think that council is not doing enough in litter prevention. The same amount of respondents believe that council is doing enough. The other respondents are not aware of Council's efforts in litter prevention.

The 2017 survey showed a slight increase in residents being aware of council's communication about litter prevention. About half of respondents indicated that they had seen council's litter strategy branding, which was launched at the start of 2017, on trucks and bins around Canada Bay.

In 2017 a higher percentage of respondents indicated that they'd be willing to report somebody littering from a vehicle following council's and EPA's efforts to promote this program.



## Sustainable Food

### Target: Deliver projects, programs and actions increasing community engagement in the area of Sustainable Food

In 2014 Council adopted the Sustainable Food Strategy aimed at addressing food security and the social and environmental impacts of the food system on our community through an action plan of initiatives. Since its adoption Council's community education and engagement program has had a focus on sustainable food. Initiatives include:

- A webpage dedicated to sustainable food information, related links and resources
- In 2015, Council's Concord Carnival, was themed "Farm to Plate" and included a series of related workshops, nutritious food vendors and "Snack Habitat" was engaged to run children's sustainable food education
- Thousands of packets of food growing seeds were given away at Council's festivals in 2014-2017
- Council's Treading Lightly Eco workshop series included an emphasis on food topics such as growing food, pickling and preserves and food tours aimed at promoting and supporting local farmers, organic market gardens, farmers markets and food coops
- Sustainable food initiatives promoted through our Sustainable Schools and Child Care Centre Networks – including workshops and funding for garden beds
- A children's edible garden photo competition was run in 2015 which encouraged children to get their hands in the garden
- Council engaged "Youth Food Movement" to run a trial food campaign called The Cookluck Club which aimed to empower young Australians to engage their peers about saving food. Cookluck Club achieved over 31 media mentions across print, digital and radio, from ABC Sydney to Good Food. It had a total reach of 222,697. Of the 5700+ visitors to the Cookluck Club site, 154 hosts registered Cooklucks of which 10 were in Canada Bay. Each Cookluck event influenced a total of 964 guests.

Council received two Environmental Trust grants from Love Food Hate Waste, which funded three series of the Council developed Eat Taste Create Program, which was run three times. Collaborating with local restaurateurs, a series of intimate, sustainable 'Eat Taste Create' dinners were held, to educate both business owners and diners about how to avoid food waste. Over 300 diners attended and the project was successful in teaching people new ways to avoid food waste. Attendees were encouraged to share their tips on how to avoid food waste. Over 200 tips were collected, with the best ones released in an online cook book. A short film was produced to showcase one of the events, in which diners and the chef share tips and recipes on how to reduce food waste.

A Food Trucks trial during 2015/2016 aimed to encourage activation of parks and places and open up a broader range of food and dining experiences for the public including organic options. The trial was completed but was not successful, thus was not rolled out as a permanent program.

Council has three active community gardens which are all running successfully; Concord Community Garden, Rhodes Community garden and Chiswick Community Garden with a total of approximately 50 members currently. Two further gardens are in development; Rhodes Park Therapeutic Garden in partnership with Inner West Neighbour Aid and Drummoyne Community Garden.

Council promotes the local Concord Farmers Market through the Sustainable Living e-news by including it in local food tours and facilitating cross promotion with the nearby Concord Community Garden.

## Waste

**Target: Increase the waste diverted from landfill to 75% by 2021/22**

**Target: Increase the recycling rate to 70% by 2021/22**

In October 2015 Council commenced a new waste collection contract with SUEZ, this included a fleet of 11 brand new vehicles with state-of-the art technology, including 360 degree live camera viewing around the truck as well as an automated system for recording contaminated bins. Through this collection contract, Council collects over 51,000 bins every week across three waste streams: waste, recycling and garden organics. A further 750 properties have their bulk household waste collected each week.

Currently Council is working intensively towards an ambitious NSW target of diverting 75% of waste from landfill by 2021/22. The greatest diversion of waste from landfill can only be achieved by utilising modern and advanced waste processing technologies as alternatives to landfill.

Council tendered for these services in 2015, however received no responses for any of these options as the marketplace was at capacity. In the absence of a waste processing option, Council embarked on a major community awareness and education program in an effort to reduce waste to landfill and increase recycling, discussed in further detail within this report.

## Waste Less Recycle More - Grant Funding

### Community Recycling Centre

Council was successful in applying for a grant and received \$172,000 in 2015 from the NSW Environment Protection Authority. This enabled us to build a community recycling centre in Five Dock for household problem wastes items, such as car and household batteries, gas bottles, fluorescent globes, paint, motor and cooking oil, fire extinguishers and smoke alarms.

This centre opened in November 2016 and since its launch, 672 residents visited the centre delivering 32 tonnes of chemicals for specialist recycling (diverted from landfill), broken down as follows:

Specialist Recycling Type	Tonnes
Chemicals	16
Paints	11.3
Oil	1.9
Gas Cylinders	1
Batteries	1.8

## Community Awareness and Education

### WasteLess in the Bay

WasteLess in the Bay is a comprehensive branding solution, community awareness, engagement and education program focused on reinvigorating, revitalising and re-engaging the community regarding resource recovery and waste minimisation.

We are asking our community to “Commit” to WasteLess in the Bay by making one simple and achievable behaviour change. Our community can commit by completing an on-line quiz (yes or no answers only), attending a workshop or event, or by picking up a hardcopy quiz at libraries and community centres.

After making a commitment, residents receive a ‘kit’ of our functional and useful resources, custom-designed to help residents achieve their commitment with repeated daily use in the home by all members of the household. Resources will encourage: recycling correctly, returning plastic bags to shops, planning meals, compiling shopping lists and storing labelling food correctly.



## Commitments, workshops and programs

The WasteLess in the Bay commitment program, launched in 2014, has resulted in more than 25,000 individual resident commitments from 4,000 households to increase recycling and reduce waste to landfill. This equates to more than 10% of all residential households in the LGA. The results up until 2015 were so commendable that Council was awarded winner of the 2015 Keep NSW Beautiful Waste Less Recycle More Award.

- Approximately 99 WasteLess in the Bay workshops were run for free for residents and over the last three years, a total of 2,000 residents were engaged face-to-face and provided education on how to reduce food waste to landfill by planning meals, storing food correctly and cooking with leftovers. A total of 96% of these attendees have committed to reduce food waste to landfill.
- Sixteen free children's workshops were attended by over 400 local children in school holidays and were themed about making art or music instruments from reused items.
- Repair Cafes were run as part of WasteLess in the Bay community engagement. A total of 72 residents attended the Bower Repair Café sessions, diverting from landfill 60% of furniture and electrical items as they were repaired for reuse.
- Compost Revolution has, since launching in October 2014, engaged 2123 residents and over 500 households have purchased either a compost bin or worm farm to further reduce their food waste. The program has diverted over 57,000 kilograms of food waste from landfill, saving over 91,000 kilograms of CO<sup>2</sup> emissions. Diverting this food waste from landfill has saved \$18,000 in disposal costs.
- Between 2014-17, our MyWaste App, which is free for residents to download on an apple or android mobile device, has been downloaded and is in use by 1,800 households. The app contains the equivalent information of Council's WasteLess in the Bay web pages and has been translated into nine languages. The App has a search facility for the recycling of items not collected in the recycling bin and a 'report a problem to Council' function across a common range of issues, including missed or damaged bins, littering, illegal dumping and pot holes to name a few.
- Council has supported the Fridge Buyback Program since 2013. This program was a residential energy savings program that provided a rebate in return for an old second fridge or upright freezer. Over the life of the program, which ended 30 June 2017, over 690 fridges were recycled, saving approx. \$205,000 in electricity costs and 5,507 tonnes of CO<sup>2</sup> emissions.
- Our 'WastEd Time' and 'kNOw Waste' education programs for local schools and childcare centres delivered free waste education lessons on reducing and avoiding waste and recycling correctly. The program promotes long-term environmentally responsible behaviour and during the period of 2013-2017, 35 schools and childcare centres and 5,800 students participated.



- Every week 51,000 residential bins are inspected as part of Councils Contamination Management program, which aims to educate residents at the source for placing incorrect items in bins, overflowing and incorrect presentation of bins. Approximately 8,000 residences received letters regarding incorrect items placed in their recycling bin and/or overflowing bins, over the past three years.
- Since 2013, a total of eight recycling stations have been provided at Council facilities and local participating schools for the recycling of mobile phones, household batteries and printer and ink cartridges.

Cartridges & toners bottles	Household batteries	Mobile phones
365kg	359kg	635kg

- Council has participated for three years in the Collection and Rehoming Service, run by an environmental charity, the Bower Reuse and Repair Centre. The service provides residents with access to custom and specialist advice about how best to reuse or recycle usable or unwanted items as a means of diverting these goods from landfill. Over the last three years, 418 residents have utilised the service which has seen the diversion of 33.5 tonnes of waste from landfill.
- The WasteLess in the Bay website has received 18,000 views each month (on average) during the period 2014-17.
- As part of the community consultation program in 2013/14, surveys were delivered to 3,200 households regarding changes to the bulk household collection service and a further 750 participants completed surveys regarding recycling and food waste.

### Community Events

- Council has participated in the Clean Up Australia Day annual event since its inception over 15 years ago. Over the last three years, 978 registered volunteers have collected and removed 21 tonnes of litter and 634kg of recycling from the City's streets, parks and foreshores.
- Council holds a residential e-waste drop-off day in February each year. It is free for residents to drop off televisions, small electrical appliances and computers and other related products. Over the last five years, over 3050 residents have attended the event dropping off a total of 182 tonnes of e-waste for specialist recycling
- Council hosts the annual Household Chemical Cleanout day in October/November each year. Council hosts the event for residents of the Inner West, not only residents of the City of Canada Bay. It is free to drop off paints, oils, chemicals, gas cylinders and batteries for specialist recycling. Over the last five years, 240 tonnes of material has been dropped off by over 3887 Inner West residents.
- In 2013 and 2014, 37 participants attended tours to Reverse Garbage and The Bower Reuse Centre, Reverse E -Waste or Soft Landing Mattress Recycling facilities.

- Since 2013 Council has participated in the annual nation-wide Garage Sale Trail event, which encourages communities to host a garage sale or visit a garage sale on a pre-scheduled date. The initiative promotes buying, selling, swapping and reusing goods as an alternative to sending items to landfill. Since the program began, 1,576 residents have participated as either a buyer or a seller at 241 registered garage sales and second-hand market stalls.

Year	13/14	14/15	15/16	16/17
No. of registered garage sales & stalls	41	59	63	78

### Multicultural Community Education 2014-2017

- With an increasing population from non-English speaking backgrounds, Council has expanded its culturally and linguistically diverse community education:
- Council developed and launched English, Cantonese, Mandarin, Korean and Hindi videos on Council's YouTube channel. A total of 16 videos were created in five languages which have been viewed by another 320 households
- Council engaged face to face with over 500 Chinese, Korean and Hindi speaking residents with the aid of translators at the Chinese New Year and Rhodes Moon Festival community events
- Our WasteLess in the Bay commitment quiz has been translated into six languages and been completed by over 1,000 residents.

Resource Recovery Program		Years					Explanation
		12-13	13-14	14-15	15-16	16-17	
Waste	Tonnage	16,826	17,700	18,418	19,083	18,431	Domestic Waste Management
Recycling Co-Mingled	Tonnage	8,029	8,731	8,249	7,977	7,947	Domestic Waste Management
Garden organics	Tonnage	4,415	5,125	5,121	5,192	4,874	Domestic Waste Management
Mattress recycling	No. of mattresses	3,061	4,064	2,824	2,701	2,451	Domestic Waste Management
Whitegoods and metals	Tonnage	55	55	55	55	55	Domestic Waste Management
E-waste residential	Tonnage	36	80	14.37	30.18	21	Free event for residents to recycle e-waste items such as TV's & computers
	No. of residents	830		450	950	820	
E-waste commercial	Tonnage	2.8	3.5	14.9	12	N/A	Free collection service for businesses
	No. of businesses	49	27	40	31		
Chemical cleanout	Tonnage	32.6	76.13	25	35	71.15	Free event for residents to recycle items such as chemicals, oils paints gas cylinders batteries
	No. of residents	938		850	990	1109	

Council has also developed and adopted a Regional Waste Strategy in partnership with SSROC which included a section on litter. Council has also adopted a new Litter Strategy and Action Plan for litter prevention across the City, including a target to reduce litter by 50% in hotspot areas over the next five years. Council was also part of the SSROC working group which developed the Regional Litter Strategy. Please see litter section for more information.

# Transport

## Target: Report on community engagement programs to increase sustainable transport use in our 2023 community

In 2014, we reviewed the bike plan with the primary aim of rationalising the existing bike route network and prioritising short and medium term works to improve and extend the network to encourage passive transport. Seven main bike routes, 17 secondary routes and a four-year priority list were identified, with funding of \$200,000 per year which was introduced in 2014/15.

Through lobbying for improved public transport services and infrastructure, there have been a number of enhancements in transport in the area including:

- Increased and improved bus, rail and ferry services to the new residential and business centres in Rhodes
- The Homebush Bay Bridge, which opened in May 2016 and now provides valuable pedestrian, cyclist and bus connections across Homebush Bay from Rhodes to Wentworth Point
- Advocacy for the light rail connection to Westmead Hospital, via Parramatta and Sydney Olympic Park and the Metro West to include a metro station with the City of Canada Bay to improve public transport availability and capacity in the LGA
- An upgrades to Rhodes, North Strathfield and Concord West Railway Stations and a new freight line that freed up capacity for passenger trains
- An upgrade to Drummoyne ferry wharf and a commitment to the upgrade of Chiswick, Abbotsford and Cabarita wharves along with the building of a new wharf at Rhodes.

There have also been a number of public transport initiatives implemented through this period including an upgrade of 61 bus shelters and built 20 new bus shelters, Transport Access Guides for Five Dock and Rhodes, New bike paths around Rhodes and the continuation of community transport services to seniors and community groups.

Council has also continued to support car-share schemes in all major town centres and high density residential areas with a total of 24 car-share spaces located on Council roads and property. We installed a free electric car fast charger in George Street, North Strathfield, at a cost of \$120,000, upgraded the public boat ramps at John Whitton Bridge Reserve, Taplin Park and Bayview Park and installed water filling stations and dog bowls on shared paths.

Council has continued to assess planning proposals in accordance with the Local Planning Strategy which seeks to increase densities in locations that have good access to public transport and services and encourage public transport orientated development to reduce reliance on private motor vehicles.



There have been 14 solar powered speed monitoring signs installed in early 2017 which remind drivers of their speed and reward compliance with a smiley face or non-compliance with a frowned face raising community awareness.

Council has worked to actively link commercial, recreational and open space areas with walking and cycling paths and footpaths, with a commitment of over \$200,000 per year on recurrent footpath maintenance and renewals and upgraded major shared pathways. This includes the following:

- Concord Shared Pathway (\$800,000), a five year project completed in 2015 connecting the parklands through Concord
- Between Five Dock and the shopping strip at Concord through Greenlees and Edwards Parks
- Five Dock Bay Foreshore Pathway (\$300,000) and Lysaght Park Pathway (\$100,000)
- The Bay Run around the foreshores of Iron Cove, with a grant of over \$2 million from Roads and Maritime Services (RMS) in 2014/15. Council also committed funds from Section 94 Contributions; and a further \$1.7 million was committed by RMS to widen the Bay Run along Henley Marine Drive in 2016
- The 4.5 metre wide, 30 metre long, Iron Cove Creek Bridge, officially opened in December 2015, with a grant of \$1.2 million from RMS
- The construction, in 2014, of the bicycle path, from north of Rhodes Railway Station to Leeds Street to link with the John Whitton Bridge Cycle Path at a cost of \$2.8 million. This also included the upgrade of the pedestrian footpath, road resurfacing and installation of new traffic lights on the corner of Leeds Street and Blaxland Road
- The shared path on Byrne Avenue between Russell Park and Lysaght Park, which completed the cycle network around Russell Lea and Chiswick in June 2014
- Between Zoeller Street and the Exile Bay foreshore path, at Massey Park Golf Course.

- Council also ran a number of community engagement activities to encourage residents to use our cycle paths and choose riding as a passive transport option including:

- Two bike maintenance workshops which were run at Concord Sports Store and Concord West Cycle world
- The promotion of Cycling Australia's 'Let's Ride' program to our schools network, a national junior riding program designed for kids which teaches them to ride safely by developing their knowledge, skills and confidence
- 'She Rides' bicycle confidence courses which Council provided part funding to five residents to complete the course
- Promoted cycling to our major events by providing allocated bicycle parking and a chance at winning a bike related prize for those who committed
- Internally, Council 'Bay BUG' cycle group organised lunch meet ups and rode in the Sydney to Gong bike ride
- Council organised in 2016 as part of Bike Week, an 'On Ya bike event' at Rhodes Connection which unfortunately was cancelled due to weather however this will be rolled out in 2017.

In 2017 the City of Canada Bay supported two post-graduate students from Macquarie University in their research project on community views and habits related to sustainable transport and assessment of the demand for electric cars. In consultation with Council the post-graduate students also conducted a feasibility study for electric vehicle recharge stations in two locations in Rhodes and Drummoyne. The project is part of an ongoing collaboration between the City of Canada Bay and Macquarie University to provide students with practice in the real world of environmental management, planning and sustainable development and being able to work with actual clients. This preliminary study into electric cars has provided us with a stepping stone for future efforts by Council to keep our city connected.

# Community Engagement

## Target: Report on engagement with a cross-section of our community through the delivery of environmental education, awareness and engagement programs

We have held 77 Treading Lightly workshops over the past five years, which have promoted sustainable living to 1,624 attendees. These workshops included: worm farming and composting, balcony gardening, cycling, food tours, film nights, biodiversity, bee keeping, recycled art classes, farm gate trail tour, vertical and balcony gardening, backyard biodiversity, garage sale trail weekends, and possum, bird and native bee box making.

We have continued to give our community a voice via the Sustainable City Committee, meeting six times a year to discuss local sustainability issues. The SCC has been the driver of community initiatives discussed in litter.

Council has hosted a Sustainability Hub at local festivals including Ferragosto, Concord Carnival, Rhodes Moon Festival, Luna New Year and Yarralla festival. At these events, Council promoted local issues such as solar and energy efficiency, community gardening, sustainable living tips and litter reduction.

In 2012 the Sustainable Schools Network was established. Currently 17 schools participate in the network, which meets four times a year. The network is a platform and place for the sharing of knowledge about environmental and sustainability issues and programs across local school communities and also provides professional development opportunities through workshops and guest speakers. Through the network Council has run a variety of environment education initiatives for the students such as Take 3, KNSWB EnviroMentors, litter art programs and waste education.

The Small Environmental Grants program has been running since 2012 and has funded 39 school environmental projects with a total of \$165,000. These grants have been used to implement a variety of projects from native gardens, bush tucker gardens, vegetable gardens, rainwater tanks, recycling bins, bicycle parking and outdoor learning experiences.

In 2014 Council established the Sustainable Childcare Network. The network meets three times per year and provides a place for childcare staff members to share ideas and network, gain knowledge on a wide range of environmental sustainability topics and access to resources, professional development and in-house environmental workshops especially designed for early childhood development. Childcare and professional development workshops included: Creative Composting, Emergency Evacuation, Get Your Garden Started, Indigenous Culture, Nature Play and Splash Into Marine Life.

In 2015 Council partnered with Sydney Olympic Park to deliver a pilot project, Guardians of the Future – Urban Nature Camp, with local students recruited through the Sustainable Schools Network.



The project encouraged and equipped young people to be leaders in their schools and communities and empowered and inspired efforts to protect valuable natural resources. Funding was provided to Rosebank College and Victoria Avenue Public School for student leaders to implement environmental projects at their schools.

Council has also hosted a regional community information session called Beyond the Emergency Assembly Point for 20 people facilitated by the Red Cross. The aim was to inform the community on emergency preparedness and to build the resilience of individuals, organisations and communities so they have the confidence and capacity to make good decisions before, during and after emergencies, reducing negative impacts.

Over 150 students from three collaborative Councils along with CCBC attended 'Start the Switch' program. High school students were engaged on local sustainability issues, leadership training and action projects in waste, energy or water reduction in their schools and communities and connected with the Australian Youth Climate Coalition (AYCC). This involved over 1200 volunteer hours.

Launched in March 2012, Council's ResourceWise program engages with local small to medium businesses with the aim of improving their environmental performance in energy, water and waste. The project works with a wide range of businesses, including sporting clubs, health & beauty including chiropractors, massage, podiatry and hair dressers, food including butchers and restaurants, child care and furniture shops.

Council's Sustainable Business program has made some significant wins in:

#### **Water**

- 2012 34 audits completed, \$66,139 savings identified  
19,943 kL water conserved (equivalent to eight Olympic pools)
- 2013 10 audits completed, \$31,668 savings identified  
9,943 kL water conserved (equivalent to four Olympic pools)

#### **Energy**

- 2012 Two audits completed, \$6,071 savings identified  
25 tonnes CO<sup>2</sup> avoided (five cars taken off the road)
- 2013 Three audits completed, \$20,657 savings identified  
76 tonnes CO<sup>2</sup> avoided (18 cars taken off the road)

#### **Waste**

- 2012 Two audits completed, \$6,415 savings identified  
78,000 litres of waste diverted from landfill  
(2 x 20 foot shipping container)
- 2013 13 audits completed, \$24,194 savings identified  
2,129,304 litres of waste diverted from landfill  
(64 x 20 foot shipping containers)

The EPA's Love Food Hate Waste program funded the Council developed Waste Less \$ave More Program. The program's aim was to reduce food waste by working with 18 local food based businesses to help them gain a better understanding of their food waste and to reduce that waste. A short film was made available in English, Mandarin, Korean and Cantonese showcasing six participating businesses sharing their food waste avoidance tips and ideas.

The Environment Protection Agency funded two rounds of the business waste reduction program called BinTrim in 2014 to 2017. Over 320 local businesses were engaged through waste audits and provision of action plans to assist businesses to reduce waste and increase recycling. As a result of the program businesses diverted over 1200 tonnes of waste per annum from landfill.

'Dog Saves Bird' Project (protecting Bar-tailed Godwits) is a joint Bushcare, Bird Life Australia and Abbotsford Public School P&C initiative involving 7 signs which will be placed at various intervals between Halliday Park, Five Dock and Henry Lawson Park, Abbotsford. The signs are designed by children from the Abbotsford Public School and are aimed to appeal to the better nature of dog walkers who may not be aware of the impact that dogs off leads can have for the migratory birds, Bar-tailed Godwits.

The City of Canada Bay joined the Habitat Stepping Stones Program. This program encourages residents, community centres, schools and businesses in our area to create habitat stepping stones for local wildlife.

## Community Feedback on the 'State of the Environment' in Canada Bay

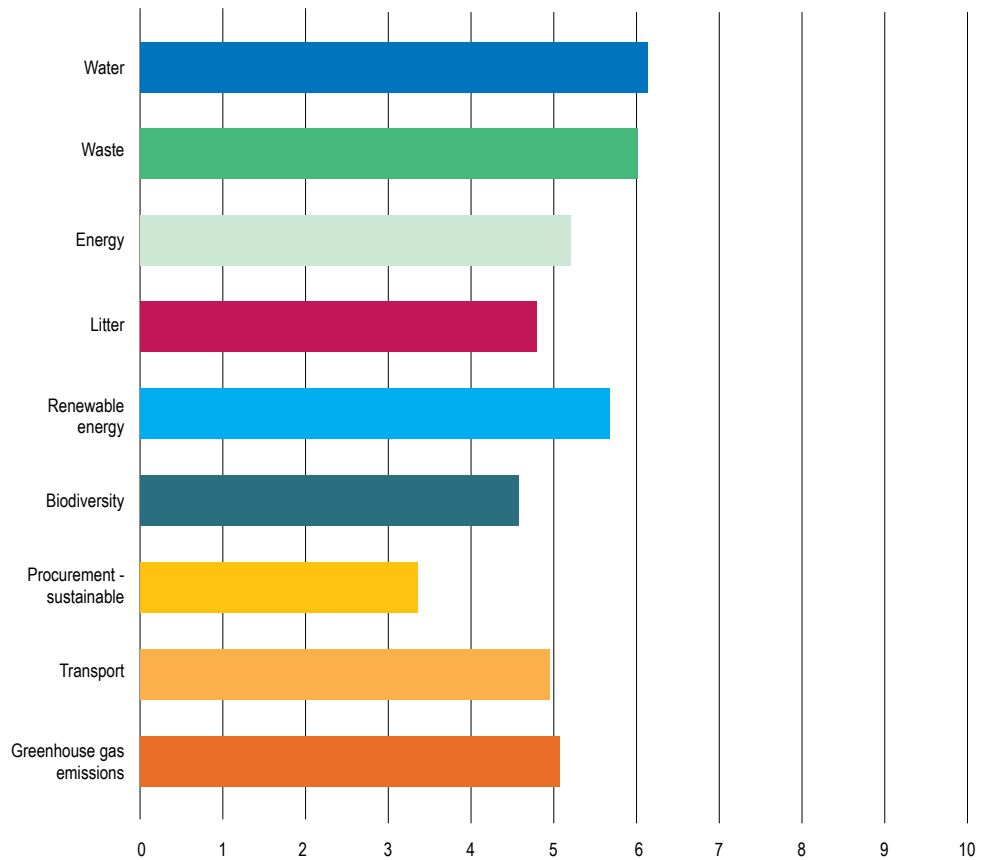
As part of the State of the Environment report Council asked residents what they value most about the area in which we live and work. Community members were invited to express their views on what they hold dear via a survey or, for the creatives, in a photography competition. These four natural assets reflect our resident's feedback.

- Clean waterways to provide habitat to mangroves and water birds and for residents to enjoy outdoor recreation and a sense of tranquillity
- Green spaces and corridors that give shelter to our native flora and fauna and that protect and enhance biodiversity
- Parks to be enjoyed by the community for play and to unwind from our increasingly busy lives
- And lastly Canada Bay's trademark foreshore. A beautiful clean foreshore that treasures our cultural heritage and social values and provides open space for everyone to enjoy.

Council also invited residents to "Have Your Say" on our Environmental Strategy. This strategy sets out Council's adopted targets, which is reportable in this document. It is clear from the results that residents are passionate about a range of environmental issues. There was a fairly even ranking of priority for these nine issues.



**Q1 Can you please rank the following environmental issues?  
(1 most important 9 least important.)**



Almost 60% of respondents to 'Have Your Say' were aware that Council is working towards environmental targets. This is confirmation that the promotion and publication in our online monthly e-zine newsletter, website and other education at Festivals and workshops is effective.

The figure below indicates Residents ranked 'Climate Change – implement projects which achieve climate change adaptation and mitigation' as the most important target for Council. Followed closely by, reducing fuel consumption, reducing greenhouse gases and improving resource efficiency.

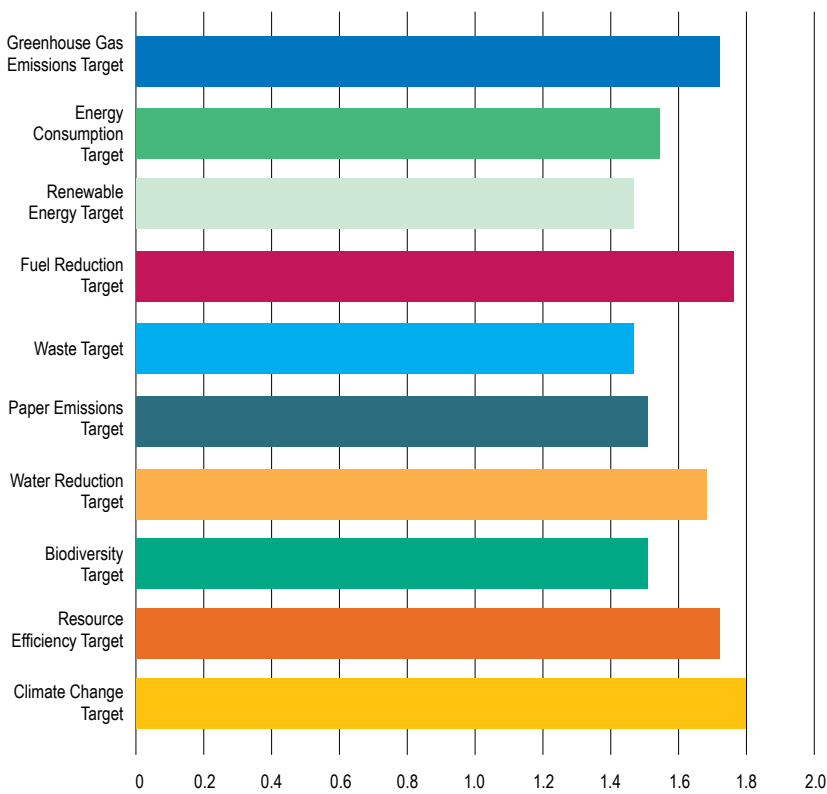






Jim Kasif

**Q2 On a scale of 1 to 5, how important do you think each of these environmental targets are?**



The focus in priority of these environmental targets is also reflected in Council's attention to these topics through our Greenhouse Action Plan and Environment Strategy. These plans include a range of actions to reduce Council's consumption of energy and fuel. For example during 2018 Council will install photovoltaics on a number of top consuming Council sites.

Almost 80% of respondents believe that Canada Bay is 'meeting' or achieving 'above expectations' for protecting our local environment.

# Showcase of Images from Council's Nature Photography Competition

Below is a selection of images from Council's Nature Photography competition which highlight some of our communities' environmental values.



*Chris Dallami*



*Ann Hodgson*



*Gerard Gil*



*Gerard Gil*



*Joanna Alessi*



*Amy Carter*

## Photography Credits

The following people contributed photos to the Sustaining the Environment Report as part of the Nature Photography Competition:

Amy Carter

Ann Hodgson

Bronwyn Bell

Caden Bachell

Chris Dallami

Gerard Gil

Janice Turchini

Jim Kasif

Joanna Alessi

Joel Mesas

Maria Poulos

Matt Myles

Max Towns

Michael McCarthy

Nina Gibbs

Noemie Vonthron

Rebecca Cofrancesco

Robert Lo Ricco

Thomas Buckwalter



# *City of Canada Bay*

*Sustainable environment*

*Progressive organisation*

*Cultural & diverse*

*Buoyant economy*

*Innovative & awarded*

*Active & engaged*

*Growing population*

*Enviably lifestyle*

*Perfect location*



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