

# ENVIRONMENTAL ACTION PLAN 3 PROGRESS REPORT

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2017







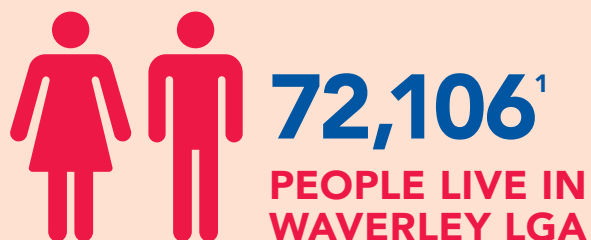
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## OVERVIEW WAVERLEY AT A GLANCE

The Waverley Council Local Government Area (LGA) extends from Vaucluse to Bronte and up to Bondi Junction, and includes Sydney's famous beaches of Bondi, Bronte and Tamarama.



## POPULATION



**35 YEARS**  
MEDIAN  
AGE

**13%**  
are families  
with children

<sup>1</sup>Australian Bureau of Statistics 2016 estimated resident population.

## VISITORS

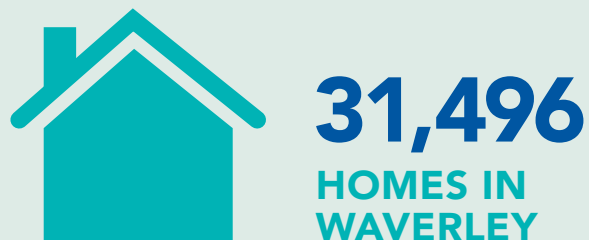
**2.2 MILLION**  
VISITORS TO BONDI  
EACH YEAR<sup>4</sup>

To go to restaurants, cafes,  
sightseeing, shopping, visiting  
family and friends and going  
to the beach

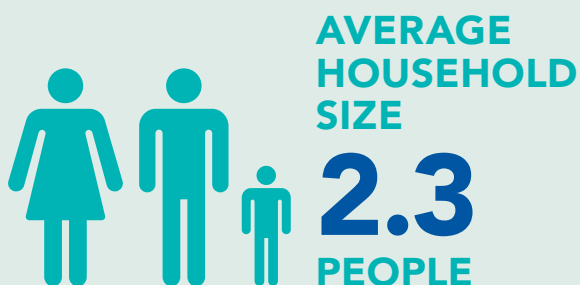


<sup>4</sup>Destination NSW 2012 Visitor Profile Surveys – Bondi (Excludes residents of Sydney. Visitor numbers averaged over a three year period).

## HOUSING



63% live in apartments  
19% live in townhouses and terraces  
17% live in houses



**47%**  
OF HOMES  
ARE RENTED

**49%**  
OF HOMES  
ARE OWNED

## ECONOMY



**6,689** jobs employing  
local residents

### MOST JOBS ARE IN<sup>3</sup>

Retail **18%**  
Health **13%**  
Professional Services **11%**  
Hospitality **11%**  
Education **10%**



**592**  
Waverley Council full-time  
and part-time employees  
and 68 casual employees<sup>5</sup>

<sup>2</sup>NIEIR 2016 cited by idcommunity.

<sup>3</sup>Australian Bureau of Statistics 2011 Census Statistics.

<sup>5</sup>As at 30 June 2016.

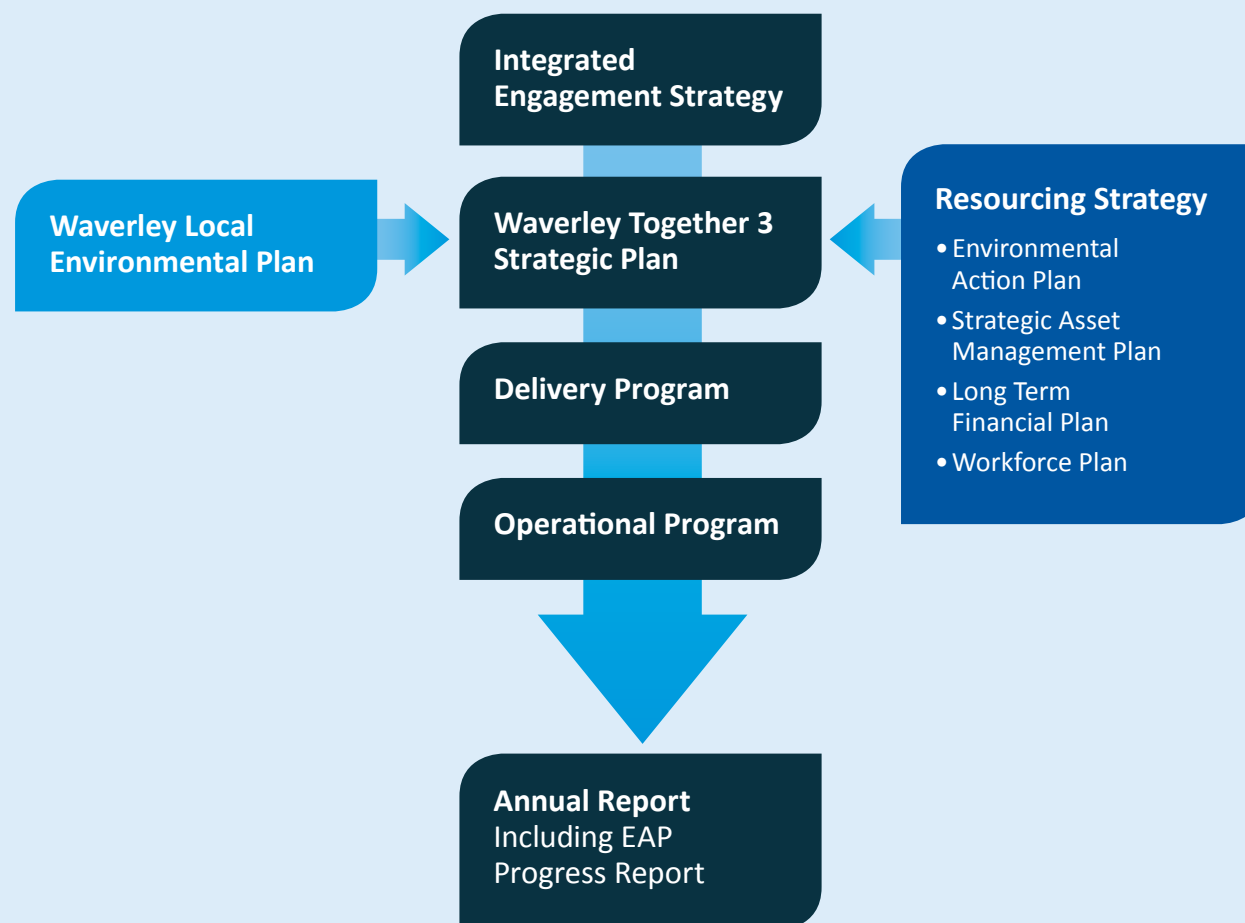
## Our strategy for environmental sustainability

We've long been committed to positive environmental change, and we were one of the first councils in Australia to develop a 10-year environmental strategy, our Environmental Action Plan (EAP), with committed funds, strong vision and ambitious targets for our organisation and the local community on key environmental issues. In 2011, we won the Green Globe award for ten years of sustainability excellence.

Waverley Council's Environmental Action Plan 3 (EAP3) was completed as part of an integrated process to develop Council's community strategic plan, Waverley Together 3 (WT3). This progress report outlines how Waverley Council is tracking against both our operations and community environmental targets. It focuses on the six-year reporting period from July 2011 to June 2017. It provides a summary of activities that have a major impact on our achievement of our environmental targets, along with planned future initiatives. This report meets Council's State of Environment reporting requirement.

## Our integrated planning and reporting framework

EAP3 is part of Waverley Council's Integrated Reporting Framework. It is one of a suite of plans that inform Waverley Council's Resourcing Strategy, Delivery Program and Operational Program.

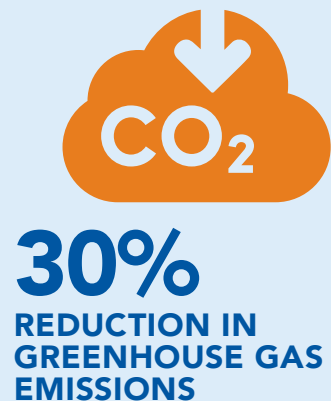


## OUR ENVIRONMENTAL TARGETS



EAP3 sets our 2020 targets for the whole Waverley community. They reference the management of the combined local environmental impacts of Council operations with residential, commercial, educational and open space impacts. In addition, it outlines targets specifically for our Council operations.

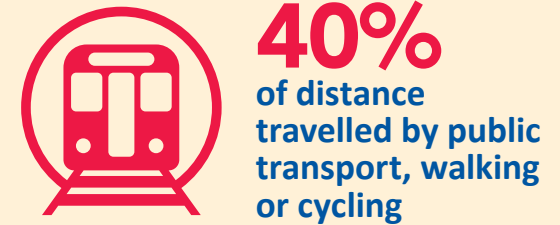
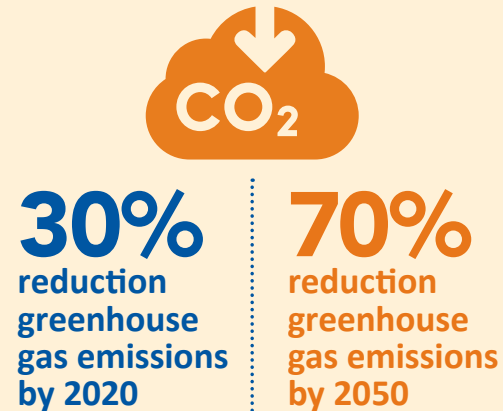
### Delivering environmental targets in our operations



**50%**  
REDUCTION IN  
MAINS WATER USE



### Enabling our community to achieve environmental targets



Baselines: greenhouse gas emissions 2003/04; water 2005/06; travel 2007; coastal bush 2009/10

## Sustainable environment

Our targets align to the environmental strategic directions in our Community Strategic Plan (Waverley Together 3).

## Directions

- 
- E1** Waverley's community contributes to the reduction of greenhouse gas emissions.
  - E2** Waverley and its community is well prepared for the impacts of climate change.
  - E3** Waverley's community, including its visitors, reduces the amount of waste it generates and increases the amount it reuses and recycles.
  - E4** Water is used carefully and sparingly in Waverley's buildings, gardens, businesses and Council operations.
  - E5** The waterways and beaches are clean and free of pollutants.
  - E6** A network of parks and coastal reserves, street trees and other plantings provides a habitat for a thriving local ecology.
  - E7** Our coastal waters provide a habitat for a thriving marine ecology.
  - E8** Waverley is an environmentally educated and committed community.



# ENABLING LOW WASTE AND CLEAN PUBLIC SPACES

The tonnes of waste we generated in our homes and workplaces fell between mid-2013 and mid-2015.<sup>6</sup>

Recycling has helped us to divert residential and public place waste from landfill. This has remained at a steady rate since 2009/10. Commercial waste diversion rates have increased slightly over the same period.

Significant improvements of up to 30% are predicted, as a result of the recent introduction of the Alternative Waste Treatment processing and the planned three bin kerbside collection service.

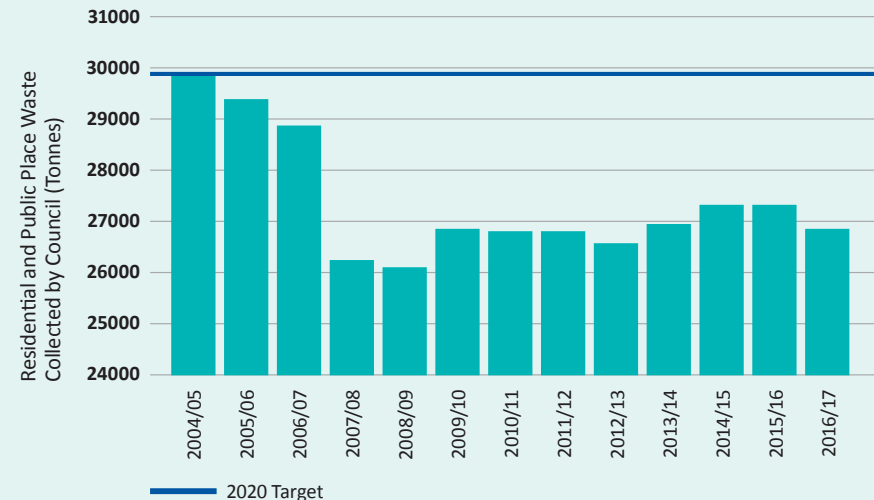
We are working on capturing better data on illegal dumping behaviours and the effectiveness of management responses including our partnership with the NSW Environmental Protection Authority on the Report Illegal Dumping online website and investigation squads.

## TARGETS

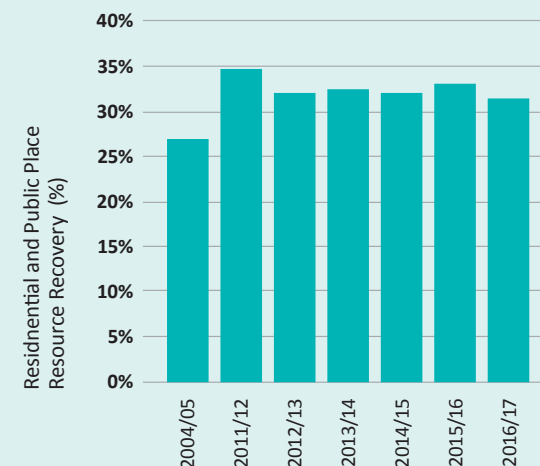


- ▶ No net increase of 2004/05 waste generation levels by 2020
- ▶ 75% resource recovery of residential and commercial waste by 2020

## Residential and public place total waste



## Residential and public place resource recovery



<sup>6</sup> Waverley Council 2017 'Council Waste Collection Service Data' based on general waste, recycling and organic waste weighbridge tonnages.

## Key activities to reduce waste and improve recycling

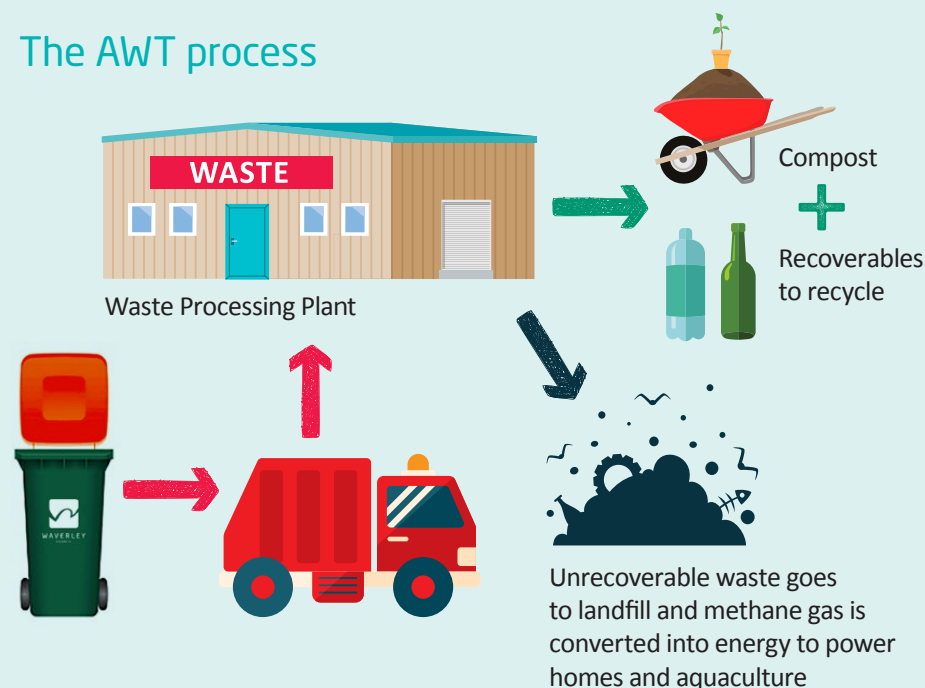
- ▶ Our waste and recycling collection crews are out and about every day transporting waste from our homes, workplaces and public spaces for processing.
- ▶ Award-winning Multi-Unit Dwellings Sort It Out Project used a strategic data-driven approach to maximise residential recycling rates in apartments, by engaging with and developing resources for a range of residents, building and real estate managers.
- ▶ Subsidised compost bins and worm farms continue to be popular with 2,118 new residents joining our Eastern Suburbs environment program Compost Revolution between July 2012 and June 2017. This reduces the organic waste going to landfill, avoiding greenhouse gas emissions and reducing waste disposal costs.
- ▶ Funded by a grant from the Environment Protection Authority, the Business Waste Advisory Service (Bin Trim) project was launched to help businesses reduce the volume of material going to landfill. An estimated 72 businesses in Waverley have received free waste assessments with more than half taking actions to increase recycling, or improve their day-to-day waste handling management with the support of the Eastern Suburbs environment program.
- ▶ Our Sustainable Waste Strategy, endorsed in 2015, continues to provide clear direction to address the six key focus areas:
  - 1 **Reduce waste generation**
  - 2 **Maximise resource recovery**
  - 3 **Reduce greenhouse emissions**
  - 4 **Clean and attractive Waverley**
  - 5 **Solutions to problem wastes**
  - 6 **Green infrastructure integration**
- ▶ We developed and are using our standard building specifications to improve waste avoidance and recycling in the design and construction of our own buildings.
- ▶ In 2016 we completed an audit and developed a program to improve recycling in Council buildings.

## Advanced Waste Treatment (AWT)

Our general waste, in red lidded bins, now gets processed through an Advanced Waste Treatment (AWT) facility and used to rehabilitate mine sites whilst the significantly reduced leftover (residual) waste goes to landfill.

This AWT process ensures food waste (which makes up over 50 per cent of the average general waste bin) does not end up in landfill, avoiding greenhouse gas emissions.

### The AWT process





## Key activities to keep our public spaces clean

- Our public place cleaning crews are busy cleaning our beaches, parks and streets every day of the year.
- Our waste and recycling collection crews are out and about responding to bookings to transport bulky waste from our homes for processing. Mattresses and most metals are recycled.
- Our waste enforcement activities help to reduce illegally dumped rubbish.
- We have researched littering behaviours and types of litter in our local area. This has informed the development of the Bondi Unwrapped Project which addressed littering through: solar bin and ashtray installations; 10 educational blitzes; ranger enforcement; targeted media of visitors and engagement of businesses that sell take-away items and those that purchase take-away items.
- Overall, there was a 46 per cent reduction in litter items at sites, and a 38 per cent total reduction in volume. With an over 50 per cent reduction in cigarette butts and takeaway packaging items.



- 21 dual solar compacting waste and recycling bins have been installed in Bondi Junction and Bondi Beach. Each red and yellow bin has a solar powered internal compactor so that the bins take up to 5 times more waste than a normal bin. The bins also have sensors that notify Council when they are ready for collection.
- Litter hot spots are now equipped with special cigarette butt bins called Enviropoles. Once collected, the cigarette butts in the Enviropoles are recycled into park benches and other plastic infrastructure by Terracycle.

- Twice yearly events for e-waste drop off were held, with the location rotated between Waverley and Woollahra Council facilities. The November 2016 event collected almost 20,000kg of electronic waste for recycling.
- Annual Garage Sale Trail event supported, with the October 2016 event recording 580 stalls for reuse of unwanted items.



## Key opportunities we are progressing

- Apartments waste improvement program.
- Extension of Bondi Unwrapped litter prevention program.
- Smart data systems to improve services.
- The community initiated Blue Bondi Green collaboration aims to make Bondi plastic bag free. The project has brought together sustainability experts, retailers, artists, graphic designers and local residents with the aim of reducing plastic waste generation rates in Waverley. Resources to assist businesses to make this change have been produced and distributed and a website and several social media channels have been established. To-date, over 80 businesses have become plastic bag free as part of this program.

# DELIVERING LOW EMISSIONS OPERATIONS

The 14 per cent of electricity that powers our homes, workplaces and schools now comes from renewable energy sources<sup>7</sup> due to Australia's Renewable Energy Target (RET).

We have delivered a 28 per cent reduction in our operations greenhouse gas emissions since July 2003<sup>8</sup>.

Savings have been achieved through our upgrades to energy efficient lighting, heating, cooling and building control systems. As well as energy efficient street lighting and improving the fuel efficiency of our waste and recycling trucks.

Further savings are expected as a result of energy saving projects being implemented in 2017 and 2018.

## TARGETS



- ▶ 30% reduction greenhouse gas emissions by 2020 based on 2003/04 levels

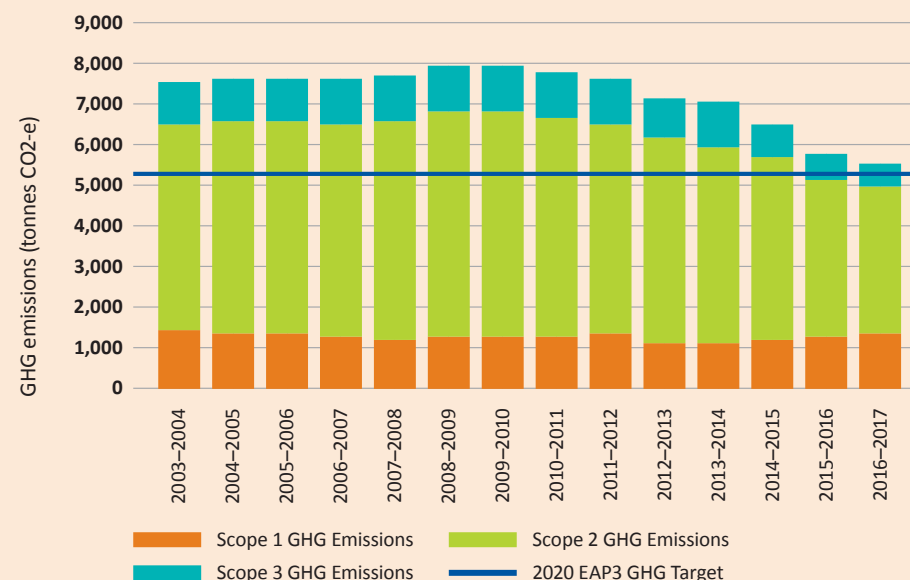


<sup>7</sup> NSW Government 2016 Renewable Energy Action Plan Annual Report.

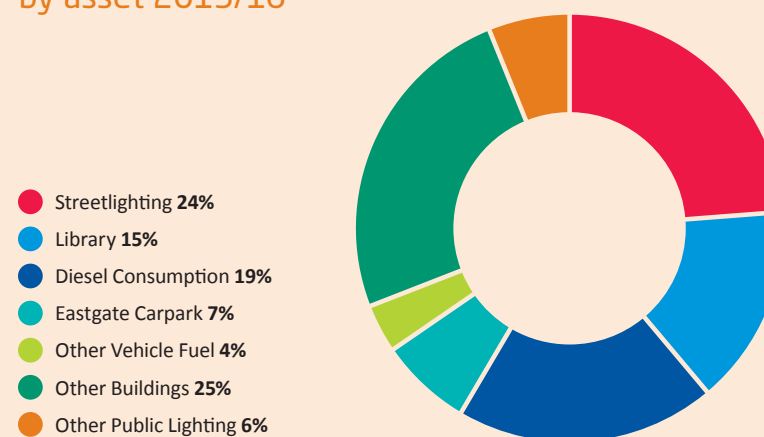
<sup>8</sup> Waverley Council 2017 Greenhouse Gas Emissions Data based on Ausgrid, AGL and Caltex invoices.

<sup>9</sup> Planet Footprint 2017 Waverley Council greenhouse gas emissions based on electricity, gas and fuel invoices. Measured as tonnes of carbon dioxide equivalent (tCO2e).

## Greenhouse gas emissions from Council operations



## Council operations greenhouse gas emissions by asset 2015/16





## Key activities energy efficient and renewable powered operations

- 12 Council buildings are now powered by solar, generating 353,000kwh of clean energy, the equivalent of 322 tonnes of carbon dioxide emissions per year. These systems will continue to produce clean renewable electricity for our community facilities and reduce Council's electricity bills for many years to come.
- 100 per cent Green Power from renewable energy sources is purchased for one quarter of electricity use for our top five energy using assets – This amounted to the equivalent of 760 tonnes of greenhouse gas emissions each year.
- Energy efficiency upgrades of our facilities including lighting, hot water boilers, appliance timers and air conditioning efficiencies were all implemented, saving \$173,000 each year in electricity costs.
- Carpark lighting for Eastgate and Hollywood Avenue sites has been upgraded to LED and further work is underway on timers and sensors to save energy and money.
- The next phase of energy efficiency upgrades is underway with heating, ventilation and air conditioning start and stop time adjustments, economy settings, LED lighting, sensors and timers as well as building management control system upgrades, anticipated to save a further \$71,000 each year in electricity costs across eight facilities.



*Installing energy efficient street lighting*

- Energy efficient street lighting has the potential to reduce Council greenhouse gas emissions by 14 per cent, significantly reducing our street lighting electricity consumption and maintenance costs as well as improve safety.

- We are working in partnership with Ausgrid to upgrade 760 of our street lights with more efficient Light Emitting Diode (LED) lighting over 2017. This will save \$52,000 in electricity costs each year and help the environment with a potential saving of 200 tonnes of greenhouse gas emissions each year.
- Waverley Park sportsfields are lit up by energy efficient LED lights and remotely controlled to ensure they are only on when needed.
- LED park lights are already being rolled out at Bondi Park, they are also being incorporated into streetscape upgrades at Bondi Junction and Bondi Beach.
- Our waste and recycling trucks comply with strict European emissions standards and we have purchased two electric vehicles which are used for operations. We also have several low emissions hybrid vehicles in our fleet.
- Our electric bicycle fleet is used by staff for getting around our local area.

## Key opportunities we are progressing

- Expansion of solar with battery energy storage.
- Power Purchase Agreement to purchase renewable energy generated from infrastructure outside our local area.
- Building management control systems to efficiently operate heating, ventilation and air conditioning and lighting.



*Solar system on the Margaret Whitlam Recreation Centre*

# ENABLING A LOW EMISSIONS COMMUNITY

We have enabled our community to achieve an 4 per cent reduction in community greenhouse gas emissions since July 2003<sup>10</sup>.

From July 2010 to June 2016, our community has reduced residential building emissions by 9 per cent and non-residential building emissions by 12 per cent.

While our residents have been saving energy and avoiding emissions, our growing number of homes, commercial and visitor activities all impact on the amount of emissions generated in our buildings, from transport and waste going to landfill.

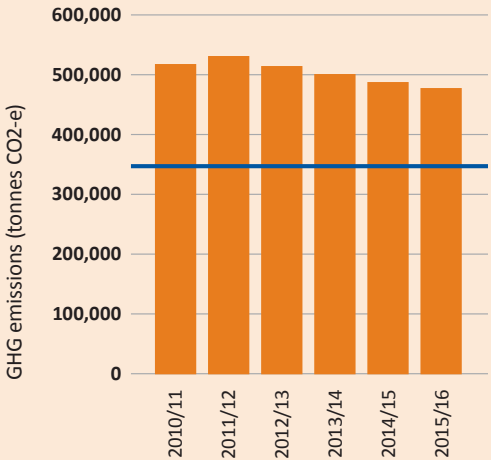
Further emissions savings are expected as a result of school, apartment and commercial building participation in our energy efficiency and renewable energy programs.

TARGETS

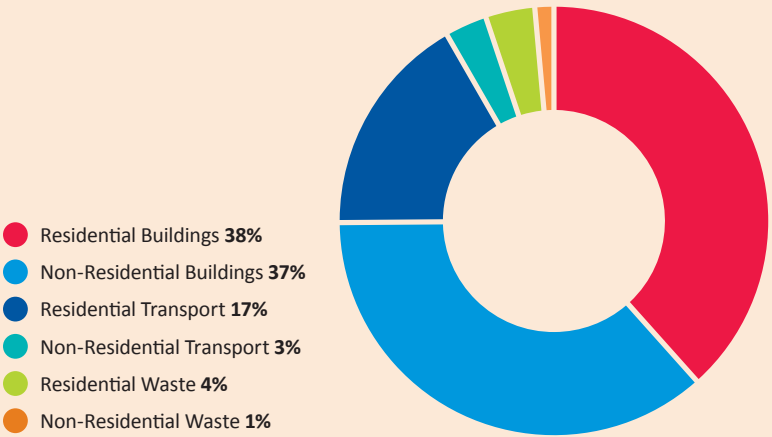
30% reduction greenhouse gas emissions by 2020 based on 2003/04 levels



Community greenhouse gas emissions over time with target line



Community greenhouse gas emissions by asset 2015/16



<sup>10</sup> CCAP City 2017 Waverley LGA Greenhouse Gas Emissions based on Ausgrid report.



## Key activities to enable an energy efficiency and renewable powered community

### All Council operations greenhouse gas reduction activities contribute towards reduction of community greenhouse gas emissions.

- ▶ The Bondi Junction Green Infrastructure Master Plan 2017 (Master Plan) is our plan to create a sustainable future for Bondi Junction and demonstrate environmental excellence, developed in partnership with key building owners as well as government, industry and independent experts. The Master Plan identifies potential for a 33.5 per cent reduction in Bondi Junction greenhouse gas emissions in commercial, retail and residential apartment buildings. Partnerships are currently being developed with building owners and tenants to support them to save energy and costs through lighting upgrades, solar power systems and heating, ventilation and air conditioning upgrades.
- ▶ Launched the Our Energy Future initiative, with the Southern Sydney Regional Organisation of Council's, which provides information, good quality advice and trustworthy products and services.

- ▶ 697 local households, schools and businesses generate 1,963 kilowatt peak (kWp) of renewable energy and export 1,454 megawatt hours (MWh) to the electricity grid.



Apartment building improvement program

- ▶ Solar My School, delivered as part of the Eastern Suburbs environment program with nearby councils, commenced. The program helps schools and preschools to choose the right solar system, set them up with a reliable installer, and provide materials to teach students about the benefits of solar. Ten schools and preschools in Waverley have already started their journey to becoming solar powered and saving on their electricity bills.

- ▶ Developed modelling and advocated for improved NSW Government Building and Sustainability Index (BASIX) requirements.
- ▶ Delivered evidence based research into options to incentivise delivery of more sustainable buildings in Waverley.
- ▶ Programs to reduce organic waste going to landfill such as Advanced Waste Treatment, Compost Revolution and Bin Trim also avoided the generation of greenhouse gas emissions. For further information refer to p.10.
- ▶ As part of the Master Plan and the Eastern Suburbs regional environment program, we are progressing to implementation of two electric vehicle charging stations on Spring St Bondi Junction in 2018.
- ▶ Our People, Movement and Places Strategy aims to make our streets easier for people to move around and get to where they want to go on foot, by riding bicycles, using public transport as well as motor vehicles where necessary. For further information refer to p.16.

## Key opportunities we are progressing

- ▶ Electric vehicle charging stations Spring St, Bondi Junction.
- ▶ People, Movement and Places Strategy implementation.
- ▶ Apartments and commercial buildings programs.

# PEOPLE, MOVEMENT AND PLACES

Our residents are highly active and mobile, making frequent trips, that are a short distance for social and recreational activities. Half of all our trips and 35 per cent of distance travelled is by walking, cycling or public transport. This is a 10 per cent improvement since 2006/07.

Focusing on private car use, the distance travelled has reduced from 11km each day to 10.8 km each day. Taking us closer to the 9.35km by 2020 target.

To progress these targets, Council commissioned Waverley's People, Movement and Places study. The top priorities selected by the community were:

- 1 **Cycling superhighways**
- 2 **Overhauling the Bondi Junction transport interchange**
- 3 **Priority for public transport along the Bondi Road corridor**

## TARGETS



- ▶ 40% of total daily distance travelled by residents is by public transport, walking or cycling.
- ▶ Average daily kilometres travelled by Waverley residents by private car declines by 15% on 2006 levels by 2020.

## Sustainable transport target progress



Mode share of public transport, walking, cycling increases to 40%

Benchmark data (2006/07)<sup>11</sup>

Current Status (2016)

Target (for 2020)

**25%**  
by distance

**35%**  
by distance

✓ Some progress

**40%**  
by distance



Distance travelled by private car declines by 15%

Benchmark data (2006/07)<sup>12</sup>

Current Status (2016)

Target (for 2020)

**11km**  
per day

**10.8km**  
per day

✓ Some progress

**9.35km**  
per day

<sup>12</sup>Transport for NSW 2007/08 'NSW Household Travel Survey'.

## Key activities to enable people to move around easily

- ▶ Our People, Movement and Places: where we go and how we get there, is a transport vision that aims to make our streets easier for people to move around and get to where they want to go. Our plan prioritises people on foot, followed by people riding bicycles, using public transport, service vehicles, shared mobility and private motor vehicles. The draft plan provides recommendations to Council to improve the full range of transport options for the community. It proposes 12 Signature Projects and more than 100 short, medium and long term actions that Council can undertake between now and 2030, in partnership with the community and state government.

Proposed actions include major improvements such as cycling superhighways; overhauling the Bondi Junction Interchange; and priority bus routes. It also includes smaller actions, such as safe routes for walking and cycling to schools, and improved pedestrian crossings. Combined, these actions will make our streets safer and more attractive for everyone.



*Clovelly Public School bicycle racks*

- ▶ Our Waverley Bike Plan 2013 outlines upgrades to six priority routes across Waverley, along with recommendations for signage. The Plan also supports the on-going roll out of bike parking at all local destinations, including Bondi Junction Central Business District, the Bondi Junction Transport Interchange, local villages, beaches and parks.

- ▶ Over 100 people have attended Waverley Council's bike maintenance workshops each year of this reporting period. These sessions are highly successful in providing education on basic cycling and maintenance skills to build the community's cycling capacity.
- ▶ As part of our Small Grants Program, Environmental Grants have been awarded to schools to encourage active travel amongst students. 20 scooter racks and 10 bike racks were installed through the grants program at Clovelly Public School. Similar racks were also installed at Waverley, Bondi, and Bronte Public Schools.



*Bus on Old South Head Road*

## Key opportunities we are progressing

- ▶ Cycling superhighways.
- ▶ Overhauling the Bondi Junction transport interchange.
- ▶ Priority for public transport along the Bondi Road corridor.



# DELIVERING WATER SENSITIVE OPERATIONS

Council's potable water consumption progressively decreased from 2012 to 2014 despite increased demand for water for irrigation. In this period Council's mains water use reduced by over 22 per cent<sup>13</sup>.

In 2015, the Bondi Stormwater scheme was shut down over the busy summer months due to works in Bondi Park; this caused a spike in potable water use. In 2016, recycled water supply was reconnected.

Looking forward, it is expected that Council's mains water consumption will reduce further as new water savings projects are completed.

## TARGETS

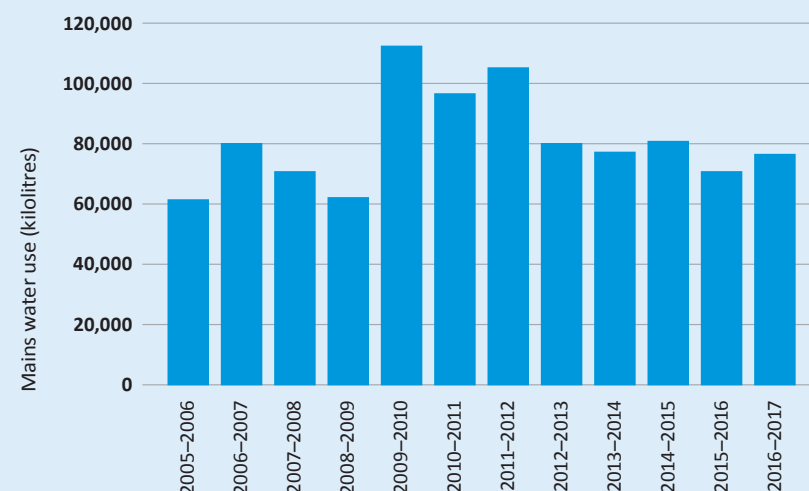


- 50% reduction of 2005/06 levels of mains water consumption by 2020
- Minimise sediments and suspended solids in stormwater discharged into waterways by 2020
- Minimise bacterial pollution in stormwater discharged into waterways by 2020
- Minimise nutrients in stormwater discharged into remnant vegetation by 2020

Beachwatch monitors water quality at swimming beaches. Bronte, Bondi and Tamarama were rated by Beachwatch as 'good' throughout the reporting period. The 'good' grade means that microbial water quality is generally good and water is considered suitable for swimming for most of the time, except for following heavy rain.

Sediment and nutrient removal improves water quality. Nitrogen is a well recognised indicator to measure these improvements. The value of nitrogen, is based the cost to remove nitrogen from stormwater. This value can vary significantly, for this report we have used the Melbourne Water calculated value of \$6,645 per kilogram of total nitrogen removed each year.

## Council operations mains water use over time



<sup>13</sup>Waverley Council 2017 Water Consumption Data based on Sydney Water invoices.

## Key activities for delivering water sensitive operations

- Operating since 2008, the Bronte stormwater reuse system continues to run well. This system collects, treats and recycles polluted stormwater that would otherwise flow into the gully and beach, delivering recycled water each year for irrigation, toilet flushing, pool cleaning and bush regeneration. Beach water quality is also improved.
- The Waverley and Barracluff parks groundwater harvesting systems, operating since 2007, continue to save mains water through the supply of groundwater for irrigation purposes.
- The Bondi Stormwater Reuse scheme captures and removes pollutants from 48 million litres of stormwater each year and supplies recycled water. Operating since 2012, the scheme has the potential to supply significantly more treated stormwater (and remove more stormwater pollutants) as the supply network continues to be expanded over the coming years.
- Our six gross pollutant traps and two end of pipe nets capture 48 tonnes of litter, sediment and other stormwater pollutants from our streets and prevent them from entering our waterways.



*Construction of Tamarama recycled water system*

- This is complemented by the construction in 2015 of a new state-of-the-art stormwater recycling system at Tamarama Gully to collect, clean and recycle polluted stormwater. This system provides an additional 14 million litres of recycled water each year for park irrigation and for amenities at Tamarama Beach.
- Together stormwater reuse schemes at Bronte, Bondi and Tamarama generate 113 million litres of treated recycled water and pollutant removal.
- Work has begun to upgrade Waverley Park and Margaret Whitlam Recreation Centre water recycling system to improve irrigation capacity, save more potable water and reduce stormwater pollution.

- Rainwater tanks at Waverley-Woollahra School of the Arts, Mill Hill Childcare Centre and Marks Park supply rainwater for toilet flushing and/or garden irrigation, reducing reliance on potable water supply.
- We have constructed three raingardens in Bondi Junction to filter pollutants from stormwater and keep Centennial Park ponds cleaner since 2014. Through modelling, it is estimated that the gardens remove 10 kilograms of nitrogen each year, with a dollar value equivalent of \$66,450 each year<sup>14</sup>. Further raingardens and tree pits with biofilters are being designed into future streetscape upgrades.



*Hollywood Avenue, Bondi Junction raingarden*

## Key opportunities we are progressing

- Recoup savings from smart water leak detection and alert system.
- Upgrade Waverley Park and Margaret Whitlam Recreation Centre recycled water system.
- Implement recommendations of the stormwater quality improvement opportunities assessment.
- Through stormwater harvesting at Bondi, Tamarama and Bronte, we remove 212 kilograms of Nitrogen each year. This translates into a stormwater pollution reduction valued at \$1.4 million each year<sup>15</sup>.

<sup>14</sup> McGregor Coxall 2017 Draft Existing Pollutant Removal Report.

<sup>15</sup> Based on Melbourne Water offset rate of \$6,645/kg TN/yr.

# ENABLING A WATER SENSITIVE COMMUNITY

Our community mains water use is impacted by rainfall, the growing number of homes, commercial activity and visitors.

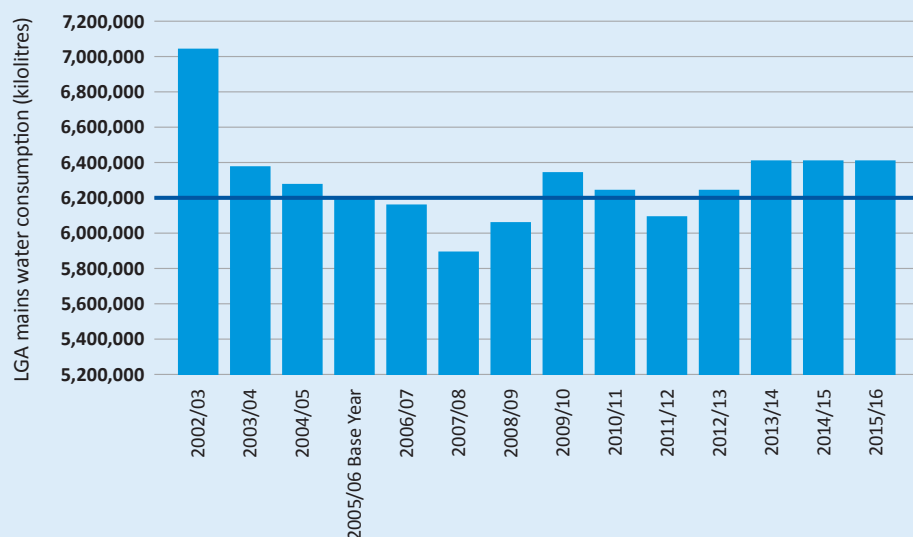
It is anticipated that this will decrease as school, apartments and commercial buildings participate in our improvement programs.

## TARGET



- Zero increase of 2005/06 levels of mains water consumption by 2020

Community mains water use over time with target line



## Key activities to enable a water sensitive community

- Our Bondi Junction Green Infrastructure Master Plan identifies potential for a 17.9 per cent reduction in Bondi Junction mains water use in commercial, retail and residential apartment buildings. Partnerships are currently being developed with building owners and tenants to support them to save water and money through leak detection and cooling tower optimisation.
- The Eastern Suburbs regional environment program reports that 77,000 litres of water were saved each day by businesses participating in their program to fix leaks and retrofit water saving fixtures and fittings.
- Littering and dumping prevention programs were delivered in Bondi Junction and on Bondi Road to improve the cleanliness of our raingardens and waterways.
- Training was delivered on sediment control and treatment of dewatering from construction sites to build staff capacity to identify and address potential pollution activities.

## Key opportunities we are progressing

- Master Plan apartments building program.
- Master Plan commercial and retail buildings program.
- Building the capacity of construction site managers to prevent pollution.
- Since 2012, a total of 44 Summerama activities have been delivered by Council and community groups with over 1,500 people participating in the diverse activities to increase awareness about what we can do to protect our beaches and marine biodiversity.



# HEALTHY COASTAL BUSH

In the most recent survey<sup>16</sup>, 126 indigenous plant species were recorded, five more than in 2009/10 and representative of more than 6 per cent of all native species in the Sydney basin.

Since mid-2009, remnant coastal bush increased by 169m<sup>2</sup> as a result of the great work of contractors and Bushcare volunteer groups. 776m<sup>2</sup> was lost due to senescence, mowing, dense planting and possible clearing. 1,205m<sup>2</sup> was recorded that was missed in earlier surveys.

TARGETS

➤

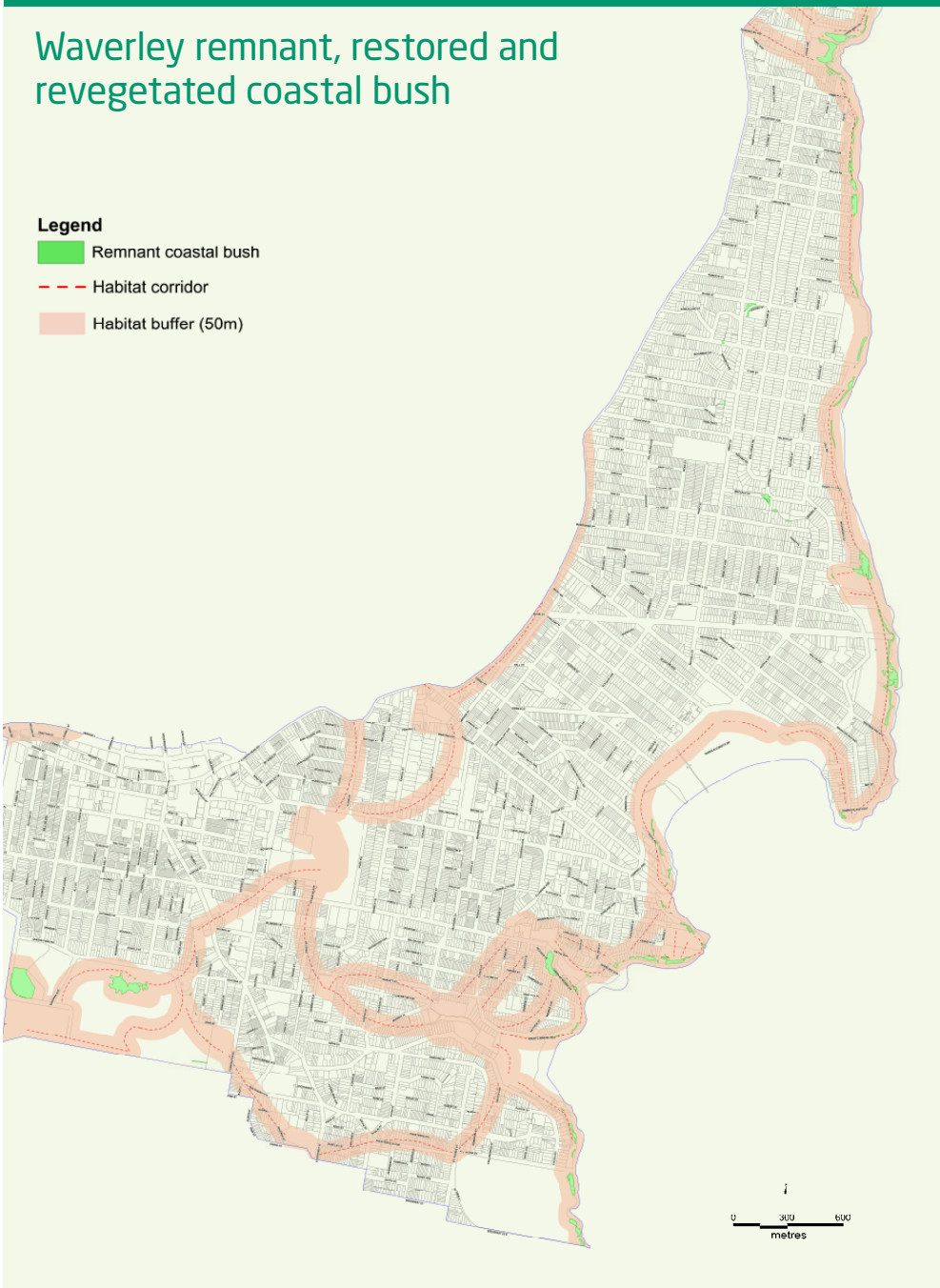
Ensure no loss of remnant vegetation based on 2009/10 levels

➤

40% of remnant vegetation is of good condition by 2020

Remnant coastal bush condition zone	Total area 2010 (m2)	Total area 2015 (m2)	Percentage of total area of remnant coastal bush (%)	Change in area since 2009/2010 (m2)
Good	2,726	2,339	4	- 387
Fair	12,046	11,773	20	- 273
Poor	5,428	7,077	12	1,649
Very poor	39,147	38,723	65	- 424

<sup>16</sup> Sydney Bush Regeneration Company 2015 'Waverley Flora Survey Report 2015'.

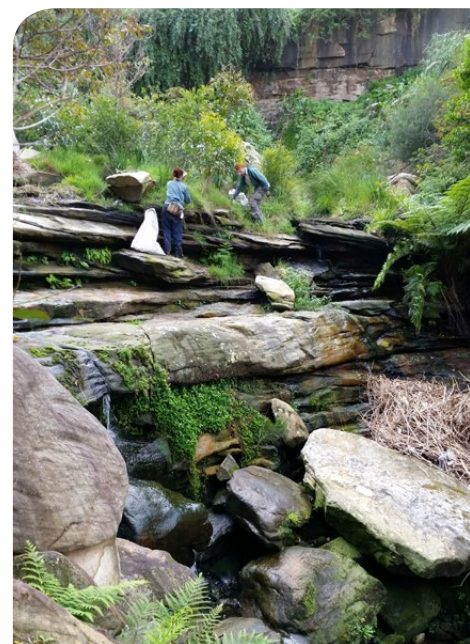


## Key activities to deliver a healthy coastal bush in our operations

- ▶ There are 5.9912 hectares of remnant vegetation in the Waverley Council area, occurring on 40 different properties, including in Council parks, reserves, unformed roads and on private properties. Independent surveys are conducted on remnant vegetation area and condition every five years.
- ▶ Our native planting buffers are being created to prevent weed incursion into the remnants, protect them from mowing and provide habitat connectivity for local wildlife including small reptiles and birds. In 2015/16 this involved planting 35,000 tubestock at 32 remnant locations across the LGA including at Queens Park which will improve the resilience of the Eastern Suburbs Banksia Scrub. Plants were very diverse, with 78 locally indigenous species being used, including grasses and groundcovers, vines, small and large shrubs.
- ▶ One species observed, the Sunshine Wattle, *Acacia terminalis* subsp. *terminalis*, is listed as endangered under both the Threatened Species Conservation Act 1995 [NSW] and the Environment Protection and Biodiversity Conservation Act 1999 [Cth]. This species is present in one of Council's main bush regeneration sites and contractors have been specifically allocated to work on sustaining its population.
- ▶ The Eastern Suburbs Banksia Scrub, is listed as endangered under both the Threatened Species Conservation Act 1995 [NSW] and the Environment Protection and Biodiversity Conservation Act 1999 [Cth]. A similar approach has been taken to ensure its population is being maintained.
- ▶ Extensive restoration work is underway at Bronte and Tamarama Parks where native bushland is being restored. This is being done in a phased manner, with weeds – which can provide high quality habitat – being removed slowly where possible, so that native plants can establish themselves.
- ▶ Habitat corridors exist across Waverley with the main corridor running along the coastline with corridors travelling inland at Bronte, Tamarama and Diamond Bay.

## Key activities to enable our community to protect and improve our healthy coastal bush

- ▶ Local residents are also being encouraged to contribute to this effort, through the recent launch of the Habitat Stepping Stones program. This provides locally specific planting information and guides residents in choosing habitat elements that will help to improve the quantity and quality of habitat cover on private land.



*Tamarama Gully bush restoration*

## Key opportunities we are progressing

- ▶ Bush regeneration of remnant coastal bush.
- ▶ Restoration of Bronte and Tamarama Parks.
- ▶ Revegetation of buffers, habitat corridors and areas on steep slopes.
- ▶ There are six active bushcare groups in Waverley at Diamond Bay, Eastern Reserve, Hugh Bamford Reserve, Tamarama Gully, Bronte and Bronte Waterfall. These volunteers assist in improving the condition of our remnant and restoration areas and increasing areas of good quality habitat.

# AN INTEGRATED APPROACH TO ENVIRONMENTAL EXCELLENCE

These integrated projects contribute to the delivery of multiple environmental targets:

- Our Bondi Junction Green Infrastructure Master Plan is a Council-initiated plan to improve the energy, water and waste efficiency of existing and new buildings and public space assets in Bondi Junction developed in collaboration with our Building Futures Partnership, comprised of political representatives, key property owners and industry groups. A Technical Working Group, comprising government, industry and independent experts also contributed. We are focusing on: improving our assets, encouraging environmentally



Grant funded Bronte Ramp Up Recycling project

sustainable new buildings as well as supporting apartment, commercial and retail building owners and tenants.

- Bondi Pavilion is a much-loved community and cultural centre and iconic heritage building. Repairs and renewal of the building will include environmental sustainable design measures including improved waste facilities, new solar panels and continued supply of recycled water to help achieve our aim for a five-star Design and As-Built Green Star rating with the Green Building Council of Australia.
- Guidelines were developed for Council buildings and are now being implemented to improve the minimum performance of key building services and equipment to work efficiently while enabling users to be comfortable, productive and healthy.
- 24 community grants of up to \$3,000 each have been awarded since July 2012 to fund environmental initiatives including: a rainwater tank for Galilee Public School, a water bottle refill station for Moriah College, and a design for an energy efficient lighting upgrade at Bronte Bistro.
- Waverley Council launched an

integrated community engagement and behaviour change program for sustainability called Second Nature. With an initial 'I'm in' pledge campaign, locals from across the LGA have been invited to join a collective effort to take simple actions in their everyday life to look after the local area across the five key environmental target themes of waste, water, climate, biodiversity and transport.

So far over 1,650 people have joined the Second Nature campaign via outreach events and our website, from school age to retiree, inspiring community ownership of our environmental vision and informing the development of future innovative and targeted education, engagement and behaviour change programs.

- 67 Eco-wise workshops were delivered for the period Jan 2012–Dec 2015 with 833 people attending the workshops. Key topics were: cycling (29 workshops alone); recycling tours; renewable energy; and bush tucker.



Second Nature 'I'm in' campaign

- Our Building a Sustainable Organisation sessions commenced in 2017, building the capacity of the 11 participants to use innovative thinking and skills to work collaboratively to create a more sustainable organisation.
- Embedding sustainability research was undertaken. A gap analysis is underway to embed sustainability within our operations.





WAVERLEY  
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