



# Summary of achievements

# SUMMARY OF ACHIEVEMENTS

Over the past 10 years Randwick City Council has focused on looking after our environment through the highly successful Sustaining Our City program, funded by the environmental levy, now near the end of its second term. We have aimed to minimise our waste, water and energy use, greenhouse gas emissions, and pollution and have encouraged the community to do the same. We have maintained and improved our biodiversity in our marine, coastal and bushland environments.

Council's levy program has seen a cultural transformation in our approach to sustainability, within and across the community with many large and small programs contributing to measurable and positive environmental outcomes and increased economic sustainability.

## **How have we spent our environmental levy funds over the past five years?**

Between 2009 and 2014 the environmental levy provided \$16.315 million which consisted of \$5.825 million for capital works and \$10.490 million for operational projects. The program has also leveraged almost \$1 million annually in external funding

## **How do we measure our progress and report it to the community?**

A comprehensive range of communication and social media tools informs and engages the community in our sustainability initiatives. Specific outcomes are reported regularly to Council, published in our quarterly newsletter distributed to 55,000 households as well as in our State of the City and State of the Environment reports. In 2012, Council established an overall measurements report accounting for the delivery of all objectives across our City Plan. Council benchmarks community participation in sustainability in our three yearly 'Who Cares About the Environment residents' survey (2011, 2008, 2005).

Our recently approved comprehensive Local Environmental Plan (LEP) and Development Control Plan (DCP) incorporate ecological development

principles and practices to plan for a balanced population and reduce their environmental impacts. Our Safety and Cultural Plans and draft Biodiversity Strategy further strengthen social and environmental responses. Council has sustainability requirements in our purchasing with sustainable 'checklists' governing events.

Our Asset Management Strategy (2012) includes criteria to achieve sustainable environmental performance, environmental protection and enhancement and a 'whole of life' methodology to better manage urban infrastructure. Links to sustainability programs are reflected in the budget for transparency and accountability.

## Achievements

The achievements of the Sustaining Our City program are reported under the six directions in the Randwick City Plan:

### **10(a): Council's programs and partnerships foster sustainable behavioural changes and outcomes**

Our Sustaining our City program fosters community participation and engagement on sustainability with residents, schools, local businesses and staff. We aim to respond to community's priorities, providing opportunities for them to take action, engage in planning and provide feedback to ensure Council learns from this participation. Programs aim to develop respect for our unique natural resources and motivate participants to conserve resources for future generations.

#### **Achievements:**

- Almost 20,000 residents participating in sustainability activities in 2011-2012 including innovative sustainable living workshops;
- Residents initiated formation of 'Permabees' volunteers for our permaculture garden;
- Council's 'Dine by Candlelight' Earth Hour campaign attracted more than 80 percent of our local restaurants;
- Our annual Eco Living Fair attracts 6,000 visitors and other community events support national programs;
- Financial support for local schools to develop food and native gardens.
- The Barrett House sustainability demonstration project showcases affordable sustainability retrofits for residents
- 1200 local residents participating in the Council supported community car share partnership reducing local car ownership by an estimated 900 vehicles
- 935 local school students participated in our school excursions program.
- Established an Expert Reference Group with University of NSW to advise Council and the community on sustainability issues.
- Raised community awareness of our marine and coastal environment by delivering school holiday coastal and marine discovery activities three times a year at popular beaches and locations.
- Developed the 3-Council Ecological Footprint project, a collaboration with Waverley and Woollahra
- Introduced "Go Solar", the "Compost Revolution" and Sustainable Business Water Audits, saving money and reducing waste for residents and businesses.
- Established a dedicated sustainability education 'hub' with permaculture interpretive garden at the Randwick Community Centre.
- Delivered a huge range of sustainable living, gardening and composting workshops, free for residents, to encourage sustainable lifestyles.
- Successfully advocated with local partners for the extension of light rail to Randwick.

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## **10(b): Policies and programs are developed and implemented in response to environmental risks and their potential impacts**

Council takes its environmental management responsibilities very seriously. A significant part of Council's strategic approach focuses on factoring risk management into all of the decisions made across the full range of Council activities. The Global Financial Crisis showed what can happen when there is a failure to have sound strategies in place to manage the risks and minimise the financial impacts of those decisions.

Making decisions without considering the environmental risks can also result in serious consequences over the long term. Examples of past activities that are still having an impact environmentally today include the discharge of industrial emissions into the atmosphere or water, or waste disposal practices. Poor practices and a lack of consideration around the risks associated with these discharges or dumping of waste material are still being dealt with decades later in the form of contaminated soil or land.

Managing environmental risk requires the adoption of the 'precautionary' principle. Prior to making a decision that may damage the environment into the future you need to undertake adequate research, analyse all relevant and available information and data and apply it to the decision making process.

### **Achievements:**

- Investigation and implementation plan for 14 former landfill sites in Randwick
- Specific recovery plans for Eastern Suburbs Banksia Scrub, Acacia terminalis ssp terminalis (Sunshine Wattle), Grey Headed Flying Fox and Green and Golden Bell Frog
- Completed a number of Floodplain studies
- Contributed to the endorsement of q Flood policy to implement these policies and inform future inclusion of flood controls in the LEP;
- Prepared a Climate Change Risk Mitigation and Adaptation Road Map prepared;
- Remediated Pioneers Park, Coral Sea Park, Latham Park, Frenchman's Bay Reserve and continued the Heffron Park remediation.
- Incorporated priority actions of the Climate Change Adaptation and Mitigation Plan into relevant Council policies.

## **10(c): Bushland, open spaces and biodiversity are protected and enhanced for future generations**

Randwick City recognises its responsibility to protect its rich biodiversity. Besides the Eastern Suburbs Banksia Scrub there are more than 500 native plants and 300 animal species recorded - 25% of all species indigenous to the Sydney Basin. Our draft Biodiversity Strategy and bushland management plans commit Council to flora and fauna monitoring, pest controls and facilitating community understanding and involvement.

Randwick's LEP strengthens environmental protection in 5 separate zonings, adding 31.8 hectares in new protection and ensures previous land zoning more closely matches land use conservation.

### **Achievements:**

- Council supports fifteen Bushcare and other volunteer groups whose contributions are detailed in Table A.

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Table A: Hours of bush regeneration, weed control and revegetation work in Randwick.

Year	2010 - 2011	2011 - 2012
Council land	14,603	13,452
NSW	14,603	18,426
Australia	29,206	31,878

- Our Community Nursery propagates and supplies indigenous plants (over 70,000 annually) to support native and indigenous habitat across the Eastern suburbs.
- With 29 kilometres of coastline, conservation extends to the protection of marine and coastal biodiversity with innovative education programs run 3 times a year for 1000 children and their families.
- Contributed to bush regeneration and revegetation programs to develop and extend habitat areas and green corridors across the City.
- Integrated the Biodiversity Strategy outcomes in the review of the comprehensive LEP/DCP.
- Maintained a database of native animals and plants.
- Controlled noxious and environmental weeds and pest animals.

## **10(d): Waste is managed sustainably to ensure the highest level of resource recovery**

There is an increasing appreciation that while our standard of living is high for a well-developed nation, we are drawing heavily on our natural resources almost certainly at a rate faster than the resources can be adequately replenished over the long term. This includes the level of waste generated by our community and the amount of waste collected by Council and sent to landfill each year.

Audits carried out of Randwick's household waste indicate that on average approximately 42 percent of the contents of rubbish bins is organic food waste and 16 percent is potentially recyclable. In addition, audits have found over 8 percent of material placed in recycling bins is contaminated, much of it by plastic bags used to deposit recyclable material into the yellow-lidded bin. On this basis there remains good reason and opportunities for further diversion of waste from landfill, particularly via programs aimed at reducing the contamination in recycling bins and removing food waste organics from household rubbish bins.

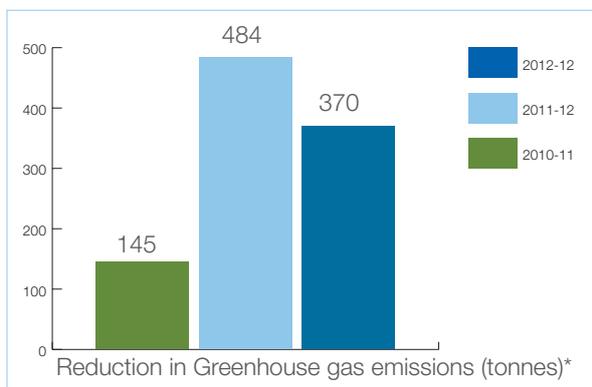
### **Achievements:**

- Over the past 12 months, Council has increased waste diverted from landfill from 39% to approximately 52% through recycling and recovery of waste, and education programs.
- A new partnership in 2012 with the Green Money Recycling Rewards program, an Australian first, enables Council to incentivise householders with 'green' money discounts redeemable from local businesses for increased residential recycling. After the first 12 months of our Green Money Recycling Rewards partnership, 4,614 households had participated, 42 local businesses and enterprises had provided discounts, and

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3,200 rewards were redeemed by residents. Each contributed to a recycling increase of an average 10.4 per cent and households saved an average of \$242 per year. Green Money Recycling Rewards has also attracted strong interest from fifteen other Australian councils

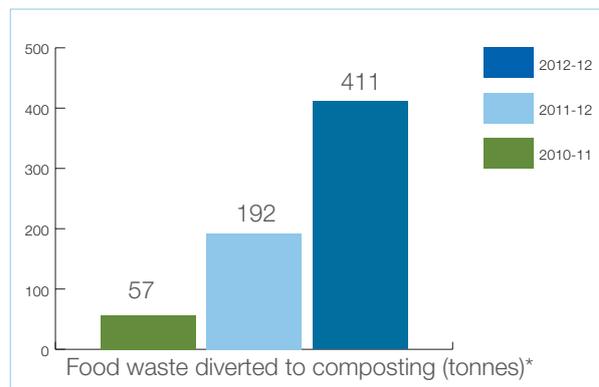
- Community participation in public place recycling, education around 'hot spot' areas and new initiatives around illegal dumping of waste has



\* calculated using NGA factors

increased measurably over the past 18 months.

- Our 3-Council collaboration with Waverley and Woollahra Councils aims to reduce natural resource consumption action the Eastern suburbs. Program results show 2,168 Randwick households are composting 400 tonnes of food waste and reducing CO2 by 370 tonnes annually (see graph).



- 2,168 Randwick City households have participated in the 3-Council Compost Revolution Program and have composted 400 tonnes of food waste and reduced CO2 by 370 tonnes annually. The Compost Revolution has now been taken up by 30 other Victorian and NSW Councils.

- Established the first on-going electronic waste drop off and collection centre in NSW under the Commonwealth's e-waste initiative, with 90 tonnes of discarded televisions and computer equipment collected since November 2012.

## **10(e): A total water cycle management approach including water conservation, re-use and water quality improvements is adopted**

Water is a precious resource and a council consumes high volumes operating community amenities including swimming pools, cleaning and washing hard surfaces, depot operations and irrigating parks and playing fields. Randwick City Council over the past decade has implemented a total water cycle management approach including water conservation, water re-use and water quality improvement that has delivered:

- Environmental benefits such as:
  - Conservation of water;
  - Removing pollution flows from entering the Pacific Ocean and Botany Bay;
- Social benefits \_ enabling all year access to its range of parks, playing fields and reserves for residents, visitors and many recreational and sporting groups;
- Financial benefits - cost savings through reduced use of potable water, onsite solid waste management and application of cutting edge technology.

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As part of this approach, over the past two years Randwick Council has also applied innovative cutting edge technology that has improved its performance and delivered increased water and cost savings, further limiting pollution flows to its beaches and more importantly providing more effective management of our water.

The significant water saving projects using this new technology completed or significantly completed in 2011 and 2012 include:

Storm water harvesting project	Completion date	Annual water savings (million litres)	Annual cost savings	Capital cost
Grant Reserve	Oct 2011	4	\$8,560	\$150,000
Coogee oval & plaza	May 2011	18	\$38,520	\$140,000
Bardon park	In progress	5	\$10,700	\$70,000
Prince Henry upgrade	Oct 2012	40	\$85,600	\$20,000
Cromwell Park	June 2011	3	\$6,420	\$150,000
Yarra Bay	July 2012	27	\$57,780	\$770,000
Burrows Park	Oct 2011	6	\$12,840	\$200,000
Dunningham Reserve*	In progress	27	\$57,780	\$300,000

\*recycled water extension

## Achievements:

- Since 2011 a further 150 million litres of water has been saved and now the Council is saving up to 500 million litres annually representing a 43% increase since the beginning of 2011. This delivers significant cost savings of up to \$1 million annually to Randwick City Council.
- 54,000 litres of potable water saved per day from Council operations (31% saving over 5 years against Council's 20 % water reduction target.);
- Encouraging household water conservation where the average Randwick household is now saving 11,000 litres of water each year (Sydney Water data);
- Helped 140 local businesses save \$120,000 and 60 million litres of water annually in our business water audit program;
- Saved 500 million litres of water annually, which is equivalent to almost 200 Olympic sized swimming pools of water. This represents a 43 per cent increase since 2011 and delivered annual cost savings of approximately \$1 million;
- Encouraged household water conservation with the average Randwick City household now saving 11,000 litres of water each year;
- Oversaw the Malabar Beach Stormwater Diversion Project to improve water quality at Malabar Beach;
- Substantially increased rainwater, wastewater, borewater and stormwater harvesting, storage and treatment systems across Council operations;
- Improved our wastewater treatment and re-use with biological odour control.

A 2011 external audit of Council's water consuming sites confirmed the success of the water saving projects.

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## **10(f): Energy conservation and efficiency programs are implemented**

The Australian people and their cities have a high reliance on energy derived from coal fired power stations with only a small proportion of power being generated from renewable sources such as solar photovoltaic (PV) panels, wind or wave power. This has resulted in relatively high emissions of greenhouse gas emissions responsible for human induced Climate Change.

Such a reliance on coal fired power stations has resulted in Australians having the highest per person level of greenhouse gas emissions of any country in the world while the ageing nature of our power infrastructure has also resulted in increasing costs to consumers from the replacement, refurbishment and construction of new and existing power stations, transmission lines and sub-stations.

An unwanted by-product from our reliance on fossil fuel for both our electricity and transport is air pollution resulting from the burning of these fuels. Air pollution has a significant impact on human health, ranging from coughing, wheezing and shortness of breath to serious conditions such as asthma attacks and even premature death.

Table B: Overall results of energy audits conducted of Council's top 10 energy consuming sites:

For Randwick's top 10 energy consuming sites	2005 - 06	2009 - 10	% change
Energy consumed	18,712 GJ	17,665 GJ	5.9% decrease
Energy costs	\$384,637	\$545,275	29.5% decrease
Energy related green house gas emissions	3,871 tonnes	3,683 tonnes	5.1% decrease

The energy consumption results for Council's operations are below the 20 percent reduction target adopted for Council's energy consumption and greenhouse gas emissions. Over half of Council's energy consumption is generated by street lighting with a further third used in Council operations at its various sites and building locations. The remainder is mostly from our vehicle fleet. These consumption figures reflect corresponding levels of greenhouse gas emissions (see Figure J within this report). Council's total greenhouse gas emissions from all sources are between 12,000 and 13,000 tonnes per annum.

## Renewable Energy

Over recent years Council has installed just over 73 kilowatts of renewable energy, mostly in the form of solar photovoltaic (PV) panels including a 2.4 kilowatt small scale wind turbine, one of the first by a local Council in the Sydney Metropolitan Area. Support has also been provided for solar PV installations on community buildings and a further 60 kilowatts of solar panels is expected to be completed over the next 12 months, almost doubling Council's existing renewable energy capacity. As part of Council's Energy and Greenhouse Management Plan, further investigations of potential renewable energy opportunities will be conducted to assist in the establishment of an appropriate renewable energy target for Randwick and identify sites for additional renewable energy projects.

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## Achievements:

- Installation of 140 kW worth of renewable energy systems, mostly in the form of solar photovoltaic (PV) panel including a 2.4 kilowatt small scale wind turbine;
- Incentives provided to residents to encourage the take up of energy saving measures which result in installation of more than \$2.4 million of new energy saving measures including solar PV panels, hotwater systems, insulation and energy efficient downlights across households in Randwick;
- Reduced Council's energy use by 442,050 kWh annually.
- Reduced greenhouse gas emissions by approximately 1,100 tonnes.
- Led the development of the NSW Local Government Emissions Trading Scheme.
- 1,200 local residents participated in the Council supported community car share partnership, reducing local car ownership by an estimated 900 vehicles.
- 9.4% reduction over 3 years in residents' energy consumption
- Following 3 separate residential incentive programs, Council energy saving programs has contributed to solar energy generated by residents increasing by 9,000% since 2009
- Oversaw the installation of energy saving measures across the City, including major solar panel projects at Council's Depot, Administration Building, Leisure Centre and Library.
- Doubled our renewable solar energy to 140 kilowatts including a small scale wind turbine resulting in annual greenhouse savings in excess of 40 tonnes per annum (enough to power approximately 200 homes over the 5 year period of the environmental levy).

In 2011, Council re-calculated its Ecological Footprint confirming similar results across Australian jurisdictions of a significant level of over-consumption. The following table shows the Population and Ecological Footprint for Randwick, NSW and Australia (\*WWF Living Planet index)

Location	2011 Population	Ecological Footprint (hectares per person)
Randwick	128,989	5.3
NSW	6,917,858	5.92
Australia	21,507,719	7.58*