

City of Sydney  
Environmental Management Plan  
**FINAL**



*city of villages*

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## Vision

We envisage a City that supports healthy ecosystems where the air, land and waterways are clean, there is green space, drought-proof water supplies, highly efficient buildings and transport systems, and minimal waste and emissions.

## Be Involved

This plan establishes the environmental vision, goals and targets required to create a sustainable city.

Through consultation with our community and environmental groups, we have developed a suite of actions to achieve these aspirations. These are designed to reduce the environmental impacts from Council and the community through leadership, advocacy and partnerships.

This plan is a working document. It will be reviewed regularly and actions assigned to business units within Council to implement and coordinate. Key components of the plan will also inform environmental outcomes of the Sydney 2030 vision<sup>1</sup>.

The City has received valuable input from the community and individuals. Opportunities for further community engagement will be made available through:

- Forums and events.
- Displays at centres.
- Written submissions.
- Meetings with groups and individuals.
- City News.
- Website < [www.cityofsydney.nsw.gov.au/environment](http://www.cityofsydney.nsw.gov.au/environment) >.

Comments or enquiries related to this plan can be sent to [EMP@cityofsydney.nsw.gov.au](mailto:EMP@cityofsydney.nsw.gov.au) or:

Manager Sustainability  
City of Sydney  
GPO Box 1591  
Sydney NSW 2001

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<sup>1</sup> Sydney 2030 is the City's new strategic plan being developed during 2007 and 2008.

## Executive Summary

The City of Sydney Environmental Management Plan establishes the City's environmental vision, goals, targets and actions for the next ten years and beyond. It addresses the themes of energy and emissions, water, waste, plants and animals.

Prioritised actions have been developed to improve the health and function of our environment, and reduce environmental impacts of Council and our community.

Actions will be delivered through demonstration, advocacy and partnerships to position the City as a leading environmental city.

The key stakeholders are residents, community groups, businesses, government agencies and environmental organisations.

Environmental objectives of the City's Strategic Plan 2006-2009 and Corporate Plan 2007-2010 are included within this plan. It is also designed to set a framework for environmental outcomes of the Sydney 2030 vision<sup>1</sup>.

The plan has been developed with assistance from the Institute for Sustainable Futures.

Workshops and consultation were held with environmental organisations, community groups, Councillors and staff. Targets and actions comply with relevant legislation, and leading programs, reports and policies.

The City will coordinate overall implementation of the plan, and outcomes will be reported in the annual State of Environment Report.

## Summary of Targets

The following is a summary of targets contained within this plan. Section 2 contains information about how these targets and base years have been selected.

Targets include:

- 100 per cent offset of greenhouse gas emissions from Council operations and services by 2008. This includes a minimum 15 per cent reduction of Council emissions by 2012 based on 2006 levels through energy savings measures.
- 70 per cent reduction and offset of greenhouse gas emissions from our local government area by 2050 based on 1990 levels. This includes:
  - Accurate annual emissions data by 2008.
  - Slowed rate of emissions increase by 2010.
  - Stabilisation by 2012.
  - 30 per cent reduction by 2020.
- 25 per cent of electricity used in our local government area to come from renewable energy by 2020.
- 20 per cent of total trips in the local government area between 2 and 20 kilometres to be made by bicycle by 2016.
- Zero increase in mains water used by Council and across the local government area by 2015 based on 2006 levels. This includes 25 per cent of water used by Council and across the local government area to be recycled by 2015.
- 66 per cent resource recovery of residential waste from our local government area by 2014.
- 66 per cent resource recovery of waste generated by Council and its contractors by 2014.
- 63 per cent resource recovery of commercial and industrial waste from our local government area by 2014.
- 76 per cent resource recovery of construction and demolition waste from our local government area and Council projects by 2014.
- 24 square metres of public open space per resident.

## Section 1. About this Plan

### **Background**

There is widely accepted recognition of the need to develop and implement the programs, policy and practices required to avoid and respond to major environmental impacts. A clear vision and course of action is essential.

As manager of Australia's largest central business district, the City has a responsibility to adopt a lead role in rapidly reducing environmental impacts.

## Scope

The Environmental Management Plan establishes the environmental vision, goals, targets and actions for the next ten years and beyond. It addresses the themes of energy and emissions, water, waste, plants and animals.

Prioritised actions have been developed to improve the health and function of our environment, and reduce environmental impacts associated with Council and our community.

As an organisation, the City has many direct and indirect opportunities for improving environmental performance, which are summarised below.

### City of Sydney Ability to Influence

Direct	Indirect
<ul style="list-style-type: none"><li>• Policy</li><li>• Capital Works</li><li>• Asset Management</li><li>• Strategic Planning</li><li>• Development Control</li><li>• Regulation</li><li>• Purchasing</li><li>• Investment</li></ul>	<ul style="list-style-type: none"><li>• Demonstration</li><li>• Partnership</li><li>• Advocacy</li><li>• Lobbying</li><li>• Education</li><li>• Grants</li><li>• Sponsorship</li><li>• Recognition</li></ul>

This plan focuses action on areas in which the City has a direct influence through management responsibility or decision-making powers.

In addition, the plan contains actions in which the City has a less direct ability to influence. These actions involve the City working in partnership with our community, or advocating for change within other sectors.

Key stakeholders are residents, community groups, businesses, government agencies and environmental organisations.

## Strategic Context

This plan is designed to be consistent with principles of world leading programs and conventions, and relevant targets endorsed by environment groups and the NSW Government.

Specific to the City of Sydney, the plan will:

- Fulfil Cities for Climate Protection Program milestones.
- Incorporate actions from the City's Local Action Plans.
- Set a framework for environmental outcomes of the Sydney 2030 vision<sup>1</sup>.

Environmental objectives of the City's Strategic Plan 2006-2009 and Corporate Plan 2007-2010 are addressed through targets and actions of the Environmental Management Plan. These pertain specifically to:

- Environmental leadership.
- Stewardship of land.
- Maintenance of ecosystems.
- Standards and targets.
- Efficient Council operations.
- Organisational accountability.
- Education for change.
- Planning and policy.
- Partnership and advocacy.

This plan also integrates with other City of Sydney policy and strategy documents which are required to deliver environmental outcomes. A summary of relevant programs, reports, policy and legislation is listed below.

### International

- United Nations Environmental Accords - Green Cities Declaration.
- United Nations Division for Sustainable Development - Agenda 21.
- Montreal Ozone Protocol 1987.
- Kyoto Protocol to the United Nations Framework Convention on Climate Change.
- Johannesburg World Summit on Sustainable Development 2002.
- Stern Review on the Economics of Climate Change 2006.
- Intergovernmental Panel on Climate Change Assessment Reports.

### **State and Federal Government**

- Climate Change in the Sydney Metropolitan Catchments CSIRO 2007.
- *Environmental Planning and Assessment Act 1979.*
- House of Representatives Standing Committee on Environment and Heritage Sustainable Cities Report 2005.
- *Local Government Act 1993.*
- National Greenhouse Gas Inventory 2004.
- New South Wales State of the Environment 2006.
- NSW Greenhouse Plan 2005.
- *Protection of the Environment and Operations Act 1997.*
- *Protection of the Environment Operations Amendment Act 2005.*
- Sydney Metropolitan Catchment Management Authority Draft Catchment Action Plan 2006.
- Sydney Metropolitan Water Plan 2006.
- *Waste Avoidance and Resource Recovery Act 2001.*
- *Waste Avoidance and Resource Recovery Strategy 2003.*

### **Environment and Business Groups**

- A Clean Energy Future for Australia 2004<sup>2</sup>.
- Business Case for Early Action 2006<sup>3</sup>.
- Empowering Change: Clean Energy Solutions on Climate Change<sup>4</sup>.
- Green Energy Watch<sup>5</sup>.
- Recipe for a Liveable Sydney<sup>6</sup>.
- Submission to the CoAG Climate Change Taskforce 2006<sup>7</sup>.
- The Great Opportunity: 25% Renewable Energy for NSW<sup>8</sup>.

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<sup>2</sup> Clean Energy Group: WWF-Australia, Australian Energy Performance Contracting Association, Australian Business Council for Sustainable Energy, Australian Gas Association, Australian Wind Energy Association, Bioenergy Aus, Renewable Energy Generators Aus.

<sup>3</sup> Australian Business Roundtable on Climate Change: BP, IAG, Origin Energy, Swiss Re, Visy, Westpac, Australian Conservation Foundation.

<sup>4</sup> Friends of the Earth, Australian Conservation Foundation.

<sup>5</sup> Total Environment Centre, Australian Conservation Foundation, WWF-Australia.

<sup>6</sup> Australian Conservation Foundation, Total Environment Centre, Council of Social Service of New South Wales, Nature Conservation Council of NSW, AMA NSW.

<sup>7</sup> Environment Business Australia.

### **City of Sydney Strategic Documents and Guides**

- Annual Report 2005-06.
- Central Sydney On-Street Parking Policy 1996.
- Corporate Plan 2007-2010.
- Cycle Strategy and Master Plan 2006.
- Depot Environmental Management Plans.
- Energy Savings Action Plan 2006.
- Interim Sustainable Asset Policy 2006.
- Local Action Plans.
- Local Approvals Policy for the Management of Waste in Public Places 2006.
- Local Environment Plans and Development Control Plans.
- Long Term Financial Plan 2007.
- Motor Vehicle Policy 2006.
- Native Plants to the Sydney Inner West Guide 2003.
- Open Space and Recreation Needs Study 2006.
- Plastic Bag Reduction Strategy 2004.
- Policy for Waste Minimisation in New Developments 2006.
- Public Domain Interim Sydney Lights Strategy 2006.
- Register of Significant Trees 2005.
- Social Policy and Social Plan 2006-2010.
- State of Environment Report 2005/06.
- Stormwater Management Plans.
- Strategic Plan 2006-09.
- Strategy for a Sustainable City of South Sydney 1995.
- Street Tree Master Plan 2004.
- Tree Preservation Order 2004.
- Urban Tree Management Policy 2005.
- Various Parks Master Plans.
- Water Savings Action Plan 2006.

Other City of Sydney strategic documents are being developed, and include:

- Sydney 2030 vision<sup>1</sup>.
- ESD Development Control Plan.

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<sup>8</sup> Nature Conservation Council, Total Environment Centre, Greenpeace, Climate Action Network Australia, Australian Conservation Foundation.

- Stormwater Management Plan.
- Waste Management Strategy.
- Waste Education Strategy.
- Integrated Transport Strategy.
- Pedestrian Strategy.
- Committee of Capital Cities Lord Mayors (CCCLM) Sustainable Cities Policy.

## Methodology

Key processes integral to developing this plan include:

### Internal Processes

- Initial meeting with the City's Executive to guide initial scope of the plan.
- Workshops with Councillors to develop vision, targets and key outcomes.
- Workshops with managers and staff to ascertain current programs, capabilities and priority actions.
- Workshop with managers and staff to develop greenhouse gas emissions strategy.
- Competition to offer all staff an opportunity to recommend actions.
- Development and review of actions by relevant managers and staff.
- Review of targets and actions against relevant documents and programs.

### External Processes

- Review of best-practice national and international environment plans.
- Draft plan developed by the Institute for Sustainable Futures.
- Community consultation for the City's Local Action Plans.
- Consultation with environmental organisations and community groups<sup>9</sup>.

The City would like to acknowledge the organisations and individuals who have provided valuable assistance in developing this plan.

### Further Consultation

Once this plan has been endorsed for public exhibition it will be subject to broader community consultation and review as outlined in Section 3.

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<sup>9</sup> Total Environment Centre, Nature Conservation Council of NSW, WWF-Australia, Australian Conservation Foundation, Coalition of Glebe Groups.

### **Establishing the Targets and Actions**

A range of targets and actions have been identified to address our goals and help the City reach its vision for a more sustainable environment. These are listed in Section 2 of this plan.

In developing targets and prioritising actions within this plan, the following questions have been considered (where applicable):

- What is the City's ability to influence?
- What is the level of community engagement?
- What are the legal obligations and ethical implications?
- Is there integration or synergy with other programs?
- Are there opportunities for partnerships?
- What is the relative environmental cost and benefit?
- What is the cost of action versus no action?
- Is it feasible in terms of cost, technology and expertise?
- Is it considered to be best practice?
- Is it consistent with global, national and regional perspectives?
- Is it guided by the precautionary principle and inter-generational equality?
- Does it consider biodiversity and ecological integrity?
- Does it protect health and the environment from pollution?
- Does it prioritise reducing the use of non-renewable resources?
- Does it favour prevention rather than treatment or mitigation?
- Is it based on efficiency and innovation?
- Has there been informed and balanced decision making?
- Are we investing in a better future?
- What is the relative ease to implement?

## Section 2. Targets and Actions

This section contains targets, goals and priority actions for environmental issues within the local government area. Targets and actions have been developed in reference to leading government policy, scientific research and stakeholder consultation.

Base and target years have been determined based on the availability of recent reliable data and/or for consistency with relevant national and international policy or standards.

The source of each target has been referenced via footnotes. For example, the City's greenhouse gas emissions reduction targets refer to the Stern Review and the recent report by the Intergovernmental Panel on Climate Change (footnotes 10, 16 and 17). Our water targets are informed by the Sydney Metropolitan Water Plan (footnote 25).

## Energy and Emissions

Global warming and climate change induced by greenhouse gas emissions is a defining environmental issue of our time. It is attributed to observed changes in weather patterns, melting ice and rising sea levels. These are processes that will take decades to turn around. As a coastal city with limited water resources, Sydney is particularly vulnerable.

Energy use (electricity, gas, and fuel) is the main cause of anthropogenic greenhouse gas emissions. Whilst Australia only generates less than 2 per cent of global emissions, Australians are the worst contributors to global warming per person.

Nationally and internationally, action is required by the whole of society to abate the currently increasing rate of greenhouse gas emissions and develop adaptation strategies. This includes action by all levels of government, individuals, and the private sector.

Climate change is an environmental, economic, security, health, agriculture, trade and employment issue. As highlighted in the Stern Review<sup>10</sup>, the cost of dealing with climate change will only increase into the future and therefore immediate action is required.

Air pollution (particulates and gases) is also a risk to human health and ecosystems. Sydney air quality has improved in recent years due to engines and fuels becoming cleaner. However, the number of vehicles is increasing which offsets these benefits.

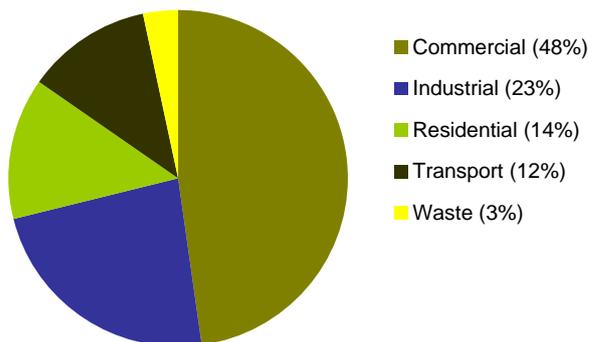
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<sup>10</sup> Stern Review on the Economics of Climate Change 2006.

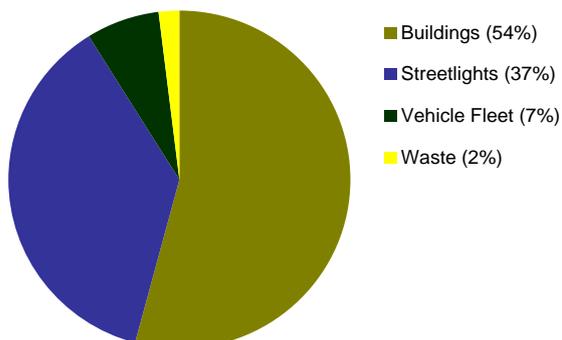
### Estimated Greenhouse Gas Emissions in 2006 (tonnes)

Global <sup>11</sup>	25,550,000,000
National <sup>12</sup>	566,000,000
City of Sydney (local government area) <sup>13</sup>	3,589,000
City of Sydney (Council) <sup>13</sup>	37,900

### Greenhouse Gas Emissions in the City of Sydney (local government area)<sup>13</sup>



### Greenhouse Gas Emissions in the City of Sydney (Council)<sup>13</sup>



### Goals

- To reduce Council greenhouse gas emissions, and to support local businesses and the residential community to do the same.
- To demonstrate best practice and achieve a zero net emissions future.

<sup>11</sup> Al Gore - The Inconvenient Truth.

<sup>12</sup> National Greenhouse Inventory - Australian Greenhouse Office.

<sup>13</sup> Emissions analysis from data entered by the City of Sydney into Cities for Climate Protection software developed by ICLEI Local Governments for Sustainability. LGA data is based on normalised 2001 Australian Bureau of Statistics energy and transport data forecast to 2010 population. Council data is based on 2003 emissions analysis forecast to 2010.

## Targets

- 100 per cent offset of greenhouse gas emissions from Council operations and services<sup>14</sup>. This includes a minimum 15 per cent reduction of Council emissions by 2012 based on 2006 levels through energy savings measures<sup>15</sup>.
- 70 per cent reduction and offset of greenhouse gas emissions from our local government area by 2050 based on 1990 levels<sup>16</sup>. This includes<sup>17</sup>:
  - Accurate annual emissions data by 2008.
  - Slowed rate of emissions increase by 2010.
  - Stabilisation by 2012.
  - 30 per cent reduction by 2020.
- 25 per cent of electricity used in our local government area to come from renewable energy by 2020<sup>8</sup>.
- 20 per cent of total trips in the local government area between 2 and 20 kilometres to be made by bicycle by 2016<sup>18</sup>.

## Other Outcomes

- Reduction of peak electricity demand.
- Air quality monitoring and improvement.
- Energy efficient and rated buildings.
- Shift to transport modes that produce fewer emissions.

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<sup>14</sup> City of Sydney Carbon Neutral Council Resolution 2006.

<sup>15</sup> Savings to be achieved through Energy Savings Action Plan and lighting upgrades. The base year 2005 is selected for consistency with Energy Savings Action Plan.

<sup>16</sup> Recommended minimum reduction target by the Intergovernmental Panel on Climate Change (IPCC), the Australian Conservation Foundation (ACF), the NSW Nature Conservation Council (NCC), and leading Governments. The base year 1990 is selected for consistency with the Kyoto Protocol. 1990 emissions in the City of Sydney local government area are estimated at 2.3 million tonnes based on Cities for Climate Protection information.

<sup>17</sup> Significant interim greenhouse gas reduction targets are required in order to meet the 2050 target. The NSW Nature Conservation Council recommend 30 per cent reduction by 2020 based upon the Stern Review<sup>10</sup> and the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

<sup>18</sup> Cycle Strategy and Master Plan 2006.

## Indicators

- Greenhouse gas emissions (tonnes).
- Amount of non-renewable electricity used (megawatts).
- Amount of Green Power used (megawatts).
- Air Pollution Index.

## Actions - Energy and Emissions

### e01 **Cities for Climate Protection (CCP)**

By endorsing reduction targets and actions for greenhouse gas emissions, this plan meets requirements for Milestones 2 and 3 of the CCP program developed by ICLEI - Local Governments for Sustainability. Energy actions are well underway and Milestones 4 and 5 should be achieved in 2007.

### e02 **Energy savings action plan**<sup>19</sup>

The City has reviewed our 12 largest energy consuming sites and will continue to implement cost effective actions estimated to save 3,200 tonnes of emissions each year based on 2006.

### e03 **Cycle strategy**<sup>18</sup>

The City will improve cycle infrastructure, signage and community engagement to increase the number of trips by bicycle in the City in a safe and comfortable environment.

### e04 **Vehicle fleet program**

The City will expand upon its suite of established fleet management practices to operate a carbon neutral fleet. This will be achieved through fuel efficient engines, smaller vehicles, low emission fuels and greenhouse gas offsets.

### e05 **Green Power**

The City is committed to using Green Power from accredited renewable energy generation sources. The City will encourage the uptake of Green Power by the residential and business community through leadership and communication. We will develop and support local renewable energy projects such as fuel cells, solar power, wind and cogeneration. We will work with electricity retailers to estimate the uptake of Green Power within the local government area.

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<sup>19</sup> City of Sydney Energy Savings Action Plan 2006.

#### **e06 Carbon neutral Council<sup>14</sup>**

The City of Sydney will become carbon neutral, meaning there will be zero net emissions resulting from our own operations and services. The priority in becoming carbon neutral is to avoid using energy where possible and to achieve maximum energy efficiency. We will use cleaner energy sources and work with key environment groups to invest in programs to offset our total emissions.

#### **e07 Public lighting<sup>20</sup>**

We will work with Energy Australia to install efficient lighting technologies. Once installed, this is estimated to minimise greenhouse gas emissions by 2,300 tonnes each year, reduce light pollution and improve lighting levels.

#### **e08 Sustainable transport<sup>18,21</sup>**

The City will develop a policy for sustainable transport. The focus will be on reducing congestion, vehicle kilometres travelled, and the number of vehicles in the city. We will encourage and advocate for increased cycling and pedestrian movement, travel demand management, transport corridors, car free days, improvement in mass transit, and integrated ticketing on public transport.

We will encourage our staff to reduce environmental impacts associated with transport by providing incentives and information. The City will offset greenhouse gas emissions for Council work related journeys as part of its carbon neutral program.

#### **e09 Air quality monitoring**

The City will work with community and government stakeholders to identify and report on key air quality issues within our area.

#### **e10 Climate change adaptation program**

The City will work with leading environmental organisations, businesses and other government agencies to understand the likely implications of climate change and develop early warning systems. Other adaptation strategies include improving water efficiency, new water supplies, energy efficient buildings, infrastructure management, review of flood and fire management, coastal zone planning, management of green spaces and reducing the impacts on human health.

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<sup>20</sup> Public Domain Interim Sydney Lights Strategy 2006.

<sup>21</sup> Integrated Transport Strategy and Pedestrian Strategy (pending).

### **e11 Energy efficiency in commercial buildings**

The largest single contributor to greenhouse gas emissions within the local government area is energy use in commercial buildings. Whilst there is a distinct trend toward energy efficiency in new buildings, there is significant opportunity to improve the energy performance in existing building stock.

The City will continue to partner with major commercial tenants and building owners to improve energy efficiency and reduce emissions. A major mechanism will be the continued support and expansion of the 3CBDs Greenhouse Initiative.

### **e12 Residential energy programs**

The City will continue to improve environmental awareness and energy efficiency within the residential community through publicity, events, information and distribution of energy efficiency products. We will encourage the uptake of Green Power, household energy assessments and guides, and promotion of sustainable transport. Opportunities will be sought to reduce the cost of environmental services and products to residents by working with organisations funded through the NSW Greenhouse Gas Abatement Scheme.

### **e13 Industrial emissions**

The City will quantify greenhouse gas emissions and air quality impacts of industry in the local government area. Opportunities for environmental assessments and energy efficiency programs will be encouraged through promotion and by identifying external funding sources.

## Water

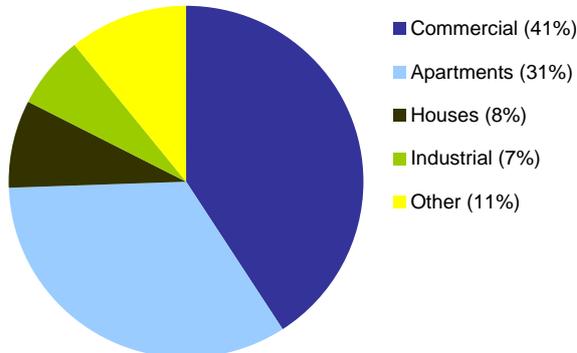
Water is a precious resource that is essential for life. Balancing the supply of fresh water and the demand for its use is an ongoing challenge for Sydney. It requires water conservation, efficiency measures, and recycling.

Most rainfall in the local government area flows into the iconic Sydney Harbour and Botany Bay. This represents a lost resource. Stormwater is also a major source of pollution to waterways.

### Estimated Water Consumption in 2006 (megalitres)

National <sup>22</sup>	25,000,000
Sydney metropolitan area <sup>23</sup>	630,000
City of Sydney (local government area) <sup>24</sup>	35,000
City of Sydney (Council) <sup>24</sup>	493

### Water Usage in the City of Sydney (local government area)<sup>24</sup>

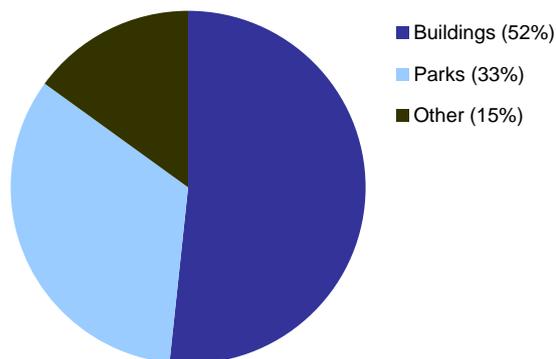


<sup>22</sup> Australian Bureau of Statistics.

<sup>23</sup> Sydney Catchment Authority.

<sup>24</sup> Sydney Water Corporation.

### Water Usage in the City of Sydney (Council)<sup>24</sup>



#### Goals

- For water to be used efficiently with localised water supply sources that reduce demands on mains water.
- Waterways around our city are clean and healthy with diverse and abundant ecosystems.

#### Targets

- Zero increase in mains water used by Council and across the local government area by 2015 based on 2006 levels<sup>25,26</sup>. This includes 25 per cent of water used by Council and across the local government area to be recycled by 2015<sup>25</sup>.

#### Other Outcomes

- Reduction in stormwater pollution at source.
- Improved stormwater treatment measures.

#### Indicators

- Mains and recycled water usage (megalitres).
- Stormwater pollution removal (tonnes).

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<sup>25</sup> Target extrapolated from 2006 Sydney Metropolitan Water Plan. The City of Sydney has increased the target for water recycling to reduce the need for desalination or water from regional areas. The base year 2006 is selected as the most recent reliable data set.

<sup>26</sup> City of Sydney Water Savings Plan will achieve 15% reduction.

## **Actions - Water**

### **w01 Stormwater management plan**

We will review existing stormwater management plans and develop a new comprehensive plan for the local government area. The plan will include measures for education, stormwater treatment and reuse, water sensitive urban design and integrated water cycle management principles.

### **w02 Water reuse projects**

The City will continue to assess, design and install water collection, treatment and reuse projects on Council owned and managed assets. Water sources include rainwater, treated stormwater and waste water. Projects will be prioritised to locations with high water demand and include parks, buildings and pools.

The City is committed to implementing a water reuse scheme for Hyde Park which includes connection to Busby's Bore and the Cross City Tunnel. Investigations are also underway to develop a major water reuse project in Sydney Park.

The quality of water from reuse schemes will be assessed to ensure that it complies with standards and is fit for purpose.

### **w03 Water savings action plan**

The City has reviewed our 10 largest water consuming sites and will continue to implement cost effective actions estimated to save 72 megalitres of water each year based on 2006.

### **w04 Residential water programs**

We will continue to work with Sydney Water Corporation and other partners to encourage water efficiency measures and the installation of rainwater tanks in the community. This will be achieved through mechanisms such as promotion and subsidies, low interest loans, rebates and mass purchasing programs.

### **w05 Water saving in commercial buildings**

The City will work with the Sydney Water Corporation and other partners to assist existing commercial buildings in our area to reduce mains water consumption through efficiency measures and local water collection and reuse projects.

**w06 Erosion and sediment control**

The City will continue to provide education about and enforce erosion and sediment controls from construction sites to eliminate a major source of water pollution.

## Waste

Discarded material is a waste of resources, including raw and processed materials, energy, water and nutrients. Waste results in greenhouse gas emissions from the energy used to originally manufacture the product (embodied energy), transportation, and methane emissions from landfill.

In Sydney, landfill capacity is limited and the cost of disposal is increasing. Material that is discarded through littering and illegal dumping results in environmental degradation, visual pollution and health and safety risks.

The City is required to provide residential and public place waste services. We also implement education and enforcement programs to prevent litter and illegal dumping.

In recent years, residential recycling per person in the City has risen, however total waste volumes have also increased. The current resource recovery rate is 25 per cent.

### Waste and Recycling Volumes (tonnes)

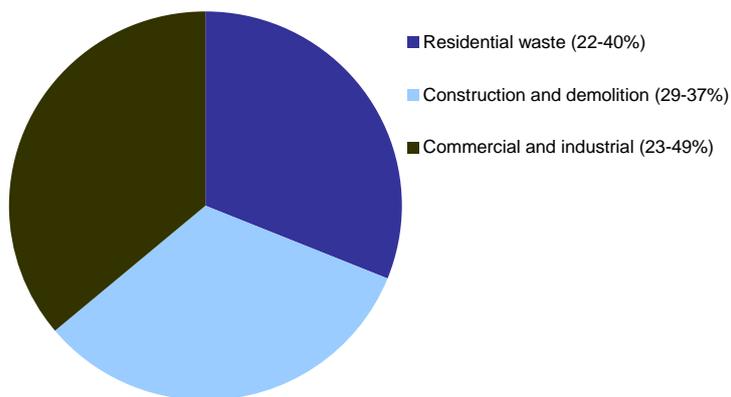
National waste 2005 <sup>27</sup>	17,600,000
Sydney metropolitan area waste 2004 <sup>28</sup>	8,810,000
Residential waste (local government area)	39,999
Residential recycling (local government area)	13,227
Street cleansing waste (local government area)	5,043
Litter bin waste (local government area)	2,367

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<sup>27</sup> Waste Generation and Resource Efficiency Productivity Commission Issues Paper December 2005

<sup>28</sup> Waste Avoidance and Resource Recovery Strategy and Performance Report 2006 Consultation draft (NSW DEC).

### Average waste streams in Australian major metropolitan centres 2000<sup>27,28</sup>



#### Goals

- To determine waste and recycling volumes in the local government area from all sectors (residential, commercial and industrial, construction and demolition).
- Council and the community to avoid and minimise waste, increase the use of renewable and recovered materials, reduce litter and illegal dumping.

#### Targets

- 66 per cent resource recovery<sup>29</sup> of residential waste from our local government area by 2014.
- 66 per cent resource recovery of waste generated by Council and its contractors by 2014.
- 63 per cent resource recovery<sup>29</sup> of commercial and industrial waste from our local government area by 2014.
- 76 per cent resource recovery<sup>29</sup> of construction and demolition waste from our local government area and Council projects by 2014.

#### Other outcomes

- Reduced litter and illegal dumping.

#### Indicators

- Waste and recycling volumes (tonnes).

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<sup>29</sup> Targets of the NSW Waste Avoidance and Resource Recovery Strategy 2003.

## **Actions - Waste**

### **ws01 Waste management strategy**

The City will develop a comprehensive strategy to meet our waste reduction targets by 2014. This may require a new alternative waste treatment facility and/or transfer station to be built in the region. The strategy will be based upon best practice and apply to all waste sectors of the local government area.

### **ws02 Waste education and enforcement**

We will continue to increase awareness and encourage appropriate behaviour in relation to disposal of litter and illegal dumping to improve urban amenity and prevent stormwater pollution.

### **ws03 Residential waste and recycling programs**

The City will reduce waste volumes and increase resource recovery through its residential waste, recycling and green waste services. This will be achieved through mechanisms of the Waste Education Strategy. A targeted program will improve waste minimisation and recycling infrastructure within multi unit dwellings.

### **ws04 Department of Housing program**

The City will continue working with Department of Housing staff and residents to improve resource recovery through improved recycling collection, infrastructure improvement and education.

### **ws05 Commercial and building waste**

The City will encourage waste minimisation in the commercial sector and during construction and demolition through the forthcoming ESD Development Control Plan and Waste Management Strategy. A first priority will be to establish waste volumes and recovery rates in these sectors.

### **ws06 Land contamination**

The City will continue to ensure that contaminated land is rehabilitated through the development approvals process. The City maintains a register of contaminated land in our local government area.

## Plants and Animals

Urbanisation of Sydney has had a significant impact on plant and animal species and ecosystems. The City is creating and managing parks and streetscapes to protect and enhance natural systems.

Parks and open spaces provide habitat and food for native fauna and improve the quality of air, soil and water. Native species that originate from the Sydney region are well adapted to the area and provide food and habitat for native birds and wildlife.

Wildlife is an important factor in urban areas as it demonstrates that a well managed urban environment can accommodate animals, plants and people.

While native wildlife is a valued asset, other animals such as cats and rodents have become pests. Similarly, unwanted and exotic plant species have become well established weeds in many public and private areas throughout the city area.

### City of Sydney Plant and Animal Status in 2006

Parks and open space (No.)	400
Parks and open space (square metres per resident)	23.6
Area of parks and open space managed by the City of Sydney (hectares)	187
Total area of parks and open space in the local government area (hectares)	377
Native animal rescues	129
Bird Sightings (species)	66
Trees in streets and parks (approx)	50,000

### Goal

- To create a green liveable city, recognising the importance of trees and quality open space that supports diverse and abundant ecosystems.

### Target

- 24 square metres of public open space per resident<sup>31</sup>.

### **Other Outcomes**

- Increased tree and plant canopy coverage.
- New partnerships with public land managers.
- Use of local native plant species.
- Reduced impacts on vegetation and urban wildlife.
- Larger and healthier trees.

### **Indicators**

- Area of open space and parks (square metres per resident).
- Tree and plant canopy cover (hectares).
- Number of plantings at community planting days.
- Bird and animal sightings.
- Parks and open space quality assessment reports.
- Number of street trees.

### **Actions - Plants and Animals**

#### **p01 Community planting days**

The City will continue to organise and promote at least one annual planting day with volunteers from the community to increase the number of native plants in our parks and open spaces.

#### **p02 Native plants**

Native plant species will be encouraged and planted where appropriate to provide food and habitat for native birds and wildlife. The City will distribute guidelines<sup>30</sup> to encourage the use of plant species endemic to the local area. We will continue to provide at least one annual native plant giveaway. The City will ensure that plant surveys are undertaken periodically to assess changes over time.

#### **p03 Native wildlife**

The City will continue to support and promote organisations that care for native wildlife in our area. The use of habitat boxes in parks will be introduced where there is no resulting damage to trees. We will seek to control feral animal populations that compete with or impact upon native species. Periodically we will commission bird and wildlife surveys to assess changes over time.

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<sup>30</sup> Native Plants to the Sydney Inner West Guide 2003.

**p04 Open space strategy**<sup>31</sup>

The City will ensure appropriate provision of quality open space through direct acquisition, transfer from other government landholders, and through the development approvals process. We will increase the diversity and health of ecosystems, restore ecological processes, and conserve natural resources in our parks and open spaces. This involves selecting plant species with low water demand, using sustainable water supplies, creating vegetation linkages, using native and endemic species, and creating habitat areas.

**p05 Green roofs**

The City will encourage green roofs on buildings through Council demonstration projects, guidance and planning controls. In the first instance we will showcase roof gardens in the local government area and develop guidelines based on world best practice.

**p06 Tree management**<sup>32</sup>

The City will continue to increase the number and health of trees in our area. Under the Street Tree Master plan we will continue to assess the performance of tree species within specific precincts. The Register of Significant Trees will continue to identify and recognise the important trees in our landscapes. Our Tree Preservation Order protects trees on private and public property.

We will continue to bundle all electricity cables in our area to reduce the regularity of tree lopping and wildlife electrocutions. The City will encourage underground cable programs. We will also conduct preventive maintenance to avoid tree damage and excessive lopping by utilities contractors.

**p07 Urban forest program**

The City will develop a program to manage trees and shrubs as a collective percentage of canopy cover. This is to understand, maximise and promote environmental, health, social and financial outcomes for the City. In the first instance, we will quantify and monitor the extent of current canopy cover including private and public land.

A broader ecological assessment will be made for the local government area to develop an Urban Forest Policy and include a register of significant plants.

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<sup>31</sup> Open Space and Recreation Needs Study 2006.

<sup>32</sup> Register of Significant Trees 2005, Street Tree Master Plan 2004, Tree Preservation Order 2004, Urban Tree Management Policy 2005.

**p08 Weed control**

The City will continue to control weed species within the public domain and offer information and education to residents. We will also work with other government agencies, Landcare groups, and large land owners to ensure major weed sources in the area are controlled. The City will minimise the use of pesticides, fungicides and herbicides in sensitive environments.

## **Integrated Strategies**

The way we live, purchase, consume, build and work has many inter-related impacts on the environment. Actions that address multiple environmental issues are listed within this section. For example, programs to reduce water consumed in the home would also reduce the energy and greenhouse gas emissions required for water heating.

### **Goals**

- To improve awareness of environmental issues in the community and by Council staff, and to support innovative, systematic responses to environmental problems.
- To reduce environmental impacts from Council operations and across our local government area within acceptable thresholds.

### **Targets**

- Targets are listed within the sections for Energy and Emissions, Water, Waste, Plants and Animals.

### **Other Outcomes**

- Council is an environmental leader that supports the residential and business community to meet environmental targets.
- The community and City staff have high level environmental awareness and take active steps to reduce the impact of their activities.
- Sustainable design principles are integral to all new development and refurbishment of existing infrastructure.
- The City delivers sustainability showcase projects.

### **Indicators**

- Indicators are listed within the sections for Energy and Emissions, Water, Waste, Plants and Animals.

## **Actions - Integrated Strategies**

### **i01 Energy and water data**

The City will work with utility providers to install smart meters and put in place appropriate data reporting systems to obtain regular and reliable electricity, gas, fuel and water consumption data for Council and the local government area. Where possible, data will be reported for each of the City's Villages.

### **i02 Benchmarks and key performance indicators**

Based on accurate energy and water data, the City will develop benchmarks, key performance indicators and reporting systems for its major assets. This includes parks, pools, fountains and buildings. Responsibilities will be assigned to ensure that benchmarks are achieved.

The City will investigate the feasibility and put measures into place to convert our administration building - Town Hall House - into a showcase green building and achieve a 5-star (whole building) Australian Building Greenhouse Rating.

In the community, we will promote the use of benchmark and rating tools including ABGR<sup>33</sup>, BASIX<sup>34</sup>, Green Star<sup>35</sup>, NABERS<sup>36</sup>, energy and water labelling<sup>37</sup>, and the Green Vehicle Guide<sup>38</sup>. Where possible, specific targets will be developed for each of the City's Villages in accordance with overall targets contained within this plan.

### **i03 Sustainable asset management**

Sustainable development principles are to be applied to the asset management life-cycle including procurement, design, construction, operation, maintenance, upgrade and disposal.

All major City owned and managed assets will be reviewed for energy, water and waste savings opportunities. Upgrades and programs will be implemented where cost effective

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<sup>33</sup> Australian Building Greenhouse Rating Scheme - NSW Government.

<sup>34</sup> Building and Sustainability Index - NSW Government.

<sup>35</sup> Green Building Council of Australia.

<sup>36</sup> National Australian Built Environment Rating Scheme - NSW Government.

<sup>37</sup> Minimum Energy Performance Standards and Water Efficiency Labelling Scheme.

<sup>38</sup> Australian Government.

or where there is significant showcase potential. Environmental impacts will be reduced through environmental management plans at specific sites including depots.

In order to meet our targets, new City capital works projects will not increase total water or energy impacts. This will be achieved by efficient design, onsite water supply and electricity generation, and the use of greenhouse gas offsets.

#### **i04 Council purchasing**

The City will implement green purchasing guidelines across its operations using the Sustainable Choice Procurement Program<sup>39</sup>. This will include assessment of supply chain environmental impacts.

#### **i05 Showcase buildings**

To demonstrate leadership, we will ensure that the City's property portfolio includes best-practice environmental showcase projects. This includes new buildings and major refurbishments. We will promote and encourage other organisations to also showcase projects.

#### **i06 Sustainability planning controls<sup>40</sup>**

The City will apply sustainability planning controls to ensure excellent environmental outcomes for all new development and major refurbishment in the local government area. The controls will mandate performance criteria for energy, water, construction materials, landscaping and waste and will apply to most building types.

#### **i07 The Watershed**

The Watershed is a sustainability resource centre jointly operated by the City of Sydney and Marrickville Council. It provides a shop front advisory service to the community and delivers a range of environmental education programs. The City will continue to support the Watershed in accordance with its memorandum of understanding.

#### **i08 Education for sustainability**

The City will establish cooperative networks to support community ownership of environmental programs. We will encourage energy and water efficiency by providing assessment services for residents and businesses, and investigate incentives such as low interest loans, rebates or discounts through mass purchasing programs.

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<sup>39</sup> Local Government and Shires Association

<sup>40</sup> Draft ESD Development Control Plan.

For our staff, we will develop an environmental induction package, conduct regular environmental education, and encourage involvement with environmental programs. The City will take a lead role in communicating environmental issues, trends, targets and programs to empower individuals and organisations to be aware of their environmental impacts and take necessary action.

The City will also continue to improve and expand on the delivery of the Urban Sustainability Workshop Series to assist community members to reduce environmental impacts.

#### **i09 Lobbying and advocacy**

The City will lobby the state and Australian government to implement essential programs and policy to drive sustainable development in Sydney. To achieve targets within this plan we will lobby and advocate for:

- Legislated stabilisation and reduction of greenhouse gas emissions.
- Economic incentive to reduce pollution and encourage energy efficiency and innovation through a national carbon trading scheme including all major emissions sources.
- Legislated medium and long-term targets for meeting our energy needs from clean, renewable sources including a national renewable energy target of 25 per cent by 2020.
- Redirection of subsidies for fossil fuels to energy efficiency, renewable energy and cleaner fuels technology.
- Australian government to ratify the Kyoto Protocol and actively drive the agenda for global deep cuts post Kyoto.
- Legislated ban on building new coal fired power stations and replacement of existing plants with gas systems and renewable energy.
- Modification to the fringe benefits tax which currently provides a fiscal incentive to increase total vehicle kilometres travelled (and emissions).
- Mandatory labelling of the environmental performance of commercial buildings.
- Large scale, local water collection and reuse projects.
- Legislated ban on inefficient appliances (water and energy).
- Container deposit legislation and extended producer responsibility for priority and hazardous wastes.
- Recognition of the urban forest and benefits provided to the community as a direct result of canopy coverage.

#### **i10 Awards**

The City will investigate an environmental awards program to acknowledge environmental actions being undertaken by sectors of our community. We will enter our own projects into other renowned awards programs to encourage better environmental outcomes through leadership and demonstration.

#### **i11 Environmental project control group**

The City will create an environment project control group with internal representatives. The purpose of the group is to review this plan, assist with developing and implementing actions, and to regularly consult with peak environment groups.

#### **i12 Sydney sustainability forums**

The City will continue to address issues of urban sustainability through the popular City Talks series and other existing forums such as community meetings and Sydney forums.

#### **i13 Triple bottom line**

The City will incorporate triple bottom line reporting principles into its budgeting, corporate planning and reporting systems. This will include an assessment of environmental impacts of major capital works programs in Council reports.

#### **i14 Ethical investment**

We will review our investment strategies and continue to include an ethical investment component. This will be reported publicly to encourage our community and others to invest ethically.

#### **i15 Events**

The City will host and sponsor high profile environmental events to engage residents and businesses to share information and knowledge on emerging environmental trends, technologies and programs. We will actively support large scale events such as Earth Hour<sup>41</sup>, Bike Week<sup>42</sup>, Clean Up Australia Day<sup>43</sup>, World Environment Day<sup>44</sup>, National Tree Day<sup>45</sup> and advocating for car-free days.

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<sup>41</sup> WWF-Australia, Fairfax and City of Sydney.

<sup>42</sup> NSW Roads and Traffic Authority.

<sup>43</sup> Clean Up Australia.

<sup>44</sup> United Nations.

<sup>45</sup> Planet Ark.

**i16 Environmental art**

The City will include a specific environmental category within its public art program to increase awareness of environmental issues and ways in which our community can be part of the solution.

**i17 Grants**

We will continue to provide funding to local community groups through the community grants program for environmental improvement and awareness projects.

**i18 Schools program**

The City will continue to assist and provide resources to develop and implement School Environmental Management Plans and to implement water and energy efficiency projects, recycling collection, large scale composting and rainwater tanks.

**i19 Small business and industry program**

The City will partner with small to medium enterprises and industry in our area to review and reduce environmental impacts associated with their operations.

**i20 Community gardens**

The City will continue to support and expand the community garden network on a consultative basis.

**i21 Noise and urban amenity**

The City will continue to investigate noise complaints and manage unwanted neighbourhood noise. We will provide information about ways to reduce noise, permissible noise levels, and times of operation for construction and building, waste collection and operating licensed premises.

## Section 3. Implementation

Targets and actions within this plan have been developed based on expert advice and are consistent with best practice policies and programs (see Section 1).

It is critical however that we move beyond planning to the implementation phase. The priority is to stabilise greenhouse gas emissions, reduce waste, and improve water efficiency if we are to avoid irreversible environmental damage and cost.

Some actions listed within this plan are already being implemented by the City and other stakeholders. The plan also contains new actions to be developed and implemented in subsequent years.

The City is committed to provide sufficient budgetary and staffing resources to implement, lobby and coordinate actions within this plan.

A complete list of actions including priority, timeframe and status is listed in Appendix 2. Appendices 3 and 4 show which environmental issues and stakeholders are addressed by the actions.

## **Internal Roles and Responsibilities**

The City will coordinate overall implementation of the plan, with reporting via the State of Environment Report, and ensure that the plan is up-to-date. Tasks include:

- Regular review of targets and actions.
- Coordination of actions with internal and external stakeholders.
- Incorporating key performance indicators within the City of Sydney Corporate Plan.
- Analysis of budgetary and staffing resources.
- Communicating the implementation status to CEO and the community.
- Acquisition, interpretation and reporting of environmental indicator data.

Actions within this plan were developed in consultation with relevant staff and business units within Council. These units are responsible for budgeting and implementing actions for their areas of operation.

## Community Engagement

The City values the opinions of individuals and communities, and is committed to actively involving residents, workers and visitors in planning and decision-making.

Many actions within this plan require assistance and support of community groups and other government departments. Typically, these actions will be coordinated by the City.

Through the Local Environment Plans, we have involved a cross section of the community to inform environmental priorities and outcomes that are included within this plan.

In developing this plan and other environmental programs, the City has also developed working relationships with key businesses, environmental organisations and community groups.

We will communicate this plan with key stakeholders and encourage community involvement to implement actions and achieve the targets. Environmental issues and the status of actions will be reported annually in the State of Environment Report.

Opportunities for community engagement will be made available through:

- Forums and events.
- Displays at centres.
- Written submissions.
- Meetings with groups and individuals.
- City News.
- Website < [www.cityofsydney.nsw.gov.au/environment](http://www.cityofsydney.nsw.gov.au/environment) >.

Key components of the plan will also inform environmental outcomes of the Sydney 2030 vision<sup>1</sup>. Comments or enquiries related to this plan can be sent to

[EMP@cityofsydney.nsw.gov.au](mailto:EMP@cityofsydney.nsw.gov.au) or:

Manager Sustainability  
City of Sydney  
GPO Box 1591  
Sydney NSW 2001

## **Review and Reporting**

The review and implementation of this plan will depend on how it is integrated into the Sydney 2030 vision<sup>1</sup>. It is proposed that targets and actions are reviewed annually, with a comprehensive review every five years.

The annual review is an internal process, involving implementation audits, and status reports from relevant sections of Council and external stakeholders. The review will guide work plans and budgeting for the following year.

### **Typical Annual Review Cycle**

#### Jan-Mar

- Consult with business units.
- Incorporate actions within the City of Sydney Corporate Plan.
- Allocate budgets and staff resources.

#### Jun-Nov

- Assess and report status of actions.
- Report environmental indicators.

#### Nov-Dec

- Incorporate feedback received from the community.
- Review targets and actions.

The 5-year review would consider changes in environmental trends and issues; changes to strategic management and reporting systems; new technologies; benchmarking against other leading organisations; consulting with community and staff; and ensuring that the vision, principles and actions continue to reflect the aspirations of our community.

### **State of Environment Report**

Actions and indicators pertaining to this plan will be reported in the annual City of Sydney State of Environment Report. The report documents environmental issues and trends, and the status of actions being implemented by Council and the community. The report is available at < [www.cityofsydney.nsw.gov.au/environment](http://www.cityofsydney.nsw.gov.au/environment) >.

## Appendices

## Appendix 1. Actions List

The following table lists all actions contained within this plan.

ID	Action
e09	Air quality monitoring
i10	Awards
i02	Benchmarks and key performance indicators
e06	Carbon neutral Council
e01	Cities for Climate Protection (CCP)
e10	Climate change adaptation program
ws05	Commercial and building waste
i20	Community gardens
p01	Community planting days
i04	Council purchasing
e03	Cycle strategy
ws04	Department of Housing program
i08	Education for sustainability
i01	Energy and water data
e11	Energy efficiency in commercial buildings
e02	Energy savings action plan
i16	Environmental art
i11	Environmental project control group
w06	Erosion and sediment control
i14	Ethical investment
i15	Events
i17	Grants
e05	Green Power
p05	Green roofs
ws06	Land contamination
i09	Lobbying and advocacy
p02	Native plants
p03	Native wildlife
i21	Noise and urban amenity
p04	Open space strategy
e07	Public lighting

ID	Action
e12	Residential energy programs
ws03	Residential waste and recycling programs
w04	Residential water programs
i18	Schools program
i05	Showcase buildings
i19	Small business program
w01	Stormwater management plan
i06	Sustainability planning controls
i03	Sustainable asset management
e08	Sustainable transport
i12	Sydney sustainability forums
i07	The Watershed
p06	Tree management
i13	Triple bottom line
p07	Urban forest program
e04	Vehicle fleet program
ws02	Waste education and enforcement
ws01	Waste management strategy
w02	Water reuse projects
w05	Water saving in commercial buildings
w03	Water savings action plan
p08	Weed control

## Appendix 2. Priority, Timeframe and Status

The following table lists the priority, timeframe and status of actions contained within this plan.

ID	Action	Priority	Timeframe	Status
e01	Cities for Climate Protection (CCP)	High	2007	Initiated
e02	Energy savings action plan	High	2008	Initiated
e03	Cycle strategy	High	2016	Initiated
e04	Vehicle fleet program	High	Ongoing	Initiated
e05	Green Power	High	2020	Initiated
e06	Carbon neutral Council	High	2007	Not initiated
e07	Public lighting	High	2014	Initiated
e08	Sustainable transport	High	2010	Initiated
e09	Air quality monitoring	High	Ongoing	Not initiated
e10	Climate change adaptation program	High	2008	Not initiated
e11	Energy efficiency in commercial buildings	High	2007	Initiated
e12	Residential energy programs	High	2007	Not initiated
w01	Stormwater management plan	High	2007	Not initiated
w02	Water reuse projects	High	Ongoing	Not initiated
w03	Water savings action plan	High	2008	Not initiated
w04	Residential water programs	High	Ongoing	Not initiated
w05	Water saving in commercial buildings	High	Ongoing	Not initiated
w06	Erosion and sediment control	Medium	Ongoing	Initiated
ws01	Waste management strategy	High	2007	Not initiated
ws02	Waste education and enforcement	High	Ongoing	Initiated
ws03	Residential waste and recycling programs	High	Ongoing	Initiated
ws04	Department of Housing program	High	Ongoing	Initiated
ws05	Commercial and building waste	High	2014	Not initiated
ws06	Land contamination	Medium	Ongoing	Initiated
p01	Community planting days	Medium	Ongoing	Initiated
p02	Native plants	Medium	Ongoing	Initiated
p03	Native wildlife	Medium	Ongoing	Initiated
p04	Open space strategy	Medium	Ongoing	Initiated
p05	Green roofs	Medium	2007	Not initiated

ID	Action	Priority	Timeframe	Status
p06	Tree management	Medium	Ongoing	Initiated
p07	Urban forest program	Medium	2008	Not initiated
p08	Weed control	Medium	Ongoing	Initiated
i01	Energy and water data	High	2007	Initiated
i02	Benchmarks and key performance indicators	High	2007	Initiated
i03	Sustainable asset management	High	Ongoing	Initiated
i04	Council purchasing	High	2007	Initiated
i05	Showcase buildings	High	2009	Initiated
i06	Sustainability planning controls	High	2007	Initiated
i07	The Watershed	High	Ongoing	Initiated
i08	Education for sustainability	High	2007	Initiated
i09	Lobbying and advocacy	High	Ongoing	Initiated
i10	Awards	Medium	2007	Not initiated
i11	Environmental project control group	Medium	2007	Not initiated
i12	Sydney sustainability forums	Medium	2007	Initiated
i13	Triple bottom line	Medium	2007	Initiated
i14	Ethical investment	Medium	2007	Not initiated
i15	Events	Medium	Ongoing	Initiated
i16	Environmental art	Medium	Ongoing	Not initiated
i17	Grants	Medium	Ongoing	Initiated
i18	Schools program	Medium	Ongoing	Initiated
i19	Small business program	Medium	2007	Not initiated
i20	Community gardens	Medium	Ongoing	Initiated
i21	Noise and urban amenity	Medium	Ongoing	Initiated

### Appendix 3. Environmental Issues

The following table lists which environmental issues are addressed by actions contained within this plan.

ID	Action	Energy and Emissions	Water	Waste	Plants and Animals
e01	Cities for Climate Protection (CCP)	x			
e02	Energy savings action plan	x			
e03	Cycle strategy	x			
e04	Vehicle fleet program	x			
e05	Green Power	x			
e06	Carbon neutral Council	x			
e07	Public lighting	x			
e08	Sustainable transport	x			
e09	Air quality monitoring	x			
e10	Climate change adaptation program	x			
e11	Energy efficiency in commercial buildings	x			
e12	Residential energy programs	x			
w01	Stormwater management plan		x		
w02	Water reuse projects		x		
w03	Water savings action plan		x		

ID	Action	Energy and Emissions	Water	Waste	Plants and Animals
w04	Residential water programs		x		
w05	Water saving in commercial buildings		x		
w06	Erosion and sediment control		x		
ws01	Waste management strategy			x	
ws02	Waste education and enforcement			x	
ws03	Residential waste and recycling programs			x	
ws04	Department of Housing program			x	
ws05	Commercial and building waste			x	
ws06	Land contamination			x	
p01	Community planting days				x
p02	Native plants				x
p03	Native wildlife				x
p04	Open space strategy				x
p05	Green roofs				x
p06	Tree management				x
p07	Urban forest program				x
p08	Weed control				x
i01	Energy and water data	x	x		

ID	Action	Energy and Emissions	Water	Waste	Plants and Animals
i02	Benchmarks and key performance indicators	x	x	x	
i03	Sustainable asset management	x	x	x	x
i04	Council purchasing	x	x	x	x
i05	Showcase buildings	x	x	x	x
i06	Sustainability planning controls	x	x	x	
i07	The Watershed	x	x	x	x
i08	Education for sustainability	x	x	x	x
i09	Lobbying and advocacy	x	x	x	
i10	Awards	x	x	x	x
i11	Environmental project control group	x	x	x	x
i12	Sydney sustainability forums	x	x	x	
i13	Triple bottom line	x	x	x	x
i14	Ethical investment	x	x	x	x
i15	Events	x	x	x	x
i16	Environmental art	x	x	x	x
i17	Grants	x	x	x	x
i18	Schools program	x	x	x	
i19	Small business program	x	x	x	
i20	Community gardens	x	x	x	x
i21	Noise and urban amenity				

## Appendix 4. Target Groups

The following table lists which target groups are addressed by actions contained within this plan.

ID	Action	Council	Residents	Business	Visitors	Volunteers
e01	Cities for Climate Protection (CCP)	x	x	x	x	
e02	Energy savings action plan	x				
e03	Cycle strategy	x	x	x	x	
e04	Vehicle fleet program	x				
e05	Green Power	x	x	x		
e06	Carbon neutral Council	x				
e07	Public lighting	x				
e08	Sustainable transport	x	x	x	x	
e09	Air quality monitoring	x	x	x		
e10	Climate change adaptation program	x	x	x	x	
e11	Energy efficiency in commercial buildings			x		
e12	Residential energy programs		x			

ID	Action	Council	Residents	Business	Visitors	Volunteers
w01	Stormwater management plan	x	x	x		
w02	Water reuse projects	x				
w03	Water savings action plan	x				
w04	Residential water programs		x			
w05	Water saving in commercial buildings			x		
w06	Erosion and sediment control	x	x	x		
ws01	Waste management strategy	x	x	x	x	
ws02	Waste education and enforcement	x	x	x	x	
ws03	Residential waste and recycling programs		x			
ws04	Department of Housing program		x			
ws05	Commercial and building waste			x		
ws06	Land contamination	x	x	x		
p01	Community planting days	x	x			x

ID	Action	Council	Residents	Business	Visitors	Volunteers
p02	Native plants	x	x	x		
p03	Native wildlife	x	x	x		
p04	Open space strategy	x	x	x		
p05	Green roofs	x	x	x		
p06	Tree management	x	x	x		
p07	Urban forest program	x	x	x		
p08	Weed control	x				
i01	Energy and water data	x	x	x		
i02	Benchmarks and key performance indicators	x				
i03	Sustainable asset management	x				
i04	Council purchasing	x		x		
i05	Showcase buildings	x	x	x	x	
i06	Sustainability planning controls	x	x	x		
i07	The Watershed	x	x	x	x	x
i08	Education for sustainability	x	x	x	x	x
i09	Lobbying and advocacy	x	x	x	x	
i10	Awards	x	x	x		x
i11	Environmental project control group	x	x	x		x

ID	Action	Council	Residents	Business	Visitors	Volunteers
i12	Sydney sustainability forums	x	x	x	x	x
i13	Triple bottom line	x				
i14	Ethical investment	x	x	x		
i15	Events	x	x	x	x	x
i16	Environmental art	x	x	x	x	x
i17	Grants		x			x
i18	Schools program		x			x
i19	Small business program			x		
i20	Community gardens		x			x
i21	Noise and urban amenity	x	x	x		