

2006 STATE OF THE ENVIRONMENT REPORT

The City of Sydney is committed to preserving and enhancing our natural and cultural environment.



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In growing numbers, Australians are voicing their concern about our planet. Almost every day, we are confronted by evidence on the devastating effects of global warming.

The City of Sydney has a strong commitment to environmental leadership and is making progress through immediate practical action and long-term strategies. We have endorsed the Kyoto Protocol's principles, with a commitment to go beyond its targets.

We aim to become Australia's first carbon neutral Council, producing zero net greenhouse gas emissions through cost effective energy reduction measures, the use of renewable energy and other offset mechanisms.

To improve water and energy efficiency in council properties, a Water Savings Plan is in place and we are completing an Energy Savings Plan. Work is underway to drought-proof our parks with sustainable storm water reuse and drought tolerant plants.

We have also increased our urban tree canopy by planting 1,150 trees along city streets, and we are delivering major new public parklands at Harmony Park in Surry Hills and the Water Police site, Pyrmont. More than \$350 million in open space improvements are planned over the next 15 years.

To set a benchmark for environmentally sustainable buildings, our stunning new Surry Hills community centre includes solar cells to power building equipment; rainwater tanks to collect and reuse water; and an atrium where air is filtered by plants before it is naturally cooled to reduce air-conditioning reliance.

And our transport strategies target more facilities for healthy cycling and walking, with City research demonstrating the viability of light rail to meet the increased public transport use vital for the sustainable growth of our City.

As we work to turn around the legacy of neglect of our environment, our City has a vital role coordinating local, state and national action. I look forward to working with you to ensure the future of our planet.



Clover Moore MP
Lord Mayor of Sydney

Background

Councils in NSW are required to prepare an annual State of the Environment Report to document environmental trends and programs. This report contains information about environmental issues within the City of Sydney Local Government Area (LGA) for 2005/06.

- For latest information about environmental trends, issues and programs in the City of Sydney, see www.cityofsydney.nsw.gov.au/environment

Environmental contacts

Reporting pollution

To report pollution incidents in the City of Sydney LGA telephone the City of Sydney on (02) 9265 9333.

For urgent advice on cleaning-up a pollution incident or on the disposal of any resulting waste materials contact the Department of Environment and Conservation on 131 555.

Wildlife rescue

If you find injured or sick native animals in the Sydney area, call Sydney Metropolitan Wildlife Service on (02) 9413 4300.

Environmental programs

For information about the environmental programs contained within this report telephone the City of Sydney on (02) 9265 9333.



At a glance

Demographics

| Indicator | 2003/04 | 2004/05 | 2005/06 |
|---------------------------------------|-----------|-----------|-----------|
| Residents | 146,540 | 155,559 | 160,090 |
| Workers (per day) | 350,000 | 355,000 | 365,000 |
| Visitors (per day) | 450,000 | 475,000 | 475,000 |
| Hotel guests (total nights) | 8,732,100 | 9,000,000 | 8,943,000 |
| City of Sydney employees ¹ | 1,479 | 1,485 | 1,509 |

¹ July figures including permanent and casual staff

Built form

| Indicator | 2003/04 | 2004/05 | 2005/06 |
|---|---------|---------|---------|
| Area of LGA (sq km) | 26.15* | 26.15 | 26.15 |
| Households (dwellings) | 84,123 | 87,506 | 90,597 |
| Completed commercial development (sq m) | 85,276 | 150,859 | 246,825 |
| Completed residential development (dwellings) | No data | 3,383 | 3,091 |

* Amalgamation of City of Sydney (6.18km²) + South Sydney Council(19.97 km²)

Global warming

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|---------|---------|-------|
| Atmospheric CO ₂ (ppm) ² | 373.8 | 375.6 | 377.8 | ✗ |
| Global-Mean Surface Temperature Anomaly (°C) ³ | 0.52 | 0.48 | 0.58 | ✗ |

² Information provided by Cape Grim Baseline Air Pollution Station, funded and managed by the Australian Bureau of Meteorology and CSIRO Marine and Atmospheric Research

³ Calendar year global observed temperature averages above the climatological mean (1951–1980) NASA Goddard Institute for Space Studies. <http://data.giss.nasa.gov/gistemp/2005>

Greenhouse gas emissions

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|--|-------------|-------------|----------------|-------|
| Global (t) ⁴ | No data | No data | 25,550,000,000 | — |
| National (t) ⁵ | 557,200,000 | 562,600,000 | 566,200,000 | ✗ |
| City of Sydney LGA (t) ⁶ | 4,378,000 | 4,534,000 | 4,690,000 | ✗ |
| Council emissions with reduction measures (t) ⁷ | 37,500 | 38,300 | 38,400 | ✗ |
| Total emissions per employee (t) | 25.4 | 25.8 | 25.4 | ✓ |
| Cities for Climate Protection™ program milestone | | Milestone 1 | | — |

⁴ Al Gore, *An Inconvenient Truth*, based on 70,000,000 tonnes per day

⁵ Calendar year forecast estimate from Tracking To The Kyoto Target 2004, Australian Greenhouse Office

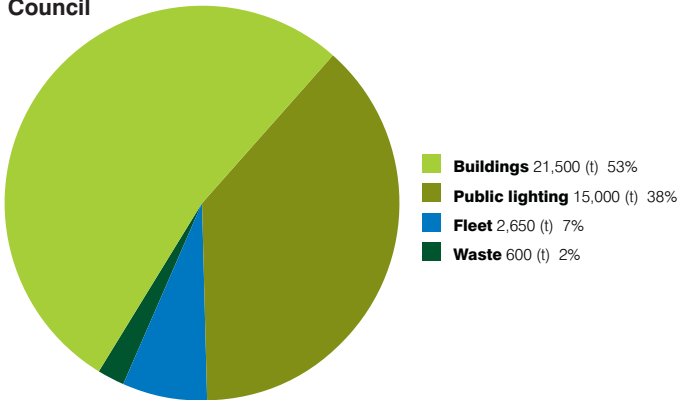
⁶ Calculated Business as Usual scenario using Cities for Climate Protection™ software, rounded to nearest 1,000 tonnes

⁷ Calculated business as usual scenario using Cities for Climate Protection™

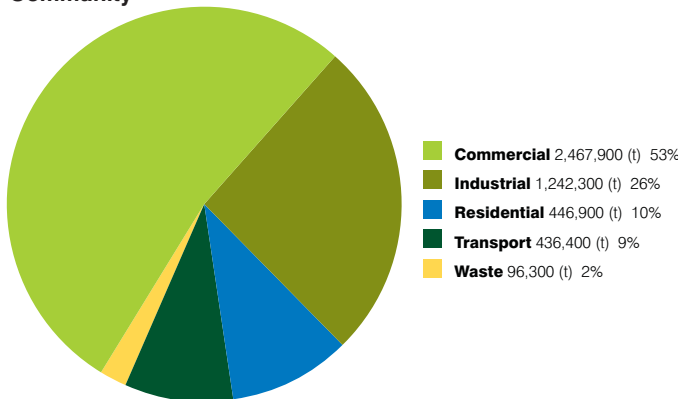
Greenhouse gas

Emissions in the City of Sydney

Council



Community



software less Green Power and fleet savings (rounded to nearest 100 tonnes)

Electricity

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|--|-----------|-----------|-----------|-------|
| City of Sydney area total electricity usage (MWh) ⁸ | 4,343,921 | 4,444,090 | 4,216,211 | ✓ |
| Council electricity usage (MWh) ⁹ | 31,485 | 33,117 | 38,227 | ✗ |
| Council electricity usage per employee (MWh) | 21.3 | 22.3 | 25.3 | ✗ |
| National accredited Green Power usage (MWh) ¹⁰ | 1,036,003 | 1,326,932 | 1,596,226 | ✓ |
| Council accredited Green Power usage (MWh) ¹¹ | 50 | 50 | 4,144 | ✓ |
| Solar parking meters | 1,194 | 1,268 | 1,267 | — |

8 Information provided by Energy Australia for suburbs in and around the City of Sydney. Data is based on accruals and estimates (may not be accurate representation of actual consumption)

9 Information provided by Energy Australia. Data for 2003/04 and 2004/05 is based on daily average totals (may not be accurate representation of actual consumption)

10 June quarterly report figures – www.greenpower.com.au

11 Includes 3,312 MWh (properties and public domain lighting), 50 MWh (NYE), 782 MWh (fleet offset)

Transport

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|---------|---------|-------|
| Vehicles entering City of Sydney area (per day) ¹² | 808,398 | 816,754 | 809,428 | ✓ |
| Staff travel, public travel passes issued | 194 | 266 | 321 | ✓ |

12 Information provided by the NSW Roads and Traffic Authority (does not include Cross City Tunnel). Based on combined direction vehicle numbers for Sydney Harbour Bridge, Sydney Harbour Tunnel, Anzac Bridge, Kings Cross Tunnel, Oxford Street, Parramatta Road, King Street, Regent Street, O'Riordan Street, Anzac Parade, and City West Link Road

Fleet

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|--|---------|---------|---------|-------|
| Emissions with offset measures (t) ¹³ | 2,005 | 2,062 | 1,110 | ✓ |
| Emissions per employee (t) | 1.4 | 1.4 | 0.7 | ✓ |
| Total emissions offset (%) ¹⁴ | 22% | 25% | 56% | ✓ |

13 Measures include fleet downsizing, use of biodiesel B20, and offsets.

14 Offsets include trees and renewable energy

Air pollution

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|---------|---------|-------|
| Low air pollution (days/year) ¹⁵ | 291 | 300 | 287 | ✓ |
| High air pollution (days/year) ¹⁵ | 9 | 6 | 9 | — |
| Carbon monoxide (CO average ppm) ¹⁶ | No data | 1.9 | 1.0 | ✓ |
| Nitrogen dioxide (NO ₂ average pphm) ¹⁶ | No data | 5.2 | 4.7 | ✓ |
| Total oxides of nitrogen (NO _x average pphm) ¹⁶ | No data | 25.3 | 16.3 | ✓ |
| Particulate matter (PM ₁₀ average ug/m ³) ¹⁶ | No data | 37.1 | 36.4 | ✓ |
| Particulate matter (PM _{2.5} average ug/m ³) ¹⁶ | No data | 15.1 | 13.5 | ✓ |

15 Information provided by the NSW Department of Environment and Conservation (Central East Sydney)

16 Ground level ambient air quality monitoring results Mary Ann Street Park, Ultimo. Cross City Tunnel air quality monitoring reports. 2005/06 figures based on Sep 05 to May 06 monthly averages www.crosscity.com.au

| | |
|---|----------------------------|
| — | No change (not applicable) |
| ✓ | Improvement |
| ✗ | Decline |

At a glance, continued

Water supply

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|---------|---------|-------|
| Potable water cost ¹⁷ (\$/kL) | \$1.013 | \$1.013 | \$1.264 | ✓ |
| City of Sydney area average rainfall (mm) ¹⁷ | 705 | 1,041 | 792 | ✗ |
| Water storage level (%) ¹⁸ | 42.6 | 38.3 | 41.8 | ✓ |
| City of Sydney area total water use (ML) ¹⁷ | 36,389 | 35,309 | 34,985 | ✓ |
| Council water usage (ML) ¹⁷ | 534 | 484 | 493 | ✗ |
| Council water usage per employee (kL) ¹⁷ | 361 | 326 | 327 | ✗ |
| Fountains water usage (kL/fountain/day) | No data | 2.6 | 1.9 | ✓ |

17 Information provided by Sydney Water

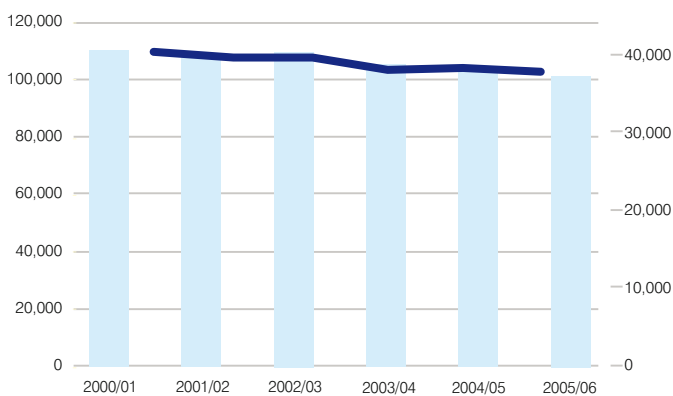
18 Information provided by the Sydney Catchment Authority for end of June

Water use

City of Sydney

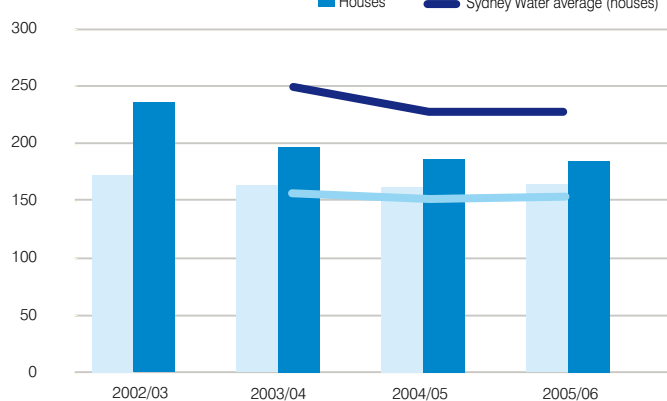
Community

kilolitres per day



Community

kilolitres per site, per year



Water pollution

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|---------|---------|-------|
| Darling Harbour faecal coliform levels exceeding safe limit (months per year) ¹⁹ | 6 | 10 | 4 | ✓ |
| Water pollution removed from Blackwattle Bay (cubic m) ^{20, 24} | 96 | 99 | 116 | n/a |
| Water pollution removed from Rozelle Bay (cubic m) ^{20, 24} | 214 | 298 | 263 | n/a |
| Rubbish from Council stormwater pollution traps (t) ²⁴ | 1,011 | 1,366 | 1,249 | n/a |
| Litter offences ²⁴ | 80 | 122 | 671 | n/a |
| Water pollution offences ²⁴ | 52 | 94 | 76 | n/a |

19 Information provided by Beachwatch of the NSW Department of Environment and Conservation

20 Information provided by the NSW Maritime Authority.

Waste

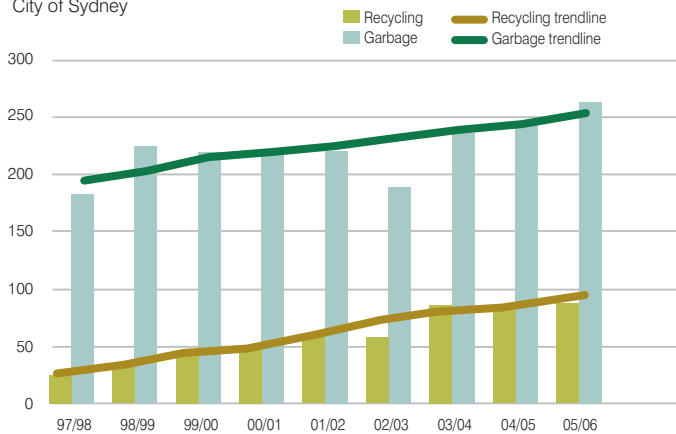
| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|---------|---------|-------|
| Total household waste (t) | 26,020 | 36,553 | 39,999 | ✗ |
| Total household recycling (t) | 9,169 | 12,186 | 13,227 | ✓ |
| Household waste (kg/person) | 230 | 238 | 257 | ✗ |
| Household recycling (kg/person) | 84 | 79 | 85 | ✓ |
| Household waste diverted from landfill (%) | 26.1 | 25 | 25 | — |
| Household chemical collection (kg) | 2,586 | 3,503 | No data | — |
| Street cleansing waste (t) ^{21, 24} | 7,565 | 6,901 | 5,043 | n/a |
| Litter bin waste (t) | — | — | 2,367 | n/a |
| Clean-Up Notices ^{22, 24} | 15 | 67 | 54 | n/a |
| Council A4 paper use (sheets/employee) | 6,539 | 8,645 | 8,763 | ✗ |
| Recycled toner cartridges used by council (%) | 46% | 47% | 25% | ✗ |
| Building materials recycled at Council facility (t) | 21,417 | 18,950 | 26,727 | ✓ |

21 Figures for 2003/04 and 2004/05 are combined totals for street cleansing and litter bins

22 City started to issue Clean-Up Notices at the end of 2003

Domestic Waste (kg per person)

City of Sydney



*In 2005/06 greenhouse gas emissions from our local government area were estimated at 4.7 million tonnes. This represents a cloud of pollution extending about six times greater than the height of Sydney Tower over the entire CBD.**

Plants and animals

| Indicator | 2003/04 | 2004/05 | 2005/06 | Trend |
|---|---------|-------------|---------|-------|
| Area of parks and open space (Ha) | 377 | 377 | 377 | — |
| Area managed by CoS (Ha) | 187 | 187 | 187 | — |
| Native animal rescues ²³ | 115 | 151 | 129 | n/a |
| Number of bird species | 66 | No new data | | n/a |
| New street trees (includes replacement trees) ²⁴ | 850 | 1,127 | 1,150 | ✓ |
| Native plantings for National Tree Day | 11,660 | 6,547 | 8,000 | ✓ |
| Native plantings by Rozelle Bay Community Native Nursery | 2,365 | 1,441 | 2,806 | ✓ |
| Free native plants for World Environment Day | No data | 1,500 | 2,250 | ✓ |
| New insulation on electricity cables (spans) ²⁶ | 100 | 95 | 45 | ✗ |

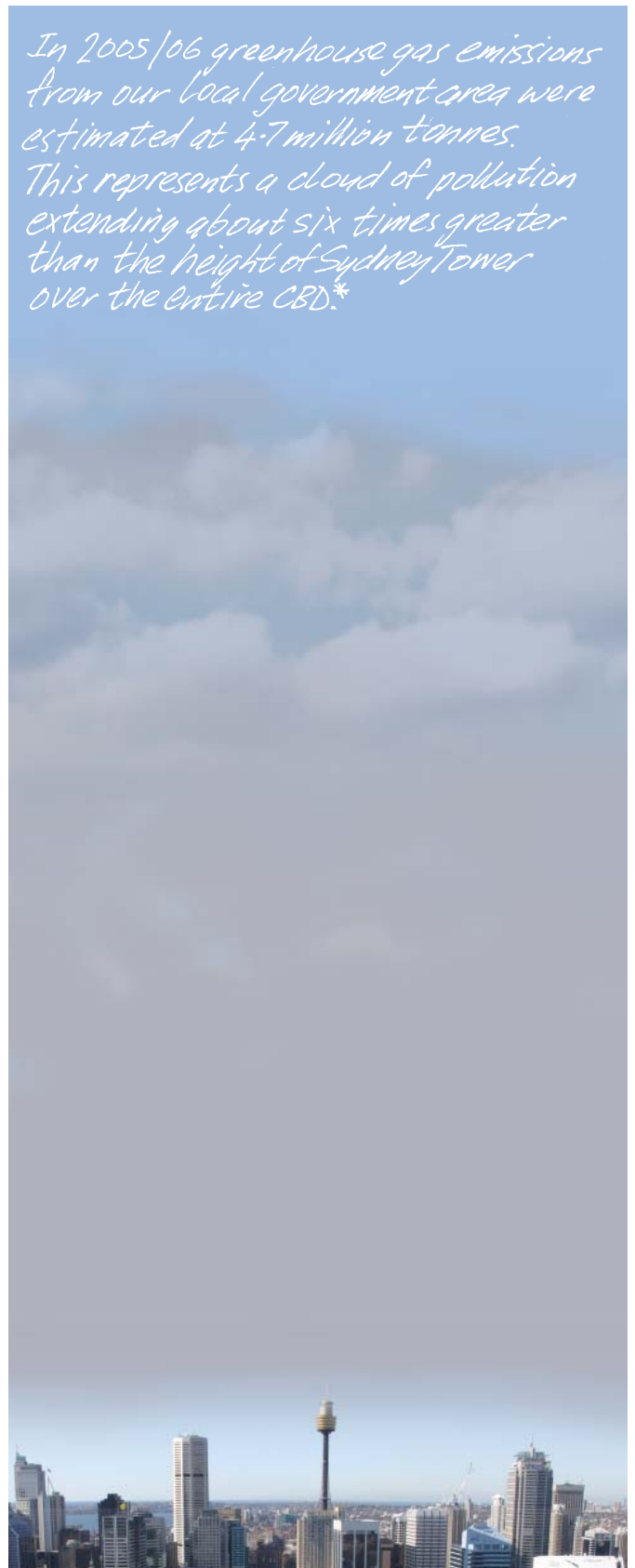
23 Based on calendar year plantings.

24 Environmental improvement or decline trends cannot be determined from the data.

26 Reduces frequency of tree lopping and wildlife electrocution.

| | | | |
|---------|-----------------|-------|-------------------|
| % | Per cent | ML | Megalitre |
| °C | Degrees Celsius | mm | Millimetre |
| cubic m | Cubic metre | MWh | Megawatt hour |
| Ha | Hectare | ppm | Parts per million |
| kg | Kilogram | t | Tonne |
| kL | Kilolitre | sq km | Square kilometre |
| km | Kilometre | sq m | Square meter |

| | |
|---|-------------|
| — | No change |
| ✓ | Improvement |
| ✗ | Decline |



* Area bounded by Circular Quay, Sussex Street, Broadway and Macquarie Street.

Key results

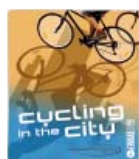
Overarching strategies

Overarching strategies

The way we live, purchase, consume, build and work has impacts across the environment. Many responses by the City of Sydney don't target one single environmental impact, but are crosscutting actions and seek to generally reduce pollution or slow the rate of resource consumption.

City projects

- The City is incorporating principles of ecologically sustainable development (ESD) into the design, construction and operation of its property portfolio with a comprehensive review now being conducted of **Town Hall House**.
- The new **Surry Hills Community Facilities Building** has been designed to achieve optimal environmental outcomes including energy and water conservation, solar access, indoor air quality, natural lighting and material sustainability, based upon the Green Star rating tool.
- **Energy and Water Savings Action Plans** are being developed and implemented for our largest sites (see the Energy and Water sections for details).
- The City has developed a **Sustainable Asset Management Policy** to embed sustainability principles into the procurement, operation, maintenance, upgrade and disposal of assets.



Planning

- Drafting of an **Environmental Management Plan (EMP)** has commenced to establish the environmental vision, targets and priority actions for the City with assistance from the Institute for Sustainable Futures.
- The City has continued to develop a **Sustainability Development Control Plan (DCP)** to ensure all new buildings and major refurbishment in the City are built to best environmental standards.

Education

- The City continued to promote **World Environment Day** by distributing approximately 2,250 native plants. Ironically an environmental expo with a drought theme scheduled for Martin Place was cancelled due to torrential rain.
- **Plant a Card**. To promote the City's environment website 15,000 postcards have been printed on recycled paper containing native bottle brush seeds which can be planted.
- The City is one of eleven Australian councils to join the **Triple Bottom Line Capacity Building Program** run by ICLEI which will undertake sustainability gap analysis, review current sustainability principles, objectives and targets and enable Council to implement triple bottom line reporting.
- The City has continued to partner with Marrickville Council to support the **Watershed Sustainability Resource Centre** at 218 King Street Newtown. The Centre offers environmental advice, resources and workshops to residents and business. This year the City purchased 100% Green Power for the Watershed – www.cityofsydney.nsw.gov.au/watershed
- **Urban Sustainability Workshop Series**. In 2005/06 there were 65 workshops held with approximately 900 participants covering topics such as worm farming, composting, sustainable living, natural cleaning and eco choices.
- The City has maintained **Environmental Memberships** and/or partnered with many environmental organisations and Government departments, including:
 - Clean Up Australia
 - Cooks River Foreshore Working Group
 - Green Building Council of Australia
 - Institute for Sustainable Futures
 - International Council for Local Environmental Initiatives (ICLEI)
 - Keep Australia Beautiful
 - NSW Department of Energy, Utilities and Sustainability
 - NSW Department of Environment and Conservation
 - Observatory Hill Environmental Education Centre
 - Planet Ark
 - Pymont Ultimo Landcare Group
 - Rozelle Bay Community Native Nursery
 - Southern Regional Organisation of Councils
 - Streamwatch
 - Sydney Coastal Councils Group
 - Sydney Metropolitan Wildlife Service
 - Sydney Water Corporation (Every Drop Counts Program)
 - The Watershed Sustainability Resource Centre
 - Tree Net

- **Environmental Grants Program.** In 2005/06 the City introduced a new grants scheme for community groups for innovative projects which help reduce greenhouse gas emissions, improve air quality, biodiversity and save water.
- The City's **Community Centres Environment Program** has continued to educate children about issues such as waste, biodiversity, wildlife and water conservation through excursions, workshops and displays. In 2005/06 murals with environmental themes were painted at Ultimo and Pyrmont Community Centres.
- In April 2006, 34 Council employees completed **Green Star training** on how to use this sustainability rating tool developed by the Green Building Council of Australia – www.gbcaus.org
- **Schools Program.** The City provides support for 33 schools in the LGA to develop and implement environmental management plans and link with Department of Environment and Conservation; Department of Education and Training; and Local Government and Shires Association networks.
- The popular **City Talks** program regularly provides informative and insightful views from expert speakers on issues of urban sustainability, particularly related to transport and the built form. In 2005/06 four talks were held for an estimated audience of 3,000 people. For upcoming talks see What's On – www.cityofsydney.nsw.gov.au/WhatsOn
- **Advocacy.** Through the Capital Cities Lord Mayors Forum we're working to put urban issues on the Federal agenda, particularly the need for investment in large infrastructure projects and to implement recommendations of the Sustainable Cities report.
- Environmental trends, issues and programs are communicated through the City's **Environment Website**. In 2005/06 the site received 88,989 visitors. www.cityofsydney.nsw.gov.au/environment

Energy and emissions

Global warming is increasingly viewed as one of the defining environmental issues of our time, affecting the location, frequency and intensity of rainfall and temperature extremes. Per head, Australians are by far the world's worst contributors to global warming.

In the City of Sydney, the commercial sector produces the largest amount of greenhouse gas emissions. In 2005/06, Council greenhouse gas emissions were estimated to account for 0.8% of emissions from the local government area.

Air pollution poses a risk to human health and ecosystem function. Sydney air quality has improved due to efficient engines and cleaner fuels, however these benefits are being offset by the increasing number of vehicles.

The City acknowledges the need for action by all levels of Government, community and the private sector to achieve energy savings in buildings and transportation, encourage renewable energy usage, and reduce air pollution.

Fleet

- **Fleet downsize.** To reduce greenhouse gas emissions, the City has reduced its total number of fleet cars, and is moving towards smaller vehicles.
- **Biodiesel** (B50) is now used by City of Sydney trucks which produces less greenhouse emissions than regular diesel.
- The City of Sydney **Vehicle Policy** provides a 15% incentive for staff with vehicle packages to choose fuel efficient models using the Federal Government Green Vehicle Guide – www.greenvehicleguide.gov.au
- **Carbon Neutral Fleet.** In 2005/06 there were 2,100 trees planted and 782 MWh of renewable energy purchased to offset 56% of the City's fleet emissions. This will increase to 100% offset in 2006/07.
- **Smart Cars.** The City purchased two SMART vehicles (one of the country's most fuel efficient cars).

Sustainable transport

- Our **Cycling in the City** program encourages CBD workers to ride to work by offering insurance, training and incentives. To date 125 participants have cycled more than 39,000km over the program (and continue to ride) – www.cityofsydney.nsw.gov.au/cycling. The program was entered into the Heart Foundation Local Government Awards and the Environs Australia Awards.
- To provide a critical missing link in Sydney's increasing cycle network, the City is consulting with key stakeholders to develop comprehensive network of **Cycle Routes** through the City.
- In 2005/06, work commenced on **Pedestrian and Cycling Strategies** which acknowledge these modes are critical to achieve an interconnected system of sustainable neighbourhoods.
- For the convenience of cyclists, there are **Bicycle Parking** options in the City including approximately 400 cycle rings on street poles, u-rails and storage lockers.
- **Mass Transit.** To promote sustainable forms of transport, the City of Sydney has called for extension of the light rail network from central station to Circular Quay and has supported dedicated bus lanes around the City.
- In October 2005, approximately 69 City of Sydney staff and family took part in the Bicycle NSW **Spring Ride** from North Sydney to Olympic Park – www.springcycle.com.au

Energy efficiency

- **Energy Efficient Light Globes.** In 2005/06, the City distributed around 4,000 boxes of free compact fluorescent light globes which is estimated to save around 9,700 tonnes of greenhouse gas.
- **Cities for Climate Protection (CCP).** The City has continued its involvement with the International Council for Local Environmental Initiatives and is looking to include CCP energy targets and actions within the forthcoming Environmental Management Plan.
- Work commenced on the draft City of Sydney **Public Domain Lighting Strategy** which seeks to improve the quality and amount of lighting in public areas, yet reduce greenhouse emissions by approximately 14% through improved energy efficiency (street lighting accounts for 40 - 45% of Councils electricity usage).

Energy and emissions, continued

- **Efficient Street Lighting.** In a trial with Energy Australia and the Southern Sydney Regional Organisation of Councils, the City has installed one hundred (100) efficient T5 lighting luminaires (which use about 40% less energy) in the Glebe area. The trial received grant funding from the NSW Government Energy Fund.

Sustainable buildings

- **Australian Building Greenhouse Rating (ABGR):** The City has a commitment to achieve a 5-star ABGR rating (whole building) for its offices at Town Hall House. This is inline with the City's promotion of ABGR in the commercial sector (see the 3CBDs Greenhouse Initiative) – www.abgr.com.au
- **3CBDs Greenhouse Initiative.** The commercial sector is the main contributor to greenhouse gas emissions in the CBD. To target this, the City hosts the 3CBDs program with North Sydney and Parramatta Councils which encourages companies to reduce energy consumption in the office using ABGR – www.3cbds.com.au
- **Energy Savings Action Plan (ESAP).** The City of Sydney is preparing an Energy Savings Action Plan for its largest energy using accounts in accordance with guidelines developed by the NSW Department of Energy, Utilities and Sustainability. The action plan includes a detailed assessment of twelve (12) properties, street lighting and fleet initiatives.
- **Green Power.** To promote the use of energy generated from renewable supplies, in 2005/06 the City purchased 10% Green Power for our properties and street lighting, estimated to reduce our greenhouse gas emissions by approximately 3,500 tonnes. We also purchased 100% Green Power for the Watershed Sustainability Resource Centre, and 100% for the New Years Eve 2006 event.

Water

Water is a precious resource and essential for quality of life. Balancing the supply of fresh water and the demand for its use is an ongoing challenge and requires ongoing commitment to water conservation, efficient use, and localised supply options such as rainwater tanks and water recycling.

In the City of Sydney, the commercial and residential sectors are the biggest water users. In 2005/06, Council's water consumption accounted for 1.4% of water used in the local government area.

Water quality is also an important issue to ensure that freshwater and marine ecosystems are protected from harmful pollutants. Approximately half of the City flows north to Sydney Harbour while the other half flows south to Botany Bay.

The main sources of pollution to waterways are licensed premises, illegal dumping, spills, and numerous small sources of pollution (eg. litter, sediments, oils, nutrients and heavy metals) which are washed into waterways through stormwater.

All water reuse initiatives facilitated by the City (where environmentally, socially and economically viable) aim to drought-proof parklands using alternate water sources instead of mains water, and improve stormwater quality and quantity.

Water efficiency

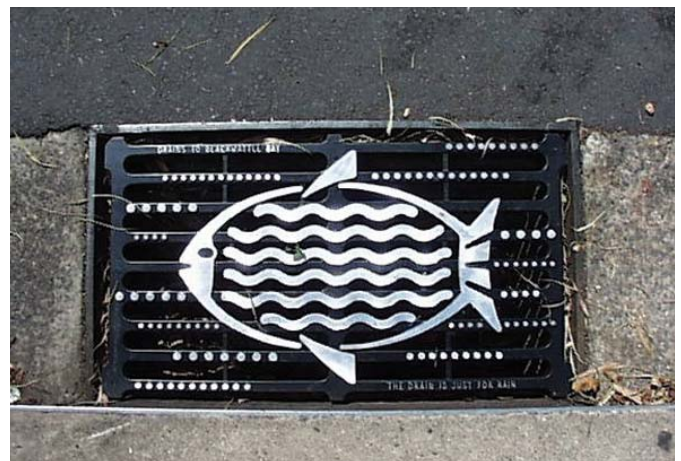
- The City has completed its **Water Savings Action Plan (WSAP)** which has identified significant water savings for Council's ten largest water using assets (parks, pools, buildings) which have now mostly been implemented.
- **Rainwater Tanks.** The City has expanded its network of large scale rainwater tanks with the installation of three more 50,000L tanks at Epsom Road Depot (funded with assistance from the Federal Government Community Water Grant Scheme) and smaller tanks at Sydney Park depot, Rushcutters Bay Kindergarten and community centres.
- To promote awareness and sustainable use of **Ground Water** the City has provided assistance to the Sydney Coastal Councils Group to develop a Groundwater Management Handbook.
- Our **Parks** have continued to use drought tolerant grasses and plant species. Water restrictions have been complied with (exemptions have been obtained for playing fields, heritage areas and establishment plantings).
- The City's **Street Cleansing** operations have been modified to use water more efficiently. A large proportion of that water comes from rainwater and ground water.
- **Waterless Urinals** are used in some of Council's offices and the priority is now to install these systems in other Council facilities.
- Water is being saved in the **City's Pools.** Diatomaceous earth water filtration has been installed at Victoria Park pool, estimated to use 50% less water than previously. The site has also installed a pool blanket to reduce evaporation. In partnership with Sydney Water, efficiency measures have been identified at Cook + Phillip Park Pool which are estimated to reduce water consumption by 37% (9 Olympic sized pools) each year.
- Since installation of sub-metering, many leaks have been identified and repaired in the City's **Water Features**.

Water sensitive urban design

- The City has entered into discussions with the Department of Environment and Conservation; (then) Department of Planning, Infrastructure and Natural Resources; Sydney Water; and TransGrid to discuss a potential groundwater and stormwater reuse feasibility to drought proof **Sydney Park and Erskineville Oval**. A trial has also commenced into reusing recycled leachate water from Sydney Park to maintain a vibrant and healthy wetland.
- The City has conducted a groundwater and stormwater reuse feasibility study in **Hyde Park and Cook + Phillip Park**. If realised it will provide 100 megalitres of recycled water for irrigation, fountains, street plantings and cleansing.
- The **Busby's Bore Stage 2** project includes mining effluent at Woolloomooloo and pumping it to a treatment plant in the vicinity of Royal Botanic Gardens. It is proposed two disused subterranean structures would be remediated and used for storage. The City will continue working with Clean Up Australia and other stakeholders to determine the project's viability and locate potential users of the recycled water.
- **Darlinghurst Road** harvests stormwater and directs it to a passive treatment pit removing pollutants and sediments before being used to drought proof the trees. This project was highly commended in the 2005 Water Sensitive Urban Design Award.
- Work has initiated on the **Barcom Park** upgrade in Darlinghurst which will include a 90 kilolitre tank to take water from the adjacent St Vincents stormwater retention system for irrigation of the park. The upgrade also includes permeable paving, soft landscaping and a bio-retention basin to increase infiltration and improve stormwater quality. The project was entered in the Sustainable Water Challenge – www.wsud.org
- The new **Harmony Park** being built in Surry Hills (on a former car park site) incorporates an underground 220 kilolitre stormwater re-use system to collect and treat runoff water from the park and an adjacent roof for irrigation.
- During 2005/2006, the City commenced **Water Reuse** investigations in Foley Park, The Water Police Site, Surry Hills Library and Rushcutters Bay Park.
- The City was one of the first Councils to install a large scale stormwater collection, treatment and re-use system, which continues to operate in **Solander Park** Erskineville.
- As part of the **Glebe foreshore upgrade**, three bio-swales are being installed to treat polluted stormwater and reduce the need for irrigation.

Stormwater treatment

- **Pollution Traps**. The City continues to own and maintain 11 gross pollution traps and about 4,000 trapped gully pits which collect about 1,250 tonnes of pollution each year which would otherwise end up in waterways.
- The **Federal Park Salt-Marsh Wetland** is designed to provide biodiversity and improve the quality of stormwater from an adjacent catchment. The City periodically removes litter and pollution from the wetland and an adjacent gross pollution trap.



- The City's **Street Cleansing** operations remove significant volumes of dust, litter and organic matter which would otherwise become a significant stormwater pollution problem.
- **Stormwater education**. The City is reducing stormwater pollution through programs such as the Clean Harbour Partners and erosion and sediment control guidelines, information and signage. The City's Blackwattle Bay Stormwater education campaign was a finalist in the 2006 Banksia Awards.

Waste

Material which goes to landfill represents a waste of natural resources, energy, water and nutrients. Waste contributes significantly to greenhouse gas emissions through embodied energy, transport, and methane emissions from landfill. Waste also places pressure on the amount of land available for other uses.

In the local area, material that is discarded through littering and illegal dumping creates an impact on visual amenity, and can pose health and safety risks to our community.

As a Local Government authority, the City is required to provide a domestic waste service, however we are also looking at programs to reduce waste and litter and encourage recycling in the building and commercial sectors.

Waste minimisation

- The City has produced a range of **Domestic Waste Education** brochures and information to encourage residents to produce less waste and know what can and can't be recycled.
- City Rangers are now using **Electronic Ticketing** which is estimated to save 800,000 sheets of paper notices each year.
- The City has taken its first steps to be a **Paperless Office** by introducing the TRIM record management system which should make paper files redundant in many instances.
- The City has continued to work with the **Department of Housing** to improve recycling and waste facilities in this sector which represents a significant part of the LGA.
- The City has reduced residual waste charges for smaller bins to encourage recycling and reward residents who reduce waste going to land-fill.

Waste, continued

- **Policy.** The City's *Local Approvals Policy for the Management of Waste in Public Places* and *Policy for Waste Minimisation in New Developments* have been endorsed by Council and encourage waste minimisation and resource recovery for various waste streams – www.cityofsydney.nsw.gov.au/Council/FormsPoliciesPublication/Policies.asp
- **Council Waste.** In 2005/06 Council used 22,000 reams of paper (which is enough to cover 3% of our LGA). This equates to 15 reams per employee, an increase on last year. About a quarter of the toner cartridges used by Council are made from recycled cartridges. Most of the cartridges used are returned for recycling. There is a need to improve services and educate staff to reduce waste and improve recycling rates in Council.

Enforcement

- The City's successful **Litter Prevention Program** gained global notoriety as City Rangers went undercover and issued infringements for littering. The program has followed extensive education campaigns and is well received.
- City Rangers undertake regular training and issue **Clean-Up and Prevention Notices** to prevent pollution from sediments, litter and illegal dumping.

Services

- The City provides a regular **Waste and Recycling Service** to residents and includes a clean-up service which recycles metals and wood.
- **Organic Waste** presents a significant contribution to the total waste stream. To reduce this, the City has initiated a green waste collection across the entire LGA. A Christmas tree collection service was also initiated, and food waste from some City venues is donated to Oz-Harvest.
- The City also sells **Compost Bins and Worm Farms** and conducts training courses (see Urban Sustainability Workshop Series in the Education section)
- The City's **Street Cleansing** program and street bins prevent substantial amounts of waste from becoming stormwater pollution.
- In 2005/06, the City's depot at **Burrows Road** recycled more than 26,700 tonnes of construction and road materials, a large increase from last year.
- The **Schools Recycling Service** is provided free to 17 schools in our LGA. The waste education unit also provides advice and information for schools (see Schools Programs in the Education section).

Plants and animals

European settlement and urbanisation of our area has had a significant impact on its natural biodiversity. In the urban environment, parks and open spaces provide habitat and food for native fauna, as well as improve the quality of air, soil and water.

Wildlife is an important factor in urban areas as it demonstrates that a well managed urban environment can accommodate animals, flora and people. While native wildlife is an asset in the city, feral animals such as cats and rodents have become pests. Similarly, unwanted and exotic plant species have become well established weeds in many areas.

The City is working to conserve and enhance our parks and trees to improve the health and diversity of flora and fauna.

Trees

- In December 2005 Council adopted the City's **Register of Significant Trees** which has identified 1,931 trees that are significant and are located in the City's public spaces, parkland, reserves, streetscapes and privately owned properties.
- The City has developed a suite of **Tree Management Policies** (*Urban Tree Management Policy, Tree Preservation Order and Street Tree Master Plan*) to ensure the protection and enhancement of the City's urban forests for generations to come – www.cityofsydney.nsw.gov.au/Environment/TreeManagement
- The City has continued to improve the number and quality of its **Street Trees**, which improve urban amenity and air quality, enhance biodiversity, and absorb greenhouse gasses.
- In 2005/06 volunteers planted approximately 8,000 plants for **National Tree Day** including trees, native palms, grasses and wetland species.

Parks and open spaces

- Work has begun on the City's **Open Space Strategy** which is to contain a section on environmental sustainability for the City's parks and open spaces to reduce resource consumption and improve ecological processes such as wildlife corridors.
- Areas within the City where **Biodiversity Planning** is encouraged through corridors and planting of native species include: Sydney Park, Glebe Foreshore, Federal Park salt marsh wetland, Orphan School Creek Reserve, Pyrmont Light Rail corridor, Alexandra Canal Network and small (less than 500sqm) pocket parks.
- The City manages **Weeds and Feral Animals** within our parks and assets. and has a comprehensive pest control program. *Operation Cat* provides residents with reduced fees for cat de-sexing to reduce the impact of cats on the environment. The City has also investigated strategies to control foxes, pigeons, rabbits and Indian Mynas.
- **Community Groups.** The City has continued supporting the great work being undertaken by the Rozelle Bay Community Native Nursery and the Pyrmont/Ultimo Landcare Group which both seek to restore degraded natural environments through native biodiversity plantings.

- There are ten **Community Gardens** in the LGA which are used for growing herbs, flowers, vegetables, fruits and conserving rare plants and seeds. Most gardens also demonstrate sustainable principles including waste minimisation, water conservation and energy conservation.
- The City has two staff members who volunteer with the Sydney Metropolitan **Wildlife Service** to rescue sick and injured native wildlife in the City LGA.

Cultural heritage

State of the Environment Report – Cultural Heritage

Cultural heritage defines our sense of place and is made up of tangible and intangible aspects, like buildings, bushland and languages. Specific heritage values such as places, objects and landscapes change over time, leading to diversity in heritage issues and management.

Cultural heritage in our city is defined by people, their lives and society, whether they are Indigenous Australians, Australian born or part of our migrant population from many countries, who bring with them various traditions and cultural diversity.

During 2005/06, the City of Sydney continued to embrace and promote our cultural heritage through numerous different initiatives.

Aboriginal Heritage

Throughout 2005/06, the City continued to work closely with our indigenous resident population and there was significant improvement in the working relationships between the greater community, community organisations and the Council. This resulted in an increased amount of community organisation applications for Community grants and other assistance from the Council, as well as an increase in the usage by our indigenous residents of community facilities, services and programs.

During the year, the City also:

- Celebrated National Aboriginal and Torres Strait Islander (NAIDOC) Week including flying banners throughout the LGA during the festivities
- Supported NSW Sorry Day Committee in the commemoration of the “Stolen Generation” on “Sorry Day”
- Signed the “Principles of Co-operation between Metropolitan Local Aboriginal Land Council (Metro) and City of Sydney.”

Non-Aboriginal Heritage

During 2005/06 the Urban Design and Heritage team was established, in order to offer improved internal and external customer service and facilitate a reduction in the average time taken to assess Heritage and Urban Design DA referrals.

The Heritage Specialists and Urban Designers also assisted with Council’s Planning Policy in the LEP and DCP review process.

The City’s model makers became part of the new Urban Design and Heritage team, and continued to develop the 3D electronic model of the City, which will act as a powerful tool for strategic planning, planning assessment and court matters.

History

The Dictionary of Sydney was launched in 2005/06, providing an exciting and innovative resource for the delivery of historical information about Sydney.

From art and architecture, to people and politics, waterways and wildlife, the Dictionary of Sydney will become the place for telling the story of Sydney, from its prehistory to the present.

Initially available through a new project website www.dictionaryofsydney.org, it is intended that the dictionary also become available through other mediums as new technological possibilities arise.

The Council published Musical Chairs: The Quest for a City Recital Hall – Customs House // Angel Place, a planning and design history about Sydney’s quest for a world class recital hall, written by Dr Lisa Murray, Research Historian, and launched by the Lord Mayor in May 2006.

The City was also involved in numerous other historical initiatives including:

- **Sydney Heritage Walk.** Plaques were reinstalled and a booklet published showcasing the historical photographs highlighted on the plaques.
- **History Week 2005.** 5 exhibitions, 7 talks, and a children’s colouring competition, were presented exploring the History Week theme “Transform”.
- **National Trust Heritage Festival 2006:** “Industrial Heritage – Our Working Lives” was the theme. 5 exhibitions, 4 tours, 2 talks and a children’s colouring competition were presented in the program.
- The **City Historian** and the Research Historian gave a number of public lectures, talks and presentations to conferences, students, history groups and the general public.

Our urban environment

• The City prevents and regulates **Noise** through planning controls and reports of noise incidents. With the exception of construction activities, the City limits neighbourhood noise from most sources to a maximum of five decibels above background levels.

• **Land Contamination** is addressed through the City’s Contaminated Land Development Control Plan. Contaminated land is identified and remediated, capped or removed as part of the development approvals process. The City maintains a register of all premises where contaminated land Site Audit Statements have been issued.

• The City continues to influence the **Urban Form** through policy and planning controls. The NSW Government BASIX scheme will improve the environmental performance of new residential buildings as will the forthcoming City of Sydney Sustainability Development Control Plan for other building types.