



Annual Report 2007-2008

Woollahra Municpal Council

Annexure 3

State of the

Environment Report

Woollahra State of the Environment Report 2007/2008

Version date: 27 October 2008

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1. Introduction

1.1 What is state of the environment reporting?

State of the Environment (SoE) reporting is a statutory requirement under the *Local Government Act* 1993 (LG Act). Every council in New South Wales (NSW) is required to prepare a SoE report as a part of its annual reporting obligations. The SoE report provides information on the activities undertaken by Council, State Authorities and the community to preserve and enhance the environment during the twelve month reporting period.

The LG Act requires that a comprehensive SoE report is to be prepared the year following a full council election, with a supplementary report prepared for the years between. The 2007/2008 SoE report is a supplementary report. Council's last comprehensive SoE report was prepared for the 2003/2004 reporting period. Council's next comprehensive report will be prepared in 2009 for the 2008/2009 reporting period.

As the majority of environmental conditions and background information do not change dramatically from year to year, it is recommended that the 2007/2008 SoE report is considered in conjunction with the last comprehensive SoE report produced for the 2003/2004 reporting period. Copies of the previous SoE reports, including the 2003/2004 report can be accessed from the Woollahra Library or from Council's website www.woollahra.nsw.gov.au

SoE reporting enables councils to report on the state of the environment in their local area and the progress of environmental activities undertaken during the reporting period. The report contains a number of outcomes, some of which are quantifiable and may be attributed to Council's activities over the reporting period. A summary of the outcomes for the 2007/2008 reporting period is presented in section 1.2 of this report. The outcomes are provided in greater detail in the sections for the related environmental sector.

Woollahra Council is one of the many stakeholders involved in the management of parts of the Woollahra environment. Other stakeholders include Commonwealth and State Government agencies, such as National Parks and Wildlife Service (NPWS) and Sydney Water, and the broader Woollahra community. Information from these stakeholders has been included in the report, where available. The Council plays an important role in local environmental management. However, the quality of Woollahra's environment is also influenced by many actions and events outside municipal boundaries and beyond the Council's jurisdiction.

Environmental indicators have been included in tables in the 'state' section for each environmental sector. The use of environmental indicators allows the monitoring of a specific aspect of the environment over time. Where information has been recorded for a number of years, trends can be established. Further indicators are likely to be identified in the future to assist with the monitoring of the state of the environment.

The SoE report provides information on the environment under the following environmental sectors, which correspond to chapters presented in previous SoE reports:

- land
- biodiversity
- waste
- heritage.

- water
- air quality
- noise

1.2 Outcome statements summary

The following is a summary of the environmental outcomes achieved for the Woollahra Local Government Area (LGA) during the 2007/2008 reporting period. The outcomes are explained in greater detail in the 'state' section for each environmental sector:

- The total number of incidents reported to the Department of Environment and Climate Change's (DECC) pollution line remained relatively stable for the past two years, with twenty incidents reported during 2007/2008 and nineteen reported for 2006/2007. Over the longer term, there has been a decline in the number of pollution incidents reported to the DECC's pollution line.
- Residents and those who work in the Woollahra LGA used a total of 5,601,964 kilolitres (kL) of potable (drinking) water during the reporting period. This was a reduction of 396,003 kL or 6.6% in annual water use from 2006/2007 and continues the trend of reducing residential water consumption since 2001/2002.
- Council used 24,473 kL of potable water during the reporting period. This is a 9,162 kL reduction in annual water used when compared with the 2006/2007 annual water use. Council has dramatically reduced annual water use since 2002/2003 through the implementation of a number of water savings actions and the introduction of water restrictions. In 2002/2003, council used 113,021 kL of potable water, whilst in 2007/2008 Council used 24,473 kL of potable water. This represents a reduction of 78.4% in the amount of water used by Council annually from the 2002/2003 figures.
- Council has achieved and exceeded the 20% potable water use reduction target adopted through the Water Savings Action Plan, having reduced water use in our operations by 55% since the base year (2004/2005).
- Twelve water pollution incidents were recorded by the DECC pollution line during the reporting period, representing a small increase from the 2006/2007 reporting period. The number of penalty infringement notices and prevention and clean up notices issued by Council to regulate water pollution incidents also declined with five recorded in total for 2007/2008 compared to ten during the 2006/2007 reporting period.
- Council prevented the pollution of 109,938 kg of vegetative matter, sediment and litter in Sydney Harbour through the gross pollution trap and pit cleaning program.
- Council organised and successfully ran four activities for the Sydney Coastal Councils Group Summer Activities Program January 2008. Approximately 130 people participated in the activities.
- During the reporting period the particulate matter standard was exceeded on fifty-one occasions from the Randwick monitoring station. All other air quality index parameters remained below the standard levels.
- Council received twenty-seven air pollution complaints during the reporting period. This is significantly lower that the number of complaints received during the 2006/2007 reporting period, when forty-two complaints were received by Council.

- Council received 302 noise complaints and the DECC's Pollution Line received two noise complaints during the reporting period. The noise complaints registered with both Council and the DECC represent a decrease in the number of complaints received from the 2006/2007 reporting period, decreasing from 310 to 302 registered with Council and four to two complaints registered by the DECC.
- Council issued one Noise Control Notice, three Noise Abatement Directions and six Nuisance Barking Notices/Orders.
- Woollahra residents disposed 11,877 tonnes of waste to landfill during the 2007/2008 reporting period. This equates to each person living in Woollahra throwing away 236 kg of waste to landfill during 2007/2008. The total household recycled materials (kerbside plastics, paper/cardboard and green waste) equated to 10,676 tonnes, or 213kg of materials recycled per person. These figures are consistent with the figures recorded in 2006/2007 and illustrate the general trend of increasing volumes of household recycling and decreasing volumes of household waste disposed to landfill.

2. Land

All types of human settlement have an impact on the environment and these are often more pronounced in larger urban centres (EPA 2000). The majority of land degradation issues facing present day NSW are the result of land use changes carried out during the first 100 to 150 years of European settlement, in particular the changes brought about by the extensive clearing of native vegetation. These changes have altered the physical, chemical, biotic and hydrological balances in the landscape and have resulted in many of the major problems we are facing today (EPA 2000).

The main pressures affecting land in the Woollahra LGA may be summarised under the following topics:

- urban development and intensification
- population growth and changing demographics
- acid sulphate soils

- soil disturbance and erosion
- clearance of native vegetation cover
- contaminated land

Measuring the extent of the 'ecological footprint' is one way of assessing the impacts and level of sustainability of a population (EPA 2000). The Department of Environment and Conservation¹ (now Department of Environment and Climate Change) states that the 'ecological footprint' of a population is the notional amount of 'biologically productive' land required to produce the ecological resources the population consumes and absorb the waste it generates. The area of land, typically hectares, is used as a per person common unit of measure to allow for comparisons over time and between populations (DEC 2006).

Ecological footprint analysis is a developing concept with a variety of methodologies emerging globally. **Table 1** presents the NSW ecological footprint included in the *NSW State of the Environment 2006* report (DEC 2006). The DEC notes that the various ecological footprint methodologies differ and figures may not be directly comparable. However, several consistent trends have emerged from the different footprint estimates, including:

- the residents of greater Sydney Metropolitan area have a slightly larger per capita footprint than the NSW average,
- Australian footprints are large by western standards, and
- the NSW per capita footprint continues to grow over time.

Table 1: NSW ecological footprint

| | 1996 (ha per capita) | 2001 (ha per capita) | | |
|----------------------------------|----------------------|----------------------|--|--|
| Greater Sydney Metropolitan area | 5.87 | 6.18 | | |
| NSW | 5.63 | 5.92 | | |

The DEC have estimated that the consumption of general goods and services constitutes the bulk of the ecological footprint (87%) while energy, transport, water and waste combined contribute 13% (DEC 2006).

¹The NSW Government created the Department of Environment and Climate Change (DECC) in April 2007. The DECC incorporates the former Department of Environment and Conservation (DEC) and is taking on new and re-named programs to build a broader organisation able to respond to the challenges presented by climate change (DECC 2007a). The former DEC replaced the former Environment Protection Authority in September 2003.

2.1 State of Land

The Woollahra Local Government Area (LGA) is located on the southern foreshores of Sydney Harbour, extending from South Head in the east to Rushcutters Bay in the west. Woollahra is the most northerly of the Eastern Suburb councils and adjoins Waverley, Randwick and Sydney City LGAs. The total area of Woollahra is 1217 hectares or twelve square kilometres including sixteen kilometres of harbour foreshore, consisting of rocky headlands, coastal cliffs and beaches.

The population of the Woollahra LGA is 50,161 recorded for the 2006 census, up by 1% from 49,911 people recorded for the 2001 census. Woollahra's 50,161 people reside in 22,476 private dwellings, 10,135 of which are separate or semi-detached, terrace, townhouse type housing and 12,135 of which are unit or apartments (2006 Census QuickStats – Woollahra Local Government Area).

Through the urbanisation of the Woollahra environment, much of the original vegetation has been completely removed or severely modified. As a result, urban residential land use is the most common land use in the Woollahra LGA.

During the reporting period, there was a slight increase in the total number of development applications (DAs) approved, increasing from 910 in 2006/2007 to 935 in 2007/2008. The number of residential flat building DAs approved by Council remained stable at eighteen, whilst the number of DAs for alterations and additions to existing dwellings increased significantly from 398 in 2006/2007 to 719 in 2007/2008. Despite the increasing development pressures, Council continues to maintain the total amount of open space in the LGA.

The total number of incidents reported to the DECC's pollution line has been relatively stable for the past two years, with twenty incidents reported during 2007/2008 and nineteen reported for 2006/2007. The corresponding number of chemical and pesticide pollution incidents has also remained relatively low and stable. Over the longer term, there has been a decline in the number of pollution incidents reported to the DECC's pollution line.

Table 2 presents the land data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of land (pressure, state response) over time. These specific aspects of the data (i.e. total number of DAs approved) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to the environment, and the information is regularly being monitored by Council and other government authorities. It must be noted that the list of indicators is not representative of outcomes for all land sector pressures, activities and projects.

Table 2: Land indicators

| Indicator | 1999/ 2000 | 2000/ 2001 | 2001/ 2002 | 2002/ 2003 | 2003/ 2004 | 2004/ 2005 | 2005/ 2006 | 2006/ 2007 | 2007/ 2008 | Trend |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| Total no. of DAs approved | 965 | 996 | 999 | 1183 | 943 | 750 | 655 | 910 | 935 | × |
| No. of RFB | - | | 15 | 5 | 15 | 17 | 4 | 18 | 18 | ~ |
| No. A/A to existing building | • | | 510 | 852 | 653 | 622 | 499 | 398 | 719 | * |
| Total open space (public and private) | - | 215 ha | 215 ha | 215.5 ha | 215.5 ha | 216 ha | 216 ha | 216 ha | 216 ha | ~ |
| Public open space | | | | | | | | | | |
| | | 101 ha | 101 ha | 101.5 ha | 101.5 ha | 102 ha | 102 ha | 102 ha | 102 ha | ~ |
| No. of environment protection licences issued by the DECC | - | 4 | 3 | 2 | | 2 | 2 | 2 | 1 | ~ |
| Total no. of incidents DECC | | | | | | | | | | |
| pollution line | 61 | 65 | 33 | 50 | 47 | 32 | 41 | 19 | 20 | ✓ |
| Chemical | 1 | 9 | 2 | 2 | 1 | 1 | 5 | 2 | 3 | ✓ |
| Pesticide | 1 | 3 | 0 | 1 | 2 | 3 | 2 | 3 | 2 | ~ |
| Contaminated land | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ~ |

Source: Woollahra Council (GIS open space), Department of Environment and Climate Change (DECC).

Note: DA means development application, RFB means residential flat building, A/A means alterations and additions,

ha means hectare. The total number of DAs does not include amended DAs or Section 82A reviews.

Key: The following symbols represent improving (\checkmark) , worsening (x) or stable (\sim) trends in the monitored aspects of

the environment. The trend column is left blank where there is not enough information to establish a trend.

Where no information is available, the (-) symbol is used.

2.2 Intent of land sector

The challenge facing local planning authorities is to develop long term strategies for the sustainable use of land, on which the environmental, economic and social wellbeing of the region depends. The following activities and projects aim to contribute to the sustainable use of land.

2.3 Ecological footprint of the Eastern Suburbs – Urban Sustainability Program

In response to the large and growing ecological footprint calculated for residents of the Greater Sydney Metropolitan Region, Woollahra, Waverley and Randwick Councils are collaborating on a project that will identify and implement actions to help reduce the ecological footprint of the Eastern Suburbs. The project titled the *3 Councils Ecological Footprint Project* received over \$1.8 million in funding under the DECC's Urban Sustainability Program, to undertake the three year project. Through this project, the three councils in the Eastern Suburbs of Sydney are cooperating across different issues relating to the ecological footprint of their populations. They and coordinate and target efforts capable of reducing water and energy consumption, generation of waste and conservation of biodiversity.

During the reporting period, progress has been made on a number of projects:

- completion of the stormwater treatment and harvesting system incorporated into the Rose Bay Promenade Upgrade by Woollahra Council (for further information on this project refer to section 3.4 Rose Bay Promenade Upgrade),
- completion of organic waste audits of a number of food outlets and cafes in Waverley and Randwick LGAs ahead of a major trial of food waste collection and composting across the Council areas,
- commencement of a free Home Energy Assessment and Action Plan program for householders which investigates and details the energy saving measures to help reduce household energy consumption, and
- launched the 3 Council's Sustainability Demonstration House located in Randwick, supported by lighting manufacturer ME Lighting and sustainability expert Michael Mobbs.

2.4 Neighbourhood Centres Strategy

Council prepared a Neighbourhood Centres Strategy applying to thirteen neighbourhood centres in the Woollahra LGA. The strategy addresses urban design and public domain issues and seeks to rejuvenate and maintain the retail health of the centres over the long term.

As part of the strategy, the Draft Woollahra Local Environmental Plan 1995 (Amendment No.60) and Draft Neighbourhood Centres Development Control Plan (DCP) for eleven centres were exhibited from May to June 2007. The package of Local Environment Plan (LEP) amendments and draft DCP controls provides opportunities for mixed use commercial/residential development, improvements to public places and streets and requirements for buildings to reduce reliance on non-renewable resources.

The strategy was broadened to include a review of retail and commercial activity in William and Elizabeth Streets Paddington in response to the use without consent of residential properties for various retail purposes. This area requires further investigation and has been excluded from the Draft Woollahra LEP (Amendment No. 60) and the draft DCP.

2.5 Double Bay and Oxford Street Paddington Commercial Centres

Council commissioned studies to identify issues affecting retail trade in the Double Bay Commercial Centre and Oxford Street, Paddington. The studies provided advice on opportunities to improve and strengthen business development in Double Bay and Oxford Street. The consultants looked at how Council, the chambers of commerce, tenants and landowners could work together to support the revitalisation of the shopping areas and specifically identified centre management models and funding options.

In response to the studies, the Double Bay Partnership Incorporated has been established. The Constitution for the Partnership was registered with the Department of Fair Trading and a Memorandum of Understanding between Council and the Double Bay Partnership will has been signed.

For Oxford Street, Paddington, Council will continue to work with Sydney City Council and businesses to consider opportunities to improve the centre.

2.6 Draft Subregional Strategy - East subregion

The NSW Government released the Draft East Subregional Strategy in July 2007 for public comment. The Draft East Subregional Strategy translates the objectives of the NSW Government's Metropolitan Strategy and State Plan to the subregional area comprising Woollahra, Waverley, Randwick and Botany Bay LGAs. The strategy sets housing and employment targets for the East subregion as a whole, and for each individual LGA. The targets for Woollahra are 2,900 new dwellings and 300 new jobs by 2031.

The strategy also establishes a typology or hierarchy for the business centres. In particular Edgecliff and Double Bay are identified as 'town centres' and Rose Bay is a 'village'. Other centres in the LGA are identified as 'small villages' or 'neighbourhood centres'.

In preparing Woollahra's new principal LEP, Council must provide a zoning regime, including development standards that facilitate the delivery of additional housing and employment generating floor space to meet the targets in the East Subregional Strategy.

2.7 Draft Principal Local Environment Plan

In November 2007 Council resolved to prepare a new comprehensive local environmental plan (LEP) for Woollahra, to replace Woollahra LEP 1995 (WLEP 95).

The new LEP will be based on the State Government's *Standard Instrument (Local Environmental Plan) Order 2006* (standard instrument), which prescribes the standard form and content of a principal LEP, including standard zones, planning clauses and definitions for dictionary terms. The standard instrument must be used by all councils in NSW when preparing the new principal LEP. As determined by the NSW Government, Woollahra must have its new LEP gazetted by 2011.

Council has commenced preparing the new draft principal LEP for Woollahra. Generally Council is taking a 'translation approach' to preparing the new LEP, meaning that the nearest equivalent zone, height and density between the WLEP 95 and the Standard Instrument will be applied, so that current land use planning controls and policy direction are generally maintained.

However, even in applying this translation approach there will be some proposed changes arising from:

- local planning needs such better addressing sustainability, and
- State planning needs, including requirements to meet housing and employment targets in the draft East Subregional Strategy.

Council engaged consultants to assess the likelihood of the housing target being achieved given anticipated market forces and the current planning regime. This report will inform the Woollahra residential housing review and options for achieving the housing targets.

The new draft principal LEP is expected to be publicly exhibited in 2009.

2.8 Plans of management

The *Local Government Act 1993* requires councils to prepare plans of management (PoM) for all community land. Plans of management are important management tools that:

- are prepared in consultation with the community,
- identify the important features of the land (i.e. natural significance, sports ground),
- clarify how council will manage the land, and
- indicate how the land may be used or developed (i.e. leasing).

During the reporting period a review was undertaken of Foreshore Parks, Cooper Park and Trumper Park PoMs. The revised PoMs will be publicly exhibited during the 2008/2009 reporting period.

2.9 Park, reserve and recreational improvements

Council has undertaken a number of improvements to the parks, reserves and recreational facilities in Woollahra, including the:

- installation of a new playground at Cooks Paddock, Paddington and shading to the existing playground in Spring Street, Paddington,
- commencement of the installation of new water saving irrigation system for Christison Park,
- preparation and submission of a DA for improved sports lighting at Christison Park.
- preparation of a policy for the introduction and management of Community Gardens. The first community garden in Trumper Park has commenced construction in readiness for use early in 2009,
- submission of a DA for the upgrade of the Watsons Bay Baths. The proposal was developed following community consultation and works on the baths are expected to commence in 2009,
- installation of new dinghy storage facilities at Rose Bay Park, Tingira Memorial Park, Gibbons Beach Reserve and Marine Parade, Watsons Bay. As part of these works, adjacent beaches were cleared of abandoned water craft and made available once again for public use,
- improvement of our beach cleaning services. A tractor and mechanical rake has been purchased and are now used to clean our Harbour beaches. This machine removes litter on top and below the sand surface making our beaches cleaner and safer to use,
- progressive replacement of the coastal cliff top fence which extends from Gap Park to Christison Park. All fencing is scheduled to be renewed by the end of 2008,
- completion of the Gap Park Masterplan. This plan was subject to extensive public consultation and specialist input from Police and mental health experts to address the need to prevent acts of self-harm. Tender documents are being prepared with the aim of commencing work early in 2009, subject to grant funding received from state and federal governments.

2.10 People and Pets Day

People and Pets day is a major community event held by Council each year in September to educate, inform and encourage responsible pet ownership in the Woollahra LGA. The theme for the 2007 event was 'get pet smart' and the four-hour fair included stalls and displays, demonstrations, animal nursery, competitions and raffles, a free sausage sizzle and entertainment. Some of the issues People and Pets Day aim to deal with include:

- encouraging pet owners to clean up after their animals, especially when away from home,
- encouraging the microchipping and registration of animals,
- raising awareness of where and when owners can walk their dogs, and
- raising awareness of the impact of domestic cats on native fauna.

The Woollahra Animal Advisory Committee is involved in the planning for People and Pets Day.

3. Water

Water is one of the most important natural resources for which all life on earth depends. Two-thirds of the earth's surface is covered by water, of which 97% is salt water stored in the seas and oceans. Three percent of the earth's water is fresh water and only 1% of this is available to humans, plants and animals for use (Government of South Australia 2007).

The amount of water on earth is always approximately the same, and is continuously being circulated from the earth's surface to the atmosphere in what is known as the water or hydrological cycle (EPA 2000). Urbanisation of water catchments modifies the natural water cycle and places an increasing pressure on the quantity and quality of water.

South Eastern Australia has been experiencing severe drought conditions for the past few years. This is placing increasing pressures on Sydney's drinking water supplies. The NSW Government released the *Metropolitan Water Plan* (MWP) in late 2004 in response to the current drought and increasing uncertainties of future water supplies. The MWP highlights the fact that 'Sydney is using more water than is sustainable'.

3.1 State of water

The Woollahra LGA falls into two water catchment areas, Port Jackson south Catchment (95% of the LGA) that flows into Sydney Harbour and the Eastern Coastal Catchment (remaining 5%) that flows into the Tasman Sea.

Harbourwatch water quality of the receiving waters

The DECC measures the recreational water quality of Sydney Harbour and the surrounding beaches through the Harbourwatch and Beachwatch programs. Water samples are collected from all swimming locations in the greater metropolitan region once every six days as a part of a long term monitoring program. The DECC states that the sampling frequency is in accordance with the national health guidelines for recreational use of water. The samples are transported to a laboratory and analysed for the presence of two indicator organisms, faecal coliforms and enterococci, which may indicate the presence of sewage pollution in the water (DECC 2007b).

The samples are compared to Beachwatch guidelines, which are based on the *Australia Guidelines for Recreational use of Water*, National Health and Medical Research Council (NHMRC) (1990). The results are provided as a grouped percentage of compliance with the Beachwatch guideline levels for faecal coliforms and enterococci.

Faecal coliforms detected in the water indicate the presence of recent sewage contamination at the swimming site, while the presence of enterococci indicates aged sewage contamination. The Harbourwatch monitoring program is more likely to detect aged sewage contamination than recent incidents because the samples are collected and analysed every six days (DECC 2007b).

Five swimming locations in the Woollahra LGA are monitored through the Harbourwatch program:

- Redleaf Pool,
- Rose Bay Beach,
- Nielsen Park,
- Parsley Bay, and
- Watsons Bay.

Table 3 summarises the compliance results for the five swimming locations in Woollahra for the previous two years. The 2007/2008 information will be released by the DEC in November 2008. This information will be included in the final report.

Table 3: Woollahra LGA Harbourwatch percentage compliance results

| | 2006/2007 | 1 | | | 2007/2008 | |
|-------------------|-----------|-----|--------|-----|--|--|
| Swimming location | Summer | | Winter | | Summer | Winter |
| | Fc | Ec | Fc | Ec | Fc Ec | Fc Ec |
| Redleaf Pool | 100 | 100 | 95 | 70 | Information to be released by the DECC in November 2008. | Information to be released by the DECC in November 2008. |
| Rose Bay Beach | 100 | 100 | 95 | 40 | Information to be released by the DECC in November 2008. | Information to be released by the DECC in November 2008. |
| Nielsen Park | 100 | 100 | 100 | 100 | Information to be released by the DECC in November 2008. | Information to be released by the DECC in November 2008. |
| Parsley Bay | 100 | 100 | 100 | 85 | Information to be released by the DECC in November 2008. | Information to be released by the DECC in November 2008. |
| Watsons Bay | 100 | 100 | 100 | 90 | Information to be released by the DECC in November 2008. | Information to be released by the DECC in November 2008. |

Source: Department of Environment and Climate Change (DECC) 2008

Note: Fc = faecal coliforms and Ec = enterococci.

The DECC allocates a ranking for all monitored harbour and ocean swimming beaches in the Hunter, Sydney and Illawarra regions on the basis of bacterial compliance during the summer swimming season. All five swimming locations in the Woollahra LGA ranked equal first.

The DECC releases daily Beachwatch and Harbourwatch bulletins based primarily on rainfall data. These may also include reports of sewage treatment bypasses and other pollution incidents to provide information to the community on the potential risk of bacterial contamination in swimming areas. The daily bulletins are available on the Beachwatch website www.environment.nsw.gov.au/beach. Typically bacterial contamination often occurs during periods of high rainfall when the quantity of stormwater runoff is high and sewer overflows are likely.

Potable (drinking) water consumption

Residents and those who work in Woollahra used a total of 5,601,964 kilolitres (kL) of potable (drinking) water during the reporting period. This was a reduction of 396,003 kL or 6.6% in annual water use from 2006/2007 and continues the trend of reducing residential water consumption since 2001/2002.

Council also continues to reduce potable water use, with a 9,162 kL reduction in annual water used during the reporting period compared with 2006/2007 water use. Council has dramatically reduced annual water use since 2002/2003 through the implementation of a number of water savings actions and the introduction of water restrictions. In 2002/2003, Council used 113,021 kL of potable water, whilst in 2007/2008 Council used 24,473 kL of potable water. This represents a reduction of 78.4% in the amount of water used by Council annually from the 2002/2003 figures.

To achieve this reduction in annual water use, Council has implemented a number of water saving initiatives, including:

- retro fitting Council's buildings and facilities with AAA rated fixtures,
- installation of rainwater tanks at depot and amenity buildings,
- investigating alternative water sources for Council use,
- planting drought tolerant plant species in our public reserves,
- mulching of garden beds to retain soil moisture,
- using bore water instead of mains water to irrigate the majority of sporting fields,
- installation of water efficient irrigation systems, and
- incorporating stormwater treatment and reuse into Council streetscape improvement works.

Water pollution

Twelve water pollution incidents were recorded by the DECC pollution line during the reporting period, representing a small increase from the 2006/2007 reporting period. This is still relatively low in comparison to previous years and reflects a continuing decline in the reported number of water pollution incidents over time. This trend is also reflected in the decline in the number of penalty infringement notices (PINs) and prevention and clean up notices issued by Council to regulate water pollution incidents with five recorded in total for 2007/2008 compared to ten during the 2006/2007 reporting period.

Council continues to maintain the 232 pollution control devices (220 pit baskets and 12 GPTs) installed throughout the LGA. Council collected 40,298 kg of material from the drainage pit cleaning program and 69,640 kg of material from Council's gross pollutant traps (GPTs) during the reporting period. Through Council's GPT and pit cleaning program, Council prevented the pollution of 109,938 kg of vegetative matter, sediment and litter in Sydney Harbour.

Table 4 presents the water data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of water (pressure, state, response) over time. These specific aspects of the data (i.e. water consumption LGA total) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to the environment, and the information is regularly being monitored by Council and other government authorities. It must be noted that the list of indicators is not representative of outcomes for all water sector pressures, activities and projects.

Table 4: Water indicators

| Indicator | 1999/ 2000 | 2000/ 2001 | 2001/ 2002 | 2002/ 2003 | 2003/ 2004 | 2004/ 2005 | 2005/ 2006 | 2006/ 2007 | 2007/ 2008 | Trend |
|---|---------------|---------------|---------------|-------------------|---------------|--|--|--|--|----------|
| Water consumption | 6 897 | 7 641 | 8 385 | - | - | 6 285 | 6 237 | 5 997 | 5 601 | ✓ |
| LGA total | 314 | 624 | 816 | | | 185 | 758 | 976 | 964 | |
| | kilolitres | kilolitres | kilolitres | | | kilolitres | kilolitres | kilolitres | kilolitres | |
| Water consumption | 79 307 | 95 885 | 99 862 | 113 | 63 912 | 48 283 | 38 666 | 33 635 | 24,473 | ✓ |
| Woollahra Council | kilolitres | kilolitres | kilolitres | 021 kilolitres | kilolitres | kilolitres | kilolitres | kilolitres | kilolitres | |
| No. of pollution control devices installed | - | - | 28 | 178 | 229 | 230 (10 GPTs and 220 pit baskets) | 230 (10 GPTs and 220 pit baskets) | 230 (10 GPTs and 220 pit baskets) | 232 (12 GPTs and 220 pit baskets) | ~ |
| No. of stormwater discharge points into the harbour | 118 | - | - | - | - | 110 | - | - | 110 | ~ |
| No. of water pollution incidents (DECC) | 28 | 42 | 24 | 41 | 40 | 22 | 22 | 10 | 12 | ~ |
| No. of clean up notices | 5 | - | 2 | 6 | 9 | 9 | 0 | 0 | 2 | √ |
| No. of prevention notices | - | - | 4 | 3 | 6 | 0 | 0 | 0 | 0 | √ |
| No. of penalty infringement notices issued | 28 | - | 2 | 50 | 14 | 13 | 12 | 10 | 3 | √ |

Source: Key: Sydney Water, Woollahra Municipal Council, and Department of Environment and Climate Change (DECC). The following symbols represent improving (\checkmark) , worsening (x) or stable (\sim) trends in the monitored aspects of the environment. The trend column is left blank where there is not enough information to establish a trend. Where no information is available, the (-) symbol is used.

3.2 Intent of water

Integrating the principles of total water cycle management into land management practices is vital to effectively address the pressures impacting on our water catchments. The following activities and projects aim to contribute to reducing potable water use, improving local water quality and overall water catchment health.

3.3 Water Savings Action Plan implementation

Council's adopted Woollahra Water Savings Action Plan was approved by the Minister of Utilities in February 2007. The plan identifies how much water is being used at Council's top ten water using sites and identifies and prioritises actions to reduce potable water use. Through the adoption of the WSAP, Council has adopted a 20% reduction target in potable water use across Council's operations from the base year (2004/2005) water use.

Council submitted the first annual WSAP progress report to the Department of Environment and Climate Change by 30 June 2008. The progress report was based on the latest available water data for 2006/2007, as provided by Sydney Water. The report showed that the majority of water conservation actions identified in the WSAP had been implemented, including the:

- reduction of flush volume and tap flow rates at the Woollahra Council Chambers,
- installation of time flow taps, tap locks and cistern valves in amenities at Christison Park,
- investigation alternative park irrigation water sources at Christison Park,
- installation of dual flush cisterns, flow restrictors, AAA shower heads and cistern valves at the O'Dea Depot site,
- installation of three rainwater tanks at O'Dea Depot,
- installation of time flow taps at Lyne Park,
- installation of tap flow restrictors and dual flush cisterns into Sherbrooke Hall,

- installation of urinal flush valve, time flow taps and tap locks at Trumper Oval, and
- installation of dual flush cisterns, time flow taps, urinal flush valve and tap locks at Watsons Bay Baths and amenities.

Based on 2006/2007 data water use at seven of the top ten sites had reduced and collectively, annual water use at Council's top ten sites had been reduced by 18,194 kL or 55% when compared to base year amounts.

3.4 Environmental Works Program

Through the introduction of an Environmental Levy in 2002, and now the Environmental and Infrastructure Levy 2007 - 2012, Council has been able to fund a range of specific improvement projects through the Environmental Works Program (EWP).

Council's EWP aims to improve **stormwater** quality by reducing the amount of sediment, vegetation matter, litter and pollution entering Sydney Harbour. The revised EWP, funded by the integrated Environmental and Infrastructure Levy 2007 -2102, includes water quality investigations, design, monitoring, community education and information programs, as well as funding infrastructure works associated with managing stormwater.

The following EWP projects were undertaken during the reporting period.

Environmental monitoring

Council is developing an environmental monitoring database and related collection systems for environmental data, including stormwater treatment devices (pit cleaning and gross pollutant traps), water quality measures, street sweeping and beach cleaning activities to quantify the amount of pollution Council is preventing from reaching the harbour. The database will also include the baseline water quality data gathered for Parsley Creek, Cooper Park Creek and Rose Bay Creek.

Environmental Education

Sustainability Workshops

Council expanded the sustainability workshops program in 2008, increasing both the regularity of workshops and the range of topics offered. Workshops included composting and the introduction of the 'EcoChoices' workshop. These workshops were well attended and feedback was positive.

Council is developing a 'Birds in your Backyard' workshop to encourage more residents to plant more native bird friendly gardens.

National Water Week

National Water Week is held each year in October to assist the community to understand and take action to protect and conserve our precious water resources and habitats. National Water Week was held from the 21 to 27 October 2007. For National Water Week, Council distributed free shower timers to residents from our customer service counter.

World Environment Day

The United Nations hold World Environment Day on 5 June every year as one of the primary ways to promote environmental awareness and enhance political attention and action on the environment (United Nations Environment Programme 2008). The theme for World Environment Day 2008 recognises that climate change is becoming the defining issue of our era. The slogan for World Environment Day 2008 is *CO2 Kick the Habit! Towards a Low Carbon Economy*.

For World Environment Day 2008 celebrations Council:

- held a World Environment Day environmental information and education stall in the Edgecliff Centre,
- conducted a short essay competition for local schools. The theme of the essay was Caring for our planet starts locally. Council received over 300 entries with the winner being Liam Cottrell from Woollahra Public School who won a \$100 book voucher for his efforts.
- held the World Environmental Day Drawing Competition for local primary schools with the theme *Reduce, Reuse, Recycle*. Council received over 570 entries. The winning artworks from Juliette Swain (McAuley Primary School) and Lily Beckhurst (Glenmore Road Public School) are now displayed on Council's recycling truck. Both winners also received a \$50 book voucher. Kambala Girls School won \$200 worth of locally propagated native plants for submitting the most entries.

Schools Network

The Eastern Suburbs Schools Sustainability Network (ESSSN) was established in collaboration by Woollahra and Waverley Councils, to support local schools to implement school-based sustainability initiatives. ESSSN meetings are held once per school term and are attended by local teachers as well as interested parents and representatives from Council and other relevant organisations e.g. Centennial Parklands. An email network also operates to facilitate communication between ESSSN members.

Environmental Sculpture Schools Competition

In September 2007, Council launched the inaugural Environmental Sculpture Schools Competition, held in conjunction with the annual Woollahra Small Sculpture Prize. The competition encouraged local school students to submit sculptures with the theme *Recycling*. Entries were displayed at Council at the same time as the Woollahra Small Sculpture Prize exhibition and remained on exhibition throughout National Recycling Week in November 2007.

The winning entries were selected by the Woollahra Small Sculpture Prize judges, with the inaugural 2007 Woollahra Environmental Sculpture Schools Award going to Charles Sullivan, Year 4 Sydney Grammar Edgecliff Preparatory School for *Garbage echidna*. The 2007 Peoples Choice Award went to Clare Foster, Year 5 Kambala for *Fly* and Special Commendations awarded to Matias Latham, Year 4 Sydney Grammar Prep School for *Boy with bulging eyes*, Lucy Armstrong, Year 9 Ascham School for *Unnamed* and Jay Gerrish, Year 1 Vaucluse Primary School for *Scarecrow*.

Environmental Grants

Council offered Community Environmental Grants, as a sub-category of Council's Community Grants Program, to community groups and local schools to implement local environmental projects. This is the third year that Council has run the Community Environmental Grants program.

The grants were funded by the Environmental and Infrastructure Levy, with a total amount of \$10,000 allocated for individual grant projects of up to \$1,000 in value. A total of sixteen applications totalling \$12,070 were received.

Twelve projects received funding under the program, for projects that ranged from a Community Clean-Up Day to native gardens and recycling initiatives. The successful applications were for projects that:

- provided direct environmental benefit, and
- aimed to develop knowledge, skills and awareness in participants and others to encourage environmental activities in the future.

Environmental Projects

Rose Bay Promenade Upgrade - stormwater treatment and re-use

Council completed the upgrade of the Rose Bay Promenade in June 2008. An important component of the project was the treatment of stormwater and the storage and re-use of the treated stormwater for Council uses. The parking bays located along the promenade were constructed of a porous paving infiltration system. Stormwater runoff from New South Head Road is treated as it flows through the porous paving and filtration material. The treated stormwater is then diverted to underground tanks capable of storing up to 200,000 litres. The treated stormwater is being used by Council for irrigation and maintenance purposes, saving precious litres of drinking and bore water.

Implementation of the stormwater treatment and re-use elements of the project was assisted by the NSW Government through the Urban Sustainability Grant Program. Woollahra, Waverley and Randwick Councils were successful in gaining \$1.8 million in funding from the grant program for a three year, 3 Council Ecological Footprint Project. The stormwater treatment and re-use component of the Rose Bay Promenade Upgrade was partly funded through this grant project. For further information on the grant project refer to section 2.3.

Small lane drainage and bush regeneration

Council initiated the Small Lane drainage and bush regeneration project to remove contaminated soil that has been dumped in Cooper Park at the end of Small Lane. The project involved the removal of the contaminated soil and the construction of a natural drainage channel to treat stormwater runoff before it enters Cooper Park. The new drainage channel was constructed out of sandstone and helps to control runoff and erosion within this area of Cooper Park.

Drainage and water quality project at The Crescent, Vaucluse

Properties along Hopetoun Ave and The Crescent, Vaucluse have been subject to flooding in the past. Council has undertaken an extensive process of investigation into the options for reducing the flooding risk and the treatment of stormwater prior to discharge into the environmentally sensitive receiving waters of Parsley Bay. This led to the development of a combined drainage and water quality project that will involve the:

- upgrade to the local drainage infrastructure,
- installation of a gross pollutant trap to capture pollutants before they reach Parsley Bay, and
- installation of a bio-retention system to filter overland flows from Hopetoun Avenue for typical road runoff contaminants, prior to discharge into Parsley Bay.

Council went out to tender for the project in early 2008. Project works are due for completion during the 2008/2009 reporting period.

Cliff Street, Camp Cove - Interpretation and Signage Project

Council carried out works in Cliff Street Watsons Bay aimed at reducing local flooding at Camp Cove. During excavation for the works the original cobble stone road surface was discovered. Council decided to retain the cobble stones and integrate them into the resurfacing works in Cliff Street. Council applied for and received \$39,000 in grant funding from the Sharing Sydney Harbour program. The grant project involved the construction of interpretation boards and aboriginal symbols carved into the pavement along Cliff Street. The project was completed in March 2008.

Cooper Park Upper Pond Rehabilitation Project

Council has called for tenders for the development of the Upper Pond Rehabilitation Project at Cooper Park, Bellevue Hill. The project aims to:

- reduce sediment loading on the pond and creek system downstream,
- reclaim the original pond size and shape, and
- remove non-native trees and regenerate the native vegetation along the creek banks.

The final project, which is scheduled to commence at the end of 2008, will incorporate Water Sensitive Urban Design (WSUD) principles to treat and remove gross pollutants and sediment, protecting the pond and creek downstream from future pollution. Sediment sampling has been undertaken as a part of the investigations, to classify the sediment found in the pond for removal and appropriate disposal.

Water Sensitive Urban Design Bellevue Road Streetscape Improvements

Council has commissioned consultants to design a series of WSUD features as part of the proposed streetscape improvement works on Bellevue Road. The improvements will include a bio retention system and rain gardens to reduce urban runoff and help filter pollutants from road runoff before it enters the stormwater system. The incorporation of WSUD elements into the streetscape improvements will improve the quality of water flowing into Cooper Park Creek. The detailed designs are due for completion in November 2008 and works will commence after an open tender process and Council approval.

Cigarette Butt Litter Reduction

Council had twenty-five cigarette butt disposal units installed within the Double Bay, Rose Bay and Edgecliff business districts on a twelve month rental contract. The disposal units capture an estimated 50,000 cigarette butts per week, preventing this litter from reaching the ground and ultimately Sydney Harbour through the stormwater system. Council purchased the units following the successful twelve month trial, and they will remain in operation in the commercial centres.

3.5 Sydney Harbour Week 1 - 9 March 2008

Sydney Harbour Week is an annual event held in early March to celebrate Sydney Harbour. The event is coordinated by the Sydney Harbour Foreshore Authority and provides an opportunity for the community to interact with and learn about Sydney Harbour through participation in organised activities. Activities have ranged from Harbour discovery tours and educational forums to how-to-sail classes. Woollahra Council organised the Parsley Bay Centenary Celebrations for Sunday 2 March 2008, with events including:

- guided bushwalks and talks,
- water dragon craft and story time activities, and
- the unveiling of sculptures and interpretive signage in Parsley Bay.

Unfortunately the event was cancelled due to bad weather.

3.6 Sydney Coastal Councils Group Summer Activities Program (January 2008)

The Sydney Coastal Councils Group Summer Activities Program was conducted during January 2008. The program aims to educate the community about Sydney's beautiful coastal environment through organised activities. The activities are organised by the individual councils, and coordinated by the Sydney Coastal Councils Group.

Woollahra Council organised the following activities for the January 2008 program:

- SOS Science of the Surf presentation with Dr Rob Brander,
- Woollahra's ocean coast: its scenic wonders and history with Professor Bruce Thom,
- natural and cultural heritage bushwalk at Parsley Bay Reserve, and
- Aquaman story time and craft at the Woollahra Library.

The Woollahra activities were very successful with approximately 130 people participating.

4. Biodiversity

Biological diversity or biodiversity is defined as the variety of all life forms (plants, animals and micro-organisms), the genes they contain and the ecosystems to which they form a part of (NPWS 1999). Healthy, functioning ecosystems are necessary to maintain the quality of the atmosphere, climate, fresh water, soil formation, cycling of nutrients and the disposal of wastes. Indeed, the conservation of biodiversity is a cornerstone of ecologically sustainable development (EPA 1997).

The Department of Environment and Climate Change (DECC) reports that the loss of biodiversity and the overall decline of native species are two of NSW's greatest environmental challenges (DECC 2007). This loss and decline are largely due to the impacts of agriculture, urban development and unsustainable natural resource management practices carried out over the past 150 years. The resulting loss, fragmentation and degradation of native vegetation have been compounded by the introduction of threats such as pests and weeds, diseases, inappropriate fire and grazing regimes and pollution (DECC 2007).

The main pressures impacting on the health of Woollahra's bushland and biodiversity are:

- fragmentation of remnant bushland,
- introduced/weed species,
- urban runoff and stormwater,
- sewer overflows.
- altered fire regime (too infrequent and not hot enough),
- habitat degradation,
- domestic animals,
- waste dumping, and
- vandalism and disturbance.

4.1 State of biodiversity

The Woollahra LGA has approximately seventy-five hectares of bushland located in nine bushland reserves. Three vegetation communities are present containing 311 native plant species, including two endangered (*Allocasuarina portuensis* and *Acacia terminalis subsp terminalis*) and one vulnerable (*Callistemon linearifolius*) plant species.

Table 5 presents the biodiversity data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of biodiversity (pressure, state, response) over time. These specific aspects of the data (i.e. number of remnant vegetation reserves) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to biodiversity, and the information is regularly being monitored by Council and other government authorities. It must be noted that the list of indicators is not representative of outcomes for all biodiversity sector activities and projects.

Table 5: Biodiversity indicators

| Indicator | 1999/ 2000 | 2000/ 2001 | 2001/ 2002 | 2002/ 2003 | 2003/ 2004 | 2004/ 2005 | 2005/ 2006 | 2006/ 2007 | 2007/ 2008 | Trend |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| No. of remnant vegetation reserves | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | ~ |
| No. of regeneration/ revegetation sites | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | ~ |
| No. of flora species: Endangered Vulnerable | 2 1 | 2 | 2 | 2 | 2 | 2 | 2 1 | 2 1 | 2 1 | ? ? |
| No. recovery plans approved | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | } |
| No of native flora species in LGA | 311 | 311 | 311 | 311 | 311 | 311 | 311 | 311 | 311 | ~ |
| No. of weed flora species in LGA | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | ~ |

Source: Woollahra Municipal Council, National Parks and Wildlife Service.

Key:

The following symbols represent improving (\checkmark) , worsening (*) or stable (\sim) trends in the monitored aspects of the environment. The trend column is left blank where there is not enough information to establish a trend. Where no information is available, the (-) symbol is used.

4.2 Intent of biodiversity

Actions relating to biodiversity management aim to identify, maintain, enhance and protect biological diversity. The following activities and projects aim to contribute to improving the health of biodiversity in the Woollahra LGA and the Sydney region through conservation and management.

4.3 Bush regeneration and revegetation status of Council reserves

Council continued its commitment to maintain and enhance our local biodiversity with the continued success of the bush regeneration activities being undertaken within Cooper Park, Parsley Bay Reserve and Gap Park, and the revegetation projects being undertaken in Trumper Park and Harbourview Park. **Table 6** illustrates the status of regeneration activities in Council's bushland reserves.

Table 6: Regeneration status of Council's bushland reserves

| Parks/Reserves | Area of bushland (hectares) | Untreated bushland area | Area (%) regenerated and |
|---------------------|-----------------------------|-------------------------|--------------------------|
| | | (%) remaining | on maintenance |
| Cooper Park | 12 | 37 | 63 |
| Gap Park | 3.4 | 11 | 89 |
| Trumper Park | 4.3 | 32 | 68 |
| Parsley Bay Reserve | 3.15 | 1 | 99 |
| Harbourview Park | 1 | 8 | 92 |

Source: Woollahra Council Parks and Street Trees

The following actions were undertaken during the reporting period:

- primary weed removal at three sites in Gap Park totalling an area of 250m²,
- primary weed removal at ten sites in Cooper Park across an area totalling 1550 m²,
- planted native plants at the Bushcare site in the south central area of Cooper Park and at the northern end of Bellevue Gardens. Sites are being monitored for natural regeneration,
- removal of a large Camphor Laurel tree at Harbourview Park,
- planted native plants in the maintenance areas of Trumper Park and Parsley Bay Reserve.

Bush regeneration works were undertaken by a combination of Council staff and bushcare volunteers. Planting undertaken as part of follow-up vegetation works is with tubestock of native plants of local origin (provenance) grown by Council staff.

4.4 Bushcare

Bushcare is a community-based program in which volunteers help regenerate and preserve Woollahra's bushland, with the assistance and support of Council staff. The program provides an opportunity for volunteers to learn about the local environment, and to be actively involved in the management of bushland in Woollahra. Council currently has fifty-one volunteers working across the four bushcare sites in Woollahra.

The following bushcare activities were undertaken during the reporting period:

- Council conducted an induction course for the new bushcare volunteers at Trumper Park. New volunteers are working the first Saturday of each month,
- Council staff and volunteers from the Scots College undertook a joint revegetation project around the pond in Trumper Park and are planning a larger group planting day later in 2008,
- Council staff and community volunteers planted 1000 native plants in Gap and Cooper Parks on National Tree Day on 30 July 2007,
- the bushcare program with the Miroma Rudolf Steiner Centre for Adults with disabilities, based in Vaucluse. The program includes working with carers and students of Miroma at Christison Park every Wednesday, learning about the values of preserving urban bushland. Activities included weeding, planting, and mulching, and
- bushcare was successful in receiving a Community Grant for the provision of small tools.

If you are interested or would like some more information on Bushcare, please contact Council's Bushcare Liaison Officer on 0423 020 648 or by email on bushcare@woollahra.nsw.gov.au

4.5 Community education – bushland walks

Council staff conducted the following guided bushwalks during the reporting period:

- Coastal cliffs Vaucluse for Council's Garden Week in September 2007,
- Parsley Bay Vaucluse for Sydney Harbour Week in March 2008, and
- Lighthouse Reserve and Gap Park Vaucluse for International Whale Day in June 2008.

Topics covered during the walks included the remnant vegetation of the area, bush regeneration, weed management and catchment management issues. The guided bushwalks continue to be very popular, with all walks being fully booked, averaging twenty participants. The International Whale Day walk attracted fifty participants.

5. Air

Air or the atmosphere is essential for all life on earth as it regulates global weather and climate. The atmosphere maintains an average air temperature of 15P^{oP}C that is necessary to support life on earth.

The atmosphere can be divided into three main regions: the mesosphere, stratosphere and the troposphere. Human activity, including the burning of fossil fuels, impact on the two atmospheric levels closet to the earth, the stratosphere and the troposphere (EPA 2000).

Environmental air quality is considered at three levels (EPA 1996):

Global - ozone layer depletion and climate change as a result of increased greenhouse gas levels.

Regional - photochemical smog, fine particle pollution and nitrogen dioxide.

Local - carbon monoxide, sulfur dioxide, lead (and other air borne toxins) and odour.

Pressures affecting local, regional and global air quality include the burning of fossil fuels for electricity and to operate vehicles and equipment, bushfires, agricultural practices and the disposal of waste. Air pollution can be dissipated or exasperated by local weather conditions.

5.1 State of air

Regional Air Quality Index

The DECC monitors air quality throughout NSW. Until 2008, air quality results were presented as the Regional Pollution Index (RPI) and categorised as low, medium or high readings. A high pollution index reading corresponded to pollution levels that exceed health or visibility standards.

The DECC has updated the RPI and has created a new index, the Regional Air Quality Index (RAQI). The RAQI is based on the five pollution criteria of the National Standards (ozone, nitrogen dioxide, carbon monoxide, sulphur dioxide, particles) as well as visibility, a NSW standard.

Actual Air Quality Index (AQI) values are calculated by applying a formula to each of the criteria. DECC compares the AQI values to adopted NSW Standards with rankings ranging from 'Very Good' to 'Hazardous'. When the AQI is reported by DECC as Unhealthy or Very Unhealthy it indicates that the determining pollutant levels have reached or exceeded the relevant standard (DECC 2008).

Woollahra falls within the Central Eastern Sydney airshed. The Randwick monitoring station is the closest station to Woollahra. During the reporting period the particulate matter standard was exceeded on fifty-one occasions from the Randwick monitoring station. All other air quality index parameters remained below the standard levels.

Air pollution

Council receives the majority of air pollution complaints recorded for the Woollahra LGA, with twenty-seven complaints recorded during the reporting period. This is significantly lower that the number of complaints received during the 2006/2007 reporting period, when forty-two complaints were received by Council.

Table 7 presents the air data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of air quality (pressure, state, response) over time. These specific aspects of the data (i.e. corporate greenhouse gas emissions) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to the environment, and the information is regularly being monitored by Council and other government authorities. It must be noted that the list of indicators is not representative of outcomes for all air quality sector activities and projects.

Table 7: Air quality indicators

| Indicators | 1999/ | 2000/ | 2001/ | 2002/ | 2003/ | 2004/ | 2005/ | 2006/ | 2007/ | Trends |
|--|--------------------------------------|----------|----------|----------|-------------------------|--------|--------|--------|------------------------------|----------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | |
| Corporate (Council) greenhouse gas emissions. | 5,475 CO2 ^{-e} tonnes | - | - | - | 5,903 CO2* tonnes | | | | | ~ |
| RPI High — a.m. High — p.m. | 4 1 | 13 13 | 10 13 | 14 14 | 9 4 | 6 0 | 9 3 | 5 7 | No longer reported this way. | |
| No. of Council air pollution complaints | - | - | - | 56 | 45 | 26 | 24 | 42 | 27 | ~ |
| No. of air incidents DECC pollution line | 5 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | √ |

Note: RPI means regional pollution index. CO₂-e is the conversion of all greenhouse gas emissions to units of carbon

dioxide equivalent (CO2-e) so that gases of different strengths can be compared and added together.

Source: Department of Environment and Climate Change (DECC). Woollahra Municipal Council.

Key: The following symbols represent improving (✓), worsening (✗) or stable (~) trends in the monitored aspects of the environment. The trend column is left blank where there is not enough information to establish a trend.

Where no information is available, the (-) symbol is used.

5.2 Intent of air

Action taken in relation to air aims to improve air quality at local, regional and global level. The following activities and projects aim to contribute to improving air quality through the reduction in pollution and greenhouse emissions.

5.3 Energy Savings Action Plan

Council prepared and submitted the draft Woollahra Energy Savings Action Plan to the Minister for Utilities for approval in April 2008. The introduction of the *Energy Administration Amendment* (*Water and Energy Savings*) *Act 2005* not only required Council to prepare a Water Savings Action Plan (section 3.3), but also required large councils to prepare an Energy Savings Action Plan (ESAP). Draft ESAPs are to be submitted to the Minister of Utilities for approval prior to finalisation.

An ESAP determines how much energy is being used at Council's top ten energy using sites and identifies and prioritises actions to reduce energy usage. To assist with the preparation of the ESAP, Council commenced the process of entering into an energy performance contract (EPC) with a specialist energy conservation contractor. EPCs are a form of contracting that provides businesses (including councils) with a low risk way to implement energy and water efficiency improvements. The chosen energy conservation contractor guarantees both the performance of the technology and the

delivery of energy and greenhouse gas emissions savings. EPC can be used in any facility in which energy is used.

The investigations undertaken for the EPC provided Council with the technical aspects of the ESAP, specifically the audits of Council's sites, the identification of energy conservation actions and the calculation of energy and cost savings. Council signed the EPC in May 2008 and has commenced the implementation of the energy savings actions identified.

Council, through the endorsement of the ESAP, has adopted a 20% reduction target in energy use at Council's buildings from the base year (2003/2004). Implementation of all of the actions undertaken as a part of the EPC will reduce energy use by approximately 20% at those sites and meet this target.

5.4 Green power

Council currently purchases 6% of accredited Green Power for the supply of energy for Council's four highest energy using sites (street lighting for the LGA, Woollahra Council Chambers, Cross Street Car Park and Community Centre and the Woollahra Library). Green Power is clean energy produced from renewable energy sources such as wind, solar and hydro-power.

By purchasing 6% Green Power for Council's four highest energy using sites, Council abated over 268 tonnes of CO² e in 2007/2008.

Council is currently negotiating a contract to supply energy to Council's small sites (those other than the four listed above) that will include the supply of 25% accredited Green Power.

5.5 Private Use Vehicle Fleet Policy

Council has carried out a review of the Vehicle Fleet Policy in relation to private use, with the aim to achieve the following objectives:

- to reduce fuel consumption, greenhouse gas emissions and air pollution from Council vehicles,
- to encourage staff to select vehicles with reduced fuel consumption, greenhouse gas emissions and air pollution ratings while allowing choice from a range of vehicles to suit individuals' family needs and preferences,
- to maintain Council's competitiveness in attracting and retaining staff while reducing the net costs to Council of the private use fleet, and
- to align private use fees more directly to the cost to Council.

As a result of the review, Council's new private use fleet policy encourages staff to select more environmentally sustainable vehicles by relating the fee payable to environmental and cost parameters. Therefore, vehicles that have a lower environmental impact and are less costly to operate and maintain are leased to council staff at a lower rate than a car that has higher environmental impacts and running costs. This creates a cost incentive to staff for selecting more environmentally sustainable vehicles.

5.6 Street Lighting Improvement Program

Woollahra Council is one of twenty-nine councils within the Energy Australia distribution area that have joined together for the Street Lighting Improvement (SLI) Program to improve street lighting throughout the region. The combined LGAs of the twenty-nine councils represent 87% of all the lights in Energy Australia's distribution area and more than 40% of all street lights in NSW.

The primary objective of the program is to seek street lighting improvements through negotiations with government, Energy Australia, industry regulators, technology suppliers and other key parties.

Trials of new residential road lights (T5 and Compact Fluorescent Luminaires (CFL)) conducted through the SLI program have led to the adoption of CFLs as the standard luminaire used by Energy Australia in the replacement of existing and installation of new lamps. Staff from the SLI program are negotiating with Energy Australia regarding the cost of supplying and maintaining CFLs.

The SLI program was successful in receiving \$4.2 million in funding through the NSW Government's Energy Savings Fund, to accelerate the installation of energy efficient street lighting technologies over the next four years. However, implementation of the grant has stalled due to the negotiations with Energy Australia regarding supply and maintenance costs.

5.7 Traffic and transport

Community Transport Forum

Council continued to hold the Community Transport Forum during the reporting period. The aim of the forum is to provide a public forum for discussion on major transport issues within the LGA including bus and ferry services, disability access to transport nodes (i.e. Edgecliff Centre), light rail opportunities and general maintenance and improvements to transport services. The forum includes representatives from State Government authorities (NSW Police, Roads and Traffic Authority, State Transit Authority, Sydney Ferries and State Rail Authority), State Members, Federal Members, Councilors, Council staff, neighboring council staff, and community representatives. Meetings are scheduled two to three times a year, or as required. Representative participation in the forum is based on relevance of the topics being discussed at each meeting.

Inner City Council Transport Forum

Council continued to facilitate the Inner City Council Transport Forum involving traffic staff from neighboring councils (Waverley, Randwick and Sydney City) to discuss mutual traffic and transportation matters. Matters considered include the Oxford Street bus lane, light rail, car share, walking and cycling facilities and other relevant issues.

Pedestrian and Access Mobility Plan for Paddington (PAMP)

The Paddington Pedestrian and Access Mobility Plan (PAMP) was adopted by Council in 2006/2007 as a three stage program. Council has implemented parts of stages one and two of the plan during the reporting period, including new or upgraded pedestrian facilities in Queen Street, Brown Street, Glenmore Road, Goodhope Street, Heeley Street, Paddington Street, Windsor Street, Cascade Street and Gurner Street.

Woollahra Bicycle Plan implementation

Council continues to install bicycle lanes in stages in accordance with the *Woollahra Bicycle Plan* 1999. New bike routes were introduced in Grosvenor Street, Nelson Street and Trelawney Street. The percentage of the total bicycle routes installed has increased to 49% in 2007/8.

Local traffic management

Council has implemented local traffic management measures in Greenoaks Avenue, Hopetoun Avenue, Bellevue Road, Serpentine Parade, Bathurst Street, Glenmore Road and Village Lower Road. Additional measures were included in the streetscape projects at the Five Ways, Paddington and in Double Bay. Council introduced 40 kilometer speed limits in the Bellevue Hill shopping centre. This scheme was approved as permanent by the Roads and Traffic Authority during the year.

Sustainable Transport Pilot Project

Through Council's involvement in the Cities for Climate Protection (CCP^P) Program and progression to the CCP Plus Program, Council has joined the Sustainable Transport Pilot Project with the following aims:

- reducing greenhouse gas emissions. SSROC Household Energy Survey (2005) identified transport as the largest source of residential emissions in Woollahra,
- improving unsatisfactory public transport in the LGA, particularly the north-south direction, and
- reducing car ownership within the LGA.

The Sustainable Transport Pilot Program involves the completion of the following five strategic milestones:

- 1. gap analysis to determine the current status of sustainable transport within Council and to identify areas of possible action,
- 2. goal and direction setting to direct Council action,
- 3. preparation of an action plan identifies and prioritises sustainable transport action (to be approved by Council),
- 4. implementation of the approved action plan, and
- 5. review.

Council has been working towards milestone three during the reporting period.

6. Noise

Noise is an environmental issue often identified as a nuisance but it is equally a pollutant. Noise pollution can be defined as unwanted or offensive sounds that unreasonably intrude into our daily activities (EPA 2000). Noise in built up areas has many sources, most of which are associated with urban development. Generally residential areas are more sensitive to immediate changes in noise levels. Increases in mixed residential/commercial developments in the LGA are providing sources of noise with competing land uses.

Common neighbourhood noise complaints relate to building sites, air conditioning systems, mechanical ventilation, freezer and cool room condensers, pool filters, barking dogs and loud music. Road traffic noise is a wide spread noise source in Woollahra. Increasing vehicular traffic levels and extended peak hours are causing a major intrusion into residential areas, particularly for people living near main transport routes.

6.1 State of noise

Noise complaints can be registered with either Council or the DECC's Pollution Line. The DECC acknowledges that local councils receive the majority of noise complaints (DEC 2003). This is demonstrated by the number of complaints received by both organisations. During the reporting year Council received 302 noise complaints and the DECC's Pollution Line received two noise complaints within the Woollahra LGA. The noise complaints registered with both Council and the DECC represent a decrease in the number of complaints received from the 2006/2007 reporting period, decreasing from 310 to 302 registered with Council and four to two complaints registered by the DECC.

The majority of the noise complaints (129) registered with Council related to barking dogs. Noise from development sites was the next highest source with seventy-six complaints, thirty-eight of these relating to general development site noise and for working outside of approved hours. Twenty-nine noise complaints were registered with Council regarding noise from air conditioning units.

The remaining sixty-eight noise complaints related to mostly domestic sources, including the operation of machinery, general domestic, pool pumps and alarms and hours of waste and recycling collections.

Table 8 presents the noise data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of noise (pressure, state, response) over time. These specific aspects of the data (i.e. number of Council noise complaints) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to the environment, and the information is regularly being monitored by Council and other government authorities. It must be noted that the list of indicators is not representative of outcomes for all noise sector activities and projects.

Table 8: Noise indicators

| Indicator | 1998/ 1999 | 1999/ 2000 | 2000/ 2001 | 2001/ 2002 | 2002/ 2003 | 2003/ 2004 | 2004/ 2005 | 2005/ 2006 | 2006/ 2007 | 2007/ 2008 | Trend |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------|
| No. of Council noise complaints | - | 452 | 36 | - | 284 | 379 | 281 | 331 | 310 | 302 | ~ |
| No. of noise incidents DECC pollution line | 13 | 26 | 8 | 4 | 4 | 3 | 6 | 12 | 4 | 2 | √ |
| No. of noise abatement directions | - | 2 | 1 | 7 | 11 | 29 | 20 | 0 | 0 | 3 | √ |
| No. of noise control notices | - | 0 | | 5 | 4 | 8 | 4 | 0 | 1 | 1 | ✓ |

Source: Woollahra Municipal Council, Department of Environment and Climate Change (DECC).

Key: The following symbols represent improving (✓), worsening (✗) or stable (~) trends in the monitored aspects of the environment. The trend column is left blank where there is not enough information to establish a trend. Where no information is available, the (–) symbol is used.

Note: The dramatic increase in Council recorded complaints may be related to the introduction of the Customer Request Management System (CRMS) which enables Council to record customer requests more accurately.

6.2 Intent of noise

Action undertaken relating to noise involves the management and resolution of noise complaints. Council resolves most noise complaints through negotiation and consultation. However, for some incidences the issuing of a notice or order is necessary.

Council investigates and regulates noise related incidences through the issuing of notices under the *Protection of the Environment Operations Act 1997* and can issue notices and orders through provisions in the *Companion Animals Act 1998*.

During the reporting period, Council issued one Noise Control Notice, three Noise Abatement Directions and six Nuisance Barking Notices/Orders.

7. Waste

The generation, management and disposal of waste are serious issues that affect the whole community. Potential environmental and public health impacts may arise at the different stages of the waste life cycle (product generation, transport and disposal). Impacts include air and water pollution, generation of greenhouse gases and the contamination of land (EPA 2000).

The generation of waste is a reflection of the standard of living and consumption patterns of a society, consuming more as standards of living improve (Resource NSW 2003). The DEC (EPA 2000) reports that Australia has the second highest domestic waste production per capita among Organisation for Economic Cooperation and Development (OECD) member nations.

There are a number of reasons why waste minimisation, management and disposal to landfill have become critical issues, including:

- limited capacity of landfill sites,
- environmental impacts associated with waste disposal including demand on raw materials and energy use,
- generation of greenhouse gases (methane) and other gases that impact on the environment;
- contamination of land and water, and
- dumping of waste materials and litter that cause health and safety hazards.

Resource NSW state that the challenge for those involved in the area of waste management is to prevent waste and to turn the unavoidable waste into one of the most important and sought after raw materials of the twenty-first century (Resource NSW 2003).

7.1 State of waste

Total waste is made up of three distinct streams; municipal, building and demolition and commercial and industrial (EPA 2000). Council manages the majority of waste generated in the municipal waste stream.

Domestic waste is the largest contributor to the waste stream in the Woollahra LGA, with 11,877 tonnes disposed to landfill during the 2007/2008 reporting period. This equates to each person living in Woollahra throwing away 236 kg of waste to landfill during 2007/2008. The total household recycled materials (kerbside plastics, paper/cardboard and green waste) equated to 10,676 tonnes, or 213kg of materials recycled per person. These figures are consistent with the figures recorded in 2006/2007 and illustrate the general trend of increasing volumes of household recycling and decreasing volumes of household waste disposed to landfill. Council's extensive waste education program and increased recycling services are contributing to this trend.

Table 9 presents the waste data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of waste (pressure, state, response) over time. These specific aspects of the data (i.e. household waste to landfill) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to the environment, and the information is regularly being monitored by Council and other government authorities. It must be noted that the list of indicators is not representative of outcomes for all waste sector activities and projects.

Table 9: Waste indicators

| Indicator | 1999/ 2000 | 2000/ 2001 | 2001/ 2002 | 2002/ 2003 | 2003 /2004 | 2004/ 2005 | 2005/ 2006 | 2006/ 2007 | 2007/ 2008 | Trend |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|----------|
| Household waste to landfill | 14,285 tonnes | 13,958 tonnes | 12,802 tonnes | 11,893 tonnes | 11,799 tonnes | 12,111 tonnes | 12,147 tonnes | 11,893 tonnes | 11,877 tonnes | ~ |
| Household waste per capita | 281 kg | 274 kg | 252 kg | 234 kg | 236 kg | 242 kg | 243 kg | 237 kg | 236 kg | √ |
| Household recycling | 6,890 tonnes | 7,079 tonnes | 9,317 tonnes | 10,086 tonnes | 9,977 tonnes | 9,995 tonnes | 10,303 tonnes | 10,845 tonnes | 10,676 tonnes | ✓ |
| Household recycling per capita | 135 kg | 139 kg | 189 kg | 198 kg | 199 kg | 199 kg | 206 kg | 216 kg | 213 kg | √ |
| Civil construction and maintenance material recycled | | 2,145 tonnes | 1,406 tonnes | 3,554 tonnes | 3,352 tonnes | 4,805 tonnes | - | 4,300.4 tonnes | - | √ |

Source: Woollahra Municipal Council.

Key: The following symbols represent improving (\checkmark) , worsening (x) or stable (\sim) trends in the monitored aspects of

the environment. The trend column is left blank where there is not enough information to establish a trend.

Where no information is available, the (-) symbol is used.

7.2 Intent of waste

Actions relating to waste aim to reduce the amount of waste disposed to landfill. Key responses to minimise waste rely on avoidance, reuse, recycle and reprocessing of waste material, with disposal as the final option (EPA 2000). The following activities and projects aim to contribute to reducing the amount of waste disposed to landfill.

7.3 Food organics recycling

Following a successful twelve month trial of a residential food organic collection service completed in September 2007, Council will be collecting residential food organics from residents across the LGA from 2008/2009. The service will be launched during National Recycling Week in November 2008.

The twelve month trial involved residents from 2,400 households in the suburbs of Vaucluse and Watsons Bay, placing their food scraps, including meat, into their garden refuse bins for recycling. The organic material was collected by Council's weekly kerbside collection service and taken to a waste facility in Chullora for shredding into smaller pieces. The shredded material was then taken to a composting facility in Castlereagh for composting and reuse. The resulting compost was then used to rehabilitate contaminated land and to replace top soil from development sites. The initial stages of the trial were run with the assistance of the Southern Sydney Regional Organisation of Councils (SSROC).

Council won two awards for this initiative in 2007:

- Division B Winner for waste management in the Local Shires and Government Association Excellence in Environment Awards, and
- Highly Commended award for waste minimisation from the Keep Australia Beautiful NSW Sustainable Cities Awards.

7.4 Second Hand Sunday

Council held three Second Hand Sunday community events in Paddington during the reporting period. The aim behind Second Hand Sunday is to provide a social setting for residents to get together to exchange and sell household items that would have otherwise been disposed to landfill. Second Hand Sunday is held with the assistance of the Paddington Society.

This is the second year that Council has held Second Hand Sunday events. The numbers of participating households has grown from twenty to thirty in 2006/2007 to approximately 50 in 2007/2008.

7.5 Waste Education

Council carries out an active waste education program that aims to reduce the amount of waste disposed to landfill by Woollahra residents and businesses. The following is a summary of the education actions undertaken during the reporting year.

Schools Waste Workshops and Talks program

Council conducted the School's Waste Workshops and Talks program, whereby Council's Waste Project Officer conducted recycling, composting and worm farming workshops at the following schools:

- Sydney Grammar,
- Scots College,
- Kincoppal-Rose Bay School,
- Woollahra Public School,
- Holy Cross, and
- Immanuel Pre-school.

The aim of the school's workshop and talk program is to educate students about alternative waste management practices that they can participate in at school and at home.

Council has also implemented a trial bottle recycling collection service at the Scots College to see whether or not such a service can be successfully managed by the students and staff to recycle all the school's glass, plastic and cans. Students in Year 8 were responsible for the changes at their school and were also involved in waste audits and recycling talks that provided the background and motivation for their decision to avoid, reduce and recycle as much waste as possible.

National Recycling Week November 2007

National Recycling Week is held each year in November to raise public awareness on the growing importance of recycling domestic and commercial waste. National Recycling Week was held during the 12-18 November 2007, during which Council held several composting workshops for residents.

Illegal dumping prevention program

The DECC has developed an illegal dumping prevention campaign titled *Dumping its dumb*. Through the program the DECC has developed resource materials to be used by councils to promote key messages targeting illegal dumping in unit blocks. Woollahra, Randwick and Botany Councils were successful in gaining funding under the Multi Unit Dwelling Illegal Dumping Prevention Campaign for a regional anti dumping project using the DECC resource materials. The campaign involved broad, large scale promotions to reach the target audience, including advertising in local papers, on buses and in cinema (Bondi Junction and Eastgardens) as well as the development of a strata managers kit containing information about Council services for distribution to new tenants moving into unit blocks.

The program was launched across the three councils in August 2007 and ran for three months. An independent company carried out a follow up evaluation of the campaign by telephone survey. They found that approximately 35% of respondents had seen or heard of the campaign via the various communications mediums used and 24% said they would make changes when disposing of larger waste items instead of dumping as a result of hearing the campaigns messages.

Council's Waste Compliance Officer continues to use the resource materials from the campaign, including postcards and posters, to educate residents about illegal dumping and the effects on the environment and local community.

Council also participated in:

- stalls and support provided for Council events, including People and Pets day and the Bellevue Bonanza, and
- Clean-Up Australia Day with fifteen clean up sites in the LGA.

The Bower Reuse Referral Service

The Bower Reuse Referral Service (RSS) is a not-for-profit cooperative, registered charity and retail store which strives to provide reuse, repair and recycling alternatives for customers' unwanted goods. The SSROC group of councils, including Woollahra, has supported the Bower service to develop, maintain and manage a comprehensive database of over 1000 organisations including charities, second-hand shops, community organisations and recycling services that can take unwanted items for re-use and recycling instead these items being disposed to landfill.

The referral service has received over 200 calls per month during 2007/2008 and has experienced a 29% growth in comparison with the previous financial year. The growth in calls since the service began is largely due to council's promotion and means that more household waste is being diverted from landfill through the operation.

During the reporting period Woollahra residents made sixty-four calls to the service resulting in 118.75 m³ of materials being diverted from landfill.

8. Heritage

The Woollahra LGA has a diverse mix of significant built and natural areas. It is an area that is rich in both Aboriginal and non-Aboriginal heritage that is identified on local, State and National registers. Protection of Woollahra's heritage is contained in a range of statutory and policy documents administered by Council and by various government departments and authorities.

Community attitudes and values relating to heritage issues change over time. Council and other levels of government have a role and statutory obligation to identify and conserve heritage. Aboriginal and non-Aboriginal heritage sites are consistently under threat by development and vandalism.

8.1 State of heritage

Within the Woollahra LGA there are numerous sites that are recognised and listed on local, State and National heritage registers.

Seven hundred and fifty-four heritage items are protected under Woollahra Local Environmental Plan 1995 (WLEP 1995) and there are fourteen Heritage Conservation Areas (HCA) within the Woollahra LGA. There are twenty-seven places of heritage significance within the Woollahra LGA included on the NSW State Heritage Register.

The Australian Heritage Database includes items listed on the World Heritage List, the National Heritage List, the Commonwealth Heritage List, the Register of the National Estate, the Overseas Places of Historic Significance to Australia and items under consideration, or that may have been considered for any one of these lists. The *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) established the National Heritage List, which includes natural, Indigenous and historic places that are of outstanding heritage value to the nation. There are currently no places within the Woollahra LGA included on the National Heritage List. The EPBC Act also establishes the Commonwealth Heritage List, which comprises natural, Indigenous and historic places on Commonwealth lands and waters or under Australian Government control that are of outstanding heritage value to the nation. There are eleven places within the Woollahra LGA included on the Commonwealth Heritage List. The Register of the National Estate was frozen in February 2007, however, it remains a statutory register until 2012. There are 155 places within the Woollahra LGA included on the Register of the National Estate.

The National Parks and Wildlife Service (NPWS) maintains the Aboriginal Heritage Information Management System (AHIMS). The AHIMS is a database for all Aboriginal objects, Aboriginal places and other Aboriginal heritage values in NSW that have been reported to the NPWS. The AHIMS replaced the previous NSW Aboriginal Sites Register. There are forty-nine known Aboriginal sites currently recorded in the Woollahra LGA, with 80 site features within these sites, including shell middens, art and artefacts.

The number of heritage items listed on State and National registers has remained constant over the last nine years, whilst the number of locally protected sites and heritage conservation areas has gradually increased.

Table 10 presents the heritage data recorded each year, or when this data is available. Including this data into the SoE report provides quantifiable information to monitor a specific aspect of heritage (pressure, state, response) over time. These specific aspects of the data (i.e. number of Aboriginal heritage sites) are known as indicators. Where this information has been recorded for a number of years, trends can be established.

The indicators have been chosen because they provide the status of a specific aspect relating to heritage, and the information is regularly being monitored by Council and other government

authorities. It must be noted that the list of indicators is not representative of outcomes for all heritage sector activities and projects.

Table 10: Heritage indicators

| Indicator | 2000/ 2001 | 2001/ 2002 | 2002/ 2003 | 2003/ 2004 | 2004/ 2005 | 2005/ 2006 | 2006/ 2007 | 2007/ 2008 | Trend |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|-------|
| No. of Aboriginal heritage sites - AHIMS | - | 75 | 75 | 75 | 75 | 75 | 75 | 49 sites ¹ 80 site features | |
| No. of sites – National Heritage List | - | - | - | - | - | - | 0 | 0 | |
| No. of sites – Commonwealth Heritage List | - | - | - | - | - | 11 | 11 | 11 | ~ |
| No. of sites – Register of the National Estate | 153 | 153 | 129 | 129 | 129 | 129 | 155 | 155² | ~ |
| No. of sites - National Trust Register | 264 | 265 | 266 | 266 | 266 | 278 | 278 | 278 | ~ |
| No. of sites - Woollahra LEP | 620 | 622 | 624 | 616 | 656 | 682 | 682 | 682 | ~ |
| No. of sites – State Heritage Register NSW | 26 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | ~ |
| Heritage Conservation Area | 6 | 6 | 6 | 12 | 13 | 14 | 14 | 14 | ~ |

Note: ¹The Aboriginal Heritage Information Management System (AHIMS) replaced the NSW Aboriginal Site Register in 2008.

²The Register of the National Estate was frozen in February 2007 and will remain statutory until 2012.

Sources: Woollahra Municipal Council, NSW Heritage Branch, NSW Department of Planning, NSW Department of

Environment and Climate Change, National Trust of Australia (NSW).

Key: The following symbols represent improving (✓), worsening (✗) or stable (~) trends in the monitored aspects of the environment. The trend column is left blank where there is not enough information to establish a trend.

Where no information is available, the (–) symbol is used.

8.2 Intent of heritage sector

Council and NPWS officers regulate and monitor sites in relation to development and use pressures. The following activities and projects aim to contribute to the identification and protection of Aboriginal and non-Aboriginal heritage and culture in the Woollahra LGA.

8.3 Paddington Development Control Plan

Following an extensive review of the controls for Paddington in May 2008, which included input from community groups and various professional groups, Council approved a new set of development controls called the Paddington Heritage Conservation Area Development Control Plan 2008 (DCP).

The DCP covers all public and private lands in the Paddington Heritage Conservation Area. It applies to residential buildings, commercial buildings, shops and other types of non-residential buildings and public areas including roads, footpaths and parks. The DCP includes controls for the front and rear of buildings, roofs, excavation, open space, doors and windows, verandahs and balconies, fences, car parking, materials, exterior colours and trees. The DCP also deals with infill and intrusive development. There is an emphasis in the DCP on retaining and protecting significant features, reconstructing missing elements and reversing unsympathetic alterations. The DCP also acknowledges that modern design that respects the heritage context and amenity of the area has a place in Paddington.

Council is considering controls for lofts over garages in the Paddington Heritage Conservation Area DCP. Draft controls will be prepared, publicly exhibited and reported to Council later in 2008.

Council is currently investigating land use and zoning in William Street Paddington. These investigations respond to the use without consent of residential properties for various retail purposes. Council will further consider options to either limit the use of the first floor of these premises to residential use only, or limit retail uses to those premises already being used for non-residential purposes. It is anticipated that two draft Local Environment Plans (LEPs) for William Street will be exhibited in early 2009. An amendment to the Paddington Heritage Conservation Area DCP relating to William Street will be exhibited at the same time.

8.4 Potential heritage items in Watsons Bay and Woollahra Heritage Conservation Areas

Council conducted research into potential heritage items in the Watsons Bay and Woollahra HCAs. The results of the research were presented to Council during 2008, including the nomination of potential heritage items and the consideration of submissions from owners. Council decided to list the Temple Emanuel Synagogue in Ocean Street, Woollahra and the cobble stone road archaeology in Cliff Street, Watsons Bay as heritage items. A draft LEP will be prepared for exhibition in 2009.

8.5 Reconciliation Statement

Following the adoption of Council's Reconciliation Statement in October 2006, a Reconciliation Action Plan (RAP) was developed. The RAP identifies strategies and delivery programs that contribute towards implementing Council's commitment to reconciliation. During the reporting period, Council:

- continued membership of the Eastern Region Local Government and Torres Strait Islander Forum,
- programmed and promoted Reconciliation Week and NAIDOC Week activities, and
- carried out community education including the bush tucker walks and provision of information
 to local schools and promotion of Council's indigenous heritage webpages.
 (www.woollahra.nsw.gov.au/local_information_and_activities/indigenous/indigenous_heritage)

A full copy of the Woollahra Municipal Council Reconciliation Statement can be found on Council's website: www.woollahra.nsw.gov.au/local_information_and_activities/reconciliation

8.6 Aboriginal and Torres Strait Islander education

In conjunction with the Eastern Suburbs Organisation for Reconciling Australia (ESORA), Council supported bush tucker walks in the local area. John Lennis is a local Aborigine who has been permitted by the area's Elders to conduct bushwalks around the foreshore of Nielsen Park, which incorporates Aboriginal culture and education. Four bush tucker walks were conducted during the reporting period, with participants enjoying a 'bush tucker' tasting. The increasing popular walks were free for participants from the local community.

8.7 Reconciliation Week

Each year National Reconciliation Week celebrates the rich culture and history of the first Australians. It's the ideal time for all of us to join the reconciliation conversation and to think about how we can help turn around the disadvantage experienced by many Aboriginal and Torres Strait Islander people (Reconciliation Australia 2008). The 2008 event, *Reconciliation: it's all our story*, was the 12th annual National Reconciliation Week.

For 2008 Reconciliation Week, the Eastern Region Local Government Aboriginal and Torres Strait Islander Forum (ERLGATSIF), of which Woollahra Council is a member, developed and hosted its fifth Pauline McLeod Award for Reconciliation. Awards were presented in the categories of The Pauline McLeod Award for Reconciliation and The Pauline McLeod Youth Award for Reconciliation with the ceremony taking place at Randwick Town Hall during Reconciliation Week. Woollahra LGA resident and ESORA member Gillian Fischer was announced as the 2008 winner of the Pauline McLeod Award for Reconciliation for her efforts in developing the Aboriginal studies course known as *Building Bridges – Reconciliation through Understanding*. The course has featured as part of the Eastern Suburbs Community College program for the past ten years.

The Awards ceremony also included a presentation to the winning entrants of ERLGATSIF's fourth annual Primary Schools Art Competition which had the local theme of *Reconciliation in Our Neighbourhood*. Students from Woollahra Public School were amongst the place getters.

8.8 National Aboriginal and Torres Strait Islander Day of Celebration (NAIDOC) Week

The 2007 National Aboriginal and Torres Strait Islander Day of Celebration (NAIDOC) Week was held between 8 and 15 July with the theme 50 years: Looking Forward, Looking Blak. NAIDOC celebrates the survival of Indigenous culture and the Indigenous contribution to modern Australia (National NAIDOC 2007).

Council celebrated 2007 NAIDOC Week with Indigenous story time at the Double Bay Junior Library and the Paddington Branch Library. Woollahra Council flew both the Aboriginal and Torres Strait Islander flags on Council flagpoles in recognition of NAIDOC Week.

8.9 Public Art

Council adopted the Public Art Policy in October 2006, that:

Supports and encourages the development of public art and public art opportunities that preserve, emphasise and enhance distinctive local identity and the **natural** and built assets of the Municipality in both public spaces or on private sites which impact on the public domain.

Furthermore, the Public Art Policy lists amongst its values that the development of public art and public art opportunities shall endeavour to:

- enhance local identity, enrich residents lives and create a sense of place,
- honour the unique heritage of the area including Aboriginal and Torres Strait Islander culture, and
- reflect the principles of Ecologically Sustainable Development (ESD).

A full copy of the Woollahra Municipal Council's Public Art Policy can be viewed at: www.woollahra.nsw.gov.au/local_information_and_activities/arts_and_culture/public_art

During the reporting period, members of Council's Public Art Advisory Committee participated in the judging of Council's 2008 World Environment Day drawing competition as well as provided input into the project brief for a public art opportunity at the eastern gateway of the Double Bay Business Centre. One of the concept considerations indicated in the brief was that ESD principles should be applied if the art work was to rely on power or water.

9. Local school contributions

Council recognises that schools in the Woollahra area are actively involved in a wide variety of environmental projects. In acknowledgement of this, local schools are invited each year to report on their environmental projects in Council's State of the Environment Report. This year Kincoppal Rose Bay and Cranbrook School have provided the following contributions.

9.1 Kincoppal Rose Bay

Kincoppal-Rose Bay Junior School has been involved in a number of environmental initiatives over the past twelve months. The Year 6 Environment Committee and teacher environmental representative have instigated many of the changes and projects and continue to sustain these projects. We have outlined each initiative below.

Implementation of Garden Club for Kindergarten and Year 1

This garden club involves parent volunteers, school gardeners, environment teacher and students. It happens once a week and as well as planting, garden care and harvesting it also involves environmental awareness talks and education. The children offer ideas on how to beautify and protect their environment as well as learning about how plants grow, what care is needed and the changes that occur.

Implementation of recycling system including compost and worm farm

With the help of Woollahra Council we have set up a recycling system throughout the Junior School. Every child has access to a blue and black recycling box and compost bucket. Each grade takes responsibility for the emptying of each bin into appropriate larger bins and compost. We have 3 compost bins at present and a worm farm. Each of these is providing composted soil and organic matter for our gardens and potted plants. The Environment Committee has placed signs on every bin saying "STOP Can your rubbish be recycled?" There are also paper recycling boxes in every classroom which are emptied in conjunction with our school cleaners. The staffroom has compost buckets and recycling boxes for staff to recycle as well.

Planting of Native Plants

We have also participated in planting a number of native trees in different areas. We have some in pots on the playground, more along the perimeter fence and also in the bush area below our playground. These final ones were planted during National Tree Day for Schools. The first ones were planted as part of Kindergarten 2007's Environment unit in 4th term to beautify our environment and attract native birds to our playground. In the coming weeks we will also be planting native grevilleas in pots in a different area of the playground.

General Awareness and Environmental Education

We have also created a growing awareness in Environmental Education through participation in Environment based competitions, participation in World Environment Day and National Tree Day for Schools initiatives, creation of an Environmental Suggestion Box for children, applying for grants to fund installation of rainwater tanks and shade cloths. We also have weekly Environment Awards given to children who are recycling or showing an awareness and consideration of their environment. The Environment Committee also plan and run at least 4 No Rubbish Days a year where bins are taped shut and children try hard to create and bring no rubbish that cannot be recycled that day. We have an Environment Board which is regularly updated with children's participation in environmental projects or competitions or suggestions.

[Source: Nicole Johnson Kincoppal Rose Bay 2008]

9.2 Cranbrook School

Cranbrook School has, for a number of years, promoted an awareness of environmental issues in the school through various initiatives including water usage and recycling, cardboard and paper recycling, as well as better management of energy usage.

In 2006, a trial grey water recycling unit was tested on the site. The approved unit now recycles approximately 1500 litres per day of grey water from one of the School's boarding houses. This recycled water is used to irrigate the lawn and garden areas nearby.

This year the School has been successful in gaining Commonwealth Government funding through the Community Water Grants to install four water tanks on the school grounds. DA approval was granted recently which will allow the tanks to be completed during the September holiday period.

Other strategies that the school has employed to minimise water usage are:

- utilising bore water to irrigate the School's ovals,
- installation of water saving devices to plumbing fixtures throughout all school buildings,
- drought tolerant native plants have replaced other varieties,
- installation of drip irrigation in many of the gardens, and
- the addition of mulch to the garden beds.

As well as water conservation, the School community is now focusing on recycling all cardboard and plastics through a program established by the boys themselves during 2008. This has proven to be very successful with over 40 bins collected each month. Woollahra Municipal Council, as the School's new waste collection contractor has been instrumental in the success of this project.

Energy usage at Cranbrook has increasingly come under the microscope leading to the installation of Power Factor Correction to the main plantroom earlier this year. This unit has reduced electricity consumption by 10% already with greater improvements expected over the summer months.

Following close scrutiny of our gas bill for heating the pool an insulation blanket was installed in 2007 to reduce heat loss from the pool overnight. The resulting improvement has seen an average 30% reduction in gas usage.

With the current global focus on sustainability and the reduction of energy consumption and carbon footprints, Cranbrook School is striving to become a leading example to its students and the community by providing innovative solutions in a practical and educational manner. The School will continue to seek ways to improve the environment with a number of projects already being planned for 2009.

[Source: Mark O'Hara Cranbrook School 2008]

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