Annexure



Annual Report 2006-07 State of the Environment Report

Woollahra State of the Environment Report 2006/2007

Woollahra State of the Environment Report 2006/2007

Table of Contents

1	Introduction	1
	1.1 What is state of the environment reporting?	1
	1.2 Outcome statements summary	2
2	Land	4
	2.1 State of land	
	2.2 Intent of land sector	
	2.3 Ecological footprint of the Eastern Suburbs – Urban Sustainability Program	
	2.4 Neighbourhood Centres Strategy	
	2.5 Double Bay and Oxford Street Paddington Commercial Centres	
	2.6 Draft White City DCP and LEP	
	2.7 GreenHome Design and Renovations Expo	
	2.8 Plans of management	8
	2.9 Park and reserve improvements	8
	2.10People and Pets Day	8
3	Water	9
•	3.1 State of water	
	3.2 Intent of water sector	
	3.3 Environmental Works Program	
	3.4 Water Savings Action Plan	
	3.5 Sydney Water DIY Pilot Program	
	3.6 Community Water Grants	
	3.7 Christison Park water efficiency and re-use project	16
	3.8 Sydney Harbour Week (3 – 12 March 2007)	
	3.9 Sydney Coastal Councils Group Summer Activities Program (January 2007)	17
	3.10Sydney Water	17
4	Biodiversity	17
	4.1 State of biodiversity	
	4.2 Intent of biodiversity sector	
	4.3 Bush regeneration and revegetation status of Council reserves	
	4.4 Bushcare	
	4.5 Community education – bushland walks	21
	4.6 Parsley Bay post remediation	21
	4.7 National Parks and Wildlife Service update	
5	Air	22
•	5.1 State of air	
	5.2 Intent of air sector	
	5.3 Energy Savings Action Plan	
	5.4 Regional street lighting review	
		_

	5.5 Traffic and transport	25
6	Noise	26
	6.1 State of noise	27
	6.2 Intent of noise sector	28
7	Waste	28
	7.1 State of waste	29
	7.2 Intent of waste sector	30
	7.3 Expanded recycling service	30
	7.4 Food organics recycling trial	30
	7.5 Second Hand Sunday	31
	7.6 Waste Education	31
8	Heritage	33
	8.1 State of heritage	33
	8.2 Intent of heritage sector	34
	8.3 Paddington Development Control Plan	34
	8.4 Contemporary heritage items	35
	8.5 Potential heritage items in Watsons Bay and Woollahra Heritage Conservation Areas	35
	8.6 National Parks and Wildlife Service (NPWS) heritage projects	35
	8.7 Draft Reconciliation Statement	35
	8.8 Aboriginal and Torres Strait Islander education	36
	8.9 Reconciliation Week	36
	8.10National Aboriginal and Torres Strait Islander Day of Celebration (NAIDOC) Week	36
9	Bellevue Hill Public School	37
10	References	38

Woollahra State of the Environment Report 2006/2007

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 2006/2007 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 2006/2007 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 2006/2007 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 2006/2007 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's) pollution line decreased during the reporting period. Of the total number of reported incidents, the number of chemical pollution incidents declined, while the number of pesticide incidents remained relatively low and stable.
- All five swimming locations in the Woollahra LGA recorded 100% compliance with both indicator organisms during the summer 2006/2007 swimming season. The DECC ranked all five swimming locations in the Woollahra LGA equal first. Four of the five swimming locations recorded a decline in recreational water quality for the 2006/2007 winter season, from the previous year. Nielsen Park was the only site to record 100% compliance for both indicator organisms during winter and summer.
- During the reporting period, 5,997,976 kilolitres (kL) of potable water was consumed in the Woollahra LGA. This was a reduction of 239,782 kL or 3.8% from the previous year, and continues the trend of reducing water consumption in the LGA since 2001/2002.
- Council consumed 33,635 kL of potable water during the reporting period. This is a 5,031kL reduction in water used compared with the previous year. Council has dramatically reduced annual water use since 2002/2003 through the implementation of a number of water saving actions and the introduction of water restrictions. In 2002/2003, Council used 113,021kL of potable water, whilst in 2006/2007 Council used 33,635 kL of potable water. This represents a reduction of over 70% in the amount water used by Council annually from 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 30.3% since 2004/2005.
- The number of water pollution incidents recorded by the DECC pollution line decreased, with ten incidents recorded in comparison to twenty-two recorded for the previous year. The number of penalty infringement notices (PINs) and prevention and clean up notices issued by Council to regulate water pollution incidents also declined.

- Council prevented the pollution of over seventy-nine tonnes of vegetative matter, sediment and litter in Sydney Harbour, through the Gross Pollutant Trap and pit cleaning program.
- In Sydney, the majority of days (both a.m. and p.m.) experienced low to medium air pollution readings. High readings, meaning that pollution levels exceeded health or visibility goals, were recorded for five mornings and seven evenings during the reporting period.
- Council received forty-two air pollution complaints for the Woollahra LGA. This is nearly double the number of complaints received over the past couple of years.
- Council received 310 noise complaints and the DECC's Pollution Line received four 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 2005/2006 reporting period.
- Council issued one Noise Control Notice and ten Nuisance Barking Notices/Orders.
- During the reporting period, 11,893 tonnes of domestic waste was disposed to landfill. This equates to each person living in Woollahra throwing away 237 kg of waste to landfill during 2006/2007. 10,845 tonnes of total household recycled materials (kerbside plastics, paper/cardboard and green waste), or 216kg of materials recycled per person. These figures illustrate a trend of increasing volumes of household recycling and decreasing volumes of household waste disposed to landfill.
- Council recycled over 4300 tonnes of material generated through Council's construction and maintenance activities (road maintenance, footpath repair and construction). Council has been steadily increasing the amount of construction and maintenance materials recycled.
- An additional twenty-six sites were added to the Register of the National Estate during the reporting period.

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 2006a.).

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

	196 (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).

¹ The 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 an increase in the total number of development applications (DAs) approved, increasing from 655 in 2005/2006 to 910 in 2006/2007. There was also an increase in the number of residential flat building DAs approved. 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 decreased during the reporting period. Of the total number of reported incidents, the number of chemical pollution incidents declined, while the number of pesticide incidents remained relatively low and stable.

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 environmental 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	Trend
Total no. of DAs approved	965	996	999	1183	943	750	655	910	×
No. of RFB	-		15	5	15	17	4	18	×
No. A/A to existing building	-		510	852	653	622	499	398	✓
Total open space (public and private)	ı	215 ha	215 ha	215.5 ha	215.5 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	~
No. of environment protection licences issued by the DECC	1	4	3	2	-	2	2	2	~
Total no. of incidents DECC									
pollution line	61	65	33	50	47	32	41	19	\checkmark
Chemical	1	9	2	2	1	1	5	2	✓
Pesticide	1	3	0	1	2	3	2	3	~
Contaminated land	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 (✓), 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.

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 *Three Councils Ecological Footprint Project* received over \$1.8 million in funding under the DECC's Urban Sustainability Program, to undertake the three year project.

This project will see the three councils in the Eastern Suburbs of Sydney cooperate across different issues related to the ecological footprint of their populations, and coordinate and target efforts capable of reducing water and energy consumption, generation of waste and conservation of biodiversity. The final assessment and results will include a re-calculation of ecological footprint to assess the results of the project.

2.4 Neighbourhood Centres Strategy

Council completed preparation of a draft local environmental plan (LEP) and a draft development control plan (DCP) for thirteen neighbourhood centres in the LGA. These draft plans form the main part of the Neighbourhood Centres Strategy. The strategy is underpinned by the principles of sustainability, where neighbourhood centres are to provide:

- a good mix of local services,
- a greater choice in housing close to shops,
- safe and active streets and places for community life,
- more people friendly areas, and
- access to public transport.

The draft LEP contains land use and building scale controls. The draft DCP contains urban design and development controls, which support the land uses, structure, form and character for each centre. The package of draft 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 reduced reliance on non-renewable resources.

The project was broadened to include a review of retail and commercial activity in William Street and Elizabeth Street Paddington. Consequently, changes to statutory land use controls for William Street were included in the draft LEP.

Both draft plans were exhibited for public comment, during the reporting period.

2.5 Double Bay and Oxford Street Paddington Commercial Centres

Research into business management options for Double Bay and Oxford Street Paddington Commercial Centres continued. The research is being carried out to address the flagging commercial vitality of the centres. Effective management of these centres will have distinct economic, social and environmental benefits. The Council is finalising a preferred management model, which will include funding options.

2.6 Draft White City DCP and LEP

A revision of the draft DCP for the White City site in Rushcutters Bay was completed and exhibited for public comment during the reporting period. The draft DCP includes development controls for the size and location of buildings, landscaping, stormwater management, energy efficiency, water conservation, view protection, traffic and parking, pedestrian and cycle access, contaminated land management and heritage conservation.

2.7 GreenHome Design and Renovations Expo

Council provided support to the Australian Conservation Foundation (ACF) to conduct the GreenHome Design and Renovations Expo, held at the Paddington Town Hall in September 2006. The expo brought together expert speakers and stall holders to present the latest trends and cutting edge ideas for designing a contemporary, sustainable home. The expo was very successful with over 120 people attending the event. The ACF worked with Council to ensure

that local environmental and sustainability issues and content were addressed through the event.

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 the Woollahra Park, Foreshore Parks, Cooper Park and Trumper Park PoMs. The revised PoMs will be publicly exhibited during the 2007/2008 reporting period.

2.9 Park and reserve improvements

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

- Installation of new playgrounds at Yarranabbee Reserve, Dillon Street Reserve, Elms Street Reserve and Thornton Reserve,
- Completion of planning for new irrigation systems for Christison Park,
- Reconstruction of the McKell Park Pond,
- Completion of bore water irrigation systems for Lough Playing fields and Steyne Park,
- Installation of new paving and planting for the Watson's Bay Tea Gardens,
- Installation of new picnic tables and park benches for Parsley Bay Reserve,
- Design and installation of new park name and regulatory signage throughout the LGA.
- Construction of a retaining wall at Beresford Crescent Reserve,
- Renewal of the fence at Gap Park,
- Construction of a new bridge between the Reg Bartley Oval and Rushcutters Bay Park.
- Upgrade of the change room facilities at Lyne Park,
- Construction of the Queen Street Fountain, and
- Landscaping, garden bed renovations and new plantings at Rushcutters Bay Median Island, the Royal Hospital for Women Park, Redleaf House and the Cascade and Hargrave intersection.

Consultation also commenced on the Gap Park Landscape Master Plan. The aim of the Master Plan is to guide Council in undertaking necessary future improvements to the area and assist in seeking further grant funding for capital works. This plan will be completed early in 2008.

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 2006 event was 'safe and happy pets' 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 aims 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.

In conjunction with People and Pets Day, a Pet Education Program is held where a local vet, Council ranger and dog obedience trainer visit local schools educating students about responsible pet ownership.

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.

Habourwatch 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. All five Woollahra swimming locations recorded 100% compliance with both indicator organisms during the summer 2006/2007 swimming season. However, a decline in recreational water quality was recorded for the 2006/2007 winter season for four of the five swimming locations, from the previous year. Nielsen Park was the only site to record 100% compliance for both indicator organisms during winter and summer.

Table 3: Woollahra LGA Harbourwatch percentage compliance results

	2005/200	06			2006/2007				
Swimming	Summer		Winter	Winter		Summer			
location	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	
Redleaf Pool	100	100	100	100	100	100	95	70	
Rose Bay Beach	100	100	100	100	100	100	95	40	
Nielsen Park	100	100	100	100	100	100	100	100	
Parsley Bay	100	100	100	100	100	100	100	85	
Watsons Bay	100	100	100	100	100	100	100	90	

Source: Department of Environment and Climate Change (DECC) 2007

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 consumed a total of 5,997,976 kilolitres (kL) of potable water during the reporting period. This was a reduction of 239,782 kL or 3.8% from the previous year, and continues the trend of reducing residential water consumption since 2001/2002.

Council also continues to reduce potable water use, with a 5,031kL reduction in water used during the reporting period compared with 2005/2006 water use. Council has continued to dramatically reduce annual water use since 2002/2003 through the implementation of a number of water saving actions and the introduction of water restrictions. In 2002/2003, Council used 113,021kL of potable water, whilst in 2006/2007 Council used 33,635 kL of potable water. This represents a reduction of over 70% in the amount water used by Council annually from 2002/2003 figures.

The number of water pollution incidents recorded by the DECC pollution line decreased during the reporting period, with ten incidents recorded in comparison to twenty-two recorded for the 2005/2006 reporting period. This 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.

Council continues to maintain the 230 pollution control devices installed throughout the LGA. Council collected over forty-four tonnes of material from the drainage pit cleaning program and close to twenty-nine tonnes 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 over seventy-nine tonnes 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 environmental 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

T., 32 4	1999/	2000/	2001/	2002/	2003/	2004/	2005/	2006/	Trend
Indicator	2000	2001	2002	2003	2004	2005	2006	2007	
Water	6 897	7 641	8 385	-	-	6 285	6 237	5 997	✓
consumption	314	624	816			185	758	976	
LGA total	kilolitres	kilolitres	kilolitres			kilolitres	kilolitres	kilolitres	
Water	79 307	95 885	99 862	113 021	63 912	48 283	38 666	33 635	✓
consumption	kilolitres								
Woollahra									
Council									
No. of	-	-	28	178	229	230 (10	230 (10	230 (10	~
pollution						GPTs	GPTs	GPTs	
control						and 220	and 220	and 220	
devices						pit	pit	pit	
installed						baskets)	baskets)	baskets)	
No. of	118	-	-	-	-	110	-	-	~
stormwater									
discharge									
points into									
the harbour									
No. of water	28	42	24	41	40	22	22	10	✓
pollution									
incidents									
(DECC)									
No. of clean	5	-	2	6	9	9	0	0	✓
up notices									
No. of	-	-	4	3	6	0	0	0	✓
prevention									
notices									
No. of	28	-	2	50	14	13	12	10	✓
penalty									
infringement									
notices									
issued									

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

Key: The following symbols represent improving (\checkmark) , worsening (\ast) 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 sector

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 Environmental Works Program

Council completed the final year of implementation of the five year Environmental Works Program (EWP), having spent over \$5 million dollars on environmental improvements works throughout the LGA during the life of the program. The EWP aimed to improve stormwater quality by reducing the amount of sediment, vegetation matter, litter and pollution entering Sydney Harbour. EWP projects included water quality treatment works, environmental education programs, bushland and watercourse rehabilitation, seawall restoration and local flooding improvements.

To ensure the continued commitment to environmental projects, Council applied for and was granted, Ministerial approval for the introduction of a new integrated Environmental and Infrastructure Levy for 2007-2012. This levy will fund a revised environmental works component that includes 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 independent environmental monitoring database and related collection systems for environmental data, including stormwater treatment devices (pit cleaning and GPTs), 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, the creek in Cooper Park and Rose Bay Creek through the implementation of the *Water Quality Monitoring Strategy for Woollahra* in 2004.

The draft Harbour Foreshore Cleaning Program Review undertaken during the 2005/2006 reporting period recommended a number of actions, including tailoring the data recording systems for targeted environmental reporting and accuracy of information. In response to this recommendation, the manual beach cleaning record sheets were modified to include the waste percentage breakdown and total weight collected. The recording systems for all stormwater treatment devices and street sweeping activities were also reviewed to include waste percentage breakdown data. This data will be recorded and included in the environmental monitoring system, when completed.

Environmental education programs

During the reporting period, Council implemented a number of education programs that were identified in the Environmental Education and Action Plan. These programs were:

- Gutter Talk', which is a community participation initiative aimed at raising awareness of water catchments and stormwater issues. 'Gutter Talk' was held at four locations within the LGA with local residents given the opportunity to trade in an old broom for a new outdoor broom to help them keep their street gutters clean. A survey carried out amongst participants of the 'Gutter Talk' program found that leaves and litter accounted for the majority of matter removed from gutters, while other stormwater issues of concern included dog waste and discarded materials from construction sites.
- The Community Environmental Grants Program, established in 2006 as a new component part of Council's Community Grants Program, was held for the second year. The program provides small seed-funding grants to support schools and community groups to carry out their own environmental projects.
- A 'schools webpage' was added to the environmental section of Council's website, providing a one-stop-shop for environmental educators with information about competitions, grants, excursions and links to other great resources for both teachers and students,
- Participation in the Australian Government's National Day of Action on Cigarette
 Butt Litter and commencement of a twelve month trial of the installation of twentyfive cigarette litter disposal units in strategic locations within the business districts of
 Double Bay, Rose Bay and Edgecliff,

- Creation of an email network for local environmental educators and continuation of the development of a regional environmental educators network,
- An environmental stall at Edgecliff Centre to celebrate World Environment Day, promoting Council's environmental projects and initiatives and raising community awareness of environmental issues.

Council also participated in the Humpback Whale Migration Icon Project, which aimed to encourage councils and their communities along the eastern seaboard of Australia to adopt a known named humpback whale as their whale icon. Naming of Woollahra's whale was put to a community vote and Bo-a-millie (the Indigenous name for Shark Island) was chosen as the name. An educational banner was created which will be prominently displayed at key viewing sites during the whale-watching season each year.

Rose Bay Promenade Upgrade stormwater treatment and re-use

Council commenced the upgrade of the Rose Bay Promenade in June 2007. An important component of the project is the treatment of stormwater and the storage and re-use of the treated stormwater for Council uses. The parking bays located along the promenade are being constructed of a porous paving infiltration system. Stormwater runoff from New South Head Road will be treated as it flows through the porous paving and filtration material. The treated stormwater will then be diverted to underground tanks capable of storing up to 200 kL. The treated stormwater will be used by Council for irrigation and maintenance purposes, saving precious litres of drinking and bore water. The project is due for completion in February 2008.

Implementation of the stormwater treatment and re-use elements of the project is being 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, Eastern Suburbs ecological footprint project. The stormwater treatment and re-use component of the Rose Bay Promenade Upgrade is being partly funded through the grant as a demonstration water treatment and re-use project. For further information on the grant project refer to section 2.3.

Interpretive signage has been installed along the Rose Bay Promenade, describing the heritage and environmental components of the project. Preparation of the site signage has been assisted by the NSW Government through the Environmental Trust.

Parsley Bay bush regeneration

The EWP funded bush regeneration works at Parsley Bay involved the importation of crushed sandstone onto the site previously cleared of exotic vegetation. The area was planted with native grasses to stabilise the site prior to the planting of native plants. This was the last site in Parsley Bay Reserve to be cleared of exotic vegetation.

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, which was endorsed by Council in October 2006. The project involves the:

- upgrading local drainage infrastructure and gross pollutant trap to increase stormwater capacity to transport flows and capture pollutants before they reach Parsley Bay,
- installation of flow diversion and energy dissipation structures to direct and reduce the velocity of increased flows, protecting the open channel through Parsley Bay Reserve from scouring and erosion, and reducing the amount of sediment which is transported downstream to Parsley Bay, and
- installation of a water sensitive urban design (WSUD) bio-retention system to treat overland flows from Hopetoun Ave for typical road runoff contaminants, prior to discharge into Parsley Bay.

Detailed project designs have been completed and the project is due to be implemented during the 2007/2008 reporting period.

Cliff Street Watsons Bay – drainage system upgrade

Council completed stage 1 flood mitigation works in Cliff Street Watsons Bay aimed to reduce local flooding of Camp Cove. The works involved the:

- lowering of the northern end of Cliff Street to allow for an overland flow path to channel flood water to the beach, reducing the amount of water previously directed and draining to Camp Cove Reserve,
- upgrade of over 100 metres of stormwater drainage lines in Cliff Street to current design standards,
- repair of existing GPT in Cliff Street, and
- relocation of major services underground in Cliff Street.

Cooper Park Upper Pond Rehabilitation Project

Council has commenced the design development for 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 vegegation along the creek banks.

The final project will incorporate 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.

3.4 Water Savings Action Plan

The introduction of the *Energy Administration Amendment (Water and Energy Savings) Act* 2005 and the MWP required local councils who are within Sydney Water's area of operations to develop a Water Savings Action Plan (WSAP). A WSAP determines how much water is being used at Council's top ten water using sites and identifies and prioritises actions to conserve potable (drinking) water usage. Draft WSAPs are to be submitted to the Minister of Utilities for approval prior to finalisation.

Council prepared and submitted a draft *Woollahra Water Savings Action Plan* to the Minister of Utilities for approval by the 30 June 2006 deadline. The Minister approved the *Woollahra Water Savings Action Plan* on 25 February 2007, without requiring additional work or amendments to be made to the draft plan. The current WSAP for Woollahra Council expires

on 25 February 2011. The legislation requires that the WSAP is to be reviewed every four years.

Council, through the endorsement of the WSAP, has adopted a 20% reduction target in potable water use across Council's operations from the base year (2004/2005) water use. Implementation of all of the actions included in the WSAP will reduce Council's water use by a further 5,610kL per year.

Council has implemented a number of the actions listed in the WSAP through routine property maintenance and upgrades, and involvement in the Sydney Water DIY Pilot Program. This has included the installation of dual flush toilet cisterns, low flow taps and shower heads. Implementation of the remaining actions has been included in Council's Management Plan 2007-2010.

Council has already achieved and exceeded the 20% potable water use reduction target adopted through the WSAP, having reduced water use in our operations by 30.3% since 2004/2005. This has occurred through the implementation of the water conservation actions identified in the WSAP, the Sydney Water DIY Pilot Program and other Council water conservation projects.

3.5 Sydney Water DIY Pilot Program

Council volunteered to participate in Sydney Water's NSW Drought Initiatives Pilot Program – Business DIY (Do it yourself) in December 2006. The program involved the audit of selected Council facilities (Council Chambers, O'Dea Depot and Sherbrooke Hall) by Sydney Water staff and the identification of water saving opportunities. Through the program, Sydney Water provided Council with the low flow devices/fixtures and Council installed the devices into the identified facilities in January 2007. Through the program it was estimated that installation of the water efficient water fixtures will reduce the water consumed from these fixtures by more than 50%.

3.6 Community Water Grants

Council received over \$106,000 from the Commonwealth Community Water Grants Program to install rainwater tanks and water efficient fixtures to five council properties. Rainwater tanks and water efficient fixtures have been installed at the Parsley Bay and Lyne Park amenities buildings, Double Bay Branch Library, and the Quarry Street and O'Dea Council Depots. The water collected in the rainwater tanks is being used to flush toilets and urinals. Rainwater collected at O'Dea Depot is also being used to wash down Council's garbage trucks. Installation of these rainwater tanks and water efficient fixtures is estimated to save over 1,925 kL of water a year.

3.7 Christison Park water efficiency and re-use project

Council was successful in receiving \$270,200 in funding through round 3 of the State Government's Water Savings Fund, for a water efficiency and re-use project at Christison Park, Vaucluse. The grant will fund a new state of the art sub-surface irrigation system in the four sports fields at Christison Park and a stormwater capture, storage and re-use system, that will capture the water that drains from the park to be re-used for irrigation. The project will

save Council approximately 15,000kL of water per year, nearly half the water needed by the existing, conventional 'pop-up' irrigation system currently installed at Christison Park.

3.8 Sydney Harbour Week (3 – 12 March 2007)

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 following activities for the Sydney Harbour Week 2007:

- guided coastal bushwalk, Gap Park to Christison Park,
- Harbour Rockpool Discovery walk at Nielsen Park, in collaboration with the Marine Discovery Centre,
- seahorse craft and story time for toddlers/preschoolers at the Woollahra Children's Library, Double Bay.

This is the fifth consecutive year that Council has organised activities for Sydney Harbour Week.

3.9 Sydney Coastal Councils Group Summer Activities Program (January 2007)

The Sydney Coastal Councils Group Summer Activities Program was conducted during January 2007. 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 Council's Group.

Woollahra Council organised the following activities for the January 2007 program:

- guided coastal bushwalk, Gap Park to Christison Park,
- Science of the Surf presentation, Woollahra Council Chambers, and
- Coastal care/water dragons story time for toddlers/preschoolers stories and craft at the Woollahra Children's Library, Double Bay.

3.10 Sydney Water

Sydney Water completed the program of works to renew and modernise the Bondi Sewage Treatment Plant (STP). A major component of the upgrade was the construction of a new recycling system, to enable treated wastewater to be re-used for essential purposes at the STP, reducing drinking water use at the plant by 50%, saving 150 million litres each year (Sydney Water 2007).

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 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 threatened and one vulnerable plant species.

Declining bird species in Woollahra

Long time resident Renee Ferster Levy has been observing birds around Bellevue Hill on and off since the 1970s, including conducting formal bird surveys of several Eastern Suburbs sites in the early 1990s. The common theme coming out of the surveys has been the decline in smaller bird species (i.e. Superb Fairy-wrens, Spotted Padalotes) and the increasing dominance of larger (i.e. Pied Currawongs) and more aggressive (i.e Noisy Miners) bird species. Renee notes that in particular, the Superb Fairy-wren has almost disappeared from parts of Bellevue Hill.

Renee states that declining small bird species are often attributed to a lack of bushy shelter for nesting and hiding, and increased predation (i.e. by cats and currawongs). Renee highlights the Commonwealth Scientific and Industrial Research Organisation (CSIRO) research that provides evidence that the influx and spread of aggressive native honey eaters (specifically Noisy Miners) correlates with the decline in small bird species (CSIRO 1997). [Source: Renee Ferster Levy Local Resident 2007]

To help reverse the decline in small native birds, plant a variety of local native species in your garden that contain different vegetation layers, being tree, shrub and ground covers. This will provide food, shelter and breeding places for small native birds. Woollahra Council, in conjunction with Waverley, Randwick and Botany Bay Councils, has produced a brochure titled *Local Native Plants for Sydney's Eastern Suburbs*. The brochure includes details of over thirty plant species (groundcovers, shrubs, climbers and trees) native to the Eastern Suburbs, along with tips for creating a habitat garden and for growing local native plant species. The four councils of the Eastern Suburbs and Green Web Sydney jointly funded the brochure. The brochure is freely available from Council.

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 environmental 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	Trend
No. of remnant vegetation reserves	9	9	9	9	9	9	9	9	~
No. of regeneration/ revegetation sites	7	8	8	8	8	8	8	8	~
No. of species: Endangered Vulnerable	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	~ ~
No. recovery plans approved	1	1	1	1	1	1	1	1	~
No of native flora species in LGA	311	311	311	311	311	311	311	311	~
No. of weed flora species in LGA	180	180	180	180	180	180	180	180	~

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

Key: The following symbols represent improving (>>-), worsening (x) 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.

4.2 Intent of biodiversity sector

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

Park/Reserve	Area of bushland (hectares)	Untreated bushland area (%) remaining	Area (%) regenerated and on maintenance
Cooper Park	12	47	53
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

During the reporting period, Council continued primary weed clearance in Parsley Bay Reserve, Gap Park, Harbourview Park and Cooper Park. Projects were undertaken by a combination of Council staff, contractors and Bushcare volunteers. Planting carried out as part of follow-up revegetation works, used tubestock native plants of local origin (provenance), grown by Council staff.

In Parsley Bay Reserve, primary weed clearance and revegetation works were carried out over 1200 m² of the bay's northwestern foreshore area. A part from a small area of Coral Tree canopy in the upper gully of Parsley Bay Reserve, the primary clearance targets for this reserve have now been completed.

In Gap Park, primary weed clearance was undertaken at three sites totalling an area of 3200m². Following primary weed clearance, revegetation works were undertaken at all three sites.

In Cooper Park, primary weed clearance was undertaken at six sites across an area totalling 3700 m². Some planting was undertaken at the Bushcare site in the south central area of the park. All other sites are being monitored for natural regeneration.

Harbourview Park has been added to the regeneration status table this year. This is a small reserve that has been totally revegetated with plant tubestock of predominantly local origin native plants. It is Woollahra's oldest Bushcare site, having had a team of dedicated volunteers working the park since 1998. Weedy groundcovers have been totally removed from the park. However, some significant woody weed trees remain.

There was no additional primary clearance of weed undertaken in Trumper Park during the reporting period. Planting with local origin tubestock continues in maintenance areas of the park.

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 forty-eight volunteers working across the four bushcare sites in Woollahra.

The following bushcare activities were undertaken during the reporting period:

- Council staff and volunteers from the Waverley Youth Group (WAYS) undertook a
 joint revegetation project around the tennis courts in Trumper Park. This is the second
 year that WAYS have been involved with Woollahra Bushcare,
- Council staff and community volunteers planted native plants in Gap and Cooper Parks on National Tree Day on 30 July 2006,
- Council conducted an induction course for the new bushcare volunteers,
- Council has started a Bushcare Program with the Miroma Rudolf Steiner Centre For Adults with disabilities that is 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 include weeding, planting, and mulching,

- Two corporate Bushcare days were conducted at Trumper Park with the ANZ Bank and American Express, and
- Bushcare was successful in receiving a Community Grant for safety shirts with bushcare logo. These were given out as presents at the bushcare Christmas party in 2006 to each of Woollahra's bushcare volunteers.

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 conducted guided coastal bushwalks for Biodiversity Month in September 2006 and for Sydney Harbour Week in March 2007. Topics covered during the walk included remnant vegetation of the area, bush regeneration and catchment management issues. Twenty people attended the Biodiversity Month walk and fifteen people attended the Sydney Harbour Week walk. Both walks were from Christison Park, Vaucluse to The Gap at Watsons Bay.

4.6 Parsley Bay post remediation

In 2002, funds were obtained from local residents, the Commonwealth Government under Natural Heritage Trust Coast and Clean Seas program, and Woollahra Council, to remediate the bed of Parsley Bay. Since dredging in the 1930s, hollows in the bay floor progressively accumulated silt and organic ooze. Council undertook the necessary investigations and obtained state agency approvals for the bed of the bay to be restored to near its original gently sloping, sandy condition. Sea grasses along the margins of the bay were protected. The result has been to provide a clean swimming environment with the added attraction of healthy ecosystems to encourage the return of fish to the bay. It has become a haven for snorkeling. Increased fish diversity has been noted by residents over the past three years during summer months. More observations will be conducted in future to provide a benchmark for change that may occur as a result of no commercial fishing in Sydney Harbour, improved estuary water quality and global warming effects.

[Source: Professor Bruce Thom, Local resident 2007]

4.7 National Parks and Wildlife Service update

Nielsen Park Vegetation Management

The National Parks and Wildlife Service (NPWS) continue to carry out bush regeneration in the Mt. Trefle area of the park, using both contract and volunteer bush regenerators. A new bush regeneration program has been initiated along the Hermitage Foreshore Reserve, in the vicinity Queens Ave, inconjunction with the Harbour Keepers. The NPWS has also carried out corporate bush regeneration days at Bottle and Glass Point.

Allocasuarina portuensis Endangered Species Recovery Project
NPWS continue to implement the Recovery Plan for the threatened plant species
Allocasuarina portuensis (Nielsen Park She-Oak), originally found only in Nielsen Park,
Sydney Harbour National Park. One hundred and thirty plants have been established in the
park. NPWS staff and local volunteers are continuing to maintain these sites.

4.7.1 Maintenance of the shark net

The swimming enclosure at Nielsen Park is protected by a shark net during the summer months. The NPWS conduct an annual monitoring program of sygnathids (seahorses, seadragons and pipefish) with the removal of the shark net each year, as these species are known to colonise shark nets and other inshore structures. During the reporting period 100 seahorses, a protected species, were removed from the net and returned to the harbour. This is almost double the number recorded last year (56).

Waste management at Nielsen Park

The NPWS relocated the rubbish and recycling bins from the promenade adjacent to Shark Beach and the kiosk, to the eastern end of the park. Removal of the bins from the promenade has improved the amenity of the area and places them near the exit where most people enter and leave the park. The new location also improves access for collection and enhances visitor safety.

The recycling service provided has been expanded to include plastic. Therefore the NPWS contractors now recycle all glass, aluminium and plastic disposed of in the park.

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 15°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

The DECC monitors air quality twice daily throughout NSW. Air quality results are presented as the regional pollution index (RPI) and categorised as low, medium or high readings. A high pollution index reading corresponds to pollution levels that exceed health or visibility goals.

Woollahra falls within the Central Eastern Sydney airshed. In general, the majority of days (both a.m. and p.m.) experienced low to medium pollution readings. During the reporting period, high readings were recorded for five mornings and seven evenings.

Council receives the majority of air pollution complaints recorded for the Woollahra LGA, with forty-two recorded during the reporting period. This is nearly double the number of complaints received over the past couple of years.

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 environmental 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	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	Trends
Corporate (Council) greenhouse gas emissions.	5,475 CO ₂ -e tonnes	-	-	-	5,903 CO ₂ -e tonnes	-	ı	-	~
RPI High – a.m. High – p.m.	4	13 13	10 13	14 14	9 4	6 0	9	5 7	* <
No. of Council air pollution complaints	-	-	-	56	45	26	24	42	×
No. of air incidents DECC pollution line	5	3	3	2	1	0	0	0	✓

Note: RPI means regional pollution index. CO₂ is the conversion of all greenhouse gas emissions to units of carbon dioxide equivalent (CO₂ o) 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 sector

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 gas emissions.

5.3 Energy Savings Action Plan

The introduction of the *Energy Administration Amendment (Water and Energy Savings) Act* 2005 (the Act) not only requires Council to prepare a Water Savings Action Plan (section 3.4), but also requires large councils to prepare an Energy Savings Action Plan (ESAP).

An ESAP determines base line energy use for a nominated year, audits facilities and identifies and prioritises actions that will conserve energy. Council commenced the

preparation of the Energy Savings Action Plan during the reporting period. **Table 8** outlines the process of preparing the ESAP, as set out in the *Guidelines for Energy Savings Action Plans* (2005).

Table 8: Energy Savings Action Plan process

	Energy Savings Action Plan					
Task 1	Determine how much energy is used.					
	Collate 12 months of energy usage data to determine Council's baseline energy use. The chosen base year is to be representative of normal operations. Develop Business Activity Indicators for your site's business sector.					
Task 2	Planning at management level.					
	Undertake an Energy Management Review. Senior Management commitment is vital for this task.					
Task 3	Determine how energy is used and efficiency opportunities.					
	The level of technical review (detailed or walk through) is determined by the amount of energy used and the size of the site. It is recommended that councils include the top 10 sites in the plan to capture the bulk of energy use.					
Task 4	Preparing the plan.					
	The plan is to utilise the outcomes of the assessment of the baseline energy use, management review and technical review and be based on templates included in the guidelines.					
Task 5	Implementing and reviewing plans.					
	Implementation of the plan is to be reviewed and reported to DEUS annually. The action plan is to be reviewed every 4 years.					

Council is currently preparing an Energy Savings Action Plan for the top ten energy using sites, in accordance with the *Guidelines for Energy Savings Action Plans*. Council is required to complete the plan and submit it to the Minister for Utilities by 30 November 2007.

To assist with the preparation of the ESAP, Council embarked on 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 emission savings. EPC can be used in any facility in which energy is used.

The EPC process follows five steps:

- 1. conduct an energy audit,
- 2. select preferred sites to be included in the Detailed Feasibility Study (DFS),
- 3. conduct the DFS,
- 4. agree which elements of the DFS you wish to implement and finalise the contract, and
- 5. implement EPC and enjoy improved service and lower energy bills proved through the ongoing monitoring and verification provided by the contractor.

5.4 Regional street lighting review

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.

The SLI program received \$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. Implementation of the grant will provide energy, greenhouse and financial benefits to the community.

Trials of new residential road lights (T5 and Compact Fluorescent Luminaires) where conducted during the reporting period. The trial programs of both lamp types will be evaluated by the SLI program to determine the most suitable type for installation through the grant. Energy Australia has provided the group with indicative pricing for the new efficient lamps. The SLI program will be considering the Energy Australia pricing proposal in conjunction with installation pricing information provided by Accredited Service Providers, to ensure the best value for money for the installation of the new lamps.

5.5 Traffic and transport

Community Transport Forum

Council initiated the creation of 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 initiated a 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 and 50K speed proposal.

Pedestrian and Access Mobility Plan for Paddington (PAMP)

The Paddington Pedestrian and Access Mobility Plan (PAMP) was adopted by Council, approving a three year staged construction program aimed at improving pedestrian access and mobility in Paddington. Council implemented the first stage of this plan during the reporting period. This involved the upgrade of pedestrian facilities in Hargrave Street, Glenmore Road, Gurner Street and Brown Street, Paddington. Additional PAMP facilities have been

incorporated into the Five Ways Streetscape design, including improved footpath grades and raised pedestrian crossings.

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 O'Sullivan Road, Victoria Road, Bellevue Road, Hopetoun Avenue, New McLean Street and Birriga Road. The percentage of the total bicycle route installed increased from 30.0% in 2005/2006 to 47% in 2006/2007.

Local traffic management

Council has implemented local traffic management measures in Hopetoun Avenue, Bellevue Road and Edgecliff Road. Additional measures have been included in the design for the Five Ways and the designs for the Darling Point precinct. Council successfully introduced 40 kilometer speed limits into in Paddington and in Bellevue Hill. The reduced speed will improve pedestrian and driver safety and improve the amenity of these precincts.

Sustainable Transport Pilot Project

Through Council's involvement in the Cities for Climate Protection (CCP TM) Program and progression to the CCP TM Plus Program, Council has joined the Sustainable Transport Pilot Project. Council decided to participate in the program for the following reasons:

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

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 completed milestones one and two 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 310 noise complaints and the DECC's Pollution Line received four 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 2005/2006 reporting period, decreasing from 331 to 310 registered with Council and twelve to four complaints registered by the DECC.

The majority of the noise complaints (134) registered with Council related to barking dogs. Noise from development sites was the next highest source with sixty-seven complaints, thirty-nine relating to general development site noise and twenty-eight relating to work outside of approved hours. Thirty-seven noise complaints were registered with Council regarding noise from air conditioning units.

The remaining seventy-two 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 9 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 environmental 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 9: Noise indicators

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

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

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.

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 sector

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 and ten 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 municipal waste stream in the Woollahra LGA, with 11,893 tonnes disposed to landfill during the 2006/2007 reporting period. This equates to each person living in Woollahra throwing away 237 kg of waste to landfill during 2006/2007. The total household recycled materials (kerbside plastics, paper/cardboard and green waste) equated to 10,845 tonnes, or 216kg of materials recycled per person. These figures illustrate a 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.

Council recycled over 4300 tonnes of material generated through Council's construction and maintenance activities (road maintenance, footpath repair and construction). Council has been steadily increasing the amount of construction and maintenance materials recycled.

Table 10 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 environmental 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 10: Waste indicators

Indicator	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003 /2004	2004/ 2005	2005/ 2006	2006/ 2007	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	✓
Household waste per capita	281 kg	274 kg	252 kg	234 kg	236 kg	242 kg	243 kg	237 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	✓
Household recycling per capita	135 kg	139 kg	189 kg	198 kg	199 kg	199 kg	206 kg	216 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 (✓), 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.

7.2 Intent of waste sector

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 Expanded recycling service

Council has expanded the range of materials collected through the kerbside recycling collection service. Residents are now able to recycle plastics 6 and 7, meaning that more plastic containers and bottles can be recycled.

Residents can now recycle:

- paper and cardboard newspapers, magazines, envelopes (with or without windows), office paper, cardboard, egg cartons, telephone books and milk and juice cartons,
- glass bottles and jars clear, green and brown glass only,
- aluminium and steel cans all aerosol, food, baby formula, pet food, tuna, beverage cans and oil tins, and
- plastic bottles and containers displaying recycling symbols 1, 2, 3, 4, 5, 6, 7.

A residential waste audit was conducted by contractors for Council to determine the recovery rate of materials recycled in the Woollahra LGA. The audit found that Woollahra had a residential recovery rate of 82%, meaning that 82% of all recyclable products are being recycled or recovered instead of being disposed to landfill.

7.4 Food organics recycling trial

Council commenced a twelve month trial of a residential food organic collection service in September 2006. The trial involves 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 is collected by Council's weekly kerbside collection service and taken to a facility in Chullora for composting and reuse.

The purpose of conducting the organics trial is to determine the viability of recovering food organics for reprocessing and reuse, with the possibility to:

- introduce a permanent residential food organics collection service,
- achieve and exceed the State Waste Strategy waste targets,
- educate and engage the community in sustainable waste management practices,
- improve the quality of material recovered from the waste stream for processing/reuse,
- recover a valuable resource from the waste stream for recycling,
- reduce disposal costs and environmental concerns associated with collection and transportation, and
- reduce environmental impacts associated with disposal of organic waste.

The trial is due for completion in September 2007 and is being run in association with the Southern Sydney Regional Organisation of Councils (SSROC) and Kogarah Council.

7.5 Second Hand Sunday

Council held the inaugural Second Hand Sunday community event in Paddington clean up zone 2 in October 2006, with the assistance of the Paddington Society. The aim behind the event 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. The success of the inaugural Second Hand Sunday led to a further event held for Paddington Clean-up zone 1 residents in April 2007.

Based on the success of both events, Council will continue to hold Second Hand Sundays for Paddington residents, with one to be held on the second scheduled household clean up collection day for zone 1 and one on the last collection day in zone 2.

7.6 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.

Liveable Lanes

Liveable Lanes is a project Council has undertaken for the previous three years, that targets illegal dumping of rubbish in the laneways around Paddington. Three or four laneways have been targeted each year that Council has implemented the program. During the reporting period Council targeted illegal dumping in Gurner, James and Norfolk laneways in Paddington. New recycling crates were distributed to residents backing onto the laneways as a part of the program. The appearance of the laneways has been significantly improved by residents involved in the program.

Schools Waste Workshops and Talks program

Council conducted the Schools Waste Workshops and Talks program during the reporting period, whereby Council's Waste Project Officer conducted composting and worm farming workshops at the following schools:

- Rose Bay Public School,
- Woollahra Public School,
- Woollahra Council Kindergarten,
- Kincoppal-Rose Bay School,
- Cranbrook School, and
- Glenmore Road Public School.

The aim of the schools workshop and talk program is to educate students in waste reduction, recycling, composting and worm farming.

Earthworks Sustainable Living Workshops

Council successfully conducted three Earthworks Sustainable Living Workshops in May 2007 targeting the local community. The theme of the first workshop was *Composting and worm farming* and was held as a part of National Composting Awareness Week 6-12 May 2007. The themes of the two other workshops were *Living with less chemicals* and *Water and energy savings at home*.

National Recycling Week November 2006

For National Recycling Week November 2006, Council held a School's garbage truck art competition, whereby students were asked to draw a picture relating to the theme *Reduce*, *Reuse*, *Recycle*. Ten schools participated in the competition from years kindergarten to year 6. The four winning artworks are displayed on Council's garbage trucks. The winning artworks were from Woollahra Public, Reddam House and Kambala schools.

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 involves broad, large scale promotions to reach the target audience, including advertising in local papers, on buses and in cinema (Bondi Junction and Eastgardens).

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 2007). The theme for World Environment Day 2007 supports International Polar Year, and focuses on the effects of climate change on polar ecosystems and communities, and the consequences around the world. The slogan for World Environment Day 2007 is *Melting Ice – a Hot Topic?*

As a part of World Environment Day 2007 celebrations, Council held a World Environment Day educational stall at Eastpoint Shopping Centre in Edgecliff to provide information and promote current environmental initiatives.

Council also participated in:

- stalls and support provided for Council events, including People and Pets day and the Bellevue Bonanza.
- Clean-Up Australia Day with fifteen clean up sites in the LGA, and
- Chemical clean-out collection 12 May 2007, attracting approximately 325 participants and collecting 8,228kg of waste.

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 careless individuals.

8.1 State of heritage

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

Seven hundred and fifty-four heritage items are protected under the Woollahra LEP and there are fourteen Heritage Conservation Areas (HCA) in the Woollahra LGA. Twenty-seven heritage sites are included on the State Heritage Register NSW and seventy-five Aboriginal heritage sites are found in the Woollahra LGA.

The Commonwealth's Department of Environment and Heritage established the Australian Heritage Database, which includes items on the National Heritage List, the Commonwealth Heritage List and the existing Register of the National Estate. There are 166 heritage sites located in the Woollahra LGA listed on the Australian Heritage Database, with 155 included on the Register of the National Estate and eleven on the Commonwealth Heritage List. There are currently no sites listed on the National Heritage List in the Woollahra LGA. Twenty-six additional sites were added to the Register of the National Estate during the reporting period.

The number of heritage items listed on State and Commonwealth registers has remained stable over the last eight years, whilst the number of locally protected sites and HCAs, have increased.

Table 11 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 environmental 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 11: Heritage indicators

Indicator	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	Trend
No. of Aboriginal heritage sites	64	-	75	75	75	75	75	75	~
No. of sites – Australian Heritage Database	-	-	-	-	-	-	166 ²	166	~
No. of sites – Register of the National Estate	152	153	153	129 ¹	129 ¹	129 ¹	129	155	√
No. of sites – Commonwealth Heritage List	-	-	-	-	-	-	11	11	~
No. of sites – National Heritage List	-	-	-	-	-	-	-	0	-
No. of sites - National Trust Register	264	264	265	266	266	266	278	278	✓
No. of sites - Woollahra LEP	618	620	622	624	616 ³	656	682	682	√
No. of sites – State Heritage Register NSW	26	26	27	27	27	27	27	27	?
Heritage Conservation Area	-	6	6	6	12	13	14	14	√

Note: ¹Reconciled as only the registered sites. Previous numbers included indicative sites.

²TheAustralian Heritage Commission was abolished in January 2004. The Register of the National Estate has been incorporated into the Australian Heritage Database, managed by the Department of Environment and Heritage. The Australian Heritage Database includes items listed on the National Heritage List, the Commonwealth Heritage List, and the existing Register of the National Estate.

³Lower number of items is a result of removing multiple items entered more than once in Schedule 3 of WLEP 1995, and as a result of Council boundary changes.

Sources: Woollahra Municipal Council, National Parks and Wildlife Services, NSW Heritage Office, Department of Environment and Heritage, National Trust (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 development and use pressures. The following activities and projects aim to contribute to the identification and protection of Aboriginal and non-Aboriginal heritage in the Woollahra LGA.

8.3 Paddington Development Control Plan

Council completed a review of the Paddington Development Control Plan 1999 (DCP) and prepared a new draft DCP for the Paddington Heritage Conservation Area. The draft DCP was exhibited for public comment. Following the exhibition, a Peer and Community Panel was formed to review certain aspects of the draft DCP. The Panel completed its review and an amended draft DCP has been finalised for further consideration by the Council.

8.4 Contemporary heritage items

The contemporary heritage items project investigated the heritage significance of a select list of buildings designed by prominent and award-winning architects in the 1950s, 1960s, 1970s and 1980s. Heritage inventory sheets, prepared by consultants for the Council, were sent to property owners for comment. The Council considered submissions from property owners and revised the list of potential heritage items. The Council decided to prepare a draft local environmental plan to include the revised list of properties as heritage items in Woollahra LEP 1995.

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

This project involved research of potential heritage items in the Watsons Bay and Woollahra HCA. Heritage inventory sheets, prepared by consultants for the Council, were sent to property owners. The Council considered submissions from property owners and revised the list of potential heritage items. The Council decided to prepare a draft local environmental plan to include the revised list of properties as heritage items in Woollahra LEP 1995.

8.6 National Parks and Wildlife Service (NPWS) heritage projects

Steele Point Cottage conservation works

The Steele Point Cottage is located in Nielsen Park and is a part of the Sydney Harbour National Park. The cottage was designed by Colonial Architect James Barnet as a barracks for the gunners associated with the Steele Point Battery and was constructed in 1880.

NPWS continued conservation work on the cottage. This work included the replacement of deteriorated weatherboards and wall elements, the reconstruction of missing or deteriorated windows and doors, replacement of rusted roof iron and repainting. Interior painting and furnishing is now complete and the cottage will be rented out for holiday accommodation.

8.7 Draft Reconciliation Statement

Council consulted local Aboriginal organisations, local reconciliation groups (LRGs) and networks for the drafting of a Reconciliation Statement during the reporting period. The purpose of the Reconciliation Statement is to acknowledge Aboriginal and Torres Strait Islander heritage and cultural contribution in the LGA and to provide Council with a framework for the future development of projects or activities in line with identified needs and issues. The Reconciliation Statement was adopted by Council in November 2006. Council supports the vision for Reconciliation that provides for

"a united Australia that respects this land of ours, values the Aboriginal and Torres Strait Islander people and their heritage and provides justice and equity for all"

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.

8.8 Aboriginal and Torres Strait Islander education

In conjunction with the Eastern Suburbs Organisation for Reconciling Australia (ESORA), Woollahra Council promoted 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. Two bush tucker walks were conducted during the reporting period, with participants enjoying a 'bush tucker' tasting. The walks were free for participants from the local community.

Following a nomination by Council, ESORA received the 2007 Sydney Harbour Week Award in the Indigenous category for building links between Aboriginal and non-Aboriginal people for their free community bush tucker walks.

8.9 Reconciliation Week

National Reconciliation Week is held each year from the 27 May to 3 June. Reconciliation Week offers people across Australia the opportunity to focus on reconciliation, to hear about the culture and history of Australia's Indigenous people, and to explore new and better ways of meeting challenges in our communities (Reconciliation Australia 2007). The 2007 event, *Their Spirit Still Shines*, was the 11th annual National Reconciliation Week.

For Reconciliation Week 2007, the Eastern Region Local Government Aboriginal and Torres Strait Islander Forum (ERLGATSIF), of which Woollahra Council is a member, developed and hosted its fourth 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 Leichhardt Town Hall during Reconciliation Week.

The Awards ceremony also included a presentation to the winning entrants of ERLGATSIF's third annual Primary Schools Art Competition which saw over 250 entries from students across the six participating member LGAs. Students from Woollahra Public School were amongst the place getters.

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

National Aboriginal and Torres Strait Islander Day of Celebration (NAIDOC) Week is held each year in July. NAIDOC week is a celebration of the history, culture and achievements of Aboriginal and Torres Strait Islander people (NAIDOC 2006). The theme for NAIDOC Week 2006 was *Respect the Past – Believe in the Future*.

Council celebrated NAIDOC Week 2006 with Indigenous story time and 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.

9 Bellevue Hill Public School

Bellevue Hill Public School has been actively improving its local environment since 2004. The school recycles all paper and cardboard products and the students have been planting local native plant species in the school grounds. The school is also working on producing a masterplan which will improve the natural environment of the grounds, as well as enhance play, learning and aesthetics of the school grounds. Involving the students in these projects has had enormous educational benefit, as they see what personal action can achieve in a short time.

In November 2006, Bellevue Hill Public School held the 'Bellevue Bonanza' fete, the first waste wise public event held in the Woollahra LGA. Thirty-one percent of all waste generated at the fete was recycled and therefore diverted from landfill! This was achieved by:

- using only biodegradable or recyclable food and drink containers,
- separating all waste into separate bins for general waste, recyclables and compostable material,
- educating the school community,
- setting out policies clearly to all stall holders,
- use of signage on the day to notify attendees of waste requirements, and
- the assistance of Council for recycling and contractor for composting the organic waste.

Bellevue Hill Public School was successful in gaining Commonwealth Government funding through the Community Water Grants program to replace all single flush toilets with dual flush toilets, install waterless urinals and timer switches for taps and bubblers in the school grounds. These improvements will save approximately 1,250 kL of water every year. Students will be involved in the monitoring, educational and reporting requirements of the project.

[Source: Renee Ferster Levy, Local resident 2007]

The Department of Education and Training (DET) requires all NSW schools to demonstrate that they are efficient environmental managers and are able to practice what they teach in the classroom. As a part of this, each school is required to set up an Environmental Committee, endorse an environmental Policy and Environmental Management Plan.

In response to the DET requirements, Bellevue Hill Public School carried out an environmental audit of the school grounds, the use of resources and the teaching of environmental issues through the school curriculum. The audit was carried out in June 2007 by a school mother, in accordance with the DET guidelines. The environmental audit identifies areas where the school is performing well environmentally and highlights areas where improvements to the environment can take place. The audit results will be used to prepare the environmental management plan and will provide for a systematic approach to DET environmental policy implementation, include monitoring and evaluation. This will also assist Bellevue Hill Public School in applying for and receiving grants to undertake environmental improvements at the school. Through conducting the audit, students and teachers at Bellevue Hill Public School are developing environmental solutions tailored to their own school's needs.

[Source: Petra Campbell, Local resident 2007]

10 References

Australian Bureau of Statistics (2006) 2006 Census QuickStats – Woollahra Local Government Area).

Commonwealth Scientific and Industrial Research Organisation (CSIRO) (1997) Initial Changes in the Avian Communities of Remnant Eucalypt Woodlands following a Reduction in the Abundance of noisy Miners, Manorina melanacephala

Department of Environment and Climate Change (2007a) website www.environment.nsw.gov.au

Department of Environment and Climate Change (2007b) Beachwatch and Harbourwatch State of the Beaches 2006 – 2007.

Department of Environment and Conservation (2006) NSW State of the Environment 2006.

Department of Environment and Conservation (2003) NSW State of the Environment 2003.

Department of Energy, Utilities and Sustainability (2005) Guidelines for Energy Savings Action Plans.

Environment Protection Authority (2000) NSW State of the Environment 2000.

Environment Protection Authority (1997) NSW State of the Environment 1997.

Environment Protection Authority (1996) Developing an Air Quality Management Plan for Sydney, Illawarra and Lower Hunter. NSW Government Green Paper.

Government of South Australia (2007) website www.watercare.net/water_clean.php

National Aboriginal and Torres Strait Islander Day of Celebration (NAIDOC) (2006) website www.naidoc.org.au

National Health and Medical Research Council (NHMRC) (1990) Australia Guidelines for Recreational use of Water.

National Parks and Wildlife Serves (1999) NSW Biodiversity Strategy.

NSW Government (2004) Metropolitan Water Plan.

Reconciliation Australia (2007) website www.reconciliation.org.au

Resource NSW (2003) Waste Avoidance and Resource Recovery Strategy.

Southern Sydney Regional Organisation of Councils (SSROC) (2005) Household Energy Survey

Sydney Water (2007) Major Projects website www.sydneywater.com.au

United Nations Environment Programme (2007) website www.unep.org/wed/2007/english