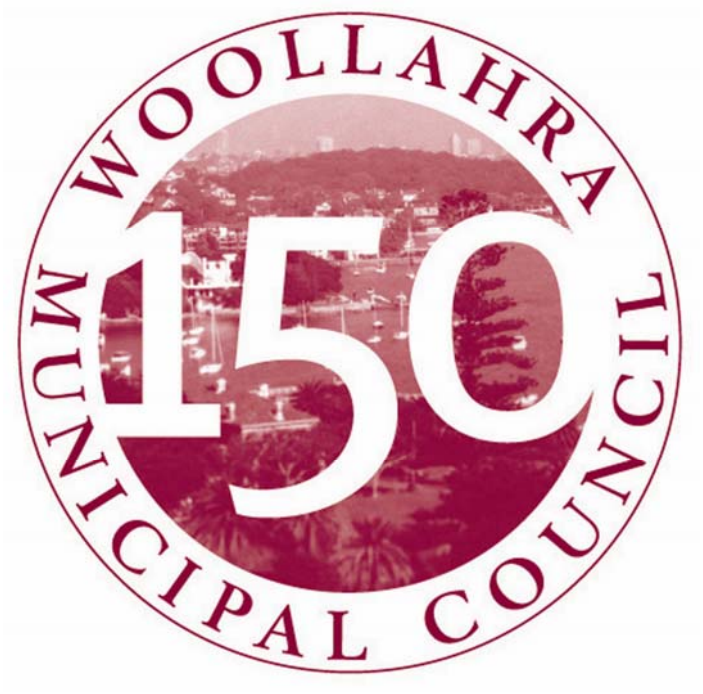

Annual Report 2009-2010

Annexure 3

State of the Environment Report

Woollahra Municipal Council

State of the Environment Report

2009/2010

www.woollahra.nsw.gov.au

This report has been compiled by Justin Shupe, Sustainability Projects Officer, Woollahra Municipal Council. Council staff, Government agencies and members of the community are acknowledged for their invaluable contributions of information and assistance.

Woollahra apologises for any errors or exclusions and welcomes comments for future State of the Environment Reports undertaken.

Woollahra Municipal Council
536 New South Head Road
Double Bay NSW 2028
November 2010

Printed on recycled paper

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Introduction

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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 2009/2010 SoE report is a supplementary report. Council's last supplementary SoE report was prepared for the 2007/2008 reporting period. During 2009 Integrated Planning and Reporting Legislation was passed through Parliament, to bring all Council's planning and reporting into a more consistent framework. Coming into effect on 1 July 2010, under the new legislation Council will be required after 2009/2010 reporting period, to produce a State of the Environment Report every four years. Therefore Council's next SoE will be 2013/2014 and will be included within Council's Annual Report for that year.

As the majority of environmental conditions and background information does not change dramatically from year to year, it is recommended the 2009/2010 SoE report is considered in conjunction with the last comprehensive SoE report produced for the 2008/2009 reporting period. Copies of previous SoE reports 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.

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 agencies1, 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.

Photo: Woollahra Municipal Council

[1] *The NSW state government created the Department of Environment and Conservation (DEC) in September 2003. The DECCW incorporates the Environment Protection Authority (EPA), National Parks and Wildlife Service (NPWS), Botanic Gardens Trust and Resource NSW. At present, each agency is represented separately in the DEC. This is reflected in Woollahra's SoE report, however the DEC is referenced directly when the action has come from the department.*

1.2 A guide to reading Woollahra's State of the Environment

This comprehensive SoE report describes the environment under eight sectors listed below. Each sector reports on the state and pressures affecting the environment within Woollahra and provides environmental response initiatives being undertaken by Council and other organisations.

- Land and coastline
- Biodiversity
- Waste
- Heritage
- Water
- Air quality
- Noise
- Sustainable Woollahra

The 'state' is referred to as the current condition of a sector. Environmental indicators have been included within this component to allow readers to monitor a specific aspect of the environment over time, where information has been recorded for a number of years, trends can be established. 'Pressures' describe activities that currently influence the current state of the environmental sector. Actions being undertaken by the Council and other organisations are listed under 'response'.

Photo: Woollahra Municipal Council

Land and Coastline

2

The Woollahra Municipal Council Local Government Area (LGA) is bounded by the harbour foreshore of Port Jackson, coastal cliffs and shares LGA boundaries with Waverley, Randwick and the City of Sydney Municipal Councils.

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).

Woollahra's land indicators have been selected to measure and monitor development, land clearing and re-vegetation which affect the condition of the land.

Photo: Woollahra Municipal Council

2.1 State of the Land and Coastline

The total area of Woollahra is 1219 hectares or twelve square kilometres including sixteen kilometres of harbour foreshore and coastline, 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 (ABS, 2006).

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 in the Woollahra LGA.

During the reporting period, there was a decrease in the total number of development applications (DAs) approved, decreasing from 687 in 2008/2009 to 659 in 2009/2010. The decrease during the 2009/2010 was the second year in a row approved DAs decreased over the last four years. A drop in the number of approved residential flat building DAs and alterations and additions to existing dwellings was also recorded. Continued recovery from the global financial crisis over the reporting year, may have lowered the number of residents willing to spend available funds on housing improvements and in addition exempt development codes came into effect on 27 February 2009. Under the State codes certain types of minor developments are identified as exempt development or complying development. Where a proposed development is classified as exempt development, no planning approval is required.

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 Department of Environment, Climate Change and Water's (DECCW) pollution line decreased from 32 in 2008/2009 to 28 during 2009/2010. Though there was an increase in the total number of incidents reported to the DECCW pollution line, the result for 2008/2009 is lower compared to reporting years before 2006/2007.

The new indicators marked in table two demonstrate that across the LGA, distribution of native flora for planting on public and private lands was significantly higher than approvals to remove trees on private land. As native flora data includes species other than trees, the two data sets are not easily comparable; however the data shows with higher number of native flora species being planted compared to tree removal there is a positive move towards native plant revegetation of Woollahra. Revegetation results in improved soil quality, reduced erosion and provides larger and healthier habitat areas for fauna.

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

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

Table 1: Land Indicators

Indicator	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
Total no. of DAs approved	965	996	999	1183	943	750	655	910	935	687	659
No. of RFB	-	-	15	5	15	17	4	18	18	5	4
No. A/A to existing building	-	-	510	852	653	622	499	398	719	557	340
No. commercial DAs*	-	-	-	-	-	-	-	-	-	81	114
No of complaints against DAs*	-	-	-	-	-	-	-	-	-	230^	264
Total open space (public and private)	-	215 ha	215 ha	215.5 ha	215.5 ha	216 ha	216 ha	216 ha	216 ha	216 ha	216ha
Urban open space	-	101 ha	101 ha	101.5 ha	101.5 ha	102 ha	102 ha	102 ha	102 ha	102 ha	102ha
Total urban area (ha)*	-	-	-	-	-	-	-	-	1,219	1,219	1,219
Total residential area (ha)*	-	-	-	-	-	-	-	-	646.36	646.36	646.36
Total business area (ha)*	-	-	-	-	-	-	-	-	15.21	29	29
Number of native trees planting by Council (including grasses, shrubs and trees) including bushcare*	-	-	-	-	-	-	-	-	-	5,805	8,947
Approvals to remove trees (private land)*	-	-	-	-	-	-	-	-	-	229	196
No. of environment protection licences issued by the DECCW	-	4	3	2	-	2	2	2	1	1	1
Total no. of incidents DECCW pollution line	61	65	33	50	47	32	41	19	20	32	28
Chemical	1	9	2	2	1	1	5	2	3	3	1
Pesticide	1	3	0	1	2	3	2	3	2	3	1
Contaminated land	0	0	0	0	0	0	0	0	0	1	0

Source: Woollahra Council (GIS open space), Department of Environment, Climate Change and Water (DECCW).
Note: DA means development application, RFB means residential flat building, A/A means alterations and additions, and ha means hectare. The total number of DAs does not include amended DAs or Section 82A reviews.
Key: (*) represents new environmental indicator selected during 2008/2009, previous years data provided if available. (^) Objections started to be recorded in February 2009, figure does not represent the whole 2008/2009 reporting period.

Environmental protection licences:

Are issued by the DECCW to owners or operators of various industrial premises under the Protection of the Environment Operations Act 1997 (POEO Act). Conditions of licences relate to pollution prevention, monitoring and cleaner production through best practices (including reuse and recycling). In 2009 the Act was refined, the Protection of the Environment Operations (General) Regulation 2009 took effect from the 30 June 2009 and improves environmental objectives through administration of licences and other regulatory instruments (DECCW, 2009c).

Urban area: built-up areas where the predominate frontage is residential or business (which may be used for commercial or industrial purposes).

Residential area: includes all land within urban areas which conforms to the definition of residential in section 516 of the Local Government Act, 1993.

Business area: comprises all land within urban areas which conforms to the definition of business in section 518 of the Local Government Act, 1993, and may be used for commercial or industrial purposes.

Urban open space: comprises all land within urban areas held in public ownership for present and/or intended future use as open space including parks, playing fields, bushland reserves, vantage points, and neighbourhood and trunk floodways. Urban open space does not include gold courses, privately owned recreational facilities, sporting facilities and playgrounds within schools, water surfaces, and areas of verge association with roads.

2.2 Pressures impacting on the Land and Coastline

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

- Urban development and intensification
- Population growth
- Land degredation and clearance of native vegetation
- Soil disturbance and erosion
- Contaminated lands
- Acid sulphate soils

2.3 Responding to Land and Coastline Pressures

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.

Draft Principal Local Environment Plan

In November 2007 Council resolved to prepare a new local environmental plan, known as the Woollahra Principal Local Environmental Plan (Principal LEP). The Principal LEP will replace the current Woollahra LEP 1995 (WLEP 95).

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

Council has established a clear direction for preparing the draft Principal LEP which is to take a 'translation approach'* to preparing the new LEP, notwithstanding the need to:

- rationalise existing controls and address inconsistencies so that the controls are more practical and relevant to the built form, and
- meet the State Government's housing targets in the draft East Subregional Strategy 2008.

The draft East Subregional Strategy 2008 is a NSW Government initiative. The East Subregion comprises Botany Bay, Randwick, Waverley and Woollahra local government areas (LGAs), and establishes housing and employment targets for the subregion and also for each LGA.

The total target for the East Subregion is 20,000 new dwellings and 25,100 new jobs to 2031. Woollahra's share of the targets is—2,900 new dwellings and 300 new jobs.

The State Government required Council to demonstrate that the new LEP has capacity (by way of its zoning and density provisions) to provide for 2,175 additional dwellings and 225 additional jobs. This is to meet 75% of the housing and employment targets set out in the Draft East Subregional Strategy.

Council must rezone land and increase buidling heights and densities to meet this capacity.

In preparing the draft Principal LEP a suitable balance must be found between protecting character and providing for increased housing opportunities. This is most effectively resolved by focusing the planning changes on the business centres and immediate surrounding areas, including particularly Edgecliff and the New South Head Road corridor to Rushcutters Bay.

*Under the 'translation approach' the current zone, height and FSR controls in the WLEP 95 will be translated into similar controls under the Standard Instrument (SI) so that current land use planning controls and policy direction are broadly maintained, notwithstanding inevitable changes arising from the rigidity of applying the SI.

This strategy of increasing development potential in and around the centres is consistent with good planning practice and promotes more sustainable and transport oriented development, but also importantly helps protect the character and amenity of Woollahra's low density residential areas by limiting the need for significant change to the planning controls in these areas.

A significant amount of work has been undertaken in the preparation of the draft Principal LEP. This work has been informed by planning staff's consultation with the Strategic Planning Working Party and State government agencies and the community.

In particular, community consultation has been focused on 24 locations where staff have identified potential to change the planning controls to help Council meet the State Government's housing targets. These 24 locations are called the "opportunity sites".

Council has finished preliminary consultation with the local residents about changes proposed in the opportunity sites. This consultation was taken under section 62 of the EP&A Act.

Over 500 submissions were received to the proposed changes. The submissions will be reported to Council over the next six months, at the rate of approximately two sites per report, to identify which of the proposed planning changes will be incorporated into the Draft LEP.

The Draft LEP will then be placed on formal exhibition. The State Government timeframe for having the Woollahra LEP approved is June 2012.

Comprehensive development control plans

As part of the NSW State Government's planning reform package, only one development control plan (DCP) may apply to a site. This means that where a number of DCPs apply to a parcel of land, the Council will need to consolidate those plans into a singe DCP.

The Council has commenced the process of reviewing its DCPs with the aim of meeting the one DCP per site requirement. Part of this review will enable the Council to examine the range of sustainable development controls within its precinct-based DCPs. The timeframe for having the new DCP is June 2012, that is it is expected to commence at the same time as the new Woollahra LEP.

Photo: Woollahra Municipal Council

Exempt and complying development

As part of the reforms to improve the efficiency of the NSW planning system, the State Government published the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (the Codes SEPP) on 27 February 2009.

The Codes SEPP establishes certain types of minor development or low impact development as 'exempt development' or 'complying development'.

Where a proposed development is classified as exempt development, no planning approval is required. Where the proposed development has minimal environmental impact and is complying development, a complying development certificate is required to be determined within 10 days.

The Codes SEPP has been amended on several occasions and contains the following codes:

- Part 2—Exempt Development Codes
- Part 3—General Housing Code
- Part 4—Housing Internal Alterations Code
- Part 5—General Commercial and Industrial Code.
- Part 6—Subdivisions Code

This means that both the State Government and Council have policies that identify development as exempt development or as complying development. Council's Development Control Plan for Exempt and Complying Development 2000, continues to operate, but for many types of development is overridden by the provisions in the Codes SEPP.

The implementation of the Codes SEPP is part of the State Government's ongoing planning reforms, including its commitment to support an increase in the uptake of complying development from 11 per cent to 50 per cent by 2012. The Department of Planning advises that additional complying development codes will be introduced for other development types in 2010 and 2011.

Review of planning controls for Kiaora Lands, Double Bay

On 15 December 2008 the Council resolved to prepare a draft LEP and draft DCP for the Kiaora Lands site in Double Bay. Detailed work on the draft LEP and the DCP has been carried out. The draft plans will facilitate viable and sustainable redevelopment of the land.

Public exhibition of the draft LEP and a concept plan was carried out in April and May 2010. This process included a public meeting and a series of meetings with residents and business owners. Re-exhibition of the draft LEP in the form of a planning proposal together with the draft DCP and concept plans occurred in October and November 2010.

Double Bay Partnership

Since 2008, business interests have been represented by the Double Bay Partnership Inc. (DBP), a public and private partnership dedicated to revitalising Double Bay. The DBP's vision for Double Bay is a vibrant and attractive centre that offers a unique living, working and shopping experience within a pedestrian friendly and attractive urban environment.

The key roles of the DBP are to implement the Business Plan, oversee the Service Level Agreements, create a sustainable, long term funding model; and employ a professional centre manager to oversee the day-to-day implementation of all DBP activities.

Woollahra Council is an active partner in the DBP. There is a Memorandum of Understanding between Woollahra Council and the DBP to work collaboratively together to advance Double Bay Commercial Centre. Its operations are governed by a registered Constitution. The DBP was formally registered with the NSW Department of Fair Trading in September 2008. Its operations are governed by a registered Constitution. An elected management executive, known as the DBP Board, manages the day-to-day running of the organisation.

[2] The Kiaora Lands site comprises the following properties: 423 - 451 New South Head Road, 1 - 7 Kiaora Road, 1 - 9 Kiaora Lane, 2 Patterson Street, 2 - 4 Anderson Street, 1 - 7 Anderson Street, and public roads including park Kiaora Lane, part Anderson Street and part Patterson Street.

Harbour Foreshore Cleaning

During the reporting period Council undertook a review of its Harbour Foreshore Cleaning program. Based upon this review and the assessment of three quotations the Barber Surf Rake 400HD was considered the most suitable and cost efficient machine for use as part of Woollahra Municipality's Foreshore Cleaning Program.

Following the review, Council purchased a new beach rake and tractor which has removed more litter from beaches than we were previously able to do by hand. This has included the collections of buried objects such as glass and syringes. It has also allowed us to clean more beaches in a shorter timeframe than was previously achieved with manual cleaning methods.

Council has now adopted a combination of hand cleaning and mechanical cleaning along the harbour foreshore to reduce the amount of pollution found on our coastline and reduce the amount of pollution entering the harbour.

Watercourse and Bushland Vegetation Treatment Program

The objectives of the Watercourse and Bushland Vegetation Treatment Program include:

- the prevention of uncontrolled run-off, erosion, nutrient transport and weed intrusion into remnant bushland,
- the protection, restoration and enhancement of indigenous busdland areas, and
- the rehabilitation of creek systems to prevent erosion, and to minimise sediment and nutrient transport to harbour waters.

Achievements in this program over the 2008/09 financial year include:

- Cooper Park Pond Upgrade – The Options Report, Detailed Designs, Review of Environmental Factors and Tender Documents were completed in September 2008. Construction works were completed in March 2009.
- Christison Park water efficient irrigation project was completed in March 2009. The water savings are currently being assessed.
- The Cresent Vaucluse, Hopetoun Avenue stormwater augmentation project to protect Parsley Bay from uncontrolled run-off. The works contract was awarded to Eco Civil and works were completed in July 2009.

Photo: Woollahra Municipal Council

Contaminated Land

When considering development applications and preparing planning proposals, the Council must consider the possibility of whether land is contaminated. If the land is contaminated, the Council must be satisfied the land is suitable in its contaminated state or in a remediated state for the purpose to which development is proposed.

Council planning officers follow the procedures set down in State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) and the Managing Land Contamination Planning Guidelines (1998).

On 26 July 2010 the Council approved the Contaminated Land Development Control Plan 2010. The plan commenced operation on 10 August 2010 and is used in the assessment of all development applications and planning proposals.
of contamination is considered at appropriate stages of the planning decision making process.

Acid sulfate soils

The Woollahra LEP 1995 includes provisions for the assessment and management of development that may impact on acid sulfate soils and an Acid Sulfate Soils Planning Map that identifies potential acid sulfate soils areas throughout the LGA. This map was adapted from the NSW acid sulfate soils risk map produced by the former Department of Land and Water Conservation in 1998. The map identifies land that may contain potential acid sulfate soils. It shows 5 classes of land based on the probability of acid sulfate soils. Class 1 being the most likely and Class 5 being the least likely.

The LEP also contains a schedule of works which, if proposed on or under the classified lands, trigger special assessment and consideration requirements. Depending on the location of the proposed works and the type of development, applicants may need to carry out special site investigations and prepare acid sulfate soils reports, which are submitted with their development applications. To assist applicants in this process, Council has prepared an information brochure that forms part of the DA Guide. The LEP can be access through the Council website www.woollahra.nsw.gov.au.

Asbestos

The removal of asbestos on building sites remains a significant environmental issue. NSW Workcover is the regulatory authority that sets the controls for the removal process. Development consents issued by Council make reference to the required standards and guidelines for asbestos removal. Despite this, Council received complaints of non-compliance, which were referred to Workcover for investigation and enforcement.

Ecological footprint of the Eastern Suburbs – Urban Sustainability Program

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

Neighbourhood Centres Strategy

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

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

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

Double Bay Partnership Incorporated

In response to the studies to identify issues affecting retail trade in the Double Bay Commercial Centre, the Double Bay Partnership Incorporated was established in late 2008 as a partnership between Woollahra Council and local businesses. It was designed to provide the Double Bay business precinct with a coordinated central management that takes a long-term approach to planning, giving the area an advantage over other Sydney centres.

Its purpose is not to help individual businesses, but to promote the area's local businesses as a whole, through marketing, press management and business development, as well as by creating physical improvements to the area.

The Double Bay Partnership has designed and is now implementing a three-year strategic business plan, which focuses on brand development, including promotions and events and physical improvements to the area.

The Constitution for the Partnership was registered with the Department of Fair Trading and a Memorandum of Understanding between Council and the Double Bay Partnership has been signed.

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

Plans of Management (PoM)

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 Chiswick Gardens, Cooper Park and Trumper Park PoMs. The revised PoMs were publicly exhibited during the 2009/2010 reporting period.

Park, reserve and recreational improvements

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

- installation of new playground shade strucutures at Thornton Reserve and Cooper Park,
- new fence around the Trumper Park playground,
- construction of new entry steps and ramp to Gap Park at Military Road entry,
- works associated with the Gap Park Infrastrucutre Improvements grant were completed in January 2010, this included self harm minimisation measures such as CCTV. Other works funded by different grants were completed this year, they included upgrading the main entry from Military Road, wayfinding signage and emergency telephones. Implementation of the self harm minimisation fence at Gap Viewing Platform, funded by the RLCIP Round 2, is expected to be completed in January 2011. Funding from the RLCIP Round 3 for a shared accessibility pathway from Military Road to the Gap Platform is anticipated to be completed in late 2011. The Department of Health and Ageing have dedicated $1.2 million to the remainder of self harm minisation measures which are to be completed in mid 2011,
- design and development of prototype fencing for the Gap lookout area,
- undertaking further bush regeneration works at Gap Park,
- preparation of a policy for the introduction and management of Community Gardens. The first community garden in Trumper Park has commenced construction in readiness for use early in 2009. A community Gardens Policy has been implemented and adopted by Council. The Paddington Community Garden has been successfully running for 12 months and have enetered into a three year User Agreement with Council,
- Sydney Marina Contracting were awarded the Tender for Construction of the Watsons Bay Bath in May 2010. Construction of the Baths began in early June 2010 with an expected completion and opening date in med December 2010,
- installation of new dinghy storage facilities at Rose bay, Tingira Memorial Park, Gibbons Beach Reserve and Marine Parade, Watsons bay. As part of these words, adjacent beaches were

cleared of abandoned water craft and made available once again for public use. Dinghy storage facilities have been implemented at all locations. beaches have been kept cleaned free of unauthorised water craft. Council's beach cleaning equipment assists with rubbish and all beaches are now free for public use,

- improvement of beach cleaning services with the providion of beach vehicular access ramps at Watsons Bay beach and Camp Cove,
- installation of a new playground at Robertsons Park,
- installation of new drinking fountains at various locations

Water

3

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 impacting the quantity and quality of water.

The 'water' section refers to the harbour beaches, aquatic habitats, creeks, stormwater, potable water and the activities that may impact upon them.

Woollahra's water assets are highly valued within the community, for both their recreational and aesthetics purposes, they also provide vital ecosystems for marine and freshwater biodiversity.

Water and waste water services in Woollahra are provided by Sydney Water.

3.1 State of water

South Eastern Australia has been experiencing severe drought conditions for the past few years. This is placing additional pressure on Sydney's drinking water supplies. The NSW Government released the 2006 Metropolitan Water Plan (MWP). The plan is to ensure a sustainable and secure water supply for greater Sydney. The NSW Government is currently updating the plan for the longer term with the new plan to be released in 2010. Further details of the MWP are available at www.waterforlife.nsw.gov.au.

The Woollahra LGA drains into two water catchment areas, Port Jackson South Catchment (95% of the LGA) which includes the embayments of Rushcutters, Double and Rose Bay and the smaller bays including Vaucluse Bay, Parsley Bay, Watsons Bay and Camp Cove. The remainder flows into the Tasman Sea. There are three natural creeks in the LGA namely Parsley Bay, Cooper Park and Rose Bay Creeks.

Harbourwatch water quality of the receiving waters

This year DECCW started reporting under the new National Health and Medical Research Council's (NHMRC) Guidelines for Managing Risks in Recreational Waters (2008). Under previous guidelines compliance was reported as a percentage, the new guidelines report Beach Suitability Grade from Very Good to Very Poor. Microbial water quality data and Sanitary Inspection of swimming locations determine the Beach Sustainability Grade.

The new NHMRC guidelines, advocate enterococci as the single preferred indicator for the detection of faecal contamination in recreational waters. Enterococci found in the intestines of warm blooded animals is present in incredibly high numbers in raw sewage (millions of enterococci bacteria can be found in 100 milliliters of raw sewage). A strong relationship has been identified between illness rates in swimmers and elevated levels of the enterococci bacteria. It is important to note illness is not caused by enterococci, it is a measure used to detect the presence of sewage, and the possible presence of pathogens which do cause illness (DECCW, 2009).

Faecal coliforms (also known as thermotolerant coliforms) have been used as a bacterial indicator in the monitoring program. Although faecal coliforms are present in very high numbers in raw sewage, it dies off rapidly compared to enterococci in marine waters and the link between illness rates in swimmers and this bacteria has been found to be poor. Therefore the NHMRC 2008 guidelines do not advocate using faecal coliforms as an indicator for recreational waters (DECCW, 2009).

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

- Nielsen Park
- Watsons Bay
- Parsley Bay
- Rose Bay Beach
- Redleaf Pool

Nielsen Park was graded as 'very good', with Watsons Bay, Parsley Bay and Redleaf Pool graded as 'good'. Only one swimming site was graded with 'fair' being Rose Bay Beach.

Table two presents results for the 2009/2010 reporting year under the new guidelines.

Table 2: Woollahra LGA Harbourwatch beach suitability grade

Site Name	Year	Sanitary Inspection Category	Microbial Assessment Category	Beach Suitability Grade
Nielsen Park	2010	Low	Category A	Very Good
Watsons Bay	2010	Moderate	Category B	Good
Parsley Bay	2010	Moderate	Category B	Good
Rose Bay Beach	2010	High	Category B	Fair
Redleaf Pool	2010	Moderate	Category B	Good

Table 3: Beach suitability grade

Beach Suitability Grade	Definition
Very Good	Location has generally excellent microbial water quality and very few potential sources of faecal pollution. Water is considered suitable for swimming for almost all of the time.
Good	Location has generally good microbial water quality and water is considered suitable for swimming for most of the time. Swimming should be avoided during and for up to one day following heavy rain at ocean beaches and for up to three days at estuarine sites.
Fair	Microbial water quality is generally suitable for swimming, but because of the presence of significant sources of faecal contamination, extra care should be taken to avoid swimming during and for up to three days following rainfall or if there are signs of pollution such as discoloured water, odour, or debris in the water.
Poor	Location is very susceptible to faecal pollution and microbial water quality is not always suitable for swimming. During dry weather conditions, ensure that the swimming location is free of signs of pollution, such as discoloured water, odour or debris in the water, and avoid swimming at all times during and for up to three days following rainfall.
Very Poor	Location is very susceptible to faecal pollution and microbial water quality may often be unsuitable for swimming. It is generally recommended to avoid swimming at these sites.

Source: NSW Department of Environment, Climate Change and Water (DECCW).

Beach Suitability Grade is determined from a combination of microbial assessment (water quality measurements gathered over previous years) and sanitary inspection (identification and rating of potential pollution sources at a beach) using the matrix in table 4.

Table 4: Beach classification matrix

		Microbial Assessment Category (MAC)			
		A (≤40 cfu/100mL)	B (41-200 cfu/100mL)	C (201-500 cfu/100mL)	D (>500 cfu/100mL)
Sanitary Inspection Category	Very Low	Very Good	Very Good	Follow Up	Follow Up
	Low	Very Good	Good	Follow Up	Follow Up
	Moderate	Good	Good	Poor	Poor
	High	Good	Fair	Poor	Very Poor
	Very High	Follow Up	Fair	Poor	Very Poor

cfu = Colony Forming Unit
Source: NSW Department of Environment, Climate Change and Water (DECCW).

Table 5: Woollahra LGA Harbourwatch percentage compliance results

Swimming location	2004/2005				2005/2006				2006/2007				2007/2008				2008/2009			
	Summer		Winter		Summer		Winter		Summer		Winter		Summer		Winter		Summer		Winter	
	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec	Fc	Ec
Redleaf Pool	77	61	100	91	100	100	100	100	100	100	95	70	90	87	100	100	81	97	100	100
Rose Bay Beach	100	94	100	91	100	100	100	100	100	100	95	40	100	84	100	59	100	100	100	83
Nielsen Park	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Parsley Bay	100	90	100	100	100	100	100	100	100	100	100	85	100	94	100	100	100	100	100	100
Watsons Bay	100	90	100	100	100	100	100	100	100	100	100	90	100	84	100	100	100	100	100	83

Source: Department of Environment, Climate Change and Water (DECCW) 2009
Note: Fc = faecal coliforms and Ec = enterococci.

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

Potable (drinking) water consumption

Residents and those who work in Woollahra used a total of 6,148,038 kilolitres (kL) of potable (drinking) water during the reporting period. This was an increase of 211,973 kL compared to 2008/2009 figures. This increase can be attributed to lifting of water restrictions, irrigation was increased to repair parks and bushland hit hard by lower rainfall.

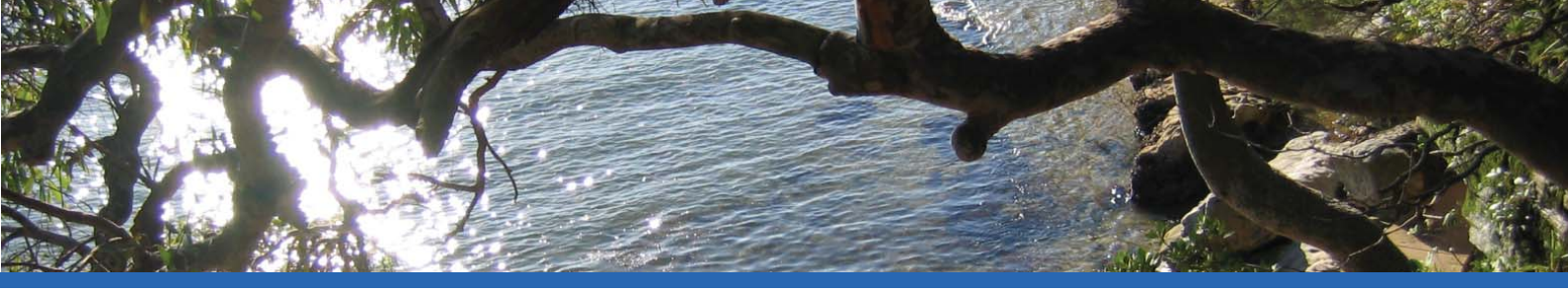
To achieve reduction in annual water use, Council has implemented a number of water saving initiatives, including:

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

Council's water use during the 2009/2010 reporting period was 54,729 kilolitres, which represents an increase on 2008/2009 usage by 19,686 kilolitres. This increase can be attributed to the relaxing of water restricitions.

On 2 June 2010 Council completed its annual water diagnostic. Assessed by Energetics, Council's operations and management of water was evaluated and ranked against other Councils. Results of the diagnostic were delivered to Council in a report designed to assist Council in:
evaluating practices and identifying priority areas for improvement
developing practical action plans to improve management of resources
measuring Council progress and benchmark against other organisations.

A star rating based on where water management is at within an organisation is provided within the report. Woollahra Council achieved an extra star for an overall star rating of four out of five, which indicates water management is integrated into everyday business systems.



Rainwater tanks

Woollahra Council has installed a number of rainwater tanks over the past five years. The total storage of the 12 tanks is 142 kilolitres. Through the installation of rainwater tanks and other water efficient options Council can reduce its water use, reduce stormwater run-off and save money on water bills.

Proposed locations for further rainwater tanks include:

- Council Chambers,
- Annex building,
- Fletcher Street depot,
- Cooper Park Tennis and Café,
- Styne Park,
- Gaden Reserve,
- Robertson Park, and
- Rushcutters Bay Café.

Water pollution

The number of water pollution incidents recorded by the DECCW pollution line, penalty infringement notices and prevention notices remained stable during the reporting period with no increases or decreases compared to 2008/2009. The number of clean up notices increased from zero to eight. Overall water quality has remained stable.

Council continues to maintain the 232 pollution control devices (220 pit baskets and 12 GPTs) installed throughout the LGA. Council prevented 132 tonnes of vegetative matter, sediment and litter material from entering Sydney Harbour through cleaning drainage pits and gross pollutant traps (GPTs) over the LGA during the reporting period. 2009/2010 saw an increase of fourteen tonnes of matter caught by pits and traps. Pits and traps are cleaned after large rain events and frequently by Council staff. Regular cleaning reduces the likelihood a pit / trap can become full, therefore the more a pit / trap is cleaned the more it can hold compared to those that are not regularly maintained. A combination of more pit baskets and gross pollutant traps and regular cleaning can further increase the amount of matter being diverted from entering Sydney Harbour.

Gross pollutants identified in and around Woollahra and its beaches, are a result of both the generation of pollution within the LGA as well as pollution transported by wave and wind action to the beaches of Woollahra. The water quality devices installed by Council has stopped 359 tonnes from entering Sydney harbour in three years (2007 – 2010).

Hotspots for gross pollutants that have been identified through complaints to Council are focussed on the harbour beach areas of Watsons Bay and Rushcutters Bay. Specific community activism surrounding the state of Parsley Bay has focused a significant portion of Council resources to installing stormwater treatment elements in the catchment.

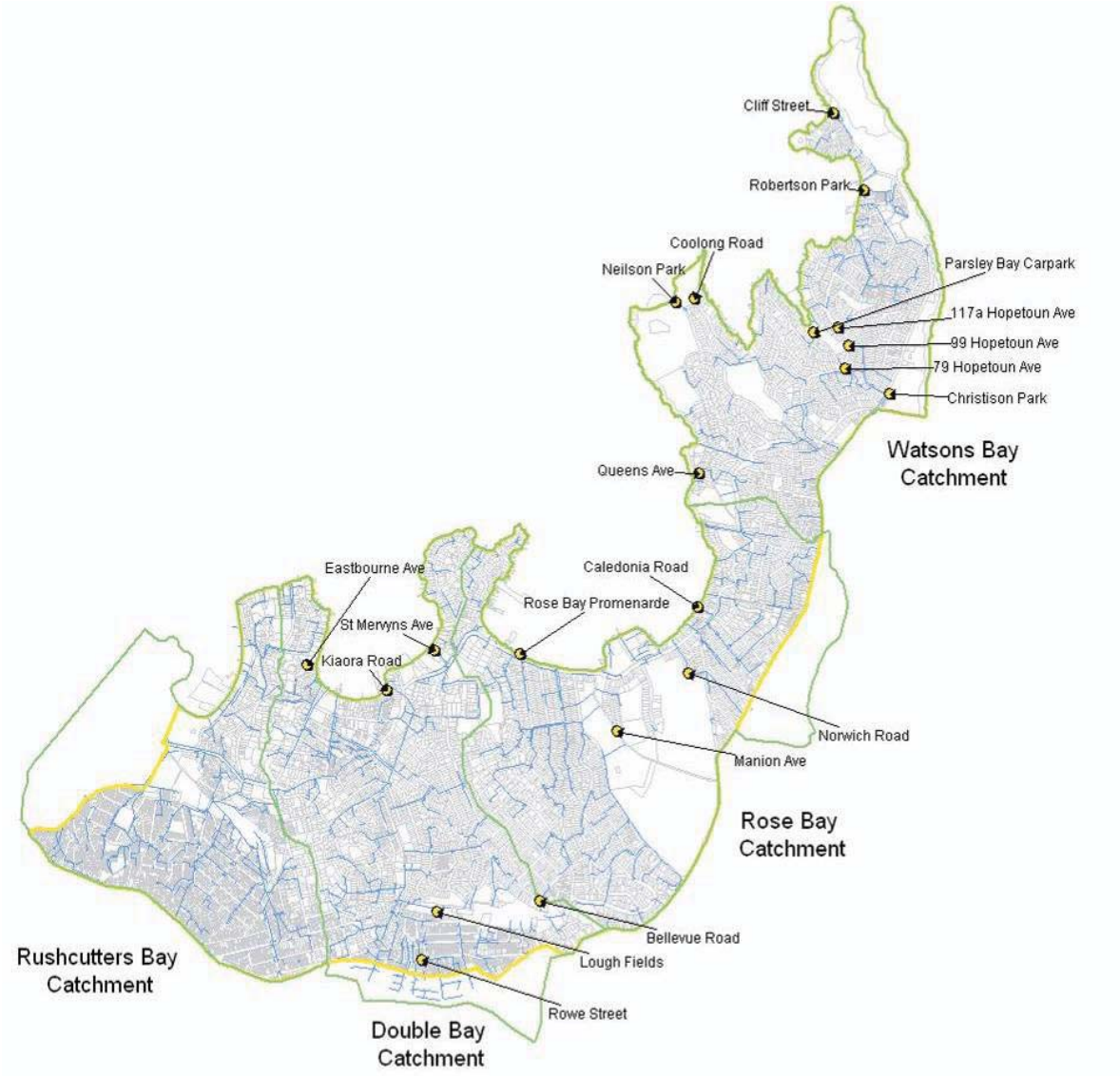


Figure 1: Location of Gross Pollutant Traps in Woollahra LGA, with GPTs

It is realistic to expect gross pollutants witnessed on the harbour beaches are a result of both generation within the Woollahra LGA as well as generated from the entire Sydney Harbour catchment. These pollutants including both anthropogenic and organic material accumulate at these beaches as a response to tidal and wind movement. Importantly the fine black material which is found at the waterline on beaches is typically a combination of both broken down organic matter and fine silts. These pollutants are generally not caught by gross pollutant traps due to their fine nature and the fact that organic matter such as leaves are distributed through the catchment including adjacent to beaches and waterways.

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

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

Table 6: Water Indicators

Indicator	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
Water consumption LGA total (kilolitres)	7,641,624	8,385,816	-	-	6,285,185	6,237,758	5,997,976	5,601,964	5,936,065	6,148,038
Water consumption Woollahra Council (kilolitres)	95,885	99,862	96,000	53,000	44,000	38,839^	41,720^	29,431^	35,043^	54,729
No. of Council rainwater tanks*	-	-	-	-	-	-	8	8	12	12
No. of pollution control devices installed	-	28	178	229	230 (10 GPTs and 220 pit baskets)	230 (10 GPTs and 220 pit baskets)	230 (10 GPTs and 220 pit baskets)	232 (12 GPTs and 220 pit baskets)	232 (12 GPTs and 220 pit baskets)	232 (12 GPTs and 220 pit baskets)
Total pollutants removed from pollution control devices (tonnes)*	-	-	-	-	-	-	-	109	118	132
No. of stormwater discharge points into the harbour	-	-	-	-	110	-	-	110	110	110
No. of water pollution incidents (DECCW)	42	24	41	40	22	22	10	12	14	14
No. of clean up notices	-	2	6	9	9	0	0	2	0	8
No. of prevention notices	-	4	3	6	0	0	0	0	0	0
No. of penalty infringement notices issued	-	2	50	14	13	12	10	3	4	4

Source: Sydney Water, Woollahra Municipal Council, and Department of Environment, Climate Change and Water (DECCW).
Key: (*) represents new environmental indicator selected during 2008/2009, previous years data provided if available.
(^) represents figures that have been updated in 2009/2010, provided by Sydney Water.

3.2 Pressures impacting on water

The waters of Woollahra are used for recreational purposes and also provide habitat for numerous flora and fauna. The impacts of urbanisation on these receiving environments include impairment of recreational water quality, high pollution loads and alterations to flora such as seagrasses and the habitats that they support.

Pressures affecting water in Woollahra include:

- increased stormwater run off due to high impervious surfaces. Impervious surfaces result in reduced water infiltration,
- altered flow rates of creeks and streams,
- loss of native vegetation and establishment of exotic species,
- pollution,
- nutrient run-off from gardens, recreational fields and animal waste,
- water pollution incidents, and
- aged sewer infrastructure resulting in sewer overflows.

3.3 Responding to water pressures

Woollahra Council has undertaken a range of initiatives on improving its management of the urban water cycle – potable mains water, stormwater and wastewater, over the past ten years. Significantly strategies inlaying the ground work for these works were the development of the Port Jackson South Stormwater Management Plan and the introduction of capital and environmental levies to fund works. Woollahra Council has also been successful in winning a series of grants and is in a good position to generate a new framework for water management within Council.

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.

WaterFix Program – Sydney Water

All Sydney Water customers are able to participate in the WaterFix program, which is aimed at reducing household water usage. The program includes:

- do it yourself (DIY) water saving kit: consisting of self installation water saving devices,
- WaterFixing the home: for $22 a certified plumber will visit your home and check for water leaks and install water saving devices,
- $150 washing machine rebate,
- $1,500 rainwater tank rebate, and
- the Love Your Garden program.

For further information on the WaterFix program visit www.sydneywater.com.au.

Participating in the WaterFix program provides Sydney Water customers an opportunity to:

- save an average of 20,900 litres of water a year,
- save up to $83 a year on water and energy bills
- talk to a qualified plumber about other water reducing opportunities in your home, and
- update your showerhead at a very low price.

Community interest shown in the program represents growing awareness of water conservation and residents willingness to do their part to reduce water consumption across the LGA. Numbers of residents participating in the project are below.

Table 7: WaterFix Participation

WaterFix Program	2008/2009	Total 1999 to 2010
DIY Kits	32	1,450
Love Your Garden	13	262
Rainwater Tank Rebate	15	256
Toilet	79	129
Washing Machine Rebate	478	3,170
WaterFix	38	3,582
Total LGA Participation	**655**	**8,849**

Water savings Action Plan (WSAP) Implementation

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

Council's top ten water using sites are:

- Woollahra Council Chambers – 10 Megalitres (ML/yr, ML = one million litres),
- Yarranabbe Park + Olympic legacy berths and hardstand – 4.3 ML/yr,
- Christison Park – 4 ML/yr,
- O'Dea Depot – 2.7 ML/yr,
- Lyne Park – 2.7 ML/yr,

- Sherbrooke Hall – 2 ML/yr,
- Trumper Oval – 2 ML/yr,
- Watsons Bay Baths – 1.9 ML/yr,
- Woollahra Park building complex - 1.6 ML/yr, and
- Robertson Park – 1.5 ML/yr.

Water Quality At-Source Treatment Program

The objectives of the Water Quality At-Source Treatment Program are to prevent pollutants, litter, vegetation matter and sediment entering the Harbour. Education programs, and installation of water quality devices such as stormwater inlet pit baskets and WSUD rain-gardens are the types of management initiatives that meet this objective. Projects carried out over the financial year are summarised as follows:

Environmental Education

During the 2009 – 2010 reporting period, Woollahra's Environmental Education Officer continued working on projects and events focused on our four target groups – residents, schools, business, and Council staff. Woollahra's Environmental Education Officer managed Councils Sustainability Workshop Series and hosted nine community workshops.

Rose Bay Promenade Upgrade – stormwater reatment and re-use

Council completed the upgrade of the Rose Bay Promenade in June 2008. 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 200,000 litres. The treated stormwater will be used by Council for irrigation and maintenance purposes, saving precious litres of drinking and bore water.

The stormwater treatment and re-use component of the Rose Bay Promenade Upgrade is being partly funded through a grant from the NSW Government's Urban Sustainability Grant Program.

A water quality monitoring program is currently underway to measure the quality and quantity of water running through the system. The results will be reported back to Council, community and the Environmental Trust.

Catchment Monitoring Program

Council engaged a consultant to implement its developed Catchment Monitoring Program in the Winter of 2010. The LGA has been split into four subcatchments:

- Rushcutters Bay
- Double Bay
- Rose Bay
- Watsons Bay

The program tests water at the top, middle and end of each catchment, varying between open creek and closed channel. Testing does not include marine waters as the aim of the project is to identify the quality of water draining into the harbour.

The program will run for twelve months and be tested twice (during dry and wet weather) each season (winter, spring, summer and autumn).

Holdsworth Community Centre water saving challenge

Woollahra Council has received $79,427 from the NSW Government's Climate Change Fund – Public Facilities Program to install rainwater tanks and other water saving technologies at the Holdsworth Community Centre, saving 700,000 litres of water annually.

The project includes the installation of rainwater tanks, waterless urinals and a water wise, organic garden. The Holdsworth Community Centre will be a demonstration site to Woollahra residents showcasing water saving technologies you can implement in your own home.

Local Flooding, Critical Pits and Overland Flow Program

The objective of this program is to reduce the incidence of local flooding to property and overland flows which can have a detrimental effect on stormwater quality through increased sediment erosion within the catchment.

Drainage and water quality project at The Crescent, Vaucluse

Properties along Hopetoun Ave and The Cresent, Vaucluse have been subject to flooding in the past. Extensive investigation has been completed and a combination drainage and water quality project recommended and adopted by Council to reduce the flood risk and treat the storm water being discharged to the environmentally sensitive receiving waters of Parsley Bay.

The project includes:

- upgrading local drainage infrastructure and gross pollutant trap to increase stormwater capacity to transport flows and capture pollutants before they reach the harbour,
- flow diversion structures and energy dissipation 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.

This project was completed in July 2009.

Drainage Works at Fisher Ave, Vaucluse

New drainage infrastructure and a new GPT has been constructed for Fisher Ave, Vaucluse to direct overland flow to Rakes Gully and reduce the flow of water traveling down the Avenue causing local flooding to a number of residences. The new Gross Pollutant Trap will collect leaves and sediment from entering Rakes Gully which was restored by Council in 2003. Works included the construction of new 600mm diameter concrete pipes and stormwater pits, as well as a gross pollutant trap.

This project was completed on the 21 November 2009.

Photo: Woollahra Municipal Council

Water Sensitive Urban Design (WSUD) Bellevue Road Streetscape Improvements

Council has completed constructing a series of WSUD features as part of the streetscape improvement works on Bellevue Road. Permabale paving, permable tree pits and rain gardens have been constructed to reduce urban runoff and help filter pollutants from road runoff before it enters the stormwater system. These works will improve the quality of water flowing into Cooper Park Creek. The works were completd in June 2010.

Cooper Creek Rehabilitation Project

Council completed the Upper Pond Rehabilitation Project at Cooper Park in November 2009. In addition to this work Counicl has recently undertaken further restoration works at the lower reached of the creek. The project included weeding, dredging and planting macrophytes to help improve the water quality within the creek. The project was completed in October 2010.

Sydney Coastal Councils Group Summer Activities Program (January 2009)

The Sydney Coastal Councils Group Summer Activities Program was conducted during January 2010. The program aims to educate the community about Sydney's beautiful coastal environment through organised activities. The activities are organised by the individual coastal councils, and coordinated by the Sydney Coastal Councils Group.

Woollahra Council organised the following activities for the January 2010 program:

- Rockpool Ramble 1, Nielsen Park (Bottle and Glass Rocks)
- Rockpool Ramble 2, Nielsen Park (Bottle and Glass Rocks)
- Parsley Bay Guided Bushwalk and
- Science of the Surf educational seminar and community workshop.

The Woollahra activities were very successful with approximately 160 people participating.

Photo: Woollahra Municipal Council

Biodiversity

4

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, 1997b).

Australia is recognised as one of the twelve most biologically diverse, or megadiverse, areas on earth. It is home to approximately half a million species, of which 80% are endemic (found only in Australia). Although much of this diversity is concentrated in 'hot spots' such as south-west Western Australia and the tip of North Queensland, many species are found in and around the Sydney region (EPA, 2000).

The vegetation of Australia is divided into distinct regions referred to as bioregions. The Woollahra LGA is located within the Sydney Basin bioregion, an area that extends from Batemans Bay in the south to Nelson Bay in the north and west to Mudgee. The Sydney bioregion is one of the most species diverse regions in Australia due to the variety of rock types, topography and climate. Almost 40% of the region is classified as conservation-oriented land use and is home to twenty-one endangered and 94 vulnerable fauna species (NPWS, 2003).

Indicators have been selected to measure local issues, activities and condition of biodiversity in the Woollahra LGA.

4.1 State of biodiversity

The Woollahra LGA has approximately 75 hectares of bushland located in nine bushland reserves. Three vegetation communities are present containing the 311 native plant species, including two threatened and one vulnerable plant species. Plants and animals are often referred to as flora and fauna respectively. A copy of the flora and fauna species lists (1995) for Woollahra are included as Appendix B.

The following information describes the original vegetation communities of Woollahra, where these communities were found historically, and where they exist today.

Remnant vegetation

South Head, Vaucluse and Bellevue Hill

Heath vegetation and low scrub (approximately two to five metres high) on the exposed rocky outcrops and shelves consisted of species such as *Acacia longifolia* (Sydney Coast Wattle), *Allocasuarina distyla* (Scrub She-oak), *Kunzea ambigua* (Tick Bush), *Banksia ericifolia* (Heath Banksia), *Westringia fruticosa* (Coast Rosemary), *Eucalyptus obtusiflora* (Port Jackson Mallee), and smaller wildflowers and ground covers. Remnant vegetation of this type is found growing at the Gap and Gap Bluff parks at South Head.

Vaucluse Point (Nielsen Park), Point Piper and Darling Point

Low forest and scrubland of mixed species to an optimum height of 14 metres. *Angophora costata* (smooth-barked Apple), *Eucalyptus botryoides* (Bangalay), *Banksia serrata* (Old Man Banksia) and *Banksia integrifolia* (Coast Banksia), *Ficus rubiginosa* (Port Jackson Fig), *Allocasuarina littoralis* (Black She-oak), *Casuarina glauca* (Swamp Oak), *Kunzea ambigua* (Tick Bush) and many smaller plant species. Remnant vegetation of this type exists at Nielsen Park and along the Hermitage Foreshore Reserve and 'The Crescent Area', Parsley Bay Reserve.

Valleys - Rushcutters Bay (to Trumper Park), Double Bay (to Cooper Park), Vaucluse Bay and Parsley Bay

Taller eucalypt forest (Tall Open Forest) gaining a height of 25 metres would be found here.
Typical species including *Eucalyptus piperita ssp. pipertia* (Sydney Peppermint), *Eucalyptus pilularis* (Blackbutt), *Eucalyptus punctata* (Grey Gum), *Eucalyptus botryoides* (Bangalay), *Eucalyptus robusta* (Swamp Mahogany) and *Angophora costata* (Smooth-barked Apple). *Eucalyptus tereticornis* (Forest Red Gum) can also be found surrounding Vaucluse Bay.

According to Benson and Howell, (1990) the alluvial flats at the heads of bays such as Rushcutters Bay and Double Bay would have been forest with trees of *Eucalyptus tereticornis* (Forest Red Gum), *E. robusta* (Swamp Mahogany), *E. botryoides* (Bangalay) and small rainforest-type pockets of *Livistona australis* (Cabbage Tree Palm). The latter were used for constructing the huts for the first settlement. Benson and Howell, (1990) state that "this was probably the only vegetation approaching rainforest in the Eastern Suburbs" Remnant

vegetation of this type can be found at Cooper Park, Parsley Bay and Vaucluse Bay.
Cooper Park is roughly composed of two remnant vegetation areas:

- I. The north-facing valley side grows *Angophora costata*, *Eucalyptus punctata* and *Kunzea ambigua* scrub.
- II. The south-facing sandy slope retains open forest of *Eucalyptus. gummifera, E. piperita, E. pilularis,* and *E. botryoides,* with a mixture of rainforest species such as *Elaeocarpus reticulatus* (Blueberry Ash), *Glochidion ferdinandi* (Cheese Tree), *Acmena smithii* (Lillipilli) and *Callicoma serratifolia* (Black Wattle) on the lower valley sides.

However, it is difficult in Cooper Park to identify remnants against the proliferation of planted native species, which occurred in the 1930s and 1974-6. Over 500 native trees shrubs and grasses were planted in 1974-6 when a three-year revegetation and regeneration scheme was undertaken.

Rose Bay
This area apparently supported dune scrub vegetation with fragmented stands of Paper-bark swamp. The dominant species are assumed to be *Leptospermum laevigatum* (Coast Tea-tree), *Banksia serrata* (Old Man Banksia), *Banksia ericifolia* (Heath Banksia), *Casuarina sp.* (different species of She-oaks), and *Melaleuca quinquenervia* (Broad-leaved Paper-bark). Most of this vegetation type has been destroyed.

The Royal Sydney Golf Course contains small remnants of vegetation including the northeast corner of Paper-barks. However, many interesting species have been lost to development. Benson and Howell indicate that Dodonaea falcata (Thread-leaf Hop Bush), a species endemic to the Castlereagh Woodlands (near Penrith and Kenthurst), the northwest slopes and Queensland, was collected in this area. Further surveys need to be carried out to determine the extent of remnant vegetation on the golf course, especially to determine if species representative of the Eastern Suburbs Banksia Scrub vegetation community is present.

Endangered, threatened and vulnerable species and populations

Two endangered and one vulnerable threatened plant species are found in the Woollahra LGA.

- *Acacia terminalis ssp. terminalis*, the Sunshine Wattle, is a species listed as endangered on Schedule 1 of the Threatened Species Conservation Act 1995. The species has been formally identified within the Woollahra LGA at Gap Park, Parsley Bay, Cooper Park and Nielsen Park. The primary threat to the survival of this species has been habitat loss due to development (NPWS 2004a).
- *Allocasuarina portuensis*, the Nielsen Park She Oak, is a species found only at Nielsen Park, Vaucluse. This species is listed as endangered on Schedule 1 of the Threatened Species Conservation Act 1995. The species has also been listed as nationally endangered under the Environment Protection and Biodiversity Conservation Act 1999. The NPWS has prepared the Allocasuarina portuensis Recovery Plan 2000 to direct the future management of the species. This species is at risk due to low rates of reproductive success, an inappropriate fire regime, weed invasion, habitat degradation as a result of recreational use, and possible contamination by landfill (NPWS, 2009).
- *Callistemon linearifolius*, the Narrow-leaf Bottlebrush, is a species listed as vulnerable on Schedule 2 of the Threatened Species Conservation Act 1995. This species has been formally identified within Gap Park, Watsons Bay. This species is threatened by a continuing loss of habitat resulting from urban development, and has a high risk of extinction due to low population numbers (NPWS, 2009).

The total number of endangered and vulnerable flora species and remnant vegetation reserves has remained stable over the last ten years, despite growing pressure from population growth, domestic animals and urban development. Through hours spent by Council staff and volunteers in regeneration programs, the number of weed species found in the LGA has also remained stable along with the number of native flora species. The stability of these indicators represent that these aspects of Woollahra's biodiversity are being managed in a way that is ensuring their future within the local area.

Threatened and priority fauna

Through the regeneration of bushland areas and improvement of water quality in Woollahra, both terrestrial and aquatic habitats can result in habitats with greater biodiversity. 'threatened and priority fauna' is referred to as fauna which:

- was once found in the LGA in recent times (within the past 50 years) but has not been recorded in recent fauna surveys,
- has never been identified in previous fauna surveys in the LGA,
- not expected to be found in the geographical region or climate,
- is a population that is now fragmented, isolated and likely to be vulnerable to extinction, and or
- is a declining population.

During the 2009/2010 reporting year, two sightings of 'threatened and priority fauna' were reported by Council staff. Both sightings were of the Little Penguin Eudyptula minor.

- Threatened and priority fauna of interest for the Woollahra LGA include:
- Little Penguin – *Eudyptula minor,*
- Sharks and rays
- Syngnathiformes
- Eatern Qualls – *Dasyurus viverrinus,*
- Grey-headed flying-fox – *Pteropus poliocephalus*

If you identify a 'threatened and priority fauna' contact Woollahra Council's Sustainability Projects Officer 02 9391 7000.

Recording 'threatened and priority fauna' can also be used to identify if new fauna population(s) are establishing in the LGA and if management actions are required for their protection and or control.

Little Penguin – *Eudyptula minor*

Are flightless birds which breed from south of Port Stephens in NSW and stretch down the coast along Victoria, South Australia, Tasmania and even Fremantle in Western Australia. Previously common on the mainland of Australia, populations are generally restricted to offshore islands. The only known breeding population on the mainland in NSW is located within North Sydney Harbour and has been declared as an endangered population (DEC, 2009).

Eudyptula minor the smallest of the penguin species weighs between 1000 and 1200 grams and is approximately 30 centimetres tall. Their upper body is slate-black with a white underbelly, blue and black flippers with a trailing edge and white below, a black bill, silver grey eyes and pale feet with black soles (DEC,2009).

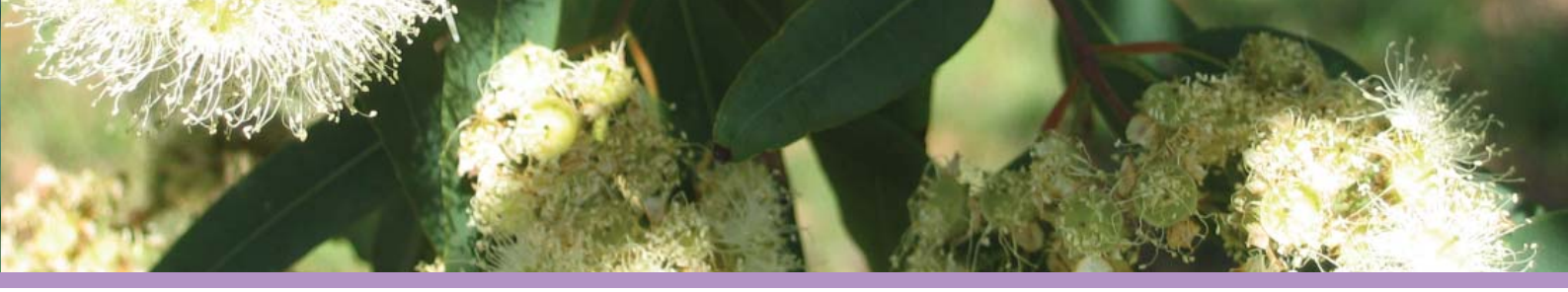
Colonies are usually established in sand-dune vegetation, but colonies have been found in rocky areas, sea caves and on headlands and usually nests in burrows. The little penguin has a diet that consists of small fish, squid and krill. Majority of the penguins feeding grounds are in shallow waters (15 to 20 kilometres of the coast), but have also dive to the sea floor (DECCW, 2009d).

Little penguins are routinely sighted by swimmers and sailors in eastern suburbs bays, and it is critical that habitat for this species is preserved and enhanced.

The greatest threats listed by the DECCW (2009d) to the little penguin on the Australian mainland are attacks from foxes, cats and dogs. Other pressures / threats affecting little penguins include:

- habitat destruction and disturbance through human activity (i.e. land clearing),
- construction pollution and run-off,
- irresponsible boat / jet ski behaviour,
- reduction in food supplies through over fishing, and
- introduction of exotic diseases / parasites.

A Penguin Safe Habitat Program could be considered which would aim to educate water users, residents and companion animal owners on protecting the Little Penguin from injury or death caused by discarded fishing tackle and plastics, boat collisions, and attacks by foxes, cats and dogs. The program could also consider habitat restoration and habitat-friendly designs during foreshore redevelopment projects.



Sharks and Rays

Shark and rays are critical in marine environments as predators and scavengers. Sydney Harbour and the waters off our coast provide habitat for a rich diversity of sharks and rays, with over 60 species being recorded (Australian Museum, 2009).

There are approximately 450 species of shark worldwide. Contrary to popular belief and media reports there are only a few species of the 450 species of sharks known to be dangerous to humans, including the Great White Shark, Tiger Shark, Bull Shark and other whaler sharks. In cases of attacks by sharks it can be attributed to mistaken identity, with sharks confusing humans with normal prey (DEWHAa, 2009).

There are more than 600 species of Rays worldwide. Thought to have evolved from sharks they have adapted to a live on the bottom, with a few species living near the surface or open ocean (Last & Stevens, 2009). There are currently no species or populations of rays listed under NSW legislation as endangered or vulnerable in Sydney Harbour.
are anticipated for this species that is well suited to suburban locations that provide protected habitat which are free from predators including foxes, cats and dogs.
Photo: A & J Little

Australia has the following listed shark species under the Environmental Protection and Biodiversity Conservation Act, 1999 (DEWHAa, 2009):

- Critically Endangered species:
  - Grey Nurse Shark – *Caracharias Taurus* (East Coast population), and
  - Speartooth Shark – *Glyphis sp. A*

- Endangered species:
  - Northern River Shark – *Glyphis sp. C*

- Vulnerable species
  - Grey Nurse Shark – *Caracharias Taurus* (West Coast population),
  - Whale Shark – *Rhincodon typhus,* and
  - Great White Shark – *Carcharodon carcharias.*

The Australian Museum (2010) lists shark species known to inhabit waters or have swum into the waters of Sydney Harbour, the list includes:

- Bull Shark (*Carcharhinus leucas*)
- Dusky Shark (*Carcharhinus obscurus*)
- Tiger Shark (*Galeocerdo cuvier*)
- Bronze Whaler (*Caracharhinus bracyurus*)
- Port Jackson Shark (*Heterodontus portusjacksoni*)
- Epaulette Shark (*Hemiscyllium ocellatum*)

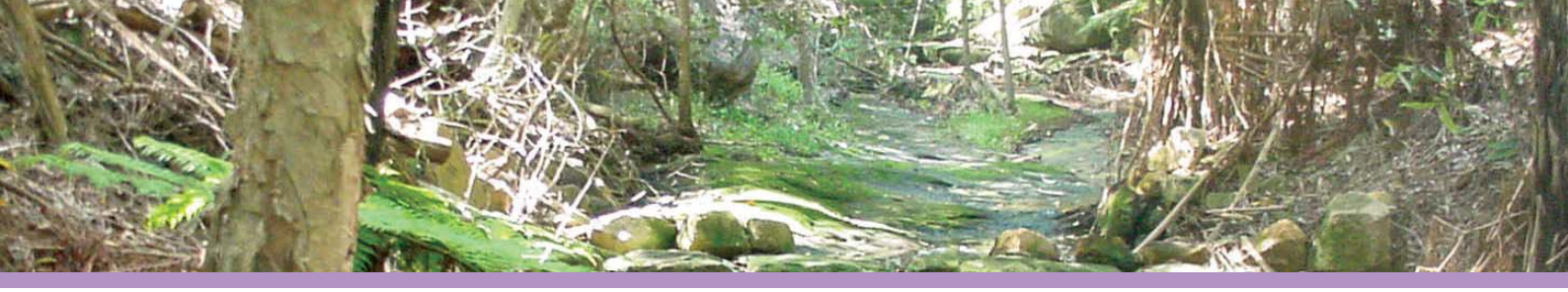
Other shark, ray and fish species found or to have been found in Sydney Harbour can be located at http://australianmuseum.net.au/Fishes-of-Sydney-Harbour/.

In NSW the great white shark has been listed by the NSW Department of Primary Industries (NSW DPI, 2010) as vulnerable. The NSW DPI maps the natural distribution of the great white shark along the entire NSW coast. Great white sharks are commonly found around rocky reefs of inshore waters, islands and often seal colonies. They play a critical role in marine ecosystems as an apex predator (top of the food chain).

The NSW DPI (2010) lists great white sharks as threatened due to:

- Being by-catch in various commercial fisheries
- Safety (shark) smeshing at beaces
- A low potential for population recovery
- Being targeted by game fishers before being placed under protection. Occasionally they are still caught by recreational anglers fishing for other species.

Report sightings of species on the Department of Primary Industries' 24 hour automated message-taking service by calling (02) 4916 3877.



Syngnathiformes

Syngnathiformes is a collective term used for the decorative and mysterious fish which belong to the families 'Syngnathidae', 'Solenostomidae', 'Pegasidae'. These families include seahorses, seadragons, pipefish, pipehorses, ghostpipefish and seamoths (NSW DPI, 2010a).

Unlike most bony fish Syngnathiformes do not have internal bones, instead possessing bony plates and rings which cover their semi-flexible body. Currently 31 syngnthids, 4 solenostomids and two pegasids species are known to exist in NSW waters. Their appearance varies depending on their surrounding habitat and therefore highly variable in colour and shape. Changing colour in minutes or growing additional skin to mimic marine flora is possible in some syngnathiformes. This ability is an essential in defence and as a feeding strategy (NSW DPI, 2010a).

All species of the families 'Syngnathidae', 'Solenostomidae' and 'Pegasidae' were listed as "protected" under the NSW Fisheries Management Act 1994 in July 2004. It is an offence under the Act to have in your possession, collect or harvest any species of seahorse, seadragon, pipefish, pipehorse, ghostpipefish or seamoths in NSW without a permit. The Environmental Protection and Biodiversity Conservation Act 1999 protects all syngnathids within Commonwealth waters, making the killing, injuring, take, trade, move or export of any members of the family an offence without a Commonwealth approval permit (NSW DPI, 2010a).

Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITIES) in May 2004 listed the entire genus of 'Hippocampus' species (seahorses) under CITIES Appendix II to improve management of the international trade (NSW DPI, 2010a).

Of the 47 species of syngnathids 7 species listed in the 2000 IUCN (World Conservation Union) Red List of Threatened Species have been found in NSW waters. The largest threat to seahorses and their relatives is destruction or alteration of habitat, numerous synthathiforms inhabit the shallows of inshore areas and often around man made structures, making them vulnerable to human disturbance.

Coastal development can pose a threat to seagrass, reef and soft bottom habitats through pollution, urban stormwater run off, dredging and sewage. Recreational boating pose a risk through anchoring in seagrass or seaweed beds (NSW DPI, 2010a).
If you sight any syngnathiforms report it on the 24 hour automated phone service by calling (02) 4916 3877 and recording the description, date, exact location and habitat details.

Photo: Woollahra Municipal Council

Sea grass beds and sand banks

Seagrass beds occur along tidal shorelines that are inundated with marine seawater, and occur in estuaries and shallow coastal waters with sandy or muddy bottoms. Recent assessments of seagrass in Parramatta River and Sydney Harbour (NSW DPI, 2008), show that seagrasses are influenced by sea level, sediment type, bathymetry (gentle slopes), wave energy (limited) and tidal range.

Seagrasses are very efficient at photosynthesizing and are highly productive, and provide habitat for seaweeds and filter-feeding animals like bryozoans, sponges, and hydroids as well as the eggs of ascidians (sea squirts) and molluscs (EPA, 2003). They are valuable as nursery and shelter areas for many aquatic animals, including commercially and recreationally important fish, molluscs and crustaceans. Like other estuarine vegetation, seagrasses remove nutrients from the water and facilitate sedimentation. They also baffle water currents, preventing erosion and stabilizing sand and mud banks.

Posidonia australis

The seagrass *Posidonia australis* was established under Part 7A of the Fisheries Management Act 1994 as an Endangered Population in Part 2 Schedule 4 of the Act. Final determination by the Fisheries Scientific Committee on Endangered populations for *Posidonia australis* were listed in Port Hacking, Botany Bay Sydney Harbour, Pittwater, Brisbane Waters and Lake Macquarie (NSW) (NSW DPI, 2010b).

Posidonia australis is widespread sub-tidally in temperate and cool – temperate marine waters of southeast, sourthern and southwest Australia. *Posidonia australis* meadows consist of vertical shoots emerging from a rhizome mat, frequently buried under sand or mud. Shoots from the rhizome mat carry 2 – 4 fast growing and strap like leaves which provide a highly productive and sheltered environment for fish (NSW DPI, 2010b). Development of meadows is considered to occur through rhizomatous growth (division and spreading of horizontal roots), a process that is extremely slow. To date restoration of disturbed meadows have been largely unsuccessful (NSW DPI, 2010b).

The NSW DPI (2010b) list causes for declines in *Posidonia australis* from both physical (dredging, sand mining, reclamation, boat moorings, boat propellers, bait gathering and physical environments e.g wave heights). Declines have also been attributed due to anthropogenic changes in water quality (increase in water nutrients and reduction in water clarity). The invasion of *Caulerpa taxifolia* also has long-term consequences for *Posidonia australis* as it takes over areas within estuaries.

Feral species programs

Ferral species control programs are aimed at reducing the impact of an introduced species on native biodiversity, presently there are no such programs active in the Woollahra LGA.

Feral animals can pose a significant threat to native biodiversity and pets through attacks and disease if not properly managed (DECCW, 2009b).

European Red Fox – Vulpes vulpes

After their introduction in 1871 in Victoria the European Red Fox (*Vulpes vulpes*) crossed over into New South Wales in 1893 (DECCW, 2009b). The fox has been identified as a serious threat to biodiversity and has been listed as a key threatening process under the Commonwealth's Environment Protection and Biodiversity Conservation Act, 1999 (Northern Territory Government, 2009). Medium to high density fox populations are present over NSW including Sydney suburbs, and are present where food is most available (DECCW, 2009e).

Foxes are a main carrier of diseases and parasites, including rabies, mange, distemper, hepatitis and hydatid worms. These pose a risk to humans, pets and native animals.

From preliminary results from research carried out in Western Australia, the density of the chuditch (*Dasyurus geoffroii*) increases following 1080 poisoning of foxes (Northern Territory Government, 2009). Foxes have been spotted across the Woollahra LGA including Cooper Park and Cristinson Park.

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

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

Table 8: Biodiversity Indicators

Indicator	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
No. of remnant vegetation reserves	9	9	9	9	9	9	9	9	9	9
Total area (ha) of bushland*	-	-	-	-	-	-	-	-	23.85	23.85
No. of regeneration/ revegetation sites	8	8	8	8	8	8	8	8	8	8
Total area of bush under regeneration (ha)*	-	-	-	-	-	-	-	-	17.76	17.99
Number of hours by bush regeneration volunteers*	-	-	-	-	-	-	-	-	2,053	2,385
Number of endangered ecological communities*	-	-	-	-	-	-	-	-	0	0
No. of flora species: Endangered Threatened* Vulnerable	2 - 1	2 - 1	2 - 1	2 - 1	2 - 1	2 - 1	2 - 1	2 - 1	2 0 1	2 0 1
Incident reports to DECCW environment line (Threatened Species)*	-	-	-	-	-	-	-	-	1	2
No of native flora species in LGA	311	311	311	311	311	311	311	311	311	311
No. of weed flora species in LGA	180	180	180	180	180	180	180	180	180	180
No. of fauna species*: Endangered Threatened Vulnerable	-	-	-	-	-	-	-	-	1 0 7	1 0 7
Number of endangered fauna populations*	-	-	-	-	-	-	-	-	0	0
Number of feral species targeted through programs*	-	-	-	-	-	-	-	-	0	0
No. recovery plans approved	1	1	1	1	1	1	1	1	1	1
Reports of 'threatened and priority fauna' (i.e. turtles, seals, bird species)*	-	-	-	-	-	-	-	-	1	2

Source: Woollahra Municipal Council, National Parks and Wildlife Service and Department of Environment, Climate Change and Water (DECCW).
Key: (*) represents new environmental indicator selected during 2008/2009, previous years data provided if available.

4.2 Pressures impacting biodiversity

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

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

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

4.3 Responding to biodiversity

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

Puppies in the Park

Council's annual People and Pets Day event was replaced in 2009/10 with two (2) smaller 'Puppies in the Park' events. The smaller localised events were considered a better way of addressing localised issues with the specific users of the parks. The events were held in Rushcutters Bay Park in September 2009 and Lyne Park Rose Bay in April 2010.

The 'Puppies in the Park' events are a free community event organised by Woollahra Council that aims to promote responsible pet ownership and to engage the local residents who are pet owners with key messaging from Council whilst providing a small fun breakfast. The event is to get back to basics and just meet and greet dog owners in the municipality and provide them with information and advice about responsible pet ownership.

Messages promoted by Council to residents on the day were:

- leashed and unleashed parks in the LGA,
- importance of picking up dog waste,
- importance of registering dogs with Council,
- importance of microchipping,
- dog nutrition,
- awareness of sharing parks with other users of the park.

The initial event at Rushcutters Bay Park ran from 8.00am to 10.00pm, while the second event at Lyne Park ran for an additional hour, finishing at 11.00am. It is estimated that each event attracted over 400 people.

Council's Companion Animal officer was present at the events scanning and checking registration details and providing advice on responsible dog ownership to residents. The events main sponsor IAMs provided a stall, free samples and a nutritionist to provide dog owners advice about pet nutrition.

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 seven illustrates the status of regeneration activities in Council's bushland reserves.

Table 9: Regeneration status of Council reserves

Parks/Reserves	Area of bushland (hectares)	Untreated bushland area (%) remaining	Area (%) regenerated and on maintenance
Cooper Park	12	35.5	64.5
Gap Park	3.4	9.5	90.5
Trumper Park	4.3	30	70
Parsley Bay Reserve	3.15	1	99
Harbourview Park	1	8	92

Source: Woollahra Municipal Council

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

To control the spread of weeds Council continues primary weed removal across the LGA and propagating and planting of tubestock.

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 sixty volunteers working across the four bushcare sites in Woollahra.

The following bushcare activities were undertaken during the 2009/2010 reporting period:

- Council staff and volunteers from the Scots College undertook a joint revegetaion project at Gap Park and Trumper Park
- Council staff and community volunteers planted 1000 native plants, 500 in Gap Park and 500 in Trumper Park on National Tree Day in July 2009.
- The Bushcare program with the Miroma Rudolf Steiner Centre for Adults with disabilities, based in Vaucluse. The program includes working with carers and students of Miroma at Christison Park every Wednesday, learning about the values of preserving urban bushland. Activities included weeding, planting, and mulching, and
- A Streamwatch program in Cooper Park Creek , Cooper Park targetng introduced fish and aquatic weeds and measuring water quality.
- Trumper park has had seven corporate Bushcare days within this period, involving weeding, mulching, and planting.

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

Air

5

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 15PoPC 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, sulfure 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.

Indicators have been selected to measure urban air quality and greenhouse gas emissions and monitor the activities that cause them.

5.1 State of air

The climate in the LGA is a temperate humid climate with summer maximum temperatures of 26˚C and winter minimum temperatures of 8˚C. Average annual rainfall is 1,212 mm per year at Rose Bay which is similar to Sydney Observatory Hill (1216mm), Randwick Bowling Club (1197mm) and Sydney Airport (1085mm) (Bureau of Meteorology, 2009)

Climate Change, Energy and Australia

Australia's Department of Climate Change (DCC) states that climate change is the result of weather patters due to an increase in the Earth's average temperature, a result of an increase in greenhouse gases (GHG) in the Earth's atmosphere. The increase in greenhouse gases are preventing heat that is retained by these gases from leaving the Earth's atmosphere thereby making the Earth warmer (DCC, 2009).

Global warming is a term that is used for the gradual increase in the Earth's average surface temperatures as a result of greenhouse gases in the atmosphere. Climate change is a broad term that refers to changes in climate patters including rainfall and average temperature (DCC, 2009).

Greenhouse gases have always occurred naturally in the Earth's atmosphere, they absorb and re-radiate heat energy from the sun which has maintained the Earth's temperature that supports life. As human activity increases across the globe, gases responsible for trapping heat increase as a result, enhancing the greenhouse effect and warming of the Earth's surface (DCC, 2009).

Human activity generates carbon dioxide (CO2), methane and nitrous oxide, these gases are considered the main greenhouse gases. Manufactured gases include chloroflurocarbons (CFCs), halocarbons and their replacements. Human activity producing these gases, listed by the DCC, 2009 include:

- burning of fossil fuels (oil, coal and gas),
- energy generation through burning fossil fuels,
- farming practices (raising cattle and sheep and use of fertilisers growing crops),
- logging and land clearing,
- decomposition of food and plant wastes and sewerage, and
- industrial processes (aluminium, cement production).

Seventy per cent of Australia's greenhouse gas emissions come from the energy sector, with electricity generation being the biggest culprit, as Australia relies heavily on the burning of coal for power. Road transport comes in second as the largest greenhouse gas emitter after electricity generation (DCC, 2009).

Australia's contribution to global greenhouse gas emissions is 1.5 per cent, although Australia cannot avert the worst consequences of climate change Australia is one of the world's biggest polluters on a per capita basis. Therefore Australia plays an important part in the global effort in reducing greenhouse gas emissions (DCC, 2009).

Sea Level Rise

Climate change over the next century may affect a range of climate related indicators including rainfall, evapotranspiration, temperature and sea levels in the Woollahra LGA. The projected climate change outcomes for the Sydney Coastal Region has been summarised by the Sydney Coastal Councils Group (SCCG, 2009) (Table 8). Climate change is expected to lead to increased temperature and sea level, coupled with a decrease in total rainfall and increase in rainfall intensity.

Greenhouse Gas Emissions (GHG)

Energy production through the use of fossil fuels results in the production of greenhouse gas emissions (GHG), Australia relies heavily on the burning of coal for energy. Through becoming energy efficient and using alternative technologies for energy generation (solar, wind and hot rock), Australia can lower its GHG emissions.

Energy efficiency has become a priority for Council, increasing energy efficiency and using less energy achieves not only a reduction in energy costs but also in the amount of GHG's emitted through Council activities.

A consultant was engaged to undertake a re-inventory of Council's GHG emissions for 2008/2009. It was recommended the baseline year from which reductions are measured against is revised to 2003/2004 in order to account for Local Government Area boundary and other operational changes that occurred between 1999 and 2003/2004. Regardless of the baseline, the 2008/2009 re-inventory established a verifiable emissions profile which will be used as the starting point for actual emission reductions and from which progress can be measured.

Woollahra Council endorsed a greenhouse gas emissions reduction target in 2001 as part of the ICLEI Cities for Climate Protection (CCPTM) program. The target represented a 30% emissions reduction from Council's 1999/2000 baseline of 5,475 tonnes of CO2-e to 3,833 tonnes of CO2-e by 2010. Since establishing the target Council has intensified use of assets and expanded services, resulting in an increase in GHG emissions (an increase by 11% and 19% respectively, from 1999/2000 and 2003/2004 to 2008/2009).

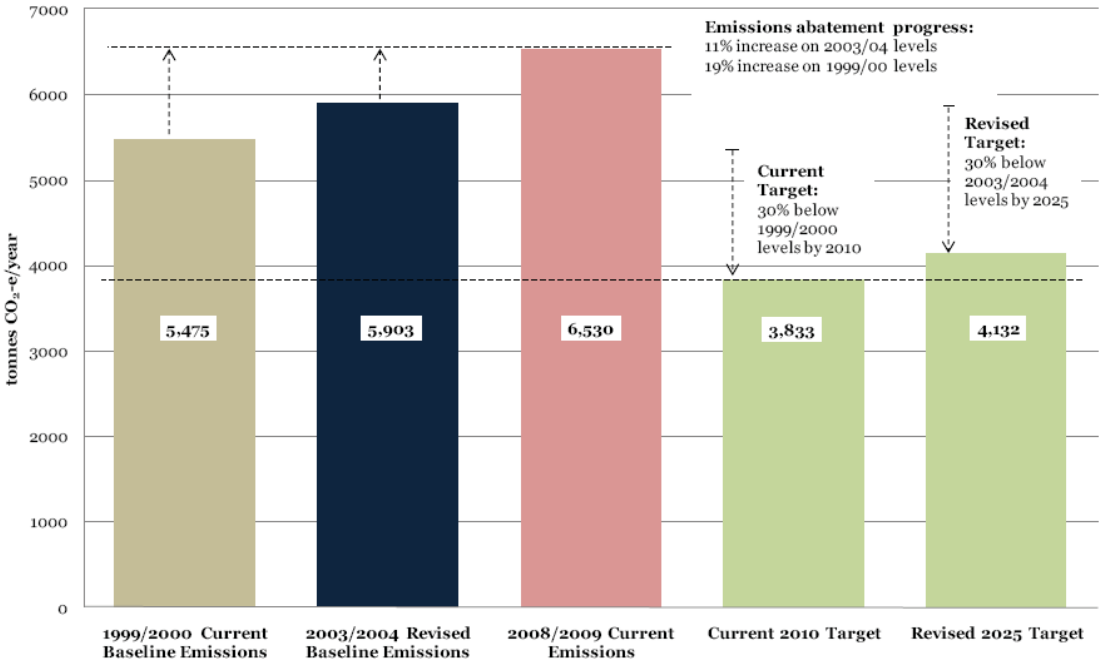


Figure 2: Woollahra Council Emissions 1999/2000 - 2008/2009

Figure 3 identifies those assets and services contributing to Woollahra Council's greenhouse gas emission profile in 2008/2009. The street lighting sector is responsible for 49% of Council emissions. Buildings collectively account for 24%, with key facilities being Council Chambers and Cross Street Carpark. There is a significant difference in emissions output between these two main facilities and Council's remaining building assets. The remaining sectors of Fleet and Waste contribute 24% and 3% respectively to Council's total emissions. All other facilities' includes the full suite of Councils properties besides those specifically identified in Figure 3.

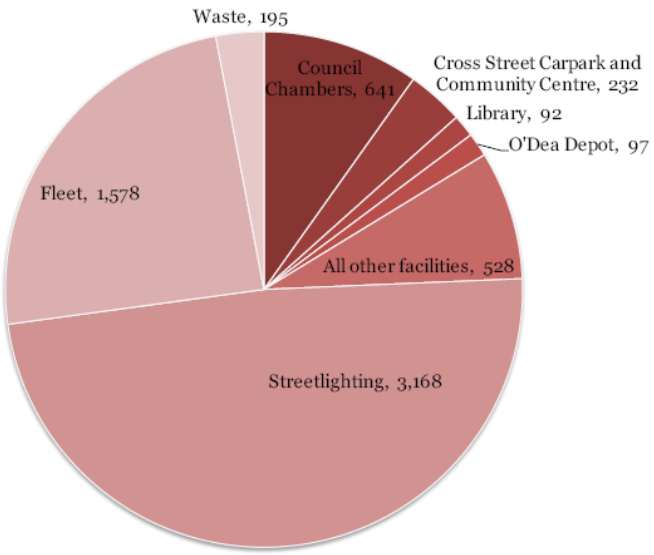


Figure 3: Woollahra Council Emissions Growth by Source 2008/2009

Air quality

Council receives the majority of air pollution complaints recorded for the Woollahra LGA, with 17 complaints recorded during the reporting period. Over several years the number of air pollution complaints Council received each year has decreased.

Regional Air Quality Index (RAQI)

The Regional Air Quality Index (RAQI) air quality monitoring is based on the five pollution criteria of the National Standards (Ozone, Nitrogen Dioxide, Carbon Monoxide, Sulphur Dioxide, particles) as well as visibility, a NSW standard.

Woollahra falls within the Central Eastern Sydney airshed. The Randwick monitoring station is the closest station to Woollahra. This station records ozone, visibility and particles

Particulate matter exceedences increased from 4 to 9 incidents during 2009/2010. This is the second highest reading over the last ten years. There was a large increase in the number of low visibility incidents increasing from 5 to 21.

Ozone has not recorded any exceedences since the 2004/2005 reporting period.

Ozone – O3

Ozone near ground level is a colourless secondary gaseous pollutant formed in the presence of sunlight as a result of chemical reactions between reactive organic gases and oxides of nitrogen. Ozone formed in the stratosphere (upper levels of the atmosphere) is created under a different nautral process and is not considered as a pollutant like ground level ozone. Ozone in the stratosphere is important in absorbing and preventing harmful radiation reaching earth (DECCW, 2009f).

Strongly oxidising ozone can cause eye and respiratory irritation, if too much ozone is inhaled it can affect lung function, worsen asthma, coughing, throat irritation and can cause difficulty breathing (DECCW, 2009f).

Visibility – NEPH

Visibility is an indicator used by the DECCW (2009f), to measure the presence of fine particles in the air originating from vehicles, wood fires and industry. Visibility is measured through a technique called nephelometry (NEPH) by shining a light through a sample of air and determining how much light is dispersed by fine particles. A high fine particle concentration, results if greater light scattering. Presence of high particles represents low visibility.

Particles – PM10

Besides gaseous pollutants, solid and liquid particles can be suspended in the air, their presence can cause reduced visual amenity and harmfully impact health. PM10 are those particles less than 10 micrometers in diameter, including dust, smoke, plant spores, bacteria and salt (DECCW, 2009f).

Particulate matter can be formed through human activities include mining, burning of fossil fuels, transportation, agricultural and hazard reduction burning, incinerator use and solid fuel use for cooking and heating (DECCW, 2009f).

Classified by size, large particles settle out of the air the fastest while smaller particles remain suspended for up to months. During rainfall events suspended particles are removed from the air. The sizes of suspended particles also determine their potential to affect human health. Larger particles are commonly trapped in the nose and throat then swallowed, smaller particles can reach deep into the lungs and irritate respiratory systems. Suspended particles can exacerbate existing medical conditions with people with heart disease experiencing chest pain and shortness of breath. Those with respiratory diseases (asthma and chronic bronchitis) can have their condition aggravated (DECCW, 2009f).

Photo: Woollahra Municipal Council

Transportation

The way that we chose to travel impacts our air quality. Every year over the past five years the total number of registered vehicles has increased in the Woollahra LGA. With the additional registered vehicles in the LGA comes greater local traffic congestion, greenhouse gas emissions and suspended particulate matter in the air.

The Travel Population and Data Centre (TPDC, 2007) latest survey for the Woollahra LGA reported the top three modes for Woollahra residents in order are: car – as a driver (10,406 residents), walk (2,098) and bus (2,096).

Due to the area's inadequate public transport, service times and with poor linkages to other hub transport areas for efficient travel around the Sydney area, private car use remains the preferred method of transport for residents and visitors. As registered vehicles continue to increase, further pressure is placed on local roads, impacting on public bus services increasing travel time making public transport less attractive. Air quality is also further reduces by the increasing amount of private vehicle use.

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

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

Table 10: Air Indicators

Indicators	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
Corporate (Council) greenhouse gas emissions.	-	-	-	5,903 CO_{2-e} tonnes	-	-	-	-	6,530 CO_{2-e} tonnes	-
Number of registered vehicles in the LGA* RTA	-	-	-	-	29,419	30,031	30,455	30,991	31,553	32,497
RAQI*										
Ozone (1hr)	0	1	6	1	0	0	0	0	0	0
Ozone (4hr)	0	0	6	0	0	0	0	0	0	0
Particulate matter – PM_{10}	0	0	11	0	0	0	2	0	4	9
Visibility - NEPH	12	24	28	7	0	3	9	0	5	21
No. of Council air pollution complaints	-	-	56	45	26	24	42	27	17	59
No. of air incidents DECCW pollution line	3	3	2	1	0	0	0	0	0	2

Source: Department of Environment, Climate Change and Water (DECCW). Woollahra Municipal Council. Roads and Traffic Authority.
Key: (*) represents new environmental indicator selected during 2008/2009, previous years data provided if available.

5.2 Pressures on the air

Pressures affecting the air in Woollahra include pollutants from:

- motor vehicles, and
- energy use (including residential and business).

Although public transport contributes to the air pollution of the area, utilisation of public transport reduces private car use, thereby reducing pollution from cars and pressure on air quality. Though catching public transport can reduce pressure on air quality and contribution to global warming, the area is serviced by inadequate public transport and service times and private car use is preferred.

5.3 Responding to air pressures

Climate Change, energy and Australia

The United Nations Framework Convention on Climate Change (NFCCC) linked Kyoto Protocol, is an international agreement that sets binding targets for 37 industrialised countries and the European community for reducing greenhouse gas emissions by 5.2 per cent from 1990 levels over a 5 year period 2008 – 2012 (UNFCCC, 2009). Australia ratified the Kyoto Protocol on 3 December 2007, and came into effect at the end of March 2009. In December 2009, the world's nations will meet in Copenhagen to decide upon a new agreement once the Kyoto Protocol expires in 2012.

The former Prime Minister of Australia Kevin Rudd delayed the implementation of an emissions trading scheme known as Carbon Pollution Reduction Scheme (CPRS) on 27 April 2010, until after the end of the current commitment period of the Kyoto Protocol and only when there is greater clarity on the action of other major economies including the US, China and India (DCC,2010).

The postponed CPRS was an emissions trading scheme using a cap and trade mechanism. The cap is an

upper limit on Australia's carbon pollution that is then gradually reduced, lowering the carbon pollution Australia produces each year. Companies that emit carbon will have to purchase permits (which represent specific amount of carbon pollution). The total amount of permits do not exceed the cap set each year, as the cap is lowered businesses need to reduce their emissions (occurring at least cost) or buy and trade permits (occurring at a cost higher than reducing their emissions) (DCC, 2009).

The Department of Climate Change provides what individuals and businesses can do to combat climate change at www.climatechange.gov.au.

Climate Change adaptation and mitigation responses

Council has largely focused on mitigation when addressing climate change. The following provides a brief summary of the programs and outcomes Council has participated in:

Sustainable Energy Development Authority (SEDA)

Council has been involved in energy efficiency programs focusing on Council buildings and facilities since 1997, when Council joined the SEDA Energy Smart Business Program. Council successfully completed the program in June 2003, reducing energy use from Council's operations by approximately 28% on 1998 levels and achieving the program target of a 15% reduction.

Council was also involved in the SEDA Energy Smart Homes Program that involved the incorporation of energy efficiency provisions in the Woollahra Residential Development Control Plan 2003 (now superseded by BASIX).

Cities for Climate Protection Program

In 2001 Council joined the Cities for Climate Protection Program that aimed to help local governments and their communities to reduce GHG emissions.

Through the CCP program Council adopted a 30% reduction target from base year (1999/2000). The target expired in 2010. The target was not achieved through a combination of a base line year which did not accurately represent Council's emissions profile, Local Government Area boundary and other operational changes undertaken by Council.

A new target has been set through the development of a Carbon Reduction Action Plan.

Photo: Woollahra Municipal Council

Woollahra Carbon Strategy & Action Plan

Woollahra Municipal Council commissioned sustainability consultants Kinesis to measure its Greenhouse Gas (GHG) emissions and to develop a strategy and action plan to reduce and manage these emissions. The re-inventory thoroughly collected emissions data across Council and provided an emission profile for 2008/2009 (shown in figure two).

The project built on the CCP program, Planet Footprint Reporting and Councils GHG action plan and included the following work:

- Review and summarize all internal and external policies and programs as well as industry best practice,
- Refine and restate greenhouse gas emissions data and develop a carbon reduction strategy and action plan with new targets, and
- Produce a set of tools and materials that allows Council to work to a clear action plan and report on emissions annually.

Through the re-inventory Council now has a Carbon Reduction Action Plan, a long term strategy to reduce and manage GHG emissions. A 30% reduction of Council's GHG emissions below 2003/2004 levels by 2025 has now been set. To achieve the 30% reduction Council's emissions profile was modelled from a suit of potential strategies and actions. The emission reduction strategies include:

- installation of efficient street lighting
- co-generation systems for key Council buildings
- existing Energy Performance Contract (EPC)
- additional EPC measures
- rationalised Council vehicle fleet
- solar photovoltaic's on Council properties
- solar photovoltaic's on Council properties which are leased
- additional Green Power purchase

Energy Savings Action Plan (ESAP)

Council prepared and submitted the draft Woollahra Energy Savings Action Plan to the Minister for Utilities for approval in April 2008. The introduction of the Energy Administration Amendment (Water and Energy Savings) Act 2005 not only required Council to prepare a Water Savings Action Plan but also required large Councils to prepare an Energy Savings Action Plan (ESAP).

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

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

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

The next ESAP will be required during 2012.

Planning framework

Woollahra Council will continue to identify opportunities for encouraging sustainable building design for buildings types not currently covered by the NSW Government's Building Sustainability Index known as BASIX (such as larger scale commercial and retail development). For example, the proposed redevelopment of the Kiaora Lands site at Double Bay will seek Green Star certification.

Climate change is being addressed through the floodplain risk management process. Flood studies have been prepared for each of our flood catchments. The next step in the process is the preparation of the Flood Risk Management Studies and the Flood Risk Management Plans for each of our flood catchments. An outcome of this process will be recommended flooding planning clauses and controls for Council planning documents that factor in the impacts of climate change.

Council is preparing to engage a consultant to undertake Stage One of an Estuary Management plan, which will address the impacts of Climate Change and sea level rise on flora and fauna, coastal habitats and infrastructure. The plan which is aimed at starting during 2011 will be used to help inform planning framework where required.

Photo: Woollahra Municipal Council

Street lighting improvement program

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

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

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

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

Green power

Council currently purchases 6% of accredited Green Power for the supply of energy for Council's four highest energy using sites (street lighting for the LGA, Woollahra Council Chambers, Cross Street Car Park and Community Centre and the Woollahra Library). Green Power is clean energy produced from renewable energy sources such as wind, solar and hydro-power.
Council now purchases 25% of accredited Green power for the supple of energy for all small sites (those other than the four listed above) that will include the supply of 25% accredited Green Power.

Private use vehicle fleet policy

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

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

As a result of the review, Council's new private use fleet policy encourages staff to select more environmentally sustainable vehicles by relating the fee payable to environmental and cost parameters. Therefore, vehicles that have a lower environmental impact and are less costly to operate and maintain are leased to Council staff at a lower rate than a car that has higher environmental impacts and running costs. This creates a cost incentive to staff for selecting more environmentally sustainable vehicles. Since the new policy came into effect in January 2008, Council has replaced 28 6 cylinder vehicles with 4 cylinders vehicles.

Community Transport Forum

Council's Community Transport Forums provide a public meeting 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 with participation based on relevance of the topics being discussed at each meeting.

Woollahra Bicycle Plan implementation

During the reporting period Council completed a review of the 2000 Bike Plan and adopted the Woollahra Bicycle Strategy 2009 that outlines the bike route capability throughout the Woollahra Municipal local government area. Early community consultation was instigated through the distribution of questionnaires, Bicycle Working Party meetings and liaison with BIKEast the association representing cyclists in Sydney's eastern suburbs.

The Woollahra Bicycle Strategy 2009 identifies regional, local and recreational routes within the municipality which consist of off-road, on-road, inter-connecting bike routes with neighbouring local government areas - City of Sydney, Waverley and Randwick, plus cycle facilities at/to public transport interchanges and local area urban villages.

The Strategy provides a comprehensive cycling facility which will have benefits for the environment, for the health and fitness of Woollahra residents, and for better transport mobility for all cyclists and non-cyclists.

Local traffic management

Council has implemented local traffic management measures in Village Lower Road, Northland Avenue, Wallis Street/Edgecliff Road, Cascade Street/Glenmore Road, Liverpool Street, West Street, Kiaora Road, and New Beach Road.

Photo: Woollahra Municipal Council

Sustainable Transport Pilot Project

Through Council's involvement in the Cities for Climate Protection (CCPP) Program Council has joined the Sustainable Transport Pilot Project with the following aims:

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

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

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

Council has been working towards milestone three during the reporting period

Noise

6

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.
Noise indicators have been chosen to monitor the level of noise related issues in Woollahra.

6.1 State of noise

Noise complaints can be registered with either Council or the DECCW's Pollution Line. The DECCW 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 214 noise complaints and the DECCW's Pollution Line received eight noise complaints within the Woollahra LGA. The noise complaints registered with Council represent a decrease for a second year in a row in the number of complaints from the 2007/2008 reporting period, decreasing from 302 to 214. The DECCW's Pollution Line noise complaints slightly decreased from ten to eight, however this is still higher than 2007/2008 which recorded two incidents. Overall the state of noise continues to improve, shown by a decrease in the number of noise complaints in the Woollahra area.

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

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

Photo: Woollahra Municipal Council

Table 11: Noise Indicators

Indicator	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
No. of Council noise complaints	36	-	284	379	281	331	310	302	259	214
No. of noise incidents DECCW pollution line	8	4	4	3	6	12	4	2	10	8
No. of noise abatement directions	1	7	11	29	20	0	0	3	1	1
No. of noise control notices	-	5	4	8	4	0	1	1	0	0

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

Photo: Woollahra Municipal Council

6.2 Pressures of noise

The main pressures for the Woollahra LGA include:

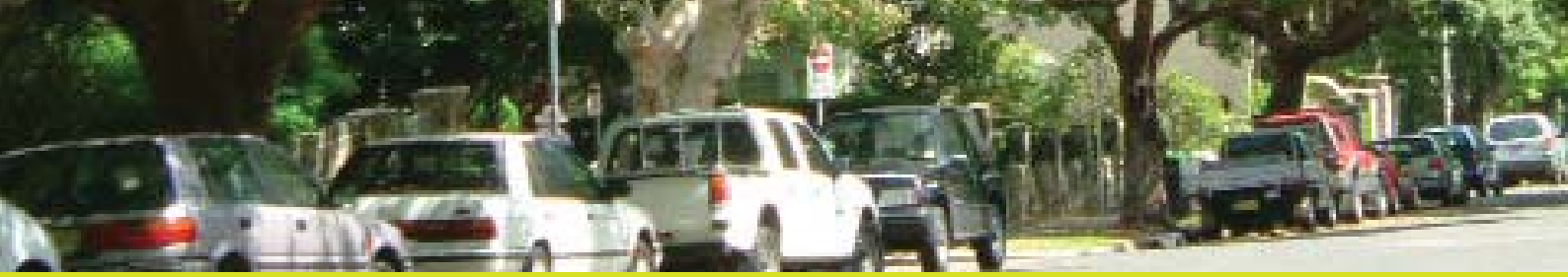
- Neighbourhood and recreation noise
- Traffic noise

Neighbourhood and recreation noise

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.

Traffic noise

Road traffic noise is the most 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.



6.3 Responding of noise pressures

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 zero Noise Control Notices and one Noise Abatement Directions.

Photo: Woollahra Municipal Council

Photo: Woollahra Municipal Council

Waste

7

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, the 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.

Waste indicators have been selected to measure and monitor waste produced across the Woollahra LGA.

7.1 State of waste

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

Domestic waste is the largest contributor to the waste stream in the Woollahra LGA, with 11,505 tonnes disposed to landfill during the 2009/2010 reporting period. This equates to each person living in Woollahra throwing away 229 kg of waste to landfill during 2009/2010. The total household recycled materials (kerbside plastics, paper/cardboard and green waste) equated to 11,251 tonnes, or 224kg of materials recycled per person. These figures are consistent with the previous years figures and illustrate the general trend of increasing volumes of household recycling and decreasing volumes of household waste disposed to landfill. Council's extensive waste education program and increased recycling services are contributing to this trend.

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

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

Photo: Woollahra Municipal Council

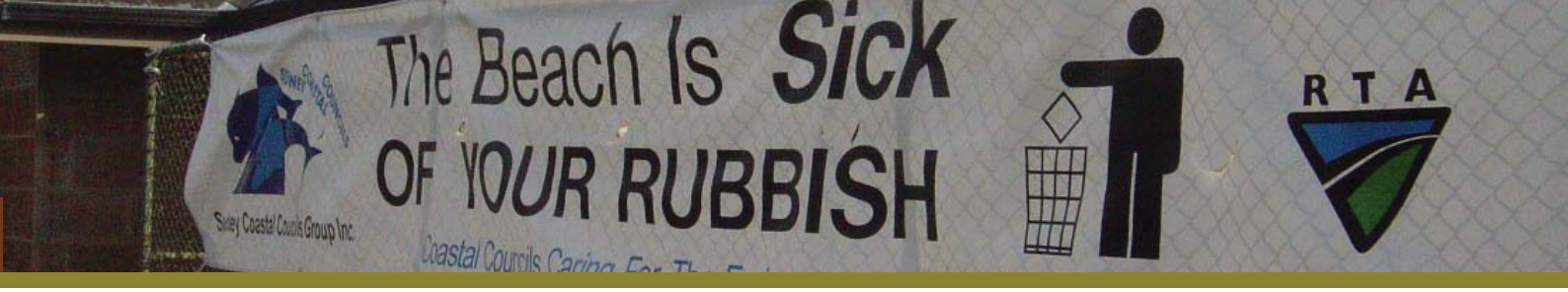


Table 12: Waste Indicators

Indicator	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
Household waste to landfill (tonnes)	13,958	12,802	11,893	11,799	12,111	12,147	11,893	11,877	11,512	11,505
Total general cleanup sent to landfill (tonnes)*	-	-	-	-	-	-	-	-	1,038	954
Total household recycling (tonnes)	7,079	9,317	10,086	9,977	9,995	10,303	10,845	10,676	10,960	11,251
Household waste sent to landfill per capita (kgs)	274	252	234	236	242	243	237	236	230	229
General clean-up sent to landfill per capita (tonnes)*	-	-	-	-	-	-	-	-	21	19
Household recycling per capita (kgs)	139	189	198	199	199	206	216	213	218	224

Source: Woollahra Municipal Council.
Key: (*) represents new environmental indicator selected during 2008/2009, previous years data provided if available.

7.2 Pressures on waste

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 21st century (Resource NSW, 2003).

Pressures facing the Woollahra LGA for waste include:

- increasing population and associated increase in waste,
- community education and co-operation of community to start and continue to recycle materials,
- costs associated with disposing waste coming from limited capacity of landfill sites, and
- littering and illegal dumping.

7.3 Responding to waste pressures

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.

Food organics recycling

Council now provides a wide range of weekly services to maximize the amount of waste diverted from landfill. These services include paper and container recycling, green/organic recycling and the provision of worm farms and compost bins to allow in house composting.

These services will help to achieve waste reduction targets as well as reducing greenhouse emissions created from waste in landfills. Council is aiming for a waste diversion and recycling targets in accordance with State Government's Waste Avoidance and Resource Recovery Act, 2001. Our main target includes a 66% waste diversion rate from landfill by the year 2014.

Second hand Sunday

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

This is the fifth year that Council has help Second Hand Sunday events. The numbers of participating households has grown from twenty to thirty in 2006/2007 to approximately 110 in 2009/2010.

Waste education

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

Schools Waste Workshops and Talks program

- Council conducted the School's Waste Workshops and Talks program, whereby Council's Waste Project Officer conducted recycling, composting and worm farming workshops.

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

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

Heritage

8

Heritage is defined as places, values, traditions, events and experiences that capture where we've come from, our present and provides background to where the community is headed. Through identifying, protecting and managing our heritage assets, future generations will be able to experience and enjoy those places (DEWHA, 2009).

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

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

Heritage indicators have been chosen to measure both Aboriginal and Non-Aboriginal heritage within the Woollahra LGA.

8.1 State of heritage

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

Seven hundred and fifty-four heritage items are protected under Woollahra Local Environmental Plan 1995 (WLEP, 1995) and there are fourteen Heritage Conservation Areas (HCA) within the Woollahra LGA. There are twenty-seven places of heritage significance within the Woollahra LGA included on the NSW State Heritage Register. In addition Draft Woollahra Local Environment Plan (Amendment 66) is proposed which will seek to amend the Woollahra Local Environmental Plan by adding 30 heritage items and some heritage item groups.

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

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

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

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

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

Table 13: Noise Indicators

Indicator	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
No. of Aboriginal heritage sites - AHIMS	-	75	75	75	75	75	75	49 sites[1] 80 site features	49 sites[1] 80 site features	49 sites[1] 80 site features
No. of sites – National Heritage List	-	-	-	-	-	-	0	0	0	0
No. of sites – Commonwealth Heritage List	-	-	-	-	-	11	11	11	11	11
No. of sites – Register of the National Estate	153	153	129	129	129	129	155	155[2]	155[2]	155[2]
No. of sites - National Trust Register	264	265	266	266	266	278	278	278	278	278
No. of sites - Woollahra LEP	620	622	624	616	656	682	682	682	682	682
No. of sites – State Heritage Register NSW	26	27	27	27	27	27	27	27	27	27
Heritage Conservation Area	6	6	6	12	13	14	14	14	14	14

Note: 1The Aboriginal Heritage Information Management System (AHIMS) replaced the NSW Aboriginal Site Register in 2008.
2The Register of the National Estate was frozen in February 2007 and will remain statutory until 2012.

Sources: Woollahra Municipal Council, NSW Heritage Branch, NSW Department of Planning, NSW Department of Environment and Climate Change, National Trust of Australia (NSW).

8.2 Pressures on heritage

Pressures on heritage sites include:

- threat of inappropriate development,
- threat of demolition,
- vandalism,
- tourism,
- low awareness of sites,
- limited funding for restoration and maintenance of sites, and
- • effects of weather (including wind, water, fire and storms).

It is difficult to fully gauge the effects of development on heritage sites as some may be present that have not been recovered and policing of sites is limited by resource constraints.

The longevity of sites is determined primarily by the attitudes of the general community toward indigenous and non-indigenous heritage. However, Council and National Parks and Wildlife Service officers constantly monitor sites for wear and abuse, and implement maintenance procedures where necessary.

Redevelopment pressures continue within the residential areas of the LGA, particularly within the Residential 2(b) zone where multi-unit housing is permissible.

8.3 Responding to heritage pressures

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

Paddington development control plan

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

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

Council has considered controls for lofts over garages in the Paddington Heritage Conservation Area DCP. Draft controls have been prepared and approved by Council and will be publicly exhibited and reported to Council during 2010.

Council has investigated land use and zoning in William Street Paddington. These investigations responded to the use, without consent, of residential properties for various retail purposes. Council has considered the various options and has resolved to prepare a Draft LEP that limits the use of the ground floor of the properties to fashion shops, shoe shops, jewellery shops, health and beauty shops and artists studios. The upper floor of these buildings may be used for associated storage and offices or residential purposes. The Draft Local Environment Plans (LEP) for William Street will be exhibited in early 2010. An amendment to the Paddington Heritage Conservation Area DCP relating to William Street will be exhibited at the same time.

Potential heritage items in Watsons Bay and Woollahra Heritage Conservation Areas

Council conducted research into potential heritage items in the Watsons Bay and Woollahra HCAs. The results of the research were presented to Council during 2008, including the nomination of potential heritage items and the consideration of submissions from owners. Council decided to list the Temple Emanuel Synagogue in Ocean Street, Woollahra and the cobble stone road archaeology in Cliff Street, Watsons Bay as heritage items. A draft LEP has been prepared, which proposes to add 30 heritage items and heritage item groups to schedule 3 Woollahra LEP and is currently being exhibited.

Reconciliation statement

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

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

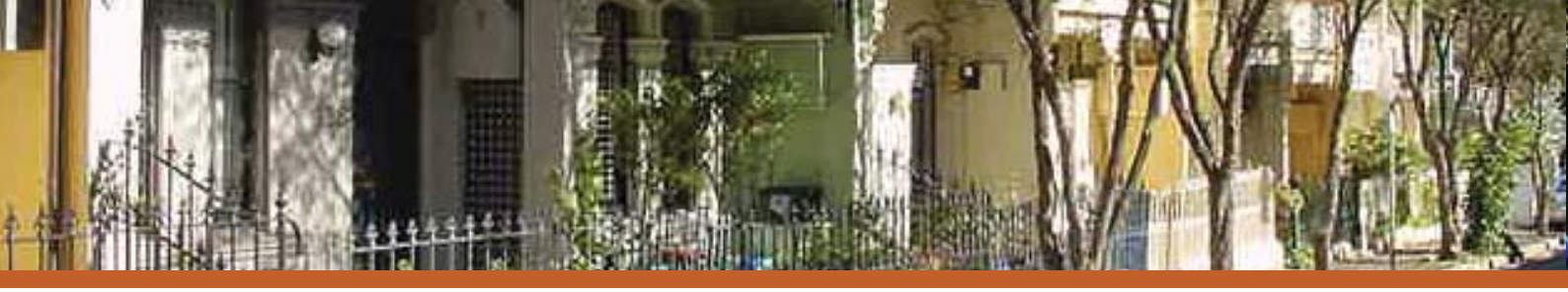
A full copy of the Woollahra Municipal Council Reconciliation Statement can be found on Council's website: www.woollahra.nsw.gov.au/local_information_and_activities/reconciliation

Aboriginal and Torres Strait Islander education

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

Reconciliation week

Each year National Reconciliation Week celebrates the rich culture and history of the first Australians. It's the ideal time for all of us to join the reconciliation conversation and to think about how we can help turn around the disadvantage experienced by many Aboriginal and Torres Strait Islander people (Reconciliation Australia 2009). The 2009 event, Learning to see the person not the stereotype, was the13th annual National Reconciliation Week.



For 2009 Reconciliation Week, the Eastern Region Local Government Aboriginal and Torres Strait Islander Forum (ERLGATSIF), of which Woollahra Council is a member, developed and hosted its sixth Pauline McLeod Award for Reconciliation. Awards were presented in the categories of The Pauline McLeod Award for Reconciliation (Individual), The Pauline McLeod Award for Reconciliation (Organisation), The Pauline McLeod Youth Award for Reconciliation (Individual) and the The Pauline McLeod Youth Award for Reconciliation (Organisation) with the ceremony taking place at Eastlakes Community Hall during Reconciliation Week.

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

2009 National Aboriginal and Torres Strait Islander Day of Celebration (NAIDOC) Week was held with the theme *Honouring Our Elders Nurturing Our Youth.*

NAIDOC celebrates the survival of Indigenous culture and the Indigenous contribution to modern Australia. (NAIDOC, 2009).

Council celebrated 2009 NAIDOC Week with Indigenous story time at the Double Bay Childrens 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.

Sustainable Woollahra

9

Sustainability has many definitions. Essentially sustainability can be defined as a means of existing within the limits of what the environment can provide. Planning for a sustainable future requires a framework in which economic, environmental and social decision-making is integrated into natural resource management.

Sustainability is used to reflect an obligation that people living today have to future generations to protect the health, genetic diversity and productivity of the environment. A healthy environment underpins a productive economy and healthy society. The presence of unsustainable practices in the future will have a negative impact and reduce future opportunities and degrade environmental conditions.

Awareness and involvement of both the residential and business community is critical in achieving sustainable outcomes. Council has adopted a facilitation role evident in the environmental programs and actions that have been mentioned in previous sections. This section will further highlight how Woollahra is moving towards sustainability.

9.1 Community values

Several studies have been undertaken on the views of the local community with there being a clear identification with the value of the receiving waters. The Woollahra Sustainability Plan (ISF, 2005), identified that the clearest convergence of community views relate to the Harbour and Beaches which are valued extremely highly, and "people often expressed a desire for them to be protected or kept clean" (ISF, 2005). Woollahra Social and Cultural Plan undertook a range of consultations with residents and community groups highlighted what is most important to the Woollahra community. There is also a high sense of pride in local parks, beaches, and public facilities.

9.2 Funding Sustainability

Through the introduction of an Environmental Levy in 2002, Council has been able to fund a range of specific improvement projects called the Environmental Works Program (EWP).

The EWP has and will continue to deliver excellent water quality, improved bushland, environmental education, reduced pollution and flooding benefits to our community.

We have a responsibility as a community to protect and enhance our environment. We value your contribution to ensuring a sustainable future for the Woollahra Municipality.

Environmental & Infrastructure Levy

The Minister for Local Government has approved Council's application for a combined Environmental and Infrastructure Levy, which will fund not only the EWP, but also an Infrastructure Renewal Program (IRP) for the next five years (2007 – 2012). The IRP aims to restore ageing infrastructure and protect our local environment, so it makes sense that the EWP ($440k) and IRP ($2.66M) be integrated and funded by a combined $3.1M annual levy.

General Revenue & Stormwater management service Charge

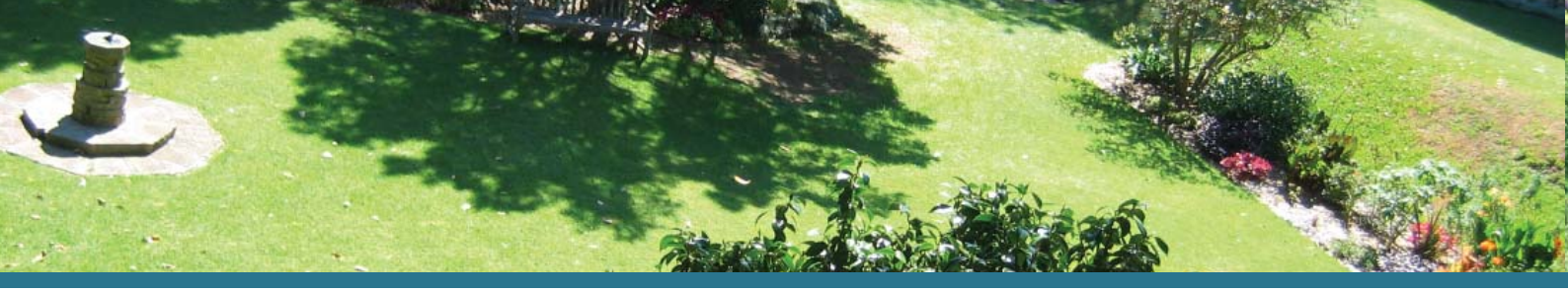
In addition to the Environmental & Infrastructure Levy, $450,000 from the Stormwater Management Service Charge will assist Council to fund stormwater infrastructure projects. The charge, introduced in accordance with new State legislation, recognises local Council's key role in stormwater management, and their need for ongoing funding to support them in carrying out this role.

External Funding Sources

Council's commitment to seeking external grant funding to further the objectives of the EWP and supplement ratepayer's funds will continue over the next five years. We have recently been successful in applications for the first stage of an Estuary Management Plan and funding for the Environmental Schools Sculpture Prize.

Environmental Works Program

Through the introduction of an Environmental Levy in 2002, Council has been able to fund a range of specific improvement projects called the Environmental Works Program (EWP).



The EWP has and will continue to; deliver excellent water quality, improved bushland, environmental education, water and energy savings, reduced pollution and flooding benefits to our local community.

The EWP was originally divided into five categories being Administration and Auditing, Water Quality 'at source', Water Quality 'end of line', Watercourse and Bushland Vegetation Restoration, and Local Flooding. In addition to these categories Council has recently been developing new projects in the areas of Water Sensitive Urban Design, Sustainability and Climate Change.

In addition to projects that have been listed in previous sections, below are initiatives the Council has implemented to move Woollahra towards sustainability.

Administration and Auditing
The objectives of administrating the EWP include:

- Managing the environmental works program in an efficient and transparent manner,
- Increasing the overall funding to Council at no additional cost to the Woollahra ratepayers, and
- Keeping the community informed on the progress of works, expenditure of funds and outcomes achieved.

Grant applicants

Grant applications and project plans are continually being developed to implement the EWP. Successful grant applicants in 200/2010

Table 14: Noise Indicators

GRANT	PROJECT
Environmental Trust	Environmental Schools Sculpture Prize
DECCW – Estuary Management Program	Stage 1 – Estuary Management Plan

Environmental Monitoring

Council developed an environmental monitoring database for environmental data, including stormwater treatment devices (pit cleaning and gross pollutant traps), water quality measures and street sweeping activities to quantify the amount of pollution Council is prevented from reaching the harbour.

Future development of the system will ideally provide access to either online or offline data tables using Council's GIS mapping system EView as an interface, allowing the user to navigate graphically to the specific area or device in question and view related results.

Photo: Woollahra Municipal Council.

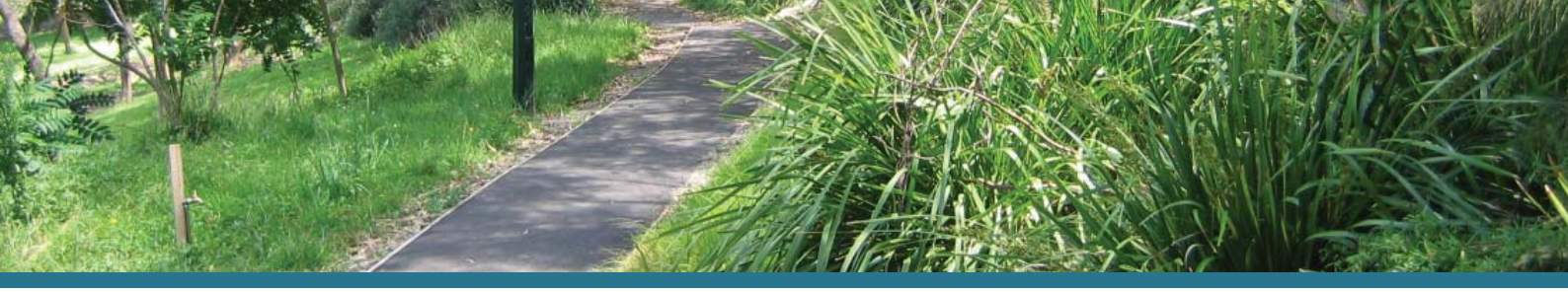
9.3 Environmental Education

Sustainability Workshops

Council continued the Sustainability Workshops Program Series in 2009, maintaining both the regularity of workshops and the range of topics offered.

During 2009-2010 Woollahra's Sustainability Workshop Series hosted 13 community workshops for local residents. Topics included: Edible and Organic Gardening, Sustainable Homes, Living with Less Chemicals, Science of the Surf, Natural Pest Management, Solar Power Installations, Sustainable Living for Renters, Composting and Worm Farming, Climate Conscious Cooking and Autumn and Winter Organic Gardening.

Workshops are free and held monthly. All workshops were well received and highly attended.



Environmental Events

A number of environmental events were run throughout the year for local residents:

- National Tree Day (July 09) - tree plantings were carried out in local parks
- National Recycling Week (November 09) – composting and worm farming workshops were held as well as tours for residents to local recycling facilities
- Rock Pool Rambles (January 10) – residents were guided through an exploration of the rock pools at Nielsen Park's Bottle and Glass rocks
- Earth Hour (March 10) - many local restaurants joined Council in this energy use awareness event
- Clean Up Australia Day (March 10) - local clean-ups were organised
- Composting Awareness Week (May 10) – composting and worm farming workshops held
- World Environment Day (June 10) – Council ran a World Environment Day Fair which included an organic gardening workshop, climate conscious cooking workshop, kids activities, sustainable business representatives and community lunch
- Whale Watching Walk (June 10) – Residents were given a guided walk along from Lighthouse Reserve along the coast to watch the annual whale migration

World Environment Day

The United Nations hold World Environment Day on 5 June every year as one of the primary ways to promote environmental awareness and enhance political attention and action on the environment (United Nations Environment Programme 2008). The theme for World Environment Day 2010 recognised that we all have a role to play in protecting our planet. The slogan for World Environment Day 2010 was *Many species. One Planet. One Future*. It reflects the responsibility each person has to act for the benefit of our one shared planet and one shared future.

To celebrate World Environment Day 2010, Council held a World Environment Day community day at the Holdsworth Community Centre. The day included an organic and waterwise gardening workshop, climate conscious organic cooking class, local sustainable businesses expo, kids activities and free community picnic lunch of local and organic produce.

Schools Network

In November 2007, the Eastern Suburbs Schools Sustainability Network (ESSSN) was established as collaboration between Woollahra and Waverley Councils to support local schools implement school-based sustainability initiatives. During 2009 – 2010 ESSSN meetings were held once per school term and were strongly attended by local teachers as well as interested parents, representatives from Council and other relevant organisations including the Marine Discovery Centre, National Parks, Centennial Parklands and the Australian Museum. An email network also operates to facilitate communication between ESSSN members.

2009 Woollahra Small Sculpure Prize and the Environmental Schools Sculpture Prize

The Environmental Schools Sculpture Prize ran in tandem with the Woollahra Small Sculpture Prize for the third succession in the reporting period.

The Environmental Schools Sculpture Prize aims to provide a creative opportunity for students to participate in real-life design tasks about the importance of conserving the natural environment. In 2009 participating students researched the theme of Climate Change and generated imaginative works of art that highlighted the issue to the broader community.

Students' artwork was judged by Woollahra Small Sculpture Prize judges Geoffrey Cassidy (Director, Artbank), Neil Balnaves (The Balnaves Foundation) and Diane Balnaves (The Balnaves Foundation).. Student artworks were displayed in the Woollahra Council customer service area during the Woollahra Small Sculpture Prize Exhibition.

Year 5 students Ruby Biancardi and Elizabeth Kovacs from McAuley Primary Schoolwere judged as the winner of the 2009 Environmental Schools Sculpture Prize for their piece 'Climate Change'.

Public Art

Council adopted the Public Art Policy in October 2006, that:
Supports and encourages the development of public art and public art opportunities that preserve, emphasise and enhance distinctive local identity and the natural and built assets of the Municipality in both public spaces or

on private sites which impact on the public domain.

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

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

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

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

49 expressions of interested were received nationally and internationally for the proposed eastern gateway artwork. In the reporting period, the Public Art Advisory Committee assessed expressions of interest and made a recommendation of the work to be commissioned.. In August 2008, Council adopted the recommendation and entered into a commission agreement with artist Bronwyn Berman to produce her artwork that signifies the former wetlands environment of Double Bay.

Environmental Grants

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

The grants were funded by the Environmental and Infrastructure Levy, with a total amount of $11,000 allocated for individual grant projects of up to $1,000 in value.

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

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

Recipients included:

- The Scots College – Vegetable Garden,
- Cranbrook Junior School – Litter Free School,
- Double Bay Public School – Vegetable Garden,
- Glenmore Road Public School – Native Garden,
- Kincoppal Rose Bay Junior School – Native bird, frog and lizard habitat area,
- Kincoppal Rose Bay Senior College – Native garden,
- McAuley Primary School – Reconciliation native garden,
- Paddington Church of Christ kindergarten – Install six dual flush toilets,
- Reddam House School – Bird attracting garden,
- SDN Paddington Child and Family Learning centre – Rainwater tank,
- St Stephens Childcare Centre – Environmental mural,
- Vaucluse Public School – Vegetable garden.

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10

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