## Appendix 5 state of the environment







# state of the environment report



**Supplementary State of the Environment Report 2010/2011**Prepared by Manly Council
November 2011

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www.manly.nsw.gov.au

## abbreviations

AHO Aboriginal Heritage Office

BBC Burnt Bridge Creek

BBCIRP Burnt Bridge Creek Integrated Restoration Project

CBD Central business district

CMA Catchment Management Authority
CZMP Coastal Zone Management Plan
CO<sub>2</sub>e Carbon dioxide equivalent
DCC Department of Climate Change
DCP Development Control Plan
DIG Department of Local Government

DLG Department of Local Government EfS Education for Sustainability

E-waste Electronic waste

FTAANZ Fair Trade Association of Australia and New Zealand

GHG Greenhouse gas
GPT Gross pollutant trap

ICOMOS International Council on Monuments and Sites
KEE Kimbriki Environmental Enterprises Pty Ltd

Kg Kilograms

KPI Key Performance Indicators

KWh Kilowatt hour

LAPP Local Adaptation Pathways Program

LEP Local Environment Plan LGA Local Government Area

LGSA Local Government and Shires Association

MEC Manly Environment Centre

NSW New South Wales

OEH Office of the Environment and Heritage
REF Review of Environmental Factors
RTA (NSW) Roads and Traffic Authority

SCCC Sustainability and Climate Change Committee

SCCG Sydney Coastal Councils Group
SEE Statement of Environmental Effects
SHOROC Shore Regional Organisation of Councils

SoE Report State of the Environment Report

SQID Stormwater Quality Improvement Device

UFAAG Urban Feral Animal Action Group



## table of contents

INTRODUCTION

	1.1 Manly LGA	1
	1.2 Regional Context	2
	1.3 What is a State of the Environment (SoE) Report?	2
	1.4 Community Consultation	2
2.	LAND AND COASTLINE	3
	2.1 Pressures on our Land and Coastline	3
	2.2 Condition of our Land and Coastline	3
	2.3 Responding to Land and Coastline Issues	4
3.	ATMOSPHERE	9
	<b>3.1</b> Pressures on our Atmosphere	9
	<b>3.2</b> Condition of our Atmosphere	9
	<b>3.3</b> Responding to Atmospheric Issues	11
4.	WATER	13
	<b>4.1</b> Pressures on our Water	13
	<b>4.2</b> Condition of our Water	13
	<b>4.3</b> Responding to Water Issues	15
5.	BIODIVERSITY	19
	<b>5.1</b> Pressures on our Biodiversity	19
	5.2 Condition of our Biodiversity	19
	<b>5.3</b> Responding to Biodiversity Issues	21
6.	HUMAN SETTLEMENT	25
	<b>6.1</b> Pressures on Human Settlement	25
	<b>6.2</b> Condition of our Human Settlement	25
	<b>6.3</b> Responding to Human Settlement Issues	27
7.	HERITAGE	29
	7.1 Pressures on our Heritage	29
	<b>7.2</b> Condition of our Heritage	29
	7.3 Responding to Heritage Issues	30
8.	TOWARDS SUSTAINABILITY	33
	8.1 Responding to Sustainability Issues	33
9.	FUTURE DIRECTIONS	37
10.	REFERENCES	39

## 1. introduction

## 1.1 Manly LGA

Manly Local Government Area (LGA) is located at the southern end of the Manly Warringah peninsula of the Northern Beaches. It has an area of 15.14km² (1,514ha), incorporating a mix of residential, recreational, bushland, commercial and some industrial areas. The Manly Town Centre is located on a narrow isthmus of sand, separating the waters of North Harbour from the Pacific Ocean.

Approximately 75% of Manly's perimeter is coastline, and its coastal views, bushland areas, beaches and attractions, such as the Manly Scenic Walkway and Cabbage Tree Bay Aquatic Reserve, make it a scenic place for residents and visitors alike. Manly provides habitat for both terrestrial and aquatic species, some of which are listed as protected, endangered or vulnerable.

For more information about Manly Council, its environment and initiatives, visit <a href="https://www.manly.nsw.gov.au">www.manly.nsw.gov.au</a>



## 1.2 Regional Context

Manly Council is a member of the Shore Region of Councils (SHOROC) which comprises the LGAs of Manly, Mosman, Pittwater and Warringah Councils. SHOROC was launched in August 1994 and acts to facilitate collaboration between member Councils on matters of common interest. Its missions is to value the individuality of member Councils while cooperating to achieve a better outcome for the community across the entire region, through networking, resource sharing, shared projects and lobbying. Manly Council is involved in many regional projects which aim to improve the condition of our environment at a regional scale.

For more information about SHOROC, visit www.shoroc.com

## 1.3 What is a State of the Environment Report?

A State of the Environment (SoE) Report provides a snapshot of the condition of the environment, pressures impacting upon the environment and the response by Councils to address these pressures.

This supplementary SoE Report has been prepared by Manly Council for the Manly LGA and covers the period of 1 July 2010 to 30 June 2011.

A supplementary SoE Report identifies any new environmental impacts and provides a concise update on environmental trends for each environmental sector, namely atmosphere, water, biodiversity, land and coastline, human settlement and heritage. For a more detailed description of each sector, please refer to the most recent comprehensive SoE Reports (2003/04 and 2008/09) www.manly.nsw.gov.au/environment/ state-of-the-environment-report. This supplementary SoE Report will make up a component of Council's individual Annual Report pursuant to S.428 of the *Local Government Act 1993*.

SoE Reports have been prepared on a regional basis from 2006/07 to 2009/10, however in July 2010, SHOROC resolved to discontinue regional SoE reporting. From 2010/11 SHOROC member Councils (except Manly) are operating under the new reporting framework with SoE Reporting taking on a different form. Manly Council will be operating under the new reporting framework from 2011/12.



Figure 2. SHOROC Regional Map.

## 1.4 Community Consultation

In preparation for the 2010/11 supplementary SoE Report, a notice was placed on Council's website inviting the community to provide input on any or all of the above listed environmental sectors within the LGA. No submissions were received.

## 2. land & coastline

The primary land uses within the Manly LGA are residential with some commercial and industrial land use. The geology of the land is predominately Hawkesbury Sandstone, which weathers to produce sandy, low fertility soils. Coastline areas including beaches, headlands, rocky intertidal platforms, lagoons and estuaries form an important component of the Manly LGA and provide habitat and recreational opportunities for the community.



View over Crater Cove from Tania Park. Source: Monique Needham.

## 2.1 Pressures on our Land & Coastline

Key localised pressures include:

- · urban development
- tourism pressure
- beach erosion
- soil contamination
- land degradation
- vegetation clearing
- invasive species, and
- climate change (e.g. storm inundation, flooding, and sea level rise).

## 2.2 Condition of our Land & Coastline

The Manly LGA comprises approximately 33km of coastline which is characterised by headlands and beaches, and is largely accessible to residents and visitors for recreational pursuits. The land and coastline in the LGA is highly developed, in some instances resulting in modification of dune systems and bushland, erosion, cliff instability, and pollution. Data collected over the past 5 years on the condition of Manly's land and coastline is provided in Tables 1 and 2 below.

## **Local Snapshot**

**Table 1: Development Applications** 

INDICATOR	YEAR	MANLY
Number of	2006/07	711
development applications	2007/08	515
received	2008/09	631
	2009/10	603
	2010/11	552
Number of	2006/07	745
development	2007/08	674
applications approved	2008/09	788
	2009/10	348
	2010/11	495

**Table 2: Land Clearing and Revegetation** 

INDICATOR	YEAR	MANLY
Approvals to	2006/07	159
remove trees	2007/08	193
(private land)	2008/09	173
	2009/10	208
	2010/11	260*
Total number	2006/07	10,679
of local native plants supplied to volunteers, contractors and residents	2007/08	13,237
	2008/09	8,576
	2009/10	7,413
	2010/11	12,278

<sup>\*</sup>More frequent and severe storm conditions in 2010-11 resulted in fallen trees and thus additional requests and approvals for tree removals.

## 2.3 Responding to Land & Coastline Issues

Council has undertaken and has been involved in a number of projects, programs and working groups to address issues relating to and to improve the condition of Manly's land and coastline which are outlined below.

## **Regional Responses**

## **Shaping Our Future**

Adopted in September 2010, Shaping Our Future is the overarching integrated strategy for the SHOROC region. It has been developed by the four SHOROC member Councils to take the lead on the future of our region – an area of natural beauty where liveability and sustainability are highly valued by residents and visitors alike.

Shaping Our Future responds to the NSW State Plan and Metropolitan Plan and outlines how SHOROC member Councils will work together with other levels of government, business and the community to address critical challenges for the region, now and into the future.

There are three key parts to the regional strategy:

### • PART 1 (Major Infrastructure)

Shaping Our Future - Directions for transport, health, housing and jobs for a vibrant sustainable SHOROC region (adopted Sept 2010)

## PART 2 (Sustainability)

Shaping Our Sustainable Future - An action plan for creating a more sustainable SHOROC region together (adopted May 2011)

## PART 3 (Way of Life)

Shaping Our Future Way of Life – An action plan for creating vibrant communities and economies together (to be developed).

In the 2010/11 reporting year, significant results have been gained as a result of the first part of the regional strategy - Shaping Our Future including (in brief);

- commitment from the NSW Government to commence feasibility studies on the Bus Rapid Transit system; and
- commitment from the NSW Government of \$125 million towards initial construction of a new Northern Beaches Hospital at Frenchs Forest and retaining Mona Vale Hospital as complimentary.

For more information on *Shaping Our Future* and how these results will shape the SHOROC region into the future visit www.shoroc.com/shaping-our-future

## Membership of the Sydney Coastal Councils Group

Manly is one of the 15 coastal councils represented in the Sydney Coastal Councils Group (SCCG). Further information on projects is available at <a href="https://www.sydneycoastalcouncils.com.au">www.sydneycoastalcouncils.com.au</a>

During 2010-11, the SCCG has undertaken a number of projects outlined below where Manly Council was involved.

### **SCCG Summer Activities Program**

Manly Council held various activities in January 2011 as part of the SCCG Summer Activities Program renamed Summerama for 2011. 'Sharing Our Care for North Head', 'Burnt Bridge Creek to Coast Bicycle Tour', 'Keeping Our Oceans Alive' and 'Sculptures from the Seabed' were some of the activities that attracted strong participation.



Sculptures from the Seabed – Little Penguin. Source: Manly Council.



## SCCG Finalisation of Beach Sand Nourishment Scoping Study

The SCCG 'Beach Sand Nourishment Scoping Study – Maintaining Sydney's Beach Amenity Against Climate Change Sea Level Rise' examines information and data on the environmental, physical, social and economic aspects of utilising offshore marine sands to meet immediate and medium term requirements of adopted nourishment strategies at selected beach environments. The project aims to improve protection and augmentation of beach systems under immediate threat from coastal storm activity and sea level rise. During the reporting year, the final report was prepared and published. Manly Ocean Beach was used as a case study under the project.

## Mapping and Responding to Coastal Inundation

During the reporting year, the SCCG continued this project with funding under the Natural Disaster Mitigation Program. This project provides Councils and the community with the science, management and planning provisions and community awareness raising materials necessary to effectively incorporate sea level rise and extreme storm surge events into Local Government planning and management systems. The project involves the following stages:

- Stage 1: Map the effect of climate change on sea level rise and extreme sea levels.
- Stage 2: Develop planning guidance to assist the integration of sea level rise and extreme sea level events into relevant planning strategies of the SCCG.
- Stage 3: Develop and distribute community risk disclosure information and corresponding community and stakeholder education program.

All products from the project are expected to be released in late 2011.

## Manly Lagoon Flood Study

In 2010/11 Manly and Warringah Councils engaged a consultant to prepare a new Manly Lagoon Flood Study to replace the existing 1992 Flood Study for development control and planning purposes. This study will provide both Councils with detailed information on flood characteristics and will enable the future development of an improved Flood Risk Management Study and Flood Risk Management Plan for the Lagoon's 18km² catchment by both Councils.



Manly Lagoon. Source: Manly Council.

## **Delivering Local Responses**

## **Coastal Zone Management**

Manly Council has already prepared and adopted seven of its eight planned Coastal Zone Management Plans (CZMPs) and has adopted both the Sandy Bay and North Harbour Reserve Landscape Masterplans. During 2010/11 Council progressed finalisation of the Manly Cove Coastal Zone Management Plan, continued to develop Ellery's Punt Reserve Landscape Masterplan, developed a detailed design for construction of a retaining wall and dinghy storage at Sandy Bay Reserve, initiated preparation for consultancy services for identification of 'coastal erosion risk areas' and carried out a study on maritime infrastructure and boat storage.



## Clontarf Pool Dredging and Sand Nourishment

Manly Council completed the maintenance dredging of the Clontarf swimming enclosure. This has made the pool usable during the summer season. Moreover, the dredged sand has been used for beach nourishment behind the resident's properties at Monash Crescent. This has allowed Manly Scenic Walkway to follow a beach path even at high tide. The community was highly appreciative of these activities.



Dredging of Clontarf Swimming Enclosure. Source: Manly Council.



Beach Nourishment at Clontarf. Source: Manly Council.



Unveiling the Memorial for the National Surfing Reserve. Source: Manly Council.

## Manly-Freshwater National Surfing Reserve Dedication

An official dedication ceremony for the Manly-Freshwater National Surfing Reserve was held on 25 September 2010. Politicians and members of the surfing community came together for the event.

Manly Mayor Jean Hay and Warringah Mayor Michael Regan joined parliamentarians, Manly State Liberal MP Mike Baird and Lands Minister Tony Kelly, for the ceremony on the Manly beachfront. Council has published and released a booklet on the 'Manly-Freshwater National Surfing Reserve' during the dedication ceremony.

Surf icons Bernard 'Midget' Farrelly and Phyllis O'Donnell, who both won titles at the first world surfing championships held at Manly in 1964, unveiled a surfboard-shaped memorial heralding the Reserve.

### Cathedral Rock Relocated and Made Safe

Cathedral Rock, near Forty Baskets Beach, was identified as a public safety hazard. Council considered a controlled drop of the rock initially, however relocation of the rock was found to provide a better solution. This ensured greater protection to the Aboriginal midden below the rock.



Relocation of Cathedral Rock. Source: Manly Council.

## Tania Park - Erosion Control (Stage 1)

Tania Park Access Improvement works – Stage 1, was completed in February 2011. This involved installation of three sets of pedestrian stairs, six bench seats, associated plantings and installation of an 'all access' path. All works are consistent with the adopted Landscape Masterplan.



Tania Park Access Improvement Works – Stage 1. Source: Manly Council.

### LM Graham Reserve

The LM Graham Reserve Masterplan was finalised and endorsed by Council on 7 February 2011. The Masterplan design was informed by the existing LM Graham Reserve Plan of Management, community consultation in November 2007, formal public exhibition of the Draft Plan in September 2010, consultation with a representative community working group, environmental constraints report, workshops and consultation with staff across Council. Key features of the plan include a full sized cricket oval, cricket practice nets, premier sized soccer field, multipurpose court, 2 synthetic tennis courts, stormwater harvesting and perimeter plantings to improve shade and biodiversity values.

## Climate Change Adaptation Action Plan

During the reporting year Council has undertaken necessary large-scale revision of the 'Manly LGA Climate Change Risk and Adaptation Action Plan' Project, completed under the Commonwealth Department of Climate Change's Local Adaptation Pathways Program (LAPP). Council has been working with State-Wide Mutual to value add to the revised Action Plan prepared under the LAPP process.



## 3. atmosphere

The atmosphere surrounding the earth consists of a complex balance of gases that supports life. Human based activity, such as burning fossil fuels has rapidly increased the percentage of particular gases in our atmosphere resulting in negative impacts to urban air quality, human health and changes to our climate system.

## 3.1 Pressures on our Atmosphere

Key localised pressures include:

- pollutants from motor vehicles
- increased use of private vehicles, and increased traffic congestion
- smoke from bushfires
- use of woodfires in winter, and
- industrial landuse.

## 3.2 Condition of our Atmosphere

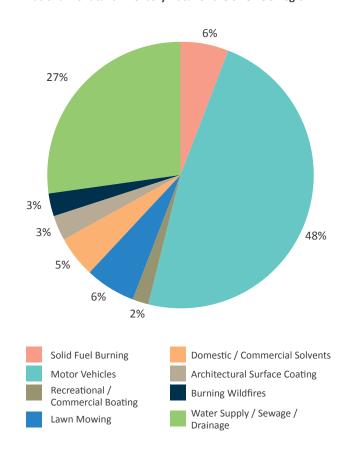
Transport in the Manly LGA is one of the primary contributors to the emission of greenhouse gases and reduction in air quality. Electricity consumption in the LGA also contributes to significant greenhouse gas emissions (GHG), however has minimal impact on localised air quality. Air quality in the LGA varies considerably depending on natural events such as windy days, bushfires and human activities, with poor air quality impacting on health.

The National Pollutant Inventory Data, presented in Figure 3, identifies the substances in the airshed, originating from the SHOROC Region that may impact on air quality. Data collected over the past 5 years on the condition of Manly's air quality together with Council and community GHG emissions is provided in Tables 3 to 5.

## **Local Snapshot**

Percentage of Pollutants Per Source for the SHOROC Region in 2008/09

Figure 3.
National Pollutant Inventory Data for the SHOROC Region.



**Table 3: Air Quality** 

INDICATOR	YEAR	MANLY
Air Pollution	2006/07	20
complaints	2007/08	8
received by council	2008/09	3
	2009/10	16
	2010/11	19

**Table 4: Greenhouse Gas Emissions** 

INDICATOR	YEAR	MANLY
Registered	2006/07	23,113
vehicles in council LGA*	2007/08	23,727
Council LGA	2008/09	24,585
	2009/10	24,804
	2010/11	25,155
Number of	2006/07	170
council fleet vehicles^	2007/08	162
vernicies	2008/09	177
	2009/10	Data unavailable*
	2010/11	Data unavailable*
CO <sub>2</sub> Emissions	2006/07	1,335
from Council fleet vehicles	2007/08	1,367
neet venicies	2008/09	1,384
	2009/10	Data unavailable*
	2010/11	Data unavailable*
Electricity use -	2006/07	5,697,935
Councils operations	2007/08	5,441,382
(kWh)	2008/09	5,427,222
	2009/10	5,561,846
	2010/11	5,409,521
GHG emissions	2006/07	5,485
from kWh	2007/08	5,775
(tonnes CO <sub>2</sub> e)	2008/09	5,760
	2009/10	5,755
	2010/11	3,330
Community	2006/07	Data not available
electricity	2007/08	209,029
consumption MWh	2008/09	214,253
(residential and	2009/10	214,160
non residential)	2010/11	211,105

\* Figures provided by NSW Roads and Traffic Authority (RTA).

Table 5: Residential Rebate Program Uptake by LGA to 31 March 2011

LOCAL GOVERNMENT AREA	MANLY
Rainwater Tank Rebate <sup>1</sup>	123
Hot Water System Rebate <sup>2</sup>	190
Ceiling Insulation Rebate <sup>3</sup>	118
Washing Machine Rebate <sup>4</sup>	614
Total Rebates to June 2010	477
Total Rebates to March 2011	1,014
Rebates for LGA per Capita	0.025

 $<sup>^{\</sup>rm 1}\,{\rm Sydney}$  Water and NSW Office of the Environment and Heritage (OEH) totals from the start of the rainwater tank rebates on 1/7/07.

<sup>^</sup> Includes passenger fleet, light, commercial, heavy truck and plant vehicles (if present in councils fleet).

<sup>\*</sup> Data was not available at the time the SoE Report was finalised.

<sup>&</sup>lt;sup>2</sup> Totals from the start of the hot water system rebates on 1/10/07.

 $<sup>^{\</sup>rm 3}$  Totals from the start of the ceiling insulation rebates on 1/10/07. Program finished 30/6/09.

<sup>&</sup>lt;sup>4</sup> Sydney Water & OEH totals from the start of the washing machine rebates on 1/8/08. Program finished 30/6/10.

## 3.3 Responding to Atmospheric Issues

Council has undertaken and is involved in a number of projects, programs and working groups to address issues relating to and to improve the condition of the air quality in Manly and work towards reducing Council and community greenhouse gas emissions.

## **Regional Responses**

## **Shaping Our Future**

Transport in the SHOROC region is a primary contributor to the emission of greenhouse gases, and reduction in air quality. Transport is a major issue for the region and is tackled in part one of *Shaping Our Future* strategy which includes the priorities for investment in the region's transport including in Bus Rapid Transit systems and critical road upgrades.

Shaping Our Future calls for the State and Commonwealth Governments to invest in Bus Rapid Transit systems from Dee Why along Warringah Road to Chatswood and from Mona Vale along Pittwater/Spit/Military roads to the city. Land use planning will also seek to create more jobs close to home for residents to minimise car use.

The second part of the strategy, Shaping Our Sustainable Future, is focused on the use of public and community transport and alternatives to private vehicles for journeys both within and across the region so as to improve quality of life and reduce greenhouse gas emissions and contribute to a vibrant, sustainable, connected and healthy community. An integrated transport network that is efficient and integrated is critical if we are to move to a more sustainable region.

Shaping Our Sustainable Future strategy seeks to reduce greenhouse gas emissions and play our part in mitigating climate change by increasing energy efficiency, reducing use of centralised non-renewable energy use and increasing the use of renewable power sources. This is a high priority for the community and member Councils due to the climate change impacts and the the high cost of energy now and into the future.

The Shaping Our Sustainable Future action plan identifies opportunities for the SHOROC member Councils to work together as a region to share knowledge.

Such initiatives include the Climate Change Working Group, which has been established to identify synergies and opportunities for the SHOROC member Councils to continue to work together on climate change policies and projects for the region.

## **Delivering Local Responses**

### Fridge Buyback Program

This program provides a free community collection service for working second fridges and offers a \$35 rebate where applicable. All collected fridges are degassed and the metal recycled. In total, 62 fridges were collected across the Manly LGA during 2010/11, equating to 496 tonnes of  $CO_2$  abated with an estimated 5.52 tonnes of metal recycled. Over the total life of the project, 320 fridges have been collected across the Manly LGA saving a total of 167 tonnes of carbon dioxide equivalents ( $CO_2$ e), approximately 9kg of chlorofluorocarbons recycled, recycling around 10 tonnes of metal and collectively saving residents \$24,075 a year on their electricity bills.

### Earth Hour

Earth Hour, an initiative of WWF-Australia, was supported by Manly Council in March 2011, through Council participation, the hosting of local events and promotion of Earth Hour to the community through local media. Manly Council switched off lights and appliances in main Council buildings and promoted Earth Hour to the local community.

## Manly Carbon Emissions Reduction Project

The Carbon Emissions Reduction Project has progressed for both Council corporate and community components during the reporting year. This will assist Council to meet its emissions target of 30% by 2020 based on 2008/09 levels and existing building stock (i.e. 7,663 tonnes).

A Carbon Reduction Strategy and Action Plan for Council corporate has been prepared to achieve and, if possible, exceed this target. Staff workshops were held to provide feedback on the Plan and update progress on actions identified within the Plan. Staff were also trained in the use of the Council corporate carbon management tool 'CCAP'.

A staff workshop was held to assist the development of the Draft Manly LGA (Community) Carbon Reduction Strategy and Action Plan. The community carbon management tool 'CCAP-City' was also presented to staff.

### Climate Clubs

Climate Clubs is an initiative of the Institute for Sustainable Futures as part of the University of Technology, Sydney. It is an exciting new sports-themed environment program that encourages households to work together in teams to save energy, reduce carbon pollution and raise funds for their schools. Climate Clubs turns saving electricity into a competitive sport, with a winning trophy and school prize money up for grabs. Four schools in the Manly Local Government Area are participating. The program commenced in March 2011 and will end in November 2011.



2011 Manly Climate Club Participants and Supporters. Source: Manly Daily.

## Green Up Your Life - Solar Hot Water

A total of 5 Solar Panels and Solar Hot Water workshops were held during 2010/11. A total of 151 residents took advantage of this opportunity to discuss in detail the environmental and financial benefits of solar power as a renewable energy source. This workshop continues to attract large numbers and will be repeated in the 2011/12 financial year.



Hop Skip and Jump Bus. Source: Manly Council

## Hop, Skip and Jump – Manly's Free Community Bus

This free community bus service transporting residents and visitors alike to reduce the community's reliance on private vehicles. A total of 350,842 passengers were carried during 2010/11, a decrease of 8.5% compared to 2009/10 bringing the progressive total to 1,742,002 passenger journeys. The 8.5% decrease is directly related to the inclement weather experienced during this period. By using the Hop, Skip and Jump community bus, patrons are contributing to a cleaner, healthier and happier future for all Manly residents and making a significant improvement to our environment. The buses operate on a 20% biodiesel blend and it is calculated that the use of this fuel, as opposed to standard diesel, has significantly reduced GHG emissions during the year. This is in addition to the less-quantifiable reductions achieved by residents turning away from private vehicle use to the bus service.

## Power-Mates on Stand-By at Manly Library

Power-Mates are a device that measures energy consumption of an appliance to which they are connected. These devices empower residents with knowledge about their energy usage habits and encourage residents to use less energy, thereby saving money and reducing GHG emissions. In 2010/11, these devices were made available to residents to borrow from Manly Library.

## 4. water

Manly LGA is characterised by a diverse array of water assets, which provide vital ecosystems for aquatic and intertidal biodiversity, and are highly valued for their aesthetic and recreational opportunities. 'Water assets' refers to beaches, bays, lagoons, creeks, wetlands, groundwater, stormwater and potable water.



Balgowlah Heights. Source: Manly Council.

## 4.1 Pressures on our Water

Key localised pressures include:

- stormwater runoff from impervious surfaces
- sewer overflows, outfalls and licensed discharges
- litter
- nutrient run-off from gardens, industrial estates and animal waste
- water pollution incidents
- increase in population and water consumption, and
- drought conditions reduced rainfall.

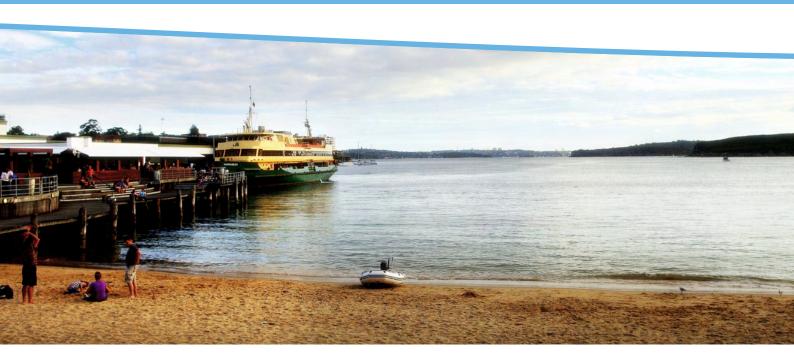
## 4.2 Condition of our Water

As a life source good quality water is essential for ecosystem health, consumption and recreational pursuits. There is a responsibility to ensure that good water quality is maintained whilst also ensuring a sustainable level of consumption. Data collected over the past 5 years on the condition of Manly's water assets is provided in Tables 6 to 8 below.

As of 2009/10, Harbourwatch/Beachwatch water quality results are no longer reported as percent compliance. Instead, Beach Suitability Grades under the National Health and Medical Research Council Guidelines for Managing Risks in Recreational Waters (2008) are utilised to grade the beaches. The Beach Suitability Grade is a long term assessment of the suitability of a swimming location and is derived from a combination of sanitary inspection and water quality measurements gathered over previous years. The sanitary inspection identifies potential pollution sources, assesses the risk posed by each and then determines the overall risk at the swimming site. The microbial water quality is attained by calculating the 95th percentile of enterococci water quality data. The Beach Suitability Grades can be either Very Good, Good, Fair, Poor or Very Poor. Definitions for these classifications are shown at:

www.environment.nsw.gov.au/beach/beachclassification.htm

Table 6 opposite shows the beach suitability grade for beaches within Manly LGA.



Manly Cove. Source: Manly Council.

Table 6: Harbourwatch/Beachwatch Suitability Grading for Beaches within the Manly LGA Beaches in 2009/10 and 2010/11

HARBOUR BEACHES		
Beach	Beach Suitability Grade 09/10	Beach Suitability Grade 10/11
Gurney Crescent Baths	Fair	Fair
Clontarf Pool	Good	Fair
Forty Baskets Pool	Good	Good
Fairlight Beach	Good	Good
Manly Cove	Very Good	Good
Little Manly Cove	Good	Good
HARBOUR BEACHES		
Beach	Beach Suitability Grade 09/10	Beach Suitability Grade 10/11
Queenscliff Beach	Good	Good
North Steyne	Good	Good
South Steyne	Good	Good
Shelly Beach	Good	Good

## **Local Snapshot**

Table 7: Stormwater

YEAR	NUMBER OF GROSS POLLUTANT TRAPS (COUNCIL CONTROL)	TOTAL GROSS POLLUTANTS REMOVED FROM GPTS (TONNES)
2006/07	23	183
2007/08	24*	158*
2008/09	23**	79**
2009/10	23	169
2010/11	26	155

<sup>\*</sup> Two Manly units were not performing to full operational capacity during 2007/08.

<sup>\*\*</sup> Four Manly units were not performing to full operational capacity during 2008/09.



Cleaning of Clontarf gross pollutant trap. Source: Manly Council.

**Table 8: Water Consumption** 

YEAR	TOTAL LGA POTABLE WATER USE (kilolitres)	TOTAL RESIDENTIAL POTABLE WATER USE (kilolitres per capita)	TOTAL COUNCIL POTABLE WATER USE (kilolitres)
2006/07	3,776,919	80	104,967
2007/08	3,565,403	76	79,185
2008/09	3,774,512	77	80,350
2009/10	3,726,619	76	82,213
2010/11	3,776,367	75	90,894

Table 9: Participation in Sydney Water's WaterFix Program

WATER SAVING PROGRAM	MANLY	
Date	2010/11	Total 99 to 2011
DIY Kits	8	1,465
WaterFix your home	33	4,004
Washing machine rebate	5	2,684
Rainwater tank rebate	9	372
Love Your Garden	0	379
Toilet rebate	207	371
Total Participation	263	9,276

## 4.3 Responding to Water Issues

Council has undertaken and has been involved in a number of projects, programs and working groups to address issues relating to and to improve the condition of water within the Manly LGA which are outlined below.

## **Regional Responses**

## Formation of the SHOROC Water Cycle Management Working Group

The SHOROC Water Cycle Management Working Group was created in 2009. The group is made up of staff from each of the four member Councils as well as Sydney Water, SCCG, Office of the Environment and Heritage (OEH), and Sydney Metropolitan Catchment Management Authority (CMA). The objective of the group is to drive best practice and coordinate the sustainable and efficient sourcing, delivery and use of water resources (including wastewater, stormwater, groundwater and potable water), with a focus on protection of environmental and public health within the SHOROC region. The group has held 11 meetings since it was established.

## Dry Weather Sewer Leak Investigation Program

Manly and Warringah Councils are working with Sydney Water to improve water quality of ocean and harbour beaches. The collaborative program involves dry weather monitoring of stormwater drains to waterways surrounding the Manly LGA to identify and fix sewer leaks. In 2010/11 the program was extended to the Burnt Bridge Creek catchment where no dry weather sewer leaks were found. The program has now assessed all major stormwater pipes draining to Manly Cove, Sydney Harbour, Manly Beach, Manly Lagoon and Burnt Bridge Creek and has ensured sewer leaks are detected and rectified to improve recreational water quality. Overall the program found few dry weather sewer leaks and those with potential problems were rectified by relevant parties, providing improved confidence in water quality.

## **Delivering Local Responses**

## Burnt Bridge Creek Integrated Restoration Project (BBCIRP)

Burnt Bridge Creek is one of three creeks entering Manly Lagoon. The creek has been subject to a range of impacts including poor water quality and bushland degradation.



Burnt Bridge Creek Stormwater Drainage Pipes Assessed. Source Manly Council.

In 2008/09, Manly Council received \$1,997,570 from the NSW Government Environment Trust (Urban Sustainability – Major Projects Program), to fund a 3 year Integrated Restoration Project for the creek. The project represents an alliance partnership with Warringah Council.

The program is now in the third and final year. Expenditure of project funds is now underway to achieve six major environmental outcomes for the creek over a three year period. These include:

1. stormwater harvesting for Balgowlah Golf Course and Balgowlah Oval (providing alternate water source for irrigation, increasing wet weather stormwater retention capacity of the sub-catchment and reducing dry weather dam extraction)

- 2. stormwater treatment for the Sydney Road Catchment (improving stormwater quality)
- 3. modification of the existing artificial Burnt Bridge Creek Weir to a sediment control basin with future maintenance access
- 4. removal of aquatic and riparian weeds
- Burnt Bridge Creek bank restoration, and 5.
- community engagement/education to protect Burnt Bridge Creek catchment values.

Progress during 2010/11 included the completion of all major components, with the exception of remaining work on component 4, with contracts being extended into 2011/12.





BBCIRP: Naturalisation of Creek Banks West of Pitt St (Top - Before, and Middle - After). Source: Manly Council. Above - BBCIRP: Stormwater Harvesting System Constructed on Balgowlah Golf Course. Source: Manly Council

## **Water Savings Program**

Manly Council's Water Savings Program began in 2000/01, and has resulted in a 55% reduction in Council's total organisational potable water usage. The Program involves the use of harvested stormwater, groundwater, and rainwater projects for non-potable uses to reduce the use of potable water, demand reduction and the use of water conservation devices.

In 2010/11 Manly Council continued a successful leak investigation program which identified and repaired a range of concealed leaks in Council's facilities. Council has also continued the implementation of new rainwater tank and water conservation devices to a range of sites. This has included the installation of new water conservation taps and showers at Manly Swimming Pool which has contributed to the facility reducing average per person water consumption from 51 litres/per visitor/per day in 2000/01 to 17 litres/per visitor/per day. Sydney Water's best practice benchmark for Swimming Pools of this size is 40 litres/per visitor/per day.





Water Conservation Taps and Rainwater Tanks at Manly Swim Centre. Source: Manly Council.

## Manly Lagoon Rehabilitation Works

The rehabilitation of Manly Lagoon (jointly managed by Manly and Warringah Councils) has been ongoing for a number of years following preparation of the Manly Lagoon Estuary Management Study (1995) and adoption of the Manly Lagoon Estuary Management Plan (1998), and the Manly Lagoon Integrated Catchment Management Strategy (ICMS, 2004). These documents highlighted a number of major and minor works to be undertaken to progress estuary rehabilitation. A major outstanding project highlighted in these plans is the removal of catchment-borne accumulated sediment in Manly Lagoon. This project has recieved funding of \$1,055,000 from the NSW OEH, to be matched by the Councils.

## Progress in 2010/11 included:

- completion of environmental assessments (Review of Environmental Factors) with public exhibition in July/ August 2010
- implementation and completion of on-site dredging
- dewatering of dredged material,
- disposal of the dredged material, and
- completion of relevant post-dredging environmental

Approximately 4,000 tonnes of material were taken over the weighbridge at Kimbriki Environmental Enterprises Pty Ltd prior to reuse on site. Approximately 80 tonnes of green vegetation and organic matter were removed and recycled.

Approximately 3 cubic meters of garbage was also removed including plastic bags, car tyres, bottles, clothing, prams, bicycles, and fishing line and equipment.

Environmental objectives of the project documented in the Review of Environmental Factors (REF) included:

- improve water quality in the Lagoon through increased tidal circulation, mixing and exchange
- 2. improve amenity value of Manly Lagoon
- 3. maintain an open water channel within Manly Lagoon
- 4. progress rehabilitation of Manly Lagoon in accordance with ongoing management of the Manly Lagoon Estuary, and
- 5. achieve a net reduction in the mass of pollutants within the lagoon.



Dredging of Manly Lagoon. Source: Manly Council.



Manly Lagoon Geobag Dewatering Site. Source: Manly Council.

## 5. biodiversity

Biodiversity is the variety of all life forms - the different plants, animals and micro-organisms, the genes they contain and the ecosystems in which they live. Biodiversity underpins the ecological processes which make life on Earth possible, such as the provision of fresh air, clean water, nutrients and pollination of plants. It provides medicines, fertile soils, food, as well as recreational opportunities and cultural identity.



Mountain Devil (*Lambertia formosa*) at North Head. Source: Manly Council.

## **5.1 Pressures on our Biodiversity**

Key localised pressures include:

- altered and inappropriate fire regimes
- clearing and fragmentation of native bushland
- spread of weeds
- illegal poisoning of trees
- illegal dumping of rubbish
- competition and predation by domestic and feral animals
- plant diseases such as Phytophthora
- stormwater/sewer discharges into bushland and waterways
- road mortality of native animals
- anthropogenic climate change (storm events, temperature etc), and
- anchoring of boats.

## 5.2 Condition of our Biodiversity

Biodiversity in the Manly LGA incorporates terrestrial, intertidal, and aquatic based plants, animals and micro-organisms and the ecosystems in which they live. The LGA is home to many threatened plants, animals and communities. Whilst most of this diversity is contained in the region's bushland areas and waterways, it is complemented by biodiversity in urban residential areas, including private gardens and street trees. The condition of Manly's biodiversity is affected by a number of natural and human induced factors with almost 90% of Manly natural environment degraded to some extent due to human activities alone. Data collected over the past 5 years on the condition of Manly's water assets is provided in Table 10.

## **Local Snapshot**

**Table 10: Council Biodiversity Condition** 

INDICATOR	YEAR	MANLY
Noxious weed	2006/07	48
notices	2007/08	83
	2008/09	40
	2009/10	36
	2010/11	18
Noxious weed	2006/07	0
assessments undertaken	2007/08	47
undertaken	2008/09	80
	2009/10	48
	2010/11	60
Number of	2006/07	210#
registered <u>active</u> Bushcare	2007/08	66
volunteers	2008/09	86
	2009/10	26'
	2010/11	22
Bushcare program	2006/07	583
volunteer hours	2007/08	528
	2008/09	598
	2009/10	675
	2010/11	746

Continued p20...

**Table 10: Council Biodiversity Condition** ...Continued from p19

INDICATOR	YEAR	MANLY
Number of <u>active</u>	2006/07	16
Bushcare groups	2007/08	11
	2008/09	12
	2009/10	12
	2010/11	15
Number of native	2006/07	449
plant species	2007/08	449
recorded in LGA	2008/09	449
	2009/10	449
	2010/11	449
Number of	2006/07	10
threatened	2007/08	10
flora species	2008/09	10
	2009/10	10
	2010/11	10
Number of	2006/07	20
threatened	2007/08	20
fauna species	2008/09	20
	2009/10	20
	2010/11	20
Number of	2006/07	2
endangered	2007/08	2
ecological communities	2008/09	2
	2009/10	2
	2010/11	4
Number of	2006/07	2
endangered	2007/08	2
fauna populations	2008/09	2
populations	2009/10	2
	2010/11	2
Number of feral	2006/07	2
fauna species	2007/08	2
targeted through programs	2008/09	1
(e.g. rabbits,	2009/10	1
foxes, cats)	2010/11	1

<sup>&#</sup>x27; During 2009/10 a major overhaul of Manly Council's volunteer database was conducted. Previous years data includes inactive volunteers as well.



Short-Beaked Echidna (*Tachyglossus aculeatus*) at North Head. Source: Eduard McPeake.



Eastern Water Dragon (Physignathus Lesueurii). Source: Manly Council.

<sup>#</sup> Data includes inactive volunteers as well.

## 5.3 Responding to Biodiversity Issues

Council has undertaken and has been involved in a number of projects, programs and working groups to address issues relating to and to improve the condition of Manly's biodiversity which are outlined below.

## **Regional Responses**

### Shaping Our Sustainable Future

The SHOROC region is characterised by its outstanding natural beauty including swathes of bushland and remnant bushland on public and private lands. A key focus of *Shaping Our Sustainable Future* is to retain and enhance the highly valued and bio-diverse beautiful environment on which the region depends.

SHOROC is working with key stakeholders on key outcomes outlined in the action plan, including;

- amend LEPs and DCPs across the councils to have a clear goal to maintain and enhance biodiversity
- update and implement catchment management plans collaboratively using consistent methodologies of monitoring and mapping across the region, and
- take a regional approach to mapping vegetation and maintaining and conserving the remnant bushland on public lands within the region and encouraging biodiversity corridors.



North Head. Source: Manly Council

### **Urban Feral Animal Programs**

During 2010/11, Council attended quarterly meetings of the Urban Feral Animal Action Group (UFAAG) to discuss and exchange information on feral animal issues across the SHOROC region and possible solutions/programs that could be implemented. The SHOROC member Councils continue to coordinate and implement ongoing feral animal monitoring and control programs. During 2010 Manly Council undertook rabbit control at Shelly Beach, Gurney Reserve, Seaforth residential areas, Bantry Reserve, Wellings Reserve, and Kangaroo Reserve. This work was undertaken in cooperation with neighbouring land managers in order to get the best possible result out of the control program.

## **Delivering Local Responses**

## National Tree Day

Tree planting makes a positive contribution to our environment by enhancing the local habitat, providing shelter for our native animals and helping to absorb carbon emissions. Manly Council held the National Tree Day 2010 planting event at Seaforth Public School. The school grounds border onto Burnt Bridge Creek, and provided an ideal opportunity to incorporate the school grounds into the vegetation corridor that is currently being restored. The event was well attended with 65 people coming along to plant over 1000 native plants.

## Burnt Bridge Creek Restoration Project

Burnt Bridge Creek is one of three creeks that flow naturally into Manly Lagoon. However over recent years much of the 4km long creek has experienced significant degradation, resulting in:

- poor water quality
- extensive weed infestation
- erosion of creek banks
- sediment build-up, and
- reduced biodiversity.

Since 2009, Manly and Warringah Councils have been working together to restore and revitalise the Creek and surrounding areas. The 3-year, joint-initiative project, which is due for completion by the end of 2011, has been funded through a \$1,997,000 grant from the NSW State Government's Environment Trust (Urban Sustainability – Major Projects Program).



Burnt Bridge Creek. Source: Marc Lynch.

Key environmental outcomes for 2010/11 included:

- construction of a 5ML stormwater harvesting system on Balgowlah Golf Course, providing an alternate, sustainable water source for irrigation and restoring natural flow regimes to the Creek (due for completion August 2011)
- installation of a stormwater quality improvement device (SQID) for the Sydney Road catchment under Balgowlah
- removal of aquatic and riparian weed and bush regeneration (over 2.5ha restored and 80,000 native species planted to date)
- restoration and revegetation of eroded and degraded creek hanks
- dredging and improvements to the Burnt Bridge Creek artificial weir, and
- extensive, catchment-wide stormwater and catchmentthemed community education program, engaging local residents, schools and businesses to promote awareness of the project, understanding of key issues and catchment values.

## **Threatened Species**

Threatened populations of Little Penguins (*Eudyptula minor*) and Long-nosed Bandicoots (*Parameles nasuta*) are present in the Manly LGA. During 2010/2011 Manly Council continued its active involvement in the Little Penguin Recovery Program in association with OEH and other stakeholders, through implementation of a variety of actions including the following:

- upgraded the fencing for the Penguin breeding area at Federation Point
- liaised with OEH to produce a formal flow-chart of protocols for handling and reporting of dead and injured Little Penguins



Female at Nest. Source Nicholas Carlile DECCW.

- liaised with Council's Legal Services to revise the boundaries of the Wildlife Protection Area at Federation Point
- 4. facilitated implementation of new dog on-leash and prohibited areas and associated signage
- reviewed the protection for Little Penguins within Manly Cove and the need to include the area in Critical Habitat with the Little Penguin Recovery Team, and
- 6. liaised with OEH for joint media releases.

In addition, a new group (Little Penguin Operational Working Group) was established to facilitate cross-organisational cooperation in the enforcement of regulations relating to Little Penguins outside of Critical Habitat in Manly Cove. The inaugural meeting was held in May 2011.

The Long-nosed Bandicoot Recovery Team met and Council's responsibilities under the Draft Recovery Plan were progressed including providing input into the development of the Long-nosed Bandicoot Recovery Plan. The Long-nosed Bandicoot Residential Education and Monitoring Research Project has been progressed through the application for an Australian Research Council Linkage grant in May 2011.



Dog on Leash Prohibited Areas and Signage. Source: Manly Council.

## Manly Swimming Enclosure Net – Habitat to Protected Seahorses

The swimming enclosure net at Little Manly Cove was home to one of the largest colonies of protected seahorses in Sydney Harbour (*Hippocampus abdominalis* and *Hippocampus whitei*.). This colony was severely impacted by damage to the nets in 2002 when the net was replaced and again in 2010 by apparent vandalism.

During 2010-11 recommendations were made for best management practices for the seahorse population at the Manly Cove swimming enclosure. These recommendations were adopted by Council in early 2011 including short term recommendations to rehang a net specifically for seahorse habitat. Implementation of the adopted longer term recommendations for more a more permanent solution will begin in 2012.



## 6. human settlement





Top: Marine Parade, Fairy Bower. Source: Manly Council. Above: Public Place Recycling Bins. Source: Manly Council. Human settlement is about reaching a balance to achieve a good quality of life for the community. Population growth, housing, waste generation and noise in an urban setting are all factors that impinge either positively or negatively on the community.

## **6.1 Pressures on Human Settlement**

Key localised pressures include:

- waste generation
- growing population
- increased packaging
- illegal dumping and littering
- e-waste, and
- noise (urban developments, companion animals, transport, construction and recreation).

## 6.2 Condition of our Human Settlement

The Manly LGA is home to over 41,000 people, is bordered on three sides by water and continues to experience higher density living. The increased number of people living in the area can have both positive and negative implications. Negative implications include an increase in waste and noise which may have an effect on human health and wellbeing, whilst positive implications include a greater sense of community. Data collected over the past 5 years on the condition of Manly's human settlement is provided in Tables 11 to 13.

## **Local Snapshot**

Table 11: Population

INDICATOR	YEAR	MANLY
Estimated population of LGA – at 30 June 2010	2006/07	39,103
	2007/08	39,677
	2008/09	39,667
	2009/10	40,939
	2010/11	41,925
Residential density (persons per hectare)	2006/07	25.82
	2007/08	26.21
	2008/09	26.20
	2009/10	27.04
	2010/11	27.88

Table 12: Noise

INDICATOR	YEAR	MANLY
General noise complaints received by council	2006/07	40
	2007/08	90
	2008/09	87
	2009/10	217
	2010/11	118
Barking dog complaints received by council	2006/07	7
	2007/08	67
	2008/09	16
	2009/10	30
	2010/11	50

Table 13: Waste

INDICATOR	YEAR	MANLY
Total waste to landfill including general cleanup (tonnes)	2006/07	7,921
	2007/08	8,402
	2008/09	8,416
	2009/10	8,453
	2010/11	7,909
Total waste to	2006/07	7,479
recycling including	2007/08	7,576
paper, co-mingled, metal and green	2008/09	6,618
waste (tonnes)	2009/10	7,407
	2010/11	7,648
Total waste to	2006/07	203
landfill including	2007/08	212
general cleanup per capita (kg)	2008/09	212
	2009/10	207
	2010/11	189
Total waste to	2006/07	193
recycling including	2007/08	191
metal and green waste per capita	2008/09	167
(kg)	2009/10	181
	2010/11	182
Green waste	2006/07	41
diverted from	2007/08	44
landfill per capita (kg)	2008/09	30
( 0)	2009/10	45
	2010/11	56
General cleanup	2006/07	22
sent to landfill per capita (kg)	2007/08	22
	2008/09	30
	2009/10	24
	2010/11	23

## **6.3 Responding to Human Settlement Issues**

Council has undertaken and has been involved in a number of projects, programs and working groups to address issues relating to and to improve the condition of Manly's human settlement which are outlined below.

## **Regional Responses**

### Shaping our Future

The SHOROC region is required by the NSW Metropolitan Plan to accommodate an additional 22,800 dwellings and the capacity for 20,800 jobs over the next 20 years due to an expected population increase of around 30,000 people. This has the potential for significant negative impacts on our way of life, bush, beach and waterways if not managed well.

A key focus of *Shaping Our Future* strategy is to promote ecological sustainable development to accommodate population, housing and growth targets required by the State Government whilst retaining the highly valued natural beauty of the region and providing for vibrant, sustainable and connected communities.

## Increasing resource avoidance, reuse and recovery to reduce waste to landfill

The SHOROC member Councils are in a unique position to sustainably manage the waste of our region for many years to come because Kimbriki Environmental Enterprises Pty Ltd (KEE) has been formed by the member Councils to own and operate the Kimbriki Resource Recovery Centre, with the member Councils as shareholders. The member Councils and Kimbriki are working towards a target to divert at least 66 per cent of residential waste going to landfill by 2014, as outlined in the NSW Government's Waste Avoidance and Resource Recovery Strategy. Key projects in 2010 were working toward construction of new resource recovery facilities at Kimbriki and toward implementation of a common collection system across the region.

## Noise Management

Noise pollution is regulated under the *Protection of the Environment Operations (POEO) Act 1997* and councils use a range of measures to ensure noise in the community is kept at an acceptable level. Noise impacts are carefully considered during the development approval process and consents are appropriately conditioned to regulate and control noise. Noise requirements are also considered and included within planning instruments such as development control plans to reduce and control noise.

## **Delivering Local Responses**

## Electronic Waste Recycling Kerb side collection

Manly Council held 2 electronic waste (e-waste) curbside collections in 2010/11 in which 75 tonnes of e-waste was recovered for recycling. This included e-waste such as televisions, computers and peripherals, printers, scanners, modems, DVD players, videocassette recorders and gaming consoles.



E-waste Collection. Source: Manly Council.

## **Second Hand Saturday**

Second Hand Saturday is a program aimed at promoting reuse and repair as opposed to disposal by encouraging residents to host a garage sale prior to their general clean up by placing a free ad in the Manly Daily and providing posters and other promotional material. This may effectively reduce the amount of waste that is sent to landfill and reduces demand on resources for new goods.

Second Hand Saturday also promotes community spirit by encouraging neighbours to get together to organise a garage sale or street sale. Council supports residents by advertising their garage sale in the Manly Daily and providing posters to assist with promotion. Over the past year over 35 households participated which means goods that may otherwise end up in landfill have been acquired by someone else.

## Litterguards

The Litterguards Program was developed in response to community pressure to reduce littering on and around the Ocean Beach area of Manly during the peak summer period. The main objectives of the program are to:

- decrease litter on the beach and in the marine environment
- educate the public about the social, economic and environmental impacts of litter, and
- encourage best practice waste management in public places and litter avoidance.

Litterguards wear distinctive clothing and directly approach groups and individuals on the beach reminding them to properly dispose of their waste and recycling. The focus for 2010/11 was visitors and youth, who were observed to be the most prolific offenders by Council rangers, compliance staff and Litterguards alike. Litterguards patrolled more than 200 hours on our beaches over the summer months and also spoke with over 6,000 individuals reminding them to take their rubbish with them and dispose of it appropriately. Overall the response to the Program from both visitors and locals was extremely favourable and Litterguards received many positive comments during their 2010/11 beach patrols.

## Food Wine and Sustainability Festival

Manly Council's annual Food and Wine Festival attracts around 30,000 people. The festival is an opportunity to provide information on waste and recycling and encourage home composting. The 2011 Food Wine and Sustainability Festival featured biodegradable cutlery and crockery that was collected after use at numerous bin stations for large scale composting.

ASTRACTION OF THE PROPERTY OF

Food Wine and Sustainability Festival. Source: Manly Council.

More than 88% of the total waste generated by this year's 20,000 – 30,000 participants was diverted from landfill for recycling, which is the best outcome in 21 years of the festival's history. This included 5.14 tonnes of plastic, glass, aluminium and steel containers, 1.5 tonnes of paper and cardboard recycling and 0.78 tonne of food organics which was composted at the SITA's Advanced Resource Recovery facility. There were over 100 volunteers assisting with waste awareness and helping festival goers use the correct bins.

### **Companion Animal Education**

Manly hosted a Dog Day Out in August 2010. This event provides residents and visitors with a forum for companion animal social interaction. The event also provides Council with a valuable opportunity to communicate with dog owners and raise awareness of responsible dog ownership.





Dogs Day Out August 2010. Source: Manly Council.

## 7. heritage

Heritage is defined as places, objects, customs and cultures that have aesthetic, natural, historic or social significance or other special values for present and future generations (Australia ICOMOS, 1999).

## 7.1 Pressures on our Heritage

Key localised pressures include:

- low awareness of Aboriginal heritage
- low awareness of built and natural heritage
- natural processes such as wind, water, erosion and fire
- urban development, recreation and vandalism
- destruction, deterioration and unsympathetic restoration of built heritage, and
- lack of funding to adequately maintain sites.

## 7.2 Condition of our Heritage

Evidence of past Aboriginal occupation in the Manly LGA includes rock engravings, rock paintings, shell middens, axe grinding grooves, sites of cultural significance, fish traps, seed grinding patches, open camp sites and stone arrangements. Our local heritage gives us a sense of living history and provides a physical link to the way of life of earlier generations.

Manly's non-Aboriginal heritage is diverse and includes historic sites, modified and built environments such as dwellings, public buildings, townscapes, gardens, reserves, buildings, roads, as well as ethnic traditions, cultural events, artworks, craft, and literature. Heritage indicators have been selected to measure both Aboriginal and Non-Aboriginal heritage in the Manly LGA.



Manly Pavilion. Source: Manly Council.



Guringai Festival. Source: Manly Council.

## **Local Snapshot**

**Table 14: Aboriginal Heritage** 

INDICATOR	YEAR	MANLY
Number of Aboriginal Heritage Sites	2006/07	62*
	2007/08	64*
	2008/09	66*
	2009/10	68*
	2010/11	68*

N.B. Data provided to councils by OEH through the Aboriginal Heritage Office for the 2009/10 SoE Report revealed anomalies in previously reported Aboriginal heritage site data.

\* This data includes sites within Council jurisdiction only. Previous SoE Reports have also included sites managed by OEH and the Sydney Federation Harbour Trust.

Table 15: Non-Aboriginal Heritage

INDICATOR	YEAR	MANLY
Total Number of Non-Aboriginal Heritage items	2006/07	306
	2007/08	312
	2008/09	314
	2009/10	315
	2010/11	321
Breakdown:	2006/07	194
Number of built items	2007/08	199
built items	2008/09	201
	2009/10	202
	2010/11	208
Number of	2006/07	78
landscape items	2007/08	79
	2008/09	79
	2009/10	79
	2010/11	79
Number of	2006/07	34
archaeological	2007/08	34
items	2008/09	34
	2009/10	34
	2010/11	34
Heritage	2006/07	2
conservation areas	2007/08	2
	2008/09	2
	2009/10	2
	2010/11	2

**Table 16: Identified Aboriginal Sites** 

MANLY	
Total sites	68
New Site	0
Protection works done-in progress	2

Note: 'New site' includes some previously registered sites held by the OEH but that had been incorrectly mapped outside the Council boundary by the original recorder or the OEH.

## 7.3 Responding to our Heritage Issues

Council has undertaken and has been involved in a number of projects, programs and working groups to address issues relating to and to improve the condition of Manly's heritage which are outlined below.

## **Regional Response**

## Aboriginal Heritage Office

The Aboriginal Heritage Office (AHO) is a joint initiative of Ku-ring-gai, Lane Cove, Manly, North Sydney, Pittwater, City of Ryde, Warringah, and Willoughby Councils and is supported by the NSW Heritage Office and the Commonwealth Department of Sustainability, Environment, Water, Population and Communities.

The AHO works to ensure the protection of Aboriginal sites and cultural heritage. In 2010/2011, the AHO continued to coordinate training for Council staff, primarily those involved in the development of assessment processes but also outdoor staff; provided updates on changes to legislation in regards to Aboriginal heritage; and conducted a large number of guided walks, schools and Aboriginal Site Awareness events at various locations within the region.

## Aboriginal Site Management and Monitoring

Regular monitoring and reviews were undertaken to identify any new Aboriginal sites. Site protection works were conducted at 2 sites in the Manly LGA and site management plans continued to be revised (see Table 16 below left).

## Resources

An important part of the role of the AHO is to enhance appreciation of Aboriginal heritage in the wider community. The AHO Education Centre and Keeping Place in Northbridge has continued to expand in its exhibits and scope. Numerous resources are available for free download from the AHO website: www.aboriginalheritage.org

#### **External Funding**

The AHO applied for federal funding for three projects and was successful for one, a program to carry out Aboriginal heritage surveys for bushland areas within the Councils. The approval was for \$28,700.

During 2010/2011 an on-going NSW Heritage Office grant funded a series of projects including events for schools in the area, site management reports and updates, and an upgrade of the AHO website to help promote the richness of the Aboriginal heritage of the area.

#### **SHOROC** Historic Place Names Register

SHOROC was assigned the task in 2009/10, on behalf of the member Councils, to undertake a project to ensure that historic place names were not being lost but were identified and appropriately commemorated as part of the history of the region.

The purpose of the register (presented as a Google Map) is to give an interesting insight into the local stories, people and places of the past, capturing the lost names of familiar local sites in the Pittwater, Mosman, Manly and Warringah council areas.

Key stakeholders in the project include residents and the community (invited to participate by sending entries to their local council); local primary schools (sent postcards to promote the project to their students to submit entries); and the Manly, Warringah and Pittwater Historical Society who are involved in checking submissions so that only appropriate historic sites are added to the register.

The map is hosted via the SHOROC website. Please view the map at www.shoroc.com/history

#### **Delivering Local Responses**

#### Heritage Festival

The National Trust of Australia (NSW) held the 2011 annual Heritage Festival during April 2011. The theme of the Festival was 'Amazing Stories'. Our historic places, landmarks, collections and sites mark tangible connections to our history.

In Manly a number of free activities were organised during the Festival to promote the cultural heritage of Manly including a talk on the former Manly Ferry MV Baragoola, a guided tour

of Manly Cemetery, exhibition at the Manly Art Gallery and Museum, North Head Sanctuary Foundation Nursery Open Day and a guided walk of the 3rd Cemetery, Quarantine Station, North Head.



The Former MV Baragoola. Source: Manly Council.

#### History Week

The NSW History Week was held from 4-12 September 2010. The theme was 'Faces in the Street'. In Manly a number of activities were held to promote the rich history of the area including the launch of the Manly Heritage Committee's 'Heritage In Manly' Booklet (available on Council's website), a walking tour, The Royal Far West exhibition at the Manly Art Gallery and Museum and an open day at the Q-station.

#### Local Heritage Assistance Fund

In 2010/11 a number of heritage conservation projects were assisted under Council's annual Local Heritage Assistance Fund. This included the conservation and restoration of a sandstone verandah and conservation works to a grave in Manly Cemetery.

#### Heritage Review

In 2010, Council continued to review identified potential heritage items and undertook consultation with property owners on the heritage values of the property. As a result of this review 6 properties have now been listed as heritage items and a further 8 are to be listed as part of the new Manly LEP process.

Council's Heritage Planners have also been reviewing the existing heritage schedule in preparation of the new Manly LEP and updating the heritage inventory sheets for existing items.



# 8. towards sustainability

'Sustainability' is being able to meet the needs of the present without depleting resources or harming natural cycles for future generations. Planning for environmental sustainability provides a framework which links economic, social, environmental and governance matters.

The awareness and action of the community are vital in achieving sustainable outcomes. Council has adopted measures to ensure operations are moving towards sustainability, and runs programs for the community aimed at achieving environmental sustainability across a range of issues such as water conservation, biodiversity management, sustainable transport, energy reduction, waste avoidance and minimisation.

This chapter builds on the previous chapters by providing further detail on community and corporate action for sustainability.



Cycling Along the Ocean Promenade. Source: Manly Council.

## 8.1 Responding to Sustainability Issues

#### **Regional Responses**

#### **Shaping Our Future Strategy**

Shaping Our Sustainable Future (an action plan for creating a more sustainable SHOROC region together) adopted in May 2011) brings together for the first time a range of projects that will be delivered collectively by the SHOROC member Councils over the next four years to create a more sustainable region.

This document forms part two of the *Shaping Our Future* strategy. It is an action plan outlining the key areas the member Councils will work on together to improve our region's sustainability, building on the already significant range of member Council projects already being delivered or in planning stages.

The action plan includes projects focussing on integrated transport, renewable energy, climate change, ecologically sustainable development, waste avoidance and re-use, water use, enhancing biodiversity and living and working more sustainably.

For more information on *Shaping Our Sustainable Future* and the key stakeholders involved in the sustainability action plan, please visit www.shoroc.com/sustainability

#### Health of the Region Indicators Project

Indicators or Key Performance Indicators (KPIs) are a vital element of any planning process, particularly for priority setting, to enable regular reporting, and for benchmarking, monitoring and review of local and regional issues.

A set of 'Health of the Region' indicators has been agreed for use by the member Councils and SHOROC, which bring together key indicators on each of the overarching domains for the region. The data set is sourced from a mix of council data and freely available data sets and comprises 32 core indicators across the five 'domains':

- Health and wellbeing
- Natural environment
- Built environment
- Jobs and economic development, and
- · Leadership.



Weedy Seadragon. Source: www.istockphoto.com

This integrated suite of indicators will be used to develop bi-annual 'Health of the Region' reports every two years to align with the mid-term of council and the end of the elected term of office. The indicators and reports will be available on the SHOROC website in November 2011.

## Regional Sustainable Purchasing and Procurement

SHOROC acknowledges that it has a vital role to play at the local level in promoting sustainable development and can make a contribution towards meeting the challenges of creating a sustainable society. SHOROC supports the principles of sustainable purchasing and pursues the objectives of purchasing products and services that are sustainable.

As a regional body SHOROC has developed a comprehensive Sustainable Purchasing Policy that is applicable to all procurement activities carried out by the SHOROC purchasing group.

SHOROC pursues the following objectives through sustainable purchasing to:

- eliminate unnecessary inefficiency, waste and expenditure
- contribute to the combined purchasing power of local government to further stimulate demand for sustainable products
- advance sustainability by participating in 'closing the life-cycle loop'
- increase awareness about the range and quality of products available
- deliver Council's commitments in relation to ecologically sustainable development (ESD) and other environmental and social objectives
- play a leadership role in advancing long term social and environmental sustainability, and
- support local businesses and organisations.

#### **Delivering Local Responses**

#### Sustainability and Climate Change Committee

The Sustainability and Climate Change Committee (SCCC), one of Council's special purpose advisory committees, continued to meet this reporting year. The SCCC has provided valuable strategic input into some of Council's projects and plans that relate to sustainability and climate change. This includes the implementation monitoring of the Manly Sustainability Strategy and feedback on the Corporate Carbon Emissions Reduction Strategy and action Plan as part of the Carbon Emissions Reduction Project.

#### Sustainable Procurement

Council resolved to become a member of the Local Government and Shires Association's (LGSA) Sustainable Choice Program on 21 June 2010. In 2010/11 training was provided by the LGSA for staff involved in sustainable purchasing and an internal team was formed to coordinate and progress sustainable procurement within Council.

#### Manly Sustainability Fair 2010

In June 2011, Manly Council held its fifth annual Sustainability Fair on Manly Corso as part of the Manly Food, Wine and Sustainability Festival. The aim of the Fair is to promote sustainability and communicate that it can be incorporated into all aspects of our personal and working lives. The Fair showcased sustainable lifestyle products, technologies and practices such as ecoshopping, sustainable gardening and sustainable building design. Thousands of people attended the event, making it the most successful of Manly's Sustainability Fairs to date.



Manly Council Stall for the Manly Sustainability Fair. Source: Manly Council.



Clothing Swap (2010). Source: Manly Council.

## Green Up Your Life! Sustainable Living Program

The Green Up Your Life! Sustainable Living Program is an Education for Sustainability (EfS) initiative designed to engage, educate, empower and inspire the local community in the face of climate change and the increasing need for individuals, communities and countries to be rapidly shifting towards a sustainable way of life. The program is comprised of practical workshops, clothing swaps, documentary screenings, children's activities and walking tours. It is an engagement and educational tool that has been extremely popular within the Manly community and has helped mobilise individuals towards sustainability through the wide range of activities on offer. Since its launch in 2009 it has delivered 88 events and has directly engaged 2,471 people in workshops and documentary screenings at Manly Cinemas.

#### Make a Difference in Manly

In November 2010, Manly Council held a community leader training course titled 'Participatory Skills for Sustainable Futures'. This course aimed to build the capacity of existing and aspiring community leaders to engage and assist individuals, groups, colleagues and networks in their communities and/or workplace to achieve meaningful change for sustainability. This course was a huge success and as a result four key community sustainability initiatives were identified and will be implemented in the community independently of Council. These are:

 Kangaroo St Community Garden Group – to see Manly Council's first centralised community garden established.

- Don't Bag Manly! Action Group to see the eradication of freely distributed plastic bags in Manly by World Environment Day next year (Sunday, June 5th).
- 3. Northern Beaches Sustainability Network An umbrella group to network and represent all the sustainability/environmentally related community groups in the area.
- Water Saving/Recycling Community Display in Manly this feature will ideally be integrated into the proposed community garden on Kangaroo St.

#### Fair Trade

In September 2008, Manly Council officially received Fair Trade Accreditation from the Fair Trade Association of Australia and New Zealand (FTAANZ) making Manly NSW's first Fair Trade Community. As part of Manly Council's commitment to Fair Trade, Council ran two Fair Trade Markets during the reporting year. Council's ninth Fair Trade market, a Christmas market, was held on 28 November 2010, and the tenth Manly Fair Trade Market on May 7, 2011, during Fair Trade Fortnight.

A range of Fair Trade vendors were showcased along with entertainment, kid's activities, Fair Trade coffee and chocolate. Australia continues to be one of the world's fastest growing markets for Fairtrade Certified products with sales tripling in just 12 months to over \$120 million in 2010. Chocolate replaced coffee as Australia's biggest selling Fairtrade Certified product with sales soaring by over 1500% due in part to the introduction of new Fairtrade Certified blocks from Cadbury, Alter Eco and ALDI in 2010.



Manly Fair Trade Markets. Source: Manly Council.



Project Penguin 'Penguin News' Exhibit. Source: Manly Council.

#### The Manly Environment Centre

The Manly Environment Centre (MEC) acts as an environmental resource and research centre, and advocate an advocate for local issues and environmental educator. The shop front houses more than 30,000 publications and other resources, the largest collection of environmental education materials accessible to the community in Australia. Information is provided to people, empowering them to take action and make lifestyle choices which will create positive outcomes for themselves, the wider community (locally and globally) and the environment.

During the reporting year, the MEC staff undertook preparations for an International Conference on Eco Ideas in celebration of its 20 years of operation to be held in September 2011 at North Head Sanctuary.

The MEC also held a 'Day at the Bay, Earth Day event' at Cabbage Tree Bay, to encourage people to learn about the marine environment and to make a meaningful and lasting contribution to its protection. Preschoolers and their parents contributed to a giant mural for permanent display, residents and visitors were provided an opportunity to comment on OEH's Draft Plan of Management for Cabbage Tree Bay and learn from the many interpretive signs along Marine Parade Walkway. This event won the Local Government and Shires Award for Communication, Education and Empowerment.

The MEC held a four day exhibition at the Australian Museum for the 2010 International Year of Biodiversity. Interactive displays were provided by Sydney Wildlife Rescue, Ecodivers, OEH's Penguin Wardens, North Head Sanctuary and Manly Village School (featuring their Project Penguin's 'Penguin News') highlighting the diversity of wildlife on the Northern Beaches.

## 9. future directions

On 25 June 2009 the Minister for Local Government, the Hon Barbara Perry MP, introduced the *Local Government Amendment (Planning and Reporting) Bill 2009* to State Parliament. This Bill was ascended on 1 October 2009.

As a result of the new legislation a more integrated and holistic planning and reporting framework has been established for councils in NSW. This framework includes:

- Ten year Community Strategic Plan (visionary document)
- Four year Delivery Program (sets out measures to achieve goals in Community Strategic Plan)
- Annual Operational Plan and Budget (outlines actions to achieve the Delivery Program and Community Strategic Plan).

The implementation of the new planning and reporting requirements will be phased in over three years: 2010, 2011 and 2012. Manly Council will implement the new system in 2011/12.

From 2011/12 all SHOROC member Councils will integrate SoE reporting into their own individual annual reporting process and community strategic plan review, with regional sustainability reporting being undertaken by Councils and SHOROC based on the *Shaping Our Future* strategy and the 'health of the region' indicators.



Solar Lights at Little Manly. Source: Manly Council.



## 10. references

Aboriginal Heritage Office www.aboriginalheritage.org

Australian Bureau of Statistics, population data www.abs.gov.au

Australia International Council of Monuments and Sites (ICOMOS), (1999). The Burra Charter: the Australian ICOMOS Charter for place of Cultural Significance.

Australian Government National Health and Medical Research Council (2008). Guidelines for Managing Risks in Recreational Waters.

Commonwealth of Australia (1996). The National Strategy for the Conservation of Australia's Biological Diversity, Canberra: DEST.

Commonwealth Department of Sustainability, Environment, Water, Population and Communities. Greenhouse Gas Emissions Calculator

www.environment.gov.au/settlements/transport/fuelguide/environment.html

Commonwealth Department of Sustainability, Environment, Water, Population and Communities (2008-2009). National Pollutant Inventory

www.npi.gov.au

www.npi.gov.au

Commonwealth Department of Sustainability, Environment, Water, Population and Communities (2008-2009). National Pollutant Inventory

Forecast Id

www.forecast.id.com.au

Local Government Act 1993 www.austlii.edu.au/au/legis/nsw/consol\_act/lga1993182

Noxious Weeds Act 1993

www.austlii.edu.au/au/legis/nsw/consol\_act/nwa1993182

Office of the Environment & Heritage NSW (2011).

Species, Populations and Ecological Communities Database

www.threatenedspecies.environment.nsw.gov.au

Office of the Environment & Heritage NSW (2011). State of the Beaches 2010-11.

Shore Regional Organisation of Councils (SHOROC) www.shoroc.nsw.gov.au

Shore Regional Organisation of Councils (SHOROC) (2010). Shaping Our Future

www.shoroc.com/shaping-our-future

Sydney Coastal Councils Group www.sydneycoastalcouncils.com.au

Transport, Road and Maritime Services NSW.

NSW Local Government Area Vehicle Registrations,

www.rta.nsw.gov.au/publicationsstatisticsforms/downloads/
registration/





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