

# STATE OF THE ENVIRONMENT

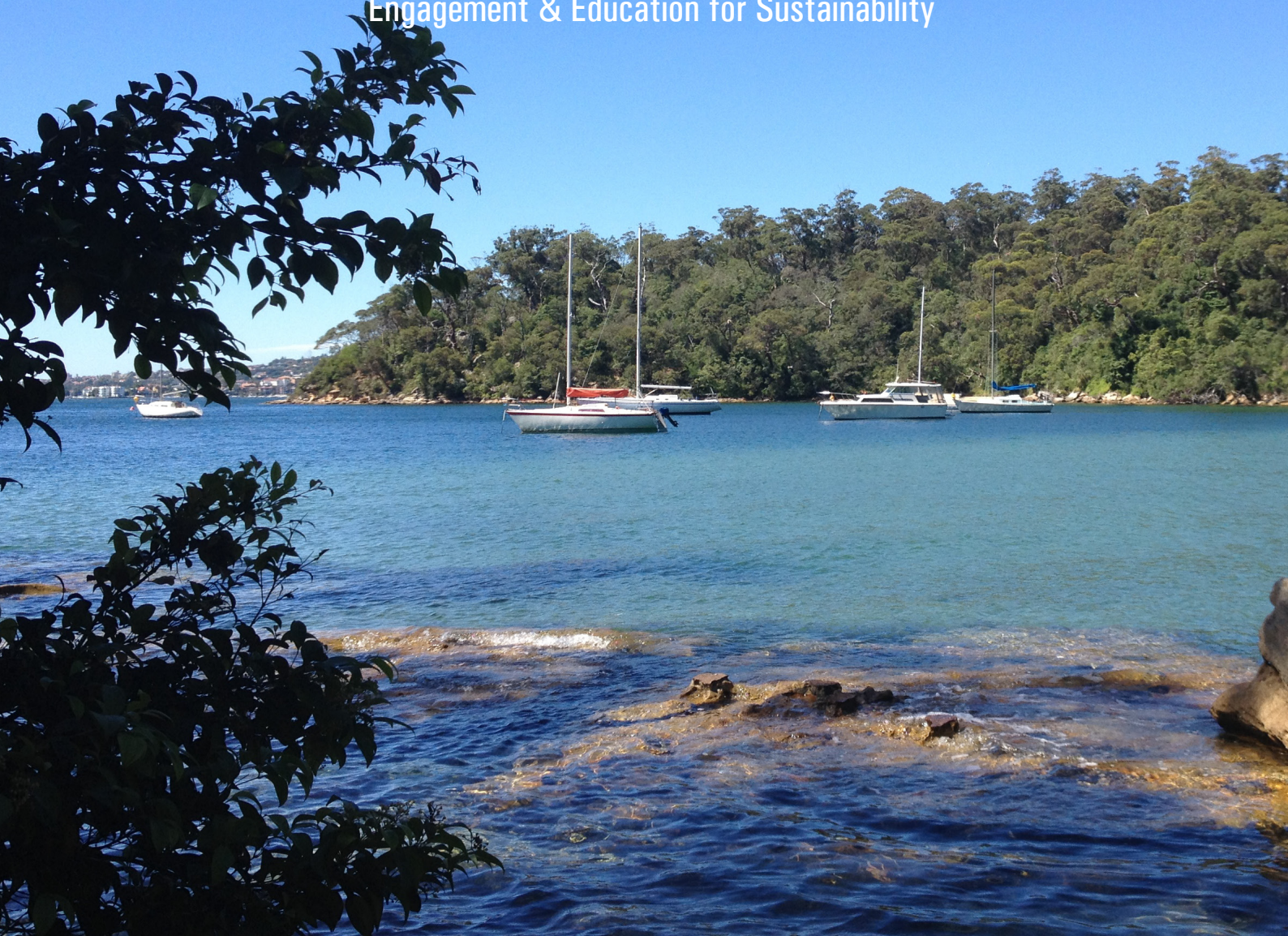
## Summary Scorecard 2012 - 2013



Biodiversity | Climate Change & Air Quality | Waste | Transport

Total Water Cycle | Planning, Built Environment & Heritage

Engagement & Education for Sustainability



## THE MOSMAN LOCAL GOVERNMENT AREA

Mosman is a harbourside suburb located on Sydney's lower North Shore. It is bordered by Middle Harbour, Sydney Harbour and Port Jackson. The Mosman Local Government Area (LGA) is approximately 8.52 square kilometres and is home to approximately 29,232 people. The Council forms part of the Shore Regional Organisation of Councils (SHOROC), which also includes Manly, Warringah and Pittwater.

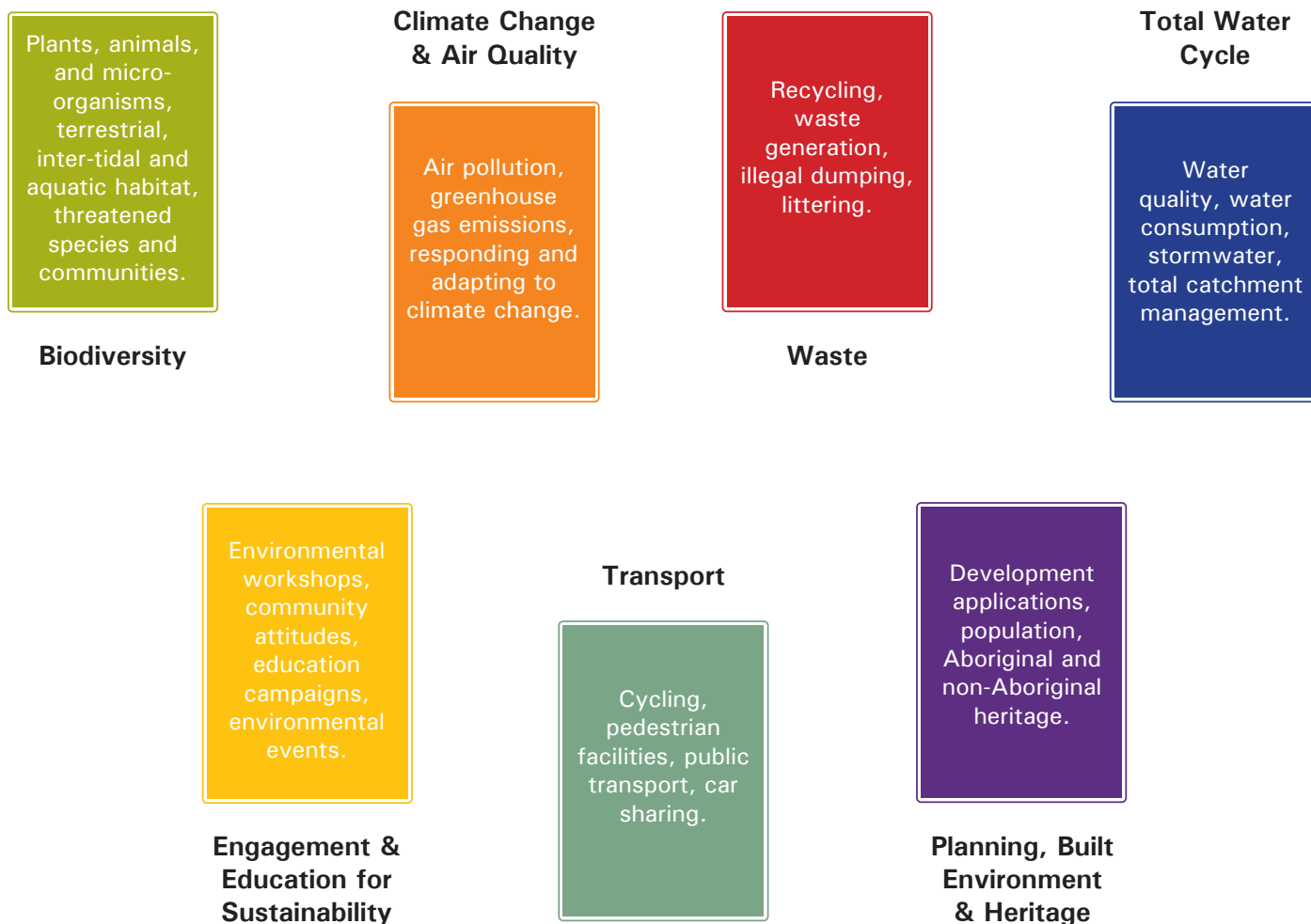
## STATE OF THE ENVIRONMENT REPORTING

A State of the Environment (SOE) Report provides a snapshot of the condition of the environment, pressures impacting on the environment and the Council's response to these pressures.

The 2012/ 2013 SOE takes the form of a "scorecard" providing a quick snapshot of the State of the Mosman local environment and examples of initiatives implemented by Council.

## KEY AREAS

This SOE focuses on seven key areas identified in MOSPLAN—



A number of indicators have been chosen to measure each key area. These indicators align with the goals and objectives of MOSPLAN and allow for changes in the environment to be measured over time.



## 1. CLIMATE CHANGE AND AIR QUALITY

AIR QUALITY	2009/10	2010/11	2011/12	2012/13	Change from previous year
Number of air pollution complaints received by Council	3	2	3	2	↓
ENERGY					
Electricity use Council operations (kWh)	2,847,151	2,769,062	1,741,663	1,737,180	↓
Council energy consumption (GJ)	7,201	7,168	6,711	6,976	↑
GHG emissions from Council energy use (tonnes CO2-e)	1,995	1,847	1,733	1,566	↓
Total residential and non residential electricity use for Mosman (MWh)	153,167	153,336	146,393	140,685	↓
Solar generation exported to the grid (MWh)	30	213	470	546	16% increase

### RESPONDING TO CLIMATE CHANGE & AIR QUALITY ISSUES – CASE STUDIES

#### LIGHTING UPGRADE

In August 2012 Council completed a lighting upgrade at the Vista St Carpark. Fluorescent lights were replaced with LEDs to help Council save money, energy and greenhouse gas emissions. The lights in the carpark are left on 24/7 for safety reasons so changing to energy efficient lights will make a significant difference. The upgrade has helped Council to save approximately \$10,000 each year and 72 tonnes of CO2-e. The Vista St Carpark was using on average 12 MWh per month. Following the energy efficient lighting retrofit the energy usage of the carpark has been reduced to 7MWh per month, a saving of 5MWh per month.

Council also commenced the lighting upgrade of the Mosman Library.

#### FRIDGE BUY BACK

The Fridge Buy Back Program encourages residents to give up their old second fridge, which can be one of the biggest energy users in the home. Fridges are collected and then degassed and recycled. In 2012/13 a total of 27 fridges were collected from Mosman households, whilst over the life of the project a total of 294 fridges have been collected within Mosman. This has saved 294t tonnes of CO2-e per year, 24 kg of CFCs, resulted in the recycling of 26 tonnes of metal and collectively saved residents \$88,200 on their electricity bills.



## 2. TOTAL WATER CYCLE

STORMWATER	2009/10	2010/11	2011/12	2012/13	Change from previous year
Number of gross pollutant traps (Council control)	32	32	32	33	↑
Total gross pollutants removed from GPTs (tonnes)	180	300	332	406	↑
WATER CONSUMPTION					
Total LGA potable water use (kilolitres)	3,019,243	2,966,059	2,841,397	3,089,433	↑
Total residential potable water use (kilolitres per capita)	89	86	81	104	↑
Total Council potable water use (kilolitres)	48,861	48,352	46,125	45,645	↓

### RESPONDING TO TOTAL WATER CYCLE MANAGEMENT ISSUES – CASE STUDIES

#### MOSMAN FLOOD STUDY

The Mosman Flood Study commenced during 2012/13. The Mosman Flood Study is the first stage of the flood mitigation planning process. The current flood study is a technical study to demonstrate the behaviour of Council's stormwater network, overland flow paths including natural water courses.

The study allows for the defining of the flood behavior for 7 events as below;

1: 5 year floods, 1: 10 year floods, 1: 50 year floods, 1:100 year floods, 1:200 year floods and Permissible Maximum Floods (PMF).

The study will determine the flood levels for the pre-determined events and suggest preliminary Flood Planning Levels (FPL) for Council's consideration. During the flood study sensitivity analysis will be undertaken to assess the impacts of the followings:

- Pipe and pit blockages
- Increase in rainfall intensity
- Impacts of sea level rise on both tidal inundation and flood levels.

Council is still to decide on the guidelines for sea level rise following the withdrawal of State Government Sea Level Rise Benchmarks.

#### URINAL UPGRADES

Sensors were added to urinals at three public toilet sites within Mosman. These changes will help Council to make additional water savings within Council facilities.



### 3. BIODIVERSITY

BIODIVERSITY CONDITION	2009/10	2010/11	2011/12	2012/13	Change from previous year
Noxious weed notices	0	0	0	0	↔
Noxious weed assessments undertaken	18	17	23	11	↓
Number of registered active bushcare volunteers	90	97	102	102	↔
Bushcare Program volunteer hours	2,550	2,677	2,800	2,511	↓
Number of active bushcare groups	22	23	17	14	↓
Total number of native plants supplied to volunteers, contractors and residents	9,724	9,000	8,500	8,430	↓
Number of native plant species recorded in LGA	454	454	454	454	↔
Number of threatened flora species	3	3	3	3	↔
Number of threatened fauna species	4	4	4	4	↔
Number of endangered ecological communities	3	0*	0	0	↔
Number of endangered fauna populations	0	0	0	0	↔
Number of feral fauna species targeted through programs (eg. rabbits, foxes, cats)	1	1	1	1	↔

\* In previous years, Australian Government data was used for identifying endangered ecological communities to ensure capability of data sources with the SHOROC Council's. However in 2010/ 2011, Council's own detailed field assessments did not identify any endangered ecological communities within the Mosman LGA.

## **RESPONDING TO BIODIVERSITY ISSUES – CASE STUDIES**

### **BIODIVERSITY BUSHWALKS**

Over the last year Council has run guided bushwalks with variations on a core theme of 'Biodiversity'. One of the most popular walks, celebrating International Day of Biodiversity, showcased the efforts of volunteers in restoring bushland in the Mosman Bay area. Participants were able to hear from a volunteer supervisor, who explained the process of restoring the bush and pointed out interesting flora and fauna. Some of the volunteers were also on hand to describe their connection to their local patch of bush and share stories of how it has brought their community together. It was rewarding to have some of the attendees share their own stories about the local bushland. These walks have helped connect the community with their local bushland.

### **BUSHCARE PROGRAM**

The enthusiasm of the Bushcare groups has not diminished despite numerous mornings spent in the rain. This is an excellent example of the sense of pride and community fostered by the Bushcare Program. Even with the weather favouring the weeds, the volunteers have continued to make great progress on their sites.

Bushcare events, such as National Tree Day, have been very popular and a great success. These are great ways for people to get involved if they cannot make a regular commitment. Our tree planting activities have proven to be a great activity for young families to be outdoors and interact with the environment as well as a source of new volunteers.

### **RENEWAL OF 10 YEAR BUSHLAND RESTORATION CONTRACTS 2012-2022**

With the success of the Bushland Restoration Contracts 2001-2011 it was determined by Council that a new 10 year contract should be implemented. The existing contract structure was retained with monthly and annual reporting requirements with reviews against identified progressive performance criteria and targets at selected intervals. This will ensure works are progressing Council is gaining value for money, and the works are continued to further enhance the bushland condition in Mosman. From the start of the 2001 contract until 2012 the percentage cover of bushland with a 90% native cover has increased from <25% to 60%.

### **WILDLIFE MORTALITY SIGNS**

Wildlife mortality on roads is an increasing issue in NSW. Council records show that the majority of these deaths in Mosman are possums but there were also bats, birds and small mammals. This prompted the Council to erect two wildlife road signs to help raise awareness of the issue. The signs have been placed at the corner of Cowles Rd and Belmont St and Middle Head Road and Muston St, hotspots for wildlife mortality. The signs provide the number of wildlife road deaths in Mosman in the past two years and prompt drivers to report wildlife injuries.

At the end of the June 2013 there were 23 reported wildlife fatalities, compared to 49 in the January- June period in 2012.





## 4. WASTE

WASTE	2009/10	2010/11	2011/12	2012/13	Change from previous year
Total waste to landfill, including general cleanup (tonnes)	6,409	6,382	6,195	6,455	↑
Total waste to recycling including paper, co-mingled, metal and green waste (tonnes)	5,528	5,559	5,613	5,450	↓
Total waste to landfill, including general cleanup per capita (kg)	223	218	211	219	↑
Total waste to recycling, including metal and green waste per capita (kg)	192	190	191	185	↓
Green waste diverted from landfill per capita (kg)	59	59	66	72	↑

### RESPONDING TO WASTE GENERATION ISSUES – CASE STUDIES

#### **CLOSE THE LOOP ON PRINTER TONERS**

Council recycled its toners and cartridges from printers and photocopiers. This financial year Council diverted 107.48kg of waste from landfill through this collection and recycling process.

#### **ONLINE COMPOSTING TUTORIALS AND QUIZZES FOR RESIDENTS**

Council established an online composting education program designed by Digital Eskimo. The program, known as the Compost Revolution, educates residents and schools about how to establish worm farms and compost bins and the benefits of recycling food waste. Prizes of compost stirrers and worm blankets were offered to the first 100 people to complete the online tutorial and quiz questions.



#### **EASTERN CREEK LANDFILL TOUR**

In July 2012, 18 people from Mosman and the surrounding area visited the Eastern Creek landfill site. Over half a million tonnes of waste arrives at Eastern Creek every day with the average Australian said to generate 1 tonne of garbage per year. In Mosman the average red lidded garbage bin holds approximately 38% food waste and efforts to decrease overall waste quantities in the area are slow to respond. Living so far from landfill and recycling facilities means that most residents do not think of what happens to their waste once it has been conveniently taken away by a truck. This tour gave residents a chance to see the hidden effects of waste. Vast pits dug to bury waste, odours, difficulties associated with recycling general waste and the associated effect of contamination in recycling facilities were some of the issues highlighted on the tour. It was clear to most participants at the end of the tour that waste reduction was a necessity for all.

### **RECYCLE ART TOUR FOR RESIDENTS**

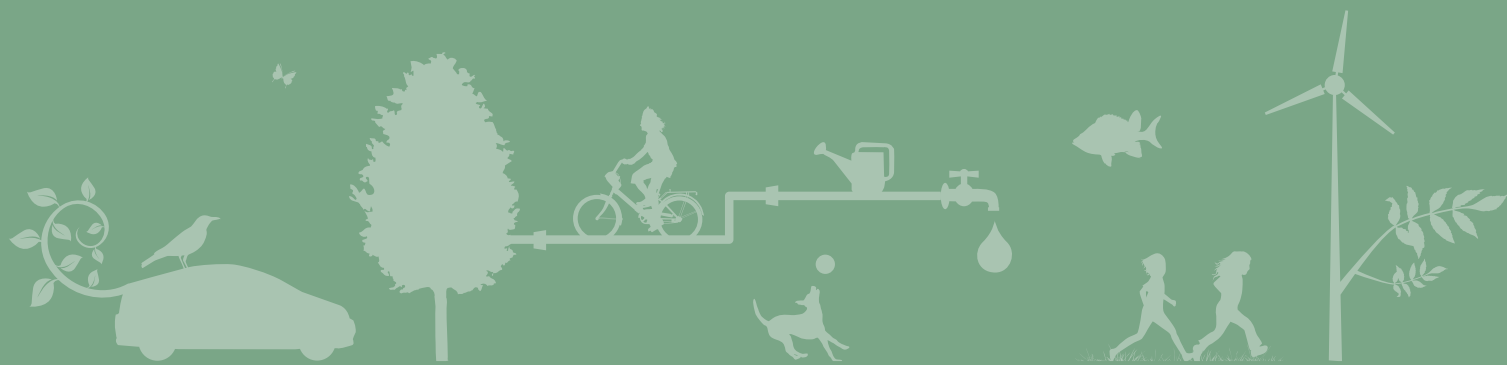
Sixteen people were taken on a tour of the Gosford Regional Gallery on the 14 April 2013 as part of the Living Mosman Program. Judith Price delivered an inspiring talk on her journey from art teacher to professional environmental artist, provided a tour of her exhibition and conducted a waste to jewellery workshop.

Judith's reach on this subject was extensive, apart from being able to display an amazing variety of waste to art installations, Judith was also able to tell us of the different communities she had brought together with her projects. One installation for example incorporated small square canvases divided into three sections, one section from child / parent groups, one section dedicated to people employed in environmentally related jobs and another from individuals not normally engaged in environment issues. Each canvas was to reflect a view point on the future of the natural environment.

The variety of ideas and concepts from this display, sparked ideas amongst the group, got them thinking outside the square, asking questions and feeling a sense of responsibility about their part in the waste equation.

The jewellery workshop also gave the participants a practical experience about how to use what you have rather than buying something new. In all there was a 100% satisfaction rate on this tour with one person making the interesting comment (re the workshop) saying he had a greater understanding about the issues of waste by working with his hands.





## 5. TRANSPORT

TRANSPORT	2009/10	2010/11	2011/12	2012/13	Change from previous year
Registered vehicles in Council LGA	17,967	18,247	18,203	18,871	↑
Number of Council fleet vehicles	26	29	25	24	↓
GHG emissions from Council fleet vehicles (tonnes CO2-e)	174	185	163	86	↑
Number of passengers using the Mosman Rider Bus	21,404	45,000	49,053	46,325	↑
Number of people using the GoGet carshare scheme	33	177	330	505	↑

### RESPONDING TO TRANSPORT ISSUES – CASE STUDIES

#### WALK MOSMAN IPHONE APP

To encourage residents and visitors to get out and about and explore the Mosman environment, Council developed an iPhone app for walking trails in Mosman. The app showcases seven amazing walks around Mosman. Walkers can complete a single walk or join walks together to complete a loop of the entire suburb. Along the way they will find points of interest where they can learn interesting facts about Mosman's wildlife, heritage, Aboriginal sites, bushland, coastal features and more. All the walks are accessible by public transport or Mosman's free community bus, the Mosman Rider.

At the end of June 2013 the Walk Mosman app had been downloaded 1017 times.

#### NEW ROUTE AND TIMETABLE FOR THE MOSMAN RIDER

In July 2012 a new route and timetable were introduced for the Mosman Rider. The new route winds through Mosman's hilly streets from Beauty Point to Taronga Zoo, and Spofforth Street to George's Heights. It travels past the Art Gallery, Civic Centre and Library making it even easier for residents and visitors to use sustainable transport for local trips.

#### CAR SHARE SCHEME

Local residents continue to embrace the Go-Get car share scheme with the total number of Mosman members increasing from 330 to 505 in a year. There was an average of 165 bookings made every month throughout the 2012/13 period. There are now 8 Go-Get cars parked within the Mosman local government area.

#### BIKE PATHS

Council constructed two bike paths during 2012/13, one off road at Spit West, approximately 400m long, and the other on road at Bradleys Head Road (approx 1.6km long), to encourage Mosman residents to ride their bikes instead of driving. The bike paths have increased safety of riders.



## 6. PLANNING, BUILT ENVIRONMENT & HERITAGE

POPULATION	2009/10	2010/11	2011/12	2012/13	Change from previous year
Estimated population of LGA – at 30 June 2010	28,767	29,232	29,414	29,716	↑
Residential density (persons per hectare)	33.76	34.31	34.5	34.35	↓
NOISE					
General noise complaints received by Council	51	56	41	77	↑
Barking dog complaints received by Council	50	35	29	33	↑
DEVELOPMENT APPLICATIONS					
Total number of development applications received by Council	444	438	248	226	↓
Number of development applications approved	433	376	274	282	↑
ABORIGINAL HERITAGE					
Total number of Aboriginal heritage sites	105	105	105	105	↔
NON ABORIGINAL HERITAGE					
Total number of non-Aboriginal heritage items	478	478	485	485	↔
Number of built items*	437	437	444	444	↔
Number of landscape items*	34	34	34	34	↔
Number of archeological items	16	16	16	16	↔
Heritage conservation areas	11	11	13	13	↔

\*Some items in Mosman are classified as both built and landscape items, therefore the breakdown figures add up to a number greater than the total number of items.

## **RESPONDING TO PLANNING, BUILT ENVIRONMENT & HERITAGE ISSUES – CASE STUDIES**

### **PLANS OF MANAGEMENT:**

New Plans of Management for Parks and Natural Areas (Bushland) were completed and adopted by Council in December 2012. These plans of management outline how community land is used, managed and improved in the future.

### **MOSMAN DESIGN AWARDS**

The Mosman Design Awards were held in early 2013 and showcased quality outcomes in architectural design and built form in Mosman. Architects Michael McCormick and Shahe Simonian won two awards; the 2013 People's Choice Award and Winner of the Built Environment category for 85-87 Bay Street.

Luigi Rosselli won the other award for Excellence in Adaptive Reuse for 15 Lennox Street. The winning designs were well considered solutions to the

particular sites that met the needs of the client, as well as considering the context and amenity of the surrounding area. All entrants must consider how their nomination addresses questions of sustainability. The next Mosman Design Awards will be held in 2015.



### **SUSTAINABLE HOUSE DAY**

In 2012, to celebrate Sustainable House Day, three Mosman households showcased how they had retrofitted their homes to become more sustainable. Features included solar panels, rainwater tanks, edible gardens, cross-ventilation, compost bins, FSC certified timber, double-glazed windows, energy efficient lighting and more. The event gave participants the opportunity to see first hand how small changes can make a big difference. A particular highlight for participants was the opportunity to visit the Mackie Lane community gardens, which highlighted how sustainability can move out from the home into the wider community.

### **VEGE POD, WORM FARM AND COMPOST BINS AT THE DRILL HALL**

Council's volunteer sustainability group, the PIRATES, established a Vege Pod, worm farm and compost bin at the Mosman Drill Hall. The Vege pod has been planted out with snow peas, beans, spinach, herbs and other vegetables. It provides an opportunity for staff to learn about growing their own food and eating seasonally. A worm farm and compost bin were established next to the Vege pod to provide an area to compost food waste and to help make the connection between food waste and recycling nutrients back to the soil.





## 7. ENGAGEMENT & EDUCATION FOR SUSTAINABILITY

EDUCATION	2009/10	2010/11	2011/12	2012/13	Change from previous year
Total number of environmental programs (workshops, events, surveys) delivered to the community.	20	24	20	63	↑
Total number of environmental programs (workshops, events, surveys) delivered to Council staff.	3	4	8	25	↑

### RESPONDING TO ENGAGEMENT & EDUCATION FOR SUSTAINABILITY ISSUES – CASE STUDIES

#### ENVIRONMENTAL FILM CLIPS

Council developed a series of three community environmental film clips to showcase environmental initiatives undertaken by the community and Council within Mosman. The videos covered the topics of community gardening, sustainable living and sustainable Council works. These videos are accessible on Council's YouTube page.

A fourth video was developed for internal use in the training of new Council staff.

#### FISHING CLINICS

Over 55 year old members of the Mosman community were invited to attend a fishing workshop at Clifton Gardens. Under the instruction of George Mannah from the Department of Primary Industries participants learnt how to tie hooks onto their fishing lines, bait the hook and how to correctly measure the length of the fish to ensure it is legal size. Two participants even managed to catch a fish throughout the day. Participants then used the new fish cleaning table installed by Council to learn how to prepare the fish. The workshop provided a strong message on responsible fishing.



#### KAYAK MOSMAN

Twenty Mosman residents participated in the Kayak Mosman event, part of the Living Mosman series of workshops and events. Participants had the opportunity to view the Mosman foreshore from a different perspective, kayaking around Mosman Bay, Little Sirius Cove, Athol Bay, Taylors Bay and Chowder Bay. Participants learnt about our local

marine environment and some of the actions Council has implemented to protect the local environment, in a practical and outdoor setting.

### **STAFF ENVIRONMENTAL LIBRARY**

Council's volunteer sustainability group, the PIRATES, established an environmental library for Council staff. The library contains a range of books on topics such as climate change, vegetable gardening, native wildlife, sustainable cooking and biodiversity. The library will help staff to learn more about environmental issues and provide ideas for staff members to incorporate sustainability into their everyday lives.

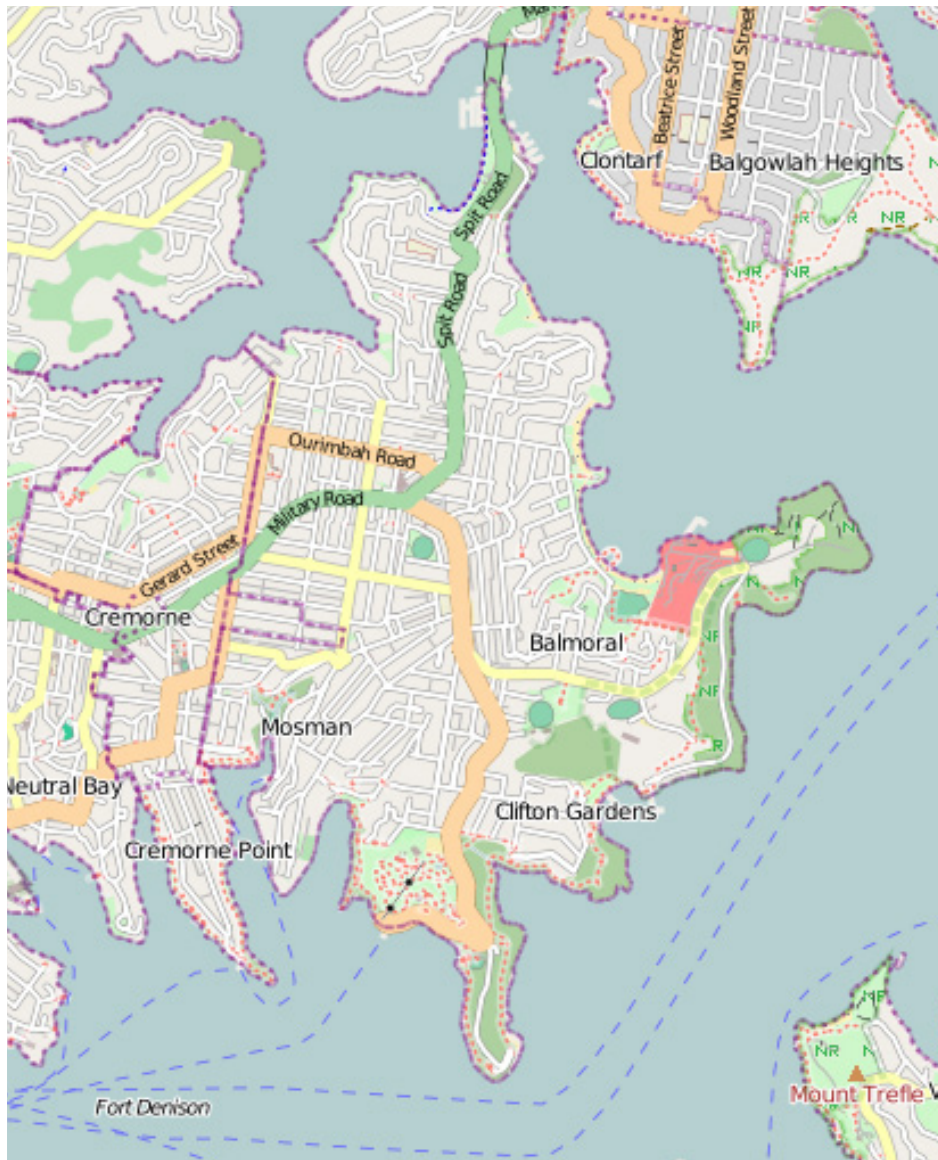
### **STAFF FUROSHIKI WORKSHOP**

One Monday lunch time saw 10 staff from Mosman Council come together to learn the art of Furoshiki (a Japanese gift wrapping technique). Iky (the Furoshiki practitioner) was highly skilled in the art of folding cloth and explained to staff how to wrap wine bottles, CD's and DVD's all with a simple cloth square. The technique was easy to learn and by the end of the workshop everyone was able to wrap the simple shapes put before them. Throughout the session there was a lot of conversation about waste, how the cloths can be reused and how you can make your own square cloths or improvise using scarves, bandanas or material off cuts.

The same group gathered together again the following week to learn new skills and an informal in house only session which was held just before Christmas so participants could practise their skills and prepare for Christmas with waste free wrapping.

### **FUTURE DIRECTIONS**

Mosman Council is committed to protecting the environment and reducing its ecological footprint. The Council will use the data in this report to identify areas where improvements can be made and to formulate strategies to achieve better environmental outcomes in the future.



## FOR MORE INFORMATION

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