

State of the Environment Report 2011–12



Contents

Climate Change
& Air Quality Pg 3

Water Cycle Pg 6

Biodiversity Pg 9

Waste Pg 13

Transport Pg 17

Planning, Built
Environment
& Heritage Pg 20

Engagement &
Education for
Sustainability Pg 23



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 29,414 people. Mosman Council forms part of the Shore Regional Organisation of Councils (SHOROC), which also includes Manly, Warringah and Pittwater.

The Mosman Environment

Mosman has a rich and unique environment with a range of bushland, beaches, wildlife and coastal areas. The dominant vegetation communities in Mosman are Regrowth Sydney Sandstone Gully Forest and Coastal Sandstone Heath. Mosman has 430 identified species of flora, including 3 threatened flora species and 221 identified species of fauna, including 4 threatened fauna species.

Mosman is almost entirely surrounded by water, with 90 percent of the suburb bordered by Sydney Harbour. There are 28 sub-catchments within the LGA due to its irregular and steep topography. Mosman's beaches provide important habitat for aquatic and intertidal organisms. Chinamans Beach contains the last remaining natural dune system associated with a beach in Sydney Harbour. The beach is cleaned manually to minimise disturbance to wrack and to help maintain biodiversity and ecological processes. Chowder Bay contains one of the few remaining seagrass areas in Sydney Harbour. It is home to an array of amazing creatures including the Striped Anglerfish, Horned Cowfish, Potbellied Seahorse, Robust Ghost Pipefish and Port Jackson Shark.

There are a rich array of heritage items within the suburb with 105 Aboriginal heritage sites, 485 non-aboriginal heritage items and 13 heritage conservation areas. Evidence of Aboriginal occupation can be found right across the municipality from the shell middens around Mosman's foreshore to its many rock engravings which feature whales, fish, kangaroos and ancestral beings.

State of the Environment Reporting

A State of the Environment Report (SOE) provides a snapshot of the condition of the environment, pressures impacting on the environment and the Council's response to these pressures. Section 428A of the Local Government Act 1993 provides that a Council must produce an SOE Report in the year in which an ordinary election of Councillors is held.

The SOE Report closely aligns with the environmental objectives set out in Council's Strategic Plan, MOSPLAN. It includes environmental indicators established in MOSPLAN and outlines the strategies and actions Council has taken to protect and enhance our unique environment.



Edwards Beach

Key Focus Areas

The SOE Report focuses on seven key areas identified in MOSPLAN:

Climate Change & Air Quality <ul style="list-style-type: none"> • air pollution • greenhouse gas emissions • responding and adapting to climate change 	Water Cycle <ul style="list-style-type: none"> • water quality • water consumption • stormwater • total catchment management 	Biodiversity <ul style="list-style-type: none"> • plants • animals • micro-organisms • terrestrial, inter-tidal and aquatic habitat • threatened species and communities 	Waste <ul style="list-style-type: none"> • recycling • waste generation • illegal dumping • littering 	Transport <ul style="list-style-type: none"> • cycling • pedestrian facilities • public transport • car sharing 	Planning, Built Environment & Heritage <ul style="list-style-type: none"> • development applications • population • Aboriginal and non-Aboriginal heritage 	Engagement & Education for Sustainability <ul style="list-style-type: none"> • environmental workshops • community attitudes • education campaigns • environmental events • environmental programs
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Climate Change & Air Quality

The atmosphere surrounding the earth consists of a complex balance of gases that supports life. Human 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, changes to our climate system and impacts on human health.

In Council's 2011 Community Environmental Survey residents identified "air pollution/air quality" as the single most important issue facing Mosman.

Air pollution in Mosman comes from a range of sources including:

- Pollution from motor vehicles;
- Recreational and commercial boating;
- Solid fuel burning;
- Lawn mowing;
- Domestic and commercial solvents;
- Fuel combustion; and
- Natural sources such as bushfires.

Climate change is also an important issue for Mosman. As a coastal suburb Mosman will be particularly vulnerable to the effects of rising sea levels which will place pressure on Council's beaches, seawalls, bushland, reserves and coastal properties.



Save Power kit

Objectives

MOSPLAN has identified a number of objectives in relation to climate change and air quality. These include:

- Address climate change through implementing mitigation, adaptation and resilience measures;
- Reduce anthropogenic greenhouse gas (GHG) emissions in Mosman (per capita);
- Improve air quality in Mosman through Council and community action;
- Increase uptake of renewable energy such as GreenPower and solar panels by Mosman Council and the community;
- Provide improved infrastructure and support for sustainable transport in Mosman;
- Minimise land and foreshore degradation and impacts from climate change.

Snapshot of the Local Environment – Indicators

The following indicators measure Council's progress in achieving its objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
AIR QUALITY					
Number of air pollution complaints received by Council	2	3	2	3	—
ENERGY					
Council energy consumption (GJ)	7,441	7,201	7,168	6,711	↓
GHG emissions from Council energy consumption (tonnes CO ₂ -e)	2,002	1,995	1,847	1,733	↓
% Green power purchased for street lighting and primary sites	0	100% 10%	100% 10%	100% 10%	—
Community residential electricity use (MWh)	107,977	104,459	104,820	99,808	↓
Average residential electricity use per household per day (kWh)	21.7	20.9	20.9	19.9	↓

Response – Key Achievements

Council has been working hard to reduce air pollution, minimise greenhouse gas emissions and save energy. Some of our key achievements include:

- Completing stage one and two of our energy efficient lighting retrofit which will help Council save approximately 104 tonnes of GHG emissions and \$14,371 dollars each year;
- Completing a greenhouse gas inventory to measure Council's emissions and help formulate strategies to reduce them;
- Purchasing 100 per cent Greenpower for streetlighting and 10 per cent Greenpower for Council's main buildings;
- Installing solar panels on the Marie Bashir Sports Centre;
- Establishing the Active Transport Working Group which is helping to reduce reliance on private cars;
- Introducing the Mosman Rider bus service which enables residents and visitors to get around Mosman without using a car;
- Holding a computer "Switch Off" campaign for Council staff which achieved a 93 per cent shut down of computers at the end of the day – up from a starting point of 44 per cent;
- Encouraging the use of car sharing in Mosman through the expansion of the GoGet car share scheme.

Case Studies

Council completes a number of programs, strategies and initiatives each year to reduce air pollution and greenhouse gas emissions. The following are some of the case study examples from the 2011–12 financial year.

Energy Management Plan

In 2011 Council adopted a new Energy Management Plan to help reduce energy consumption across Council. The plan outlines strategies and options for improving lighting efficiency, upgrading heating and cooling systems, incorporating energy efficient design into new and refurbished buildings and improving monitoring, reporting and accountability for energy management across the entire organisation. The plan will help Council reduce greenhouse gas emissions and save thousands of dollars in electricity each year.

Greenhouse Gas Inventory

In 2011 Council completed a greenhouse gas inventory to compare emissions with previous years and assist in the establishment of greenhouse gas reduction strategies. The inventory showed that Council's emissions have decreased by 611 tonnes CO₂-e or approximately 12.5 per cent since the base year 1995. Council's main source of emissions is electricity, followed by waste, vehicle fleet, employee commuting and natural gas. A very small percentage of emissions (less than 1 per cent) originates from other sources including on-site fuel use, refrigerant leakage and taxis used for work-related travel.

Save Power Kits at Mosman Library

Council made five Save Power Kits available to borrow through Mosman Library. The kits include a Power Mate Lite to test the power consumption and greenhouse gas emissions of appliances, a thermometer to check the temperature of fridges, a stopwatch to time showers and a compass to work out which rooms and windows face north and west so householders can make the best use of the sun. The kit comes with a guidebook and an action plan to enable each borrower to record results and plan improvements. The kits were developed by the Office of Environment and Heritage as part of the Save Power Program.



Office lighting retrofit

Energy Efficient Lighting Retrofit

Council completed stage two of its energy efficient lighting retrofit, which focused on the downstairs of the Civic Centre, the Seniors Centre, Meals on Wheels and the Aged and Disability Services area. The retrofit involved changing to energy efficient LED lights, which will help the Council save approximately 38 tonnes of greenhouse gas emissions and over \$5,000 in electricity costs each year.



Save Power kit

Water Cycle

Mosman has an array of water assets including beaches, bays, creeks, groundwater, stormwater and potable water. Mosman's waterways provide important habitat for native flora and fauna and are highly valued for their aesthetic and recreational opportunities.

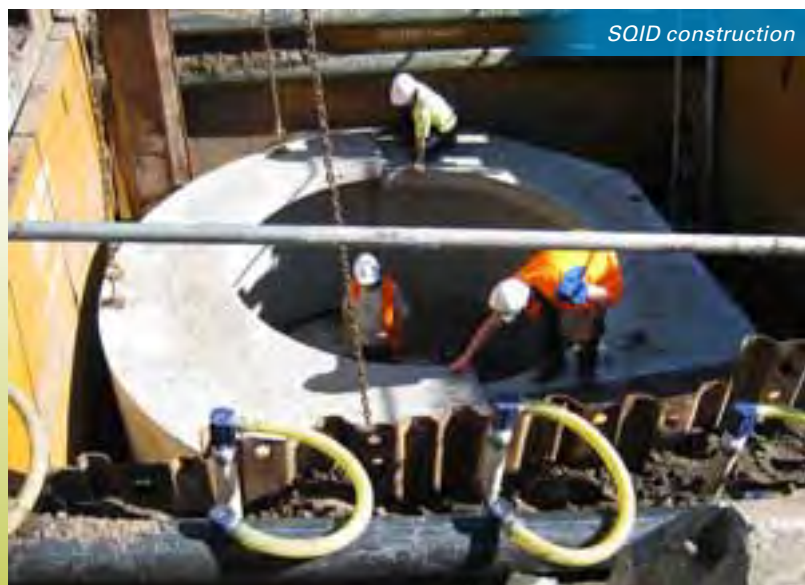
Key pressures on Mosman's water sources and waterways include:

- Stormwater runoff;
- Litter;
- Nutrient rich run-off from gardens;
- Animal waste;
- Water pollution incidents; and
- Increased water consumption due to a growing population.

Objectives

MOSPLAN has identified the following objectives in relation to water cycle management:

- Improve stormwater quality and control stormwater flows to minimise impacts on the terrestrial and aquatic environments, and rehabilitate and improve water quality in Mosman's waterways;
- Implement strategies to reduce consumption of potable water in Mosman.



SQID construction



Rainwater tanks



Snapshot of the Local Environment – Indicators

The following indicators measure Council's progress in achieving its objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
STORMWATER					
Number of Stormwater Quality Improvement Devices (SQIDs)	31	32	32	32	—
Total gross pollutants removed from SQIDs (tonnes)	286	180	300	332	↑
Percentage of the catchment treated by SQIDs	80	88	90	90	—
WATER CONSUMPTION					
Total LGA potable water use (kilolitres)	2,915,400	3,019,243	2,966,059	2,841,397	↓
Total residential potable water use (kilolitres per capita)	86	89	86	81	↓
Total Council potable water use (kilolitres)	48,968	51,818	43,781	46,125	↑

State of the Beaches

Beach	Beach Suitability Grade *
Clifton Gardens	Good
Balmoral Baths	Good
Edwards Beach	Good
Chinamans Beach	Good

*The Beach Suitability Grade indicates whether the microbial water quality is suitable for swimming. Mosman beaches are all graded as good meaning that the water quality is suitable for swimming most of the time but the water may be susceptible to pollution, particularly for up to three days after heavy rain, from a number of potential sources of faecal contamination.

Response – Key Achievements

Council has been working hard to reduce water consumption, improve water quality and implement the principles of total catchment management. Some of our key achievements include:

- Completing a water audit and water saving retrofit of Council buildings with an estimated saving of 936 KL of water each year;
- Preventing over 300 tonnes of gross pollutants from entering our waterways each year through maintenance of Council's Stormwater Quality Improvement Devices;
- Completing major stormwater recycling projects at Balmoral and Rawson Park which help to save millions of litres of potable water each year;
- Completing a restoration project at Balmoral Creek which has reduced erosion, addressed pollution issues and created habitat for native species;
- Conducting stormwater and catchment education programs for school groups and the community.

Case Studies

Water retrofit



Water Efficiency Plan

In 2011 Council adopted a new Water Efficiency Plan to help reduce water consumption across Council. The plan outlines actions to conserve water and strategies to improve monitoring, reporting and accountability for water management across the entire organisation. The plan will help Council save thousands of litres of water each year. Actions to date include retrofitting taps and shower heads with flow restrictors, installing dual flush toilets in the Civic Centre, and installing hands free taps in the Seniors Centre.

Stormwater and Catchment Education Programs

Council partnered with Lands Edge Education Centre at Chowder Bay to present a stormwater education program. Over 220 high school students took part in field excursions to learn about Mosman's stormwater systems and catchments. Students followed the path of stormwater through natural and man made systems including the Balmoral Oval remediation site, the Botanic Road stormwater harvesting and reuse site, The Esplanade stormwater outlets and Rocky Point, where students participated in an underwater litter and sea urchin audit. Through this process students gained a better appreciation of how urbanisation has a direct impact on the quality of our catchments and water in Sydney Harbour.



Stormwater harvesting

Coastal Zone Management Plan

Council engaged a consultant to prepare a Coastal Zone Management Plan (CZMP) for the Mosman LGA. The CZMP will provide the basis for future planning and management of coastal areas in Mosman. The study area covers the entire coastline of Mosman, which extends from Mosman Bay in the south-west to just west of Quakers Hat Bay in the north-west. This includes beaches at The Spit, Chinamans Beach, Edwards Beach, Balmoral and Chowder Bay. The CZMP will describe proposed actions to address priority issues in the coastal zone, including managing public safety and built assets in both sandy beach and rocky cliff areas, pressures on coastal ecosystems, and threats to community uses of the coastal zone (such as threats to public access, recreational use, public amenity and heritage). Key user groups and stakeholders will be consulted during the development of the CZMP.



Biodiversity

Biodiversity is defined as the variety of life forms, the different plants, animals and micro-organisms, the genes they contain, and the ecosystems they form. Biodiversity includes genetic diversity, species diversity and ecosystem diversity. Biodiversity is essential in forming functioning ecosystems which maintain important processes on which all life depends. Mosman has an array of terrestrial, aquatic and intertidal plants, animals, micro-organisms and ecosystems which contribute to our unique biodiversity.

Pressures on Mosman's biodiversity include:

- Altered fire regimes;
- Fragmentation of native bushland;
- Illegal poisoning of trees;
- Illegal dumping of rubbish in bushland areas;
- Spread of invasive weeds;
- Introduced fauna species;
- Plant diseases such as Phytophthora;
- Encroachment of private gardens into native bushland;
- Stormwater discharges into bushland;
- Climate change impacts; and
- Altered intertidal habitat.



Bushcare planting volunteers



Objectives

MOSPLAN has identified a number of objectives in relation to biodiversity. These include:

- Identify, conserve and enhance biodiversity;
- Protect and restore existing remnant indigenous flora and fauna;
- Develop Council's biodiversity management strategy including asset management principles to continue effective biodiversity management;
- Protect, enhance and monitor biological diversity of intertidal and aquatic assemblages through programs and Council operations/services.

Living Mosman

State of the Environment
Report 2011–12

Snapshot of the Local Environment – Indicators

The following indicators measure Council's progress in achieving its objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
BIODIVERSITY CONDITION					
Noxious weed notices	0	0	0	0	—
Noxious weed assessments undertaken	9	18	17	23	↑
Number of registered active bushcare volunteers	87	90	97	102	↑
Bushcare program volunteer hours	2,054	2,550	2,677	2,800	↑
Number of active bushcare groups	17	22	23	17	↓
Percentage of Bushland areas under contract with greater than 90% native vegetation cover	45	45	58	58	—
Total number of native plants supplied to volunteers, contractors and residents	7,234	9,724	9,000	8,500	↓
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	3	0*	0	—
Number of endangered fauna populations	0	0	0	0	—
Number of feral fauna species targeted through programs (e.g. rabbits, foxes, cats)	1	1	1	1	—

* In previous years Australian Government data was used for identifying endangered ecological communities to ensure consistency of data sources with SHOROC Councils. However, in 2010/11 Council's own detailed field assessments did not identify any endangered ecological communities within the Mosman LGA.



Bush regeneration

Response – Key Achievements

Council has been working hard to reduce the threats to Mosman's biodiversity and improve our bushland areas. Some of our key achievements include:

- Increasing the number of Bushcare volunteers to over 100;
- Reducing the percentage of bushland affected by uncontrolled stormwater runoff from 60% to 14%;
- Renewing Mosman's Bushland Restoration Contracts;
- Restoring habitat at Balmoral Creek and Mosman Bay Creek;
- Planting thousands of native trees, grasses, shrubs and groundcovers;
- Removing weeds from bushland areas;
- Creating habitat for intertidal organisms;
- Holding bushland and biodiversity workshops, events and guided walks.

Living Mosman

State of the Environment
Report 2011–12

Case Studies

Underwater Mosman

<http://www.underwatersydney.org/Councils/Mosman.aspx>

A new website was launched to showcase Mosman's unique underwater environment. The website features stories, photos and video clips of some of Mosman's amazing creatures including the Striped Anglerfish, Horned Cowfish, Hump Backed Shrimp, Potbellied Seahorse, Robust Ghost Pipefish and Port Jackson Shark. The website provides a great opportunity for the community to learn more about Mosman's marine animals and the importance of keeping our beaches and waterways clean.



Clockwise from top: Striped Anglerfish; Robust Ghost Pipefish; Port Jackson Shark; Anemone; Pot Bellied Seahorse; Hump-back Shrimp



Native bush rat

Native Bush Rat Project

Council continued to work on a collaborative project with the University of Sydney, Taronga Zoo, the Office of Environment and Heritage, Australian Wildlife Conservation and Rentokil, to remove feral black rats from Mosman bushland areas and to re-introduce native bush rats (Boguls). Bush rats are common on the east coast of Australia, however, the last record of bush rats in Sydney was in 1901. The project has gathered scientific data on the impact that black rats have upon native flora and fauna and determined how best to re-establish native bush rats in natural bushland areas after black rats are removed. The project is expected to improve the ecology of bushland areas, reduce the spread of weeds, increase the growth of native flora and increase the abundance of native fauna such as Tawny Frogmouths, lizards and frogs.

Bushland Restoration Contracts

In April 2012 Council ended its Bushland Restoration Contracts for the period 2001–2011. These contracts were highly successful in restoring Mosman's bushland. At the start of the contracts 25% of bushland had > 90% native vegetation cover. This is now at 58%, which is significant considering the size, shape, location and constant pressures on our bushland sites. The length of the contracts allowed for a consistent work methodology and gave the contractors a sense of ownership and pride in improving the biodiversity, health and long-term sustainability of our bushland areas. With the success of these contracts Council called for tenders for the period 2012–2022. A tender was accepted and a new contract started on the 1 June 2012. The contract focuses on outcomes, rather than prescriptive methodology, and has three performance review periods at year one, four and seven.

Living Mosman

State of the Environment
Report 2011–12

Case Studies

*Native bee***Native Bee Talk**

Approximately 20 participants attended the Native Bee Talk to hear local bee expert, Adrian Lewis, talk about keeping native bees. Native bees are often an unseen part of our wildlife, but most of our suburban gardens are habitat for some species of native bees. The presentation gave an overview of our unseen friends, how they help our gardens, veggies and local bushland and how we can help them to keep helping us. Participants had the opportunity to examine two different hives, which each held thousands of bees, and were able to ask questions about setting up their own hive.

*Creatures at Chinamans Beach***Creatures of the Coast**

As part of the Caring for our Coast program people of all ages were invited to have a close-up look at the creatures of Chinamans Beach and learn about the important role that creatures of the intertidal zone play in coastal ecology. A marine biologist led a walk and talk along the rock platform where participants discovered the array of creatures living in amongst the rocks. Participants learnt about the importance of Chinamans Beach, which contains the last remaining natural dune system in Sydney Harbour, and the steps Council has taken to protect it.

*Restoration of Balmoral Creek**Bushland walk**Bushland at Rosherville Reserve*

Waste

Waste issues are important to Mosman residents. In the latest community environmental survey residents rated “waste generation” and “recycling” in the top three most important issues facing Mosman.

Some of the issues that need to be addressed in waste management include:

- Littering;
- Illegal dumping;
- Incorrect waste disposal;
- Disposal of hazardous materials;
- E-waste;
- Use of plastic bags;
- Over-consumption; and
- Opportunities to avoid, reduce, reuse and recycle.

Council continually strives to improve the waste and recycling services offered to residents, whilst minimising waste generation and maximising resource recovery.

Objectives

MOSPLAN has identified the following objectives in relation to waste:

- Reduce waste generation in the Mosman community and Council facilities, through avoidance, minimisation, reuse and recycling;
- Deliver high quality, cost effective, equitable and environmentally sustainable waste management service;
- Improve systems for toxic and hazardous materials disposal and reduce their use;
- Implement an integrated approach to litter management and minimisation;
- Reduce instances of illegal dumping;
- Implement an ongoing E-Waste management strategy.



Collection and composting of food waste



Snapshot of the Local Environment – Indicators

The following indicators measure Council's progress in achieving its objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
WASTE					
Total waste to landfill, including general cleanup (tonnes)	6,363	6,409	6,382	6,195	↓
Total waste to recycling including paper, co-mingled, metal and green waste (tonnes)	5,567	5,528	5,559	5,613	↑
Total waste to landfill, including general cleanup per capita (kg)	224	223	218	211	↓
Total waste to recycling, including metal and green waste per capita (kg)	196	192	190	191	—
Green waste diverted from landfill per capita (kg)	56	59	59	66	↑
Kerbside Diversion Rate (%)	46.7	46.3	46.6	47.5	↑
Number of Illegal Dumps Reported per annum	315	343	404	402	—

Response – Key Achievements

Council has been working hard to reduce waste in Mosman. Key achievements include:

- Joining with SHOROC as the first local government region in NSW to ban e-waste;
- Adopting a new waste collection system to be rolled out from 2015 which will include collection and composting of food waste;
- Reducing total waste to landfill by over 150 tonnes;
- Providing worm farms and compost bins to residents at subsidised prices;
- Actively encouraging residents to change from a 240L bin to a 120L or 80L in an effort to reduce waste generation;
- Providing residents with domestic waste calendars outlining residential, garbage, recycling and metal clean-up collection dates;
- Conducting a comprehensive community waste audit;
- Promoting waste avoidance and reduction through workshops, events and education campaigns.



Bin sizes



E-Waste

Living Mosman

State of the Environment
Report 2011–12

Case Studies



Worm farm

Worm Farms

In an effort to prevent food scraps from ending up as landfill, Council has been trialing a worm farm in the Council Civic Centre. The worm castings and worm “tea” are used on pot plants within Council to recycle valuable nutrients back into the soil. Council has also been encouraging residents and schools to take up worm farming. Four worm farming workshops were conducted at preschools in the last year. Workshops were designed so children would learn through practical experience with each phase in the workshop coupled with an activity to instil critical concepts. These activities have been well received by both children and teachers.

Mosman Markets Go Plastic Bag Free

In 2011, with the introduction of Mosman’s Sustainable Event Management Policy, the Mosman Village Markets trialed going plastic bag free. Shoppers now take their own reusable bags, significantly reducing their impact on the environment. The market stallholders also provide alternatives to the plastic bag including biodegradable or reusable bags, food containers and cutlery. The initiative has prevented thousands of plastic bags from ending up as landfill or polluting our local beaches and bushland.

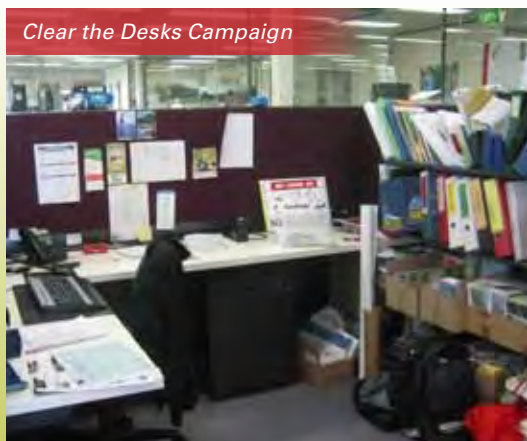
Bring Your Own Bag Campaign



Second Hand Saturday

Second Hand Saturday encourages residents to host garage sales to sell items they no longer need. It promotes reuse and repair, rather than disposal in landfill, and is a great way for residents to meet their neighbours. Council supports residents by advertising in the Mosman Daily and promoting Second Hand Saturdays on Council’s website and through banners and flyers. Twenty Mosman residents participated in Second Hand Saturday over two consecutive weeks. Survey responses indicated all participants would either definitely register again or consider participating in another Second Hand Saturday event.

Clear the Desks Campaign



Clear the Desks Campaign

Council’s volunteer sustainability group, the PIRATES, ran a campaign to encourage Council staff to recycle old paper and documents cluttering up their desk. Staff were reminded about how to recycle paper, cardboard, batteries, ink cartridges, CDs, photographs, binders and other items through a fun and educational film made by the PIRATES. The campaign resulted in thousands of sheets of old office paper finding their way back into the paper recycling stream. The ten staff members who did the best job at cleaning up their desk were rewarded with a beautiful office plant.

Living Mosman

State of the Environment
Report 2011–12

Bread making workshop



Bread Making Workshop

As part of the Love Food Hate Waste program a workshop was conducted on the art of making bread. The workshop was used as a platform to discuss and highlight the problem of food waste in Mosman. There were active discussions within the group about how to reduce food waste and many creative ideas on the use of leftovers. At one point the conversation (without prompting from the facilitator) even evolved to how the oven could be used more effectively to reduce electricity.

Children's Clothes and Toys Swap

In November 2011 Council hosted a children's clothes and toy swap to celebrate National Recycling Week. Children and parents were delighted at being able to swap their old items for an array of stuffed toys, puzzles, games, books, clothes and shoes. The event kept good quality items from ending up in landfill and provided participants with the opportunity to acquire some great second hand items.

Bag It

In October 2011 thirty-five people from the Mosman community and surrounding area came along to see the screening of the film *Bag It* and to hear from Tim Silverwood about his adventures on the Pacific Ocean, researching and documenting the 'Great Pacific Garbage Patch'. The event highlighted the vast amount of plastic used everyday, the health issues associated with plastic, as well as the impact of plastic on the environment, particularly marine life. Each participant was asked to think about their own use of plastic and to write down one action that they could take immediately to reduce their plastic consumption.



Bag It



Love Food Hate Waste Initiative

Love Food Hate Waste

In 2011 Mosman Council acquired a grant with five other Councils to promote the reduction of food waste in households as part of the Office of Environment and Heritage's Love Food Hate Waste Initiative. A set of educational banners targeting adults was created, along with a game and recipe book for young children designed around using leftovers. The banners and game were presented at various workshops and at the Mosman Christmas markets. The game attracted a much wider age range than expected with children participating from 2 to 12 years of age.

Transport

Mosman has regional and arterial roads running through the suburb so traffic congestion and pollution from motor vehicles are major issues.

Key pressures on our transport system include:

- Heavy reliance on private cars;
- Lack of availability of efficient public transport systems;
- Lack of cycling infrastructure, including on and off road bike paths;
- Hilly topography which makes cycling and walking more difficult;
- Traffic congestion, especially in peak hour, due to a large number of vehicles commuting north and south through the suburb.



Spit bike path



Mosman bike rider

Objectives

Some of the MOSPLAN objectives in relation to sustainable transport include:

- Ensure local bus and ferry services are improved so that they become the preferred mode of transport and there is less reliance on private vehicle trips;
- Improved accessibility and safety of pedestrian facilities for the convenience and lifestyle of residents;
- Provide a bicycle network which meets the community needs and the expectations of the residents of Mosman and is an effective part of the regional bicycle network with access to other parts of Sydney;
- Have safe, accessible and effective bus stops and ferry wharfs;
- Have environmentally and economically sustainable public transport that meets the needs of the community, including the level and frequency of services;
- Initiate actions directed at making public transport a preferred mode of transport;
- Have Wynyard Bus Interchange capacity issues identified as a significant barrier to effective public transport to the Northern Beaches;
- No further expansion of the capacity of the Spit/Military Road corridor but relocation of that capacity to give buses priority when needed.

Living Mosman

State of the Environment
Report 2011–12

Snapshot of the Local Environment – Indicators

The following indicators measure Council's progress in achieving its objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
TRANSPORT					
Registered vehicles in Council LGA	17,649	17,967	18,247	18,203	↓
Number of Council fleet vehicles	28	26	29	25	↓
GHG emissions from Council fleet vehicles (tonnes CO ₂ -e)	157	174	185*	163	↓
Number of passenger trips on the Mosman Rider Bus	–	21,404	45,000	49,053	↑
Number of people using the GoGet carshare scheme	–	33	177	359	↑

*These emissions were offset via the Greenfleet program.

Response – Key Achievements

Council has been working hard to reduce reliance on private vehicles and encourage sustainable transport. Key achievements include:

- Establishing the Active Transport Working Group which is working towards improving pedestrian and cycling facilities in Mosman;
- Introducing the Mosman Rider bus service which has more than doubled the number of passenger trips since it commenced;
- Encouraging the use of car sharing in Mosman through the expansion of the GoGet car share scheme from 2 to 5 vehicle spaces, which has significantly increased membership since last year;
- Establishing the Active Mosman website which encourages people to get active and reduce their carbon footprint by walking and cycling;
- Continuing Council's public transport subsidy scheme for staff;
- Holding workshops and events promoting sustainable transport.



Living Mosman

State of the Environment
Report 2011–12

Case Studies

NSW Bike Week Breakfast

To celebrate NSW Bike Week and encourage people to get on their bikes Council hosted a free breakfast for cyclists in September 2011. The breakfast was located on a major cycling commuter route and featured safety information and maps, free reflective slap bands, a saddle survey, fair trade tea and coffee and a delicious and nutritious breakfast. The aim was to raise the profile of bicycle use for local trips and commuting, promote safe cycling, encourage new cyclists, reward those that already cycle, promote local bike routes and create awareness of the benefits of cycling in the community.



Bike Week Breakfast



Military Road traffic

Pedestrian Access and Mobility Plan

Council engaged a consultant to produce a Pedestrian Access and Mobility Plan (PAMP) for Mosman. The PAMP's objective is to focus Council's investment into safe, convenient and coherent pedestrian infrastructure on key routes. Particular attention will be given to the Spit Junction high pedestrian activity area and to the walking route from Spit Junction to Cremorne Junction along Military Rd. The consultants will use these specific designs to draw general principles that could be applied to other pedestrian zones in Mosman.

New Bicycle Lane for Bradleys Head Rd

Council developed a new cycle lane on Bradleys Head Road for northbound cyclists. The new cycle lane will provide enough room for cyclists to ride safely. More cycle lanes are planned for Mosman to help residents use bicycles for local trips such as going to the shops or taking the kids to school.

Active Transport Working Group

The Active Transport Working Group has been working hard to improve cycling and pedestrian facilities in Mosman and encourage residents to use sustainable forms of transport. The group meets every two months to discuss safety and access issues, infrastructure projects, educational and promotional opportunities and how to get more people cycling and walking around Mosman. The group communicates with the wider community through the Active Mosman website, which is the best place to go to learn about active transport issues in the LGA.



Walking and cycling

Planning, Built Environment & Heritage

The Mosman area is characterised by a variety of land uses including residential, commercial, public recreation, national parks and reserves and environmental protection zones.

Key pressures on our built environment, planning and heritage include:

- An increasing population;
- Vandalism and destruction of heritage sites;
- Development pressures;
- Planning for a changing population;
- Erosion or damage of heritage sites from wind, water, sun and human activities;
- Lack of funding to adequately maintain and/or restore heritage items;
- Congestion and noise pollution;
- Adapting to climate change.

Boronia



Objectives

MOSPLAN has identified the following objectives in relation to planning, built environment and heritage:

- A community that has housing choice, additional employment opportunities and an environment that is protected;
- Development that is well designed and environmentally sustainable;
- Development that contributes funds to cater for future infrastructure needs and improvements;
- Contribute to government initiatives and legislative change in the interest of Mosman;
- Develop plans that set the direction for improvements in the public domain of the business centres;
- Provide for a vibrant community hub as an exemplar for sustainable development;
- Undertake programmed improvements for all public open space and improve access to, and along, the foreshore;
- A community that is informed and aware of planning issues in Mosman;
- Provide for a diversity of housing choice to ensure a demographic mix, including 'aging in place';
- Ensure plans make provision for adaptation to climate change and adoption of sustainable lifestyle;
- Conserve Mosman's heritage;
- Increase community awareness of the heritage of Mosman;
- Provide assistance and advice to owners of heritage sites on a regular basis.

Snapshot of the Local Environment – Indicators

The following indicators measure Council's progress in achieving its objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
POPULATION					
Estimated population of LGA at 30 June 2011	28,356	28,767	29,232	29,414	↑
Residential density (persons per hectare)	33.28	33.76	34.31	34.5	↑
NOISE					
General noise complaints received by Council	71	51	56	41	↓
Barking dog complaints received by Council	38	50	35	29	↓
DEVELOPMENT APPLICATIONS					
Total number of development applications received by Council	369	444	438	248	↓
Number of development applications approved	225	433	376	274	↓
ABORIGINAL HERITAGE					
Total number of Aboriginal heritage sites	105	105	105	105	—
NON-ABORIGINAL HERITAGE					
Total number of non-Aboriginal heritage items	478	478	478	485	↑
Number of built items*	437	437	437	444	↑
Number of landscape items*	34	34	34	34	—
Number of archaeological items	16	16	16	16	—
Heritage Conservation Areas	11	11	11	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.



Balmoral Beach Tramshed

Response – Key Achievements

Key achievements include:

- Adopting a new Local Environment Plan, which includes two new heritage conservation areas;
- Restoring the Tramshed at Balmoral Beach;
- Commencing the Spit Junction Masterplan Project;
- Establishing the Mosman Planning website to provide a platform for people to ask questions about planning in Mosman and find out more about current planning projects;
- Holding workshops and events to encourage residents to live more sustainably.

Living Mosman

State of the Environment
Report 2011–12

Case Studies

Environmental Impact Assessment Manual

Council updated its Environmental Impact Assessment Manual and created assessment templates to make it even easier for Council staff to assess the environmental impact of Council developments and activities. The manual and templates will help staff to identify potential environmental issues, adopt environmental safeguards, reduce environmental impacts, improve sustainability and ensure Council complies with its responsibilities under the Environmental Planning and Assessment Act 1979.



*Glover & Nathans Estates
heritage conservation area*

A New Local Environmental Plan for Mosman

The Mosman Local Environmental Plan (LEP) 2012, based on the state government 'Standard Instrument', was adopted in December 2011. The Mosman LEP 2012 now lists two new heritage conservation areas. The Glover and Nathan's Estates Conservation Area contains approximately 300 dwellings with a built form typical of a late nineteenth century Sydney residential subdivision, with some interwar development too. The Local Environmental Plan 2012 maintains the Scenic Protection Area. Any development here must have regard to its visual impact to and from Sydney Harbour, thereby reinforcing the dominance of landscape over built form on the Mosman slopes. Council also condensed its eight Development Control Plans into three – Residential, Business Centres and Open Space / Infrastructure.



Sustainable House Day

**Sustainable House Day**

In 2011 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, honeycomb blinds, energy efficient lighting, electricity monitoring 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 taste home made lemonade made with home grown lemon grass. The three homes were among 300 plus homes that participated in the event Australia-wide.

Engagement & Education For Sustainability

Engaging and educating the Mosman community about sustainability is key to reducing our ecological footprint. Council uses diverse methods to spread the word about sustainability including workshops, events, campaigns, letter box drops, Council's website, Facebook, Twitter, newsletters, local papers and by providing volunteer opportunities for residents.



Exploring Chinamans Beach



In Council's most recent Community Environmental Survey residents were asked the key reasons they did not get more involved in local initiatives such as restoring bushland and protecting wildlife. 45 per cent of people indicated it was due to lack of time; while 34 per cent indicated there was "no reason in particular". Encouraging more people to get involved in sustainability initiatives is a key challenge the Council is addressing.

Objectives

MOSPLAN has identified the following objectives in relation to education and engagement for sustainability.

- Foster long-lasting sustainable behaviours by building the capacity of the Mosman community through effective and integrated engagement and education;
- Build the capacity of Mosman Council to apply and integrate the principles of Ecologically Sustainable Development (ESD) in Council decision-making, policy, planning, operations and service delivery.



Snapshot of the Local Environment – Indicators

The following indicators have been chosen to measure Council's progress in achieving these objectives.

	2008/09	2009/10	2010/11	2011/12	Change from previous year
EDUCATION					
Total number of environmental programs (workshops, events, surveys) delivered to the community	–	20	24	20	↓
Total number of environmental programs (workshops, events, surveys) delivered to Council staff.	–	3	4	8	↑

Response – Key Achievements

Council has been actively encouraging Council staff and the community to become more involved in sustainability and local environmental initiatives. Key achievements include:

- Conducting a Community Environment Survey to better understand the community's environmental perceptions and priorities;
- Establishing a sustainability e-newsletter for Council staff;
- Hosting a series of sustainability workshops and events for the community each year as part of the Living Environment Program;
- Participating in the CEE Change project to help embed sustainability across Council operations;
- Establishing a sustainability e-learning module for Council staff;
- Adopting a Sustainable Event Management Policy for Council and community events;
- Establishing the "Food 4 Thought" lunchtime sustainability workshop, video and lecture series for Council staff.



Case Studies



Mosman Markets

**Sustainable Event Management Policy**

In 2011 Council adopted a Sustainable Event Management Policy to ensure that sustainability principles are applied to the planning, management and implementation of Council and community events. The policy applies to both internal and external events including special events, civic events, forums, conferences, workshops, meetings, the Mosman Markets and the Festival of Mosman. A Sustainable Event Management Checklist, which includes mandatory and recommended actions, must be completed by event organisers to ensure that events meet minimum requirements relating to categories such as water, energy consumption, sustainable transport, waste management and catering.

The Policy also includes the establishment of a Preferred Suppliers List for printing services, stationery, office supplies, catering equipment and food. The preferred suppliers have demonstrated a commitment to sustainability and are able to provide Council and other event organisers with products and services that meet our sustainability criteria.

Staff Sustainability E-Newsletter

In 2011 Mosman Council launched its first sustainability e-newsletter for Council staff. The newsletter provides staff members with sustainability tips, educates staff members about Council's water and energy consumption, highlights the initiatives of Council, lists upcoming environmental events, highlights the individual actions and achievements of staff in helping to make the Council more sustainable and encourages everyone to reduce their ecological footprint. The newsletter is produced on a quarterly basis and has become a popular talking point amongst staff members. This e-newsletter complements the existing community sustainability e-news.

Greening your Apartment Forum

It was standing room only with 45+ residents attending the Greening Your Apartment Building Workshop in April. Hosted by Mosman Council and presented by Green Strata, the workshop provided attendees with up-to-date information about strata law considerations for sustainability, how to reduce energy and water consumption in common areas and recent case studies of where apartment owners have implemented changes for sustainability. Attendees were also given the heads up on Federal Government initiatives for strata properties that will come into effect within the next few years.

Sustainable Business Program

As part of Council's Sustainable Business Program two dry cleaners in Mosman are trialing reusable dry cleaning bags. Dry cleaners go through thousands of plastic bags each year, which end up in landfill. The introduction of reusable bags provides a sustainable alternative. The success of the trial will depend largely on customer support in continuing to bring the bags back for reuse. The chosen bags are stylish, easy to carry and provide great protection for clothing items, so it is hoped that customers will get on board and ensure the success of the trial.

Living Mosman

State of the Environment
Report 2011–12

Mosman's Big Lunch

As part of the Festival of Mosman the Mosman Home Gardeners' Society and Mosman Community Gardeners hosted Mosman's Big Lunch. The lunch was an opportunity for Mosman residents to come together for a friendly picnic lunch to celebrate the local community and encourage households to grow their own food. Participants were encouraged to bring along food containing at least one home-grown ingredient. Council's Environment Team helped out on the day by providing informative displays, conducting a composting demonstration, organising a bush food demonstration, giving away native plants and holding a raffle with a worm farm as first prize.



Mosman's Big Lunch

Living Mosman Living Environment Program

Council again launched the Living Mosman Environment Program. The program includes an array of great workshops and activities designed to help residents learn more about the Mosman environment and ways to live more sustainably. The program is an annual initiative to help educate and engage the community on important topics such as waste, water, energy and biodiversity.

**CEE Change Program**

The Community Education and Engagement Program continued during 2011/12. Council's collaborative network 'the PIRATES' implemented a number of sustainability actions across Council including a Switch off Blitz, improvements to indoor air quality, installation of Vegepods, composting and worm farm systems, and hosted workshops on a variety of topics.

Eleven staff, who had demonstrated an interest and commitment to bringing sustainability into their work and driving organisational change, participated in Sustainability Leadership Training. The first day focussed on leadership styles, exploring collaborative visions, designing projects and peer mentoring. The second day focussed on creating meaningful change, goal setting, communication, lobbying, negotiation skills and leadership at work and within the community. These activities included personal reflection and analysing, mixed small group sessions and individual Council team group sessions.

**Staff Sustainability
E-Learning Module**

To encourage new and existing staff to learn more about sustainability, a sustainability e-learning module was developed. The module provides information about environmental issues in Mosman, environmental policies and plans that staff must be aware of and abide by, and practical advice on how staff can help reduce waste, energy and water consumption across Council and move towards more sustainable forms of transport and purchasing behaviours. The module is designed to be fun and interactive and includes an animated avatar, interactive games, quiz questions and exciting graphics.

Future Directions

This report has provided a snapshot of the pressures placed on the local environment, the condition of Mosman's environment and Council's actions to protect and enhance the local environment. Council will utilise the data in this report to identify areas where further improvements can be made and to formulate strategies, which will be linked to Council's strategic plan MOSPLAN, to achieve better environmental outcomes in the future.

For more information

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Mosman
COUNCIL

