



MOSMAN
STATE OF THE ENVIRONMENT
SCORECARD 2022/2023

The State of the Environment Scorecard 2022-23

Availability

The State of the Environment Scorecard 2022-23 is available on Council's website mosman.nsw.gov.au

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For further information contact

Mosman Council
Civic Centre
573 Military Road
Spit Junction NSW 2088
9978 4000
council@mosman.nsw.gov.au

Mosman
COUNCIL



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Introduction

The Mosman Local Government Area

The Mosman Local Government Area is located 8km north-east of the CBD on Sydney's lower north shore. It is one of Australia's premier suburbs with an unmatched harbourside setting. Occupying some 8.7 sq km, Mosman features stunning bays and beaches punctuated by rugged headlands, sandstone cliffs, bushland areas and foreshore parklands. Mosman's undulating foreshore is approximately 24km in length and is emphasised by more than a dozen headlands. Mosman is home to many popular swimming and recreation beaches and bays including Chinamans, Balmoral The Spit, Cobblers and Clifton Gardens. The majority of the foreshore include significant rocky areas, bushland, including many protected areas, parks and tourist attractions, such as Sydney Harbour National Park and Taronga Zoo.

The population estimate for Mosman Council area as of the 30th June 2022 is 28,123. Since the previous year, the population has declined by 1.20%. Population growth in Greater Sydney was 0.78%. The last census showed the median age of residents 42 years old, children aged 0-14 years account for 17.9% of Mosman's population and people aged 65 years and over equate to 18.8% of the population.

Mosman Council's vision is to preserve and enhance biodiversity, including Mosman's bushland, parks, tree canopy, beaches and marine environment through best practice operational and maintenance programs, infrastructure upgrades, regulatory practice and education campaigns. Council's aim is to also reduce its carbon footprint and minimise its waste to landfill.





State of the Environment Report

This report aims to show that Council is sustainable and is actively managing the use of the local environment whilst conserving and protecting it for the enjoyment of future generations.

The State of the Environment (SOE) Report provides an annual snapshot of the condition of the environment, current impacts on the environment and the Council's response to these impacts.

The 2022-2023 SOE Scorecard summarises key areas of operation and projects undertaken by Council to improve the local environment for residents and visitors alike.

Key Areas

This SOE focuses on seven key areas chosen by the State Government, these include:

- Climate Change and Air Quality
- Total Water Cycle
- Biodiversity
- Waste
- Transport
- Planning, Built Environment and Heritage
- Engagement and Education for Sustainability

Within these areas are a number of standard indicators used to measure change. These indicators align with the goals and objectives of Council's MOSPLAN and allow for change in environmental management to be measured over time.

Climate Change and Air Quality

Air Quality	2019-20	2020-21	2021-22	2022-23	Change from previous year
Number of air pollution complaints received by Council	5	2	15	33*	Up ↑
Energy	2019-20	2020-21	2021-22	2022-23	Change from previous year
Electricity use Council operations (kWh)	1,388,213	1,223,908	994,696	1,106,849	Up ↑
Council energy and consumption (GJ)	6,240	5,594	5,293	5,406**	Up ↑
GHG emissions from Council energy and gas use (tonnes CO ₂ -e)	1,206	1,082	894	20†	Down ↓
Total residential and non residential electricity use for Mosman (MWh)	130,397	130,130	128,574	126,048	Down ↓
Solar generation exported to the grid (MWh)	1,289	2,072	2,620	3,409	Up ↑

*Increase due to customer requests about dust/pollutants from several key building sites

**Attributed to all Council staff return to office post Covid-19.

†Majority of Council's electricity supply is supplied by renewable energy

Council Depot charging station

As part of its commitment to reducing its operational emissions to zero, Mosman Council has been supporting its cleaning contractors to convert petrol powered blowers to battery powered.

A charging station has been established at the Council Depot where batteries are charged by renewable energy sourced from 11 kWh rooftop solar panels and 14 kWh battery storage which were recently installed at the depot.

Mosman Council is encouraging residents to install rooftop solar and convert their home garden tools to electric to reduce noise and minimise environmental impact.

Solar panels and batteries

Solar panels have been installed on Mosman Civic Centre in one of the key conversions to renewable energy for Council's buildings as the organisation's energy use continues to be lowered to meet a target of net zero by 2030.

Solar panels and a battery at Council's Works Depot have also been installed and battery storage for Marie Bashir Sports Hall's solar array was installed in February 2023.

Marie Bashir Sport Centre LED lighting installation

Recently, Mosman Council installed new LED lights to the Marie Bashir Sport Centre (MBSC) to enhance energy efficiency and reduce the carbon footprint of the building. The sports hall was redesigned to deliver 400 Lux, with exceptional uniformity and low glare, exceeding the 300 Lux requirement, making MSBC a top-tier facility for amateur sports events in the municipality. Over 200 lights were installed including internal and external bollard lights. Achieving an overall 63% energy saving and a reduction of 41 tonnes of carbon per year.

Renewable Energy Supply

The large majority of Council electricity supply is through renewable energy purchase through its electricity contract through Southern Sydney Regional Organisation of Councils. The prices which have seen a reduction in cost to Council for its electricity supply also include the cost of Large-scale Generation Certificates (LGC's). These are important when purchasing renewable energy and can be either returned to the retailer or Council can voluntarily surrender them the Clean Energy Regulator. By voluntarily surrendering them Council can claim that its energy is sourced from 100% renewable energy and claim reduced emissions.

Total Water Cycle

Stormwater	2019-20	2020-21	2021-22	2022-23	Change from previous year
Number of gross pollutant traps (GPTs)	35	35	35	35	Stable ↔
Total gross pollutants removed from GPTs (tonnes)	260	350	380	335	Down ↓
Water Consumption	2019-20	2020-21	2021-22	2022-23	Change from previous year
Total LGA potable water use (kilolitres)	3,059,919	3,506,105	2,815,493	2,755,724	Down ↓
Total residential potable water use (kilolitres per capita*)	99	113	85	98	Up ↑
Total Council potable water use (kilolitres)	63,273	48,664	44,991	43,598	Down ↓

* Based on 2022 Estimated Resident Population of 28,123

Infrastructure

Stormwater Quality Improvement Device (SQID) units were installed as part of a comprehensive program of works related to the Community Environmental Contract. To continue benefiting from this infrastructure, SQID units need to be appropriately operated and repaired as required. Due to heavy rainfall events during 2022, some of the infrastructure sustained damage; due to this the majority of funding was spent on repair work.

Mosman Flood Study

Council received and noted a report outlining the current status and projected timeline for completion of the Mosman Flood Study. In June 2023 Manly Hydraulics Laboratory was engaged to assist with the Flood Study project, which will include data collection and modelling of areas that will be flooded, together with options and a plan to reduce flood risk. It is proposed that a Flood Risk Management Committee also be established to assist with the project, together with a Technical Working Group. The project is due to be completed by November 2024, with community consultation to be undertaken in early 2024.



Biodiversity

Biodiversity Condition	2019-20	2020-21	2021-22	2022-23	Change from previous year
*Biosecurity notices	0	0	0	0	Stable ↔
*Biosecurity assessments undertaken	22	15	16	9	Down ↓
Number of registered active bushcare volunteers	95	48	63	55	Down ↓
Bushcare Program volunteer hours	840	1,180	1,500	782	Down ↓
Number of active bushcare groups	18	22	20	20	Stable ↔
Total number of native plants supplied to volunteers, contractors and residents	7,000	12,000	10,500	18,800	Up ↑
Number of native plant species recorded in LGA	490	490	499	499	Stable ↔
Number of threatened flora species	3	3	2	2	Stable ↔
Number of threatened fauna species	5	5	4	4	Stable ↔
Number of endangered ecological communities	2	2	2	2	Stable ↔
Number of endangered fauna populations	0	0	0	0	Stable ↔
Number of feral fauna species targeted through programs (eg. rabbits, foxes, cats)	2	2	2	2	Stable ↔

* Biosecurity notices replace redundant Noxious Weed Legislation

Bushland plantings and renewal

Mosman Council is continually improving biodiversity outcomes through bushland plantings and renewal. Over the past 2022/2023 year Council with the help of local residents and volunteers have planted two sites. Little Ashton Reserve was planted as part of the National Tree Day initiative over 30 local residents assisted with planting in excess of 700 native trees, shrubs and groundcovers. In addition, the upper section of Unmade The Grove was planted out with a selection of endemic native plants to improve the biodiversity of the former garden and grassed areas.

Over the last year further efforts were made to implement advanced tree planting throughout the streets and parks of Mosman. The new trees not only enhance the existing tree avenues but also contribute to the growth of the canopy and habitat trees.

Additional funding for the planning and delivery of these tree planting programs has been provided through grants awarded by the NSW State Government, allowing Council to plant more trees in areas of greater impact. Future tree planting is planned along Military Road, with a specific focus on mitigating the elevated levels of heat generated by extensive roadways and footpaths.

Mosman Living Seawall

The first Living Seawall in Mosman was installed at Ellery Park, near The Spit in 2023. The special modular habitat panels fitted to seawalls increase the surface area for marine life and also provide protective habitats, mimicking features of nature, such as rockpools, crevices and hollows. Living Seawalls encourage species to thrive which improves foreshore water quality and so can also indirectly help enhance recreational activities including swimming, fishing and water sports in and around urban waterways so there is a benefit for humans and marine species alike. Living Seawalls in other parts of Sydney Harbour support at least 36 per cent more species, including invertebrates, seaweed and fish, and increase biodiversity more than plain, unmodified seawalls with similar results expected along the nearby Mosman shorelines. The Sydney Institute of Marine Science Living Seawalls program was funded by Mosman Environmental Foundation's inaugural grants program and supported by Mosman Council.

Waste

Waste	2019-20	2020-21	2021-22	2022-23	Change from previous year
Total waste to landfill, including general cleanup (tonnes)	7,372	6,921	6,996	6,460	Down ↓
Total waste to recycling including paper, co-mingled, metal and green waste (tonnes)	4,613	4,360	4,572	4,070	Down ↓
Total waste to landfill, including general cleanup per capita (kg)	238	223	247	230*	Down ↓
Total waste to recycling, including metal and green waste per capita (kg)	149	141	161	145*	Down ↓
Green waste diverted from landfill per capita (kg)	68	52	62	63	Up ↑
Total e-waste collected (kg)	24,958	23,744	12,888	25,138	Up ↑

* Based on 2022 Estimated Resident Population of 28,123

FOGO study

Mosman Council has been participating in the Northern Sydney Regional Organisation of Councils' study into the financial and greenhouse implications of the NSW Environment Protection Authority's push to institute collection of domestic food waste separately to other mixed/residual waste, either by collecting the food waste with garden organics (known as FOGO - food organics garden organics), or in a separate food organics bin (FO). The study follows trials by NSROC councils last year of such collections, the full report on which is available on NSROC's website.

The NSW EPA's intention in requiring collecting food waste separately to residual waste is that it would reduce greenhouse gas emissions as food waste degrades, in landfill sites, to methane, a potent greenhouse gas. It would also provide a means of increasing resource recovery.

The NSROC council trials found that participants generally did not dispose of the majority of food waste into the FOGO or FO bins - instead, it remained in the mixed/

residual waste bin. In addition, food waste in the garden organics bin increased the level of contamination in that bin (through food packaging and the like), degrading what is usually a high purity organics stream, and separate food waste bins also experienced a significant level of contamination by food packaging.

Mixed/residual waste collected by Council is processed at Woodlawn bioreactor landfill, which captures a high level of the methane produced at the site, meaning that greenhouse gas emissions from waste collected in Mosman are significantly lower than for many other parts of Australia.

Given this context, the purposes of the organics implications study are to determine, from a complex range of factors, the optimal FO or FOGO arrangement for the NSROC area in terms of costs and greenhouse gas emissions reductions, and the cost effectiveness of each option in terms of costs per tonne of carbon dioxide-equivalent emissions averted. Council over the second half of 2023 will be using the model to work out costs and benefits so it can determine best approach for organics collection for Mosman residents in the future.

E-waste

More than 1140 people turned out to drop off their unwanted electronic goods for council's e-waste events last financial year. A wide array of items were dropped off including computers, televisions and an assortment of other products including a few small drones and back pack sized solar panels. There has been a large increase in the number of people walking in items to be dropped off with one lady taking her old TV on the bus to the Mosman drop off point.

Recycling e-waste enables material to be recovered and recycled into new products and avoids potentially environmentally toxic material, such as lead and mercury, going to landfill.

Between e-waste event dates Mosman residents can drop e-waste off for free at the Artarmon Community Recycling Centre or Kimbriki.

Reducing school canteen single-use plastics

Partnering with Mosman Council, NSW Government Better Waste Recycle More and Sherene from Food Nasties allowed Mosman Public School to reduce single-use plastics at their school canteen. Mosman Public had already started reducing single-use plastics and were looking for ideas on how to take the next step. A single-use plastics audit gave a clear picture on how to progress such as eliminating individual serve condiment packing with larger self-serve pouring and squeeze bottles that could later be recycled. Foil wraps were replaced with compostable paper wraps and teachers using the canteen brought their own reusable containers. All of which helped the canteen reduce their single-use plastics by 4,375 pieces in the first year of the Food Nasties Program. Sherene, canteen staff and all the teachers and students using the Mosman Public School canteen did an excellent job using creative problem-solving solutions to reduce single-use plastics and have maintained the path to continuous improvement and best practice.

Importance of Glass Recycling

For Science Week 2022, all classes from Blessed Heart School participated in a workshop about glass. The interactive lesson investigated the raw materials that make glass, the manufacturing process and the many uses of glass in our everyday lives. Once the value of glass was more deeply appreciated we looked towards options to reusing glass. And how recycling manufactures are currently developing better ways to recycle glass and use glass sand (recycled glass) in construction.

Teachers at Bessard Sacrament participated in a teacher only presentation where they were able to have a deeper understanding about the value of glass, the raw materials that make it and the huge amount of energy generated to produce glass. Knowing that sand is the second largest natural resource used in the world and that the type of sand we need for construction and glass manufacturing is rapidly decreasing in availability led to a strong call to action. To avoid taking more than we need in the first instance and to be more creative in how we reuse the resources/items we already have in our possession. Domestic glass collected from Mosman domestic waste bins is currently recycled to create new glass or crushed for construction purposes.





Transport

Transport	2019-20	2020-21	2021-22	2022-23	Change from previous year
Registered vehicles in Council LGA	20,007	19,725	17,828	17,778	Down ↓
Number of Council fleet vehicles	21	21	21	21	Stable ↔
GHG emissions from Council fleet vehicles (tonnes CO2-e)	32.25	35.7	45.67	29.56	Down ↓
Number of carshare members as at 30 June 2023	1,177	1,280	1,596	1,512 [†]	Down ↓

[†]GoGet members only

Electric vehicle

As Mosman's electric vehicle public fast charging network passes another major milestone, saving more than 100,000 kg of CO2 since the chargers' installation, Council is supporting the move through its own vehicles, with its Hyundai Ioniq now sporting a distinctive digital livery in blue.

The fully electric vehicle offers a range of more than 250km after reaching full charge, which takes about 47 minutes when using a fast charger.

Fast chargers

Mosman's fast charger network for electric vehicles expanded from one to three chargers during the 2022/23 financial year as Council continued to support the uptake of electric vehicles. The number of charging sessions averaged 123 per month between July-September 2022, when there was only one charger, and between April-2023, when there were three chargers, the monthly average rose to 699. Total usage is surging, as is use per charger. The number of registered purely electric vehicles garaged in Mosman also rose sharply, from 212 at the end of July 2022 (the earliest available data from the State government) to 425 by the end of June 2023.

The chargers help curb Mosman's carbon footprint as electricity supplied through the charger to electric vehicles is renewable, avoiding the burning of fossil fuels, with usage monitored so that Council can anticipate the expected growth in the use of chargers as more motorists opt for electric vehicles in coming years.

Walking and Cycling Strategy

Council recognises the great importance of walking and cycling as a means of travel and is dedicated to improving walking and cycling infrastructure and education to make Mosman a more liveable and attractive area. Consequently, Council drafted a "Walking and Cycling Strategy", which was placed on public exhibition and finalised as the "Walking and Cycling Strategy 2023-2028", considering community feedback. This Strategy was then endorsed and approved by Council in June 2023.

Informed by the "Walking and Cycling Strategy", Council has begun to develop two programs – "BusWalk", and "Walk to School", which aim to promote walking as an environmentally and community conscious alternative to driving. Mosman is fortunate to be serviced by an extensive bus network. The aim of the "BusWalk" initiative is to promote the combination of walking and bus-riding as a transport method within Mosman and beyond. The promotion is intended to commence summer 2023/2024. "Walk to school" is a program intended to encourage walking as a method of travel for Mosman school-students. At this stage Council is engaging a consultant to conduct an audit of existing pedestrian infrastructure to identify safety and infrastructure issues and improvement opportunities.



Planning, Built Environment and Heritage

Population	2019-20	2020-21	2021-22	2022-23	Change from previous year
Estimated population of LGA – at 30 June (ERP)	30,981*	30,981	28,329	28,123	Down ↓
Residential density (persons per hectare)	35.80	35.80	32.56	32.47	Down ↓
Noise	2019-20	2020-21	2021-22	2022-23	Change from previous year
General noise complaints received by Council	112	82	103	91	Down ↓
Barking dog complaints received by Council	60	62	35	48	Up ↑
Development Applications	2019-20	2020-21	2021-22	2022-23	Change from previous year
Total number of development applications received by Council	152	229	206	221	Up ↑
Number of development applications approved	118	180	168	182	Up ↑
Aboriginal Heritage	2019-20	2020-21	2021-22	2022-23	Change from previous year
Total number of Aboriginal heritage sites	105	105	105	105	Stable ↔
Non Aboriginal Heritage	2019-20	2020-21	2021-22	2022-23	Change from previous year
Total number of non-Aboriginal heritage items	481	481	481	481	Stable ↔
Number of built items	445	445	445	445	Stable ↔
Number of landscape items	34	34	34	34	Stable ↔
Number of archeological items	10	10	10	10	Stable ↔
Heritage conservation areas	13	13	13	13	Stable ↔

Our Community

Mosman is home to approximately 28,123 residents, having experienced a small decline in population in recent years. The local population is forecast to remain relatively stable, with the most significant demographic shifts expected to be in the age structure of the population as the proportion of residents aged 60 and over continues to grow.

Bushland Unmade Road Reserve Zoning Review

Mosman Council considered a review the zoning of unmade road reserves under Mosman's Local Environmental Plan following release of the Mosman Flora and Fauna Study 2022. Whilst the review did not recommend rezoning of any sites, five sites were assessed as having a medium priority for conservation. Council resolved to reassess these five sites with the next flora and fauna study and that in the intervening period that Council staff endeavour to improve the environmental qualities of the sites before the next flora and fauna study in approximately five years.

Engagement and Education for Sustainability

Education	2019-20	2020-21	2021-22	2022-23	Change from previous year
Total number of environmental programs (workshops, events, surveys) delivered to the community.	40	46	46	52	Up ↑
Total number of environmental programs (workshops, events, surveys) delivered to Council staff.	6	3	6	10	Up ↑
Number of HarbourCare volunteers	29	3	39	29	Down ↓

Climate Action Community Consultative Committee

The Climate Action Community Consultative Committee was established in October 2020 to provide advice and recommendations to Council to assist in Climate Action by Council and its Community. The Committee meets four times a year and has helped in the preparation and updates of Council's two strategic documents in response to climate change the 'Climate Action Plan - Mitigation Strategy' and the 'Climate Action Plan - Resilience and Adaptation Strategy'. The Committee also provides advice and/or recommendations facilitating community action around climate change.

Workshops

Mosman Council hosted environmental workshops and events for residents throughout the year. Workshops in the last year focussed more on resilience and climate change. Aiming to ensure residents were aware of different pathways and resources available to decrease household emissions and at the same time ensuring Council decreased their own greenhouse gas emission footprint. Resources promoted included Green Power, Sunspot and methods to improve thermal comfort within the home that reduced energy consumption. Other workshops encouraged people to look towards creating pollinator friendly gardens and increase waste avoidance practices. Take 3 lead the Seaside Scavenger for Mosman Council for the first time on the 18 September 2022. The Seaside Scavenger being an event that facilitates the clean up of a beach area whilst at the same time providing a festive atmosphere incorporating music, speakers and stalls based on sustainable initiatives. Over 400 people interacted with the event. Approximately 150 people, adults and children alike participated in the clean-up of Balmoral Beach and Reserve with 74% of registered participants never having participated in a beach clean-up previously.

Separate to the workshop series people in multi-unit dwellings still have access to the Mosman Apartment and Strata Saving Program which offers a free sustainability assessment to the public areas of their building (conditions apply). Eight hundred and seventeen (817) strata buildings have been mapped by Wattblock to be part of the Saul Griffith's Electrify Mosman 2088. Current trends provided by Domain.com.au show strata building adopting energy saving technologies above and beyond LED lighting upgrades are seeing an uplift in property valuations. Information about our current workshops and events are available on the Events Mosman website.

Zero Emissions Schools Network

Zero Emissions Schools Network continued through the 22/23 financial year. A celebration of all the sustainable goals the local schools achieved was held in November 2023 at Sydney's Taronga Zoo. Collectively the students did some amazing work. Projects entailed composting, waste free canteens, the conversion of an old petrol van to an electric vehicle and the installation of beautiful wall and roof top gardens. The exchange of ideas and embracing the sharing of knowledge has created a well spring of sustainable action. The network helps schools save money, reduce greenhouse gas emissions and embrace climate solutions.

Future Directions

Mosman Council is committed to protecting the environment and has set a net zero target by 2030 for Council operations.

Future directions include

- Update of Council's strategic response to climate – the Climate Action Plans
- Continuation of the Climate Action Community Consultative Committee
- Investigate operational implications for Food Organic source separation and processing from domestic waste bins
- Increase street tree planting to increase canopy cover in areas susceptible to urban heat island effect
- Expand the HarbourCare and BushCare programs and encourage foreshore community engagement and connectiveness based on environmental protection works
- Continue bushland restoration works including increase in 90%+ native vegetation cover for bushland and unmade road sites
- Install further EV fast charging stations, subject to funding
- Community education and collaboration
- Continue support and promotion of State Governments Single Use Plastic Ban
- Mosman Art Gallery upgrades to improve energy efficiency
- MOU with Ausgrid to accelerate replacement of main street lights to LED
- Energy efficiency audits for Civic Centre and Library buildings
- Investigate heating and cooling improvements for Drill Hall building
- Transition all electricity supply contracts to Council's renewable energy contract

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