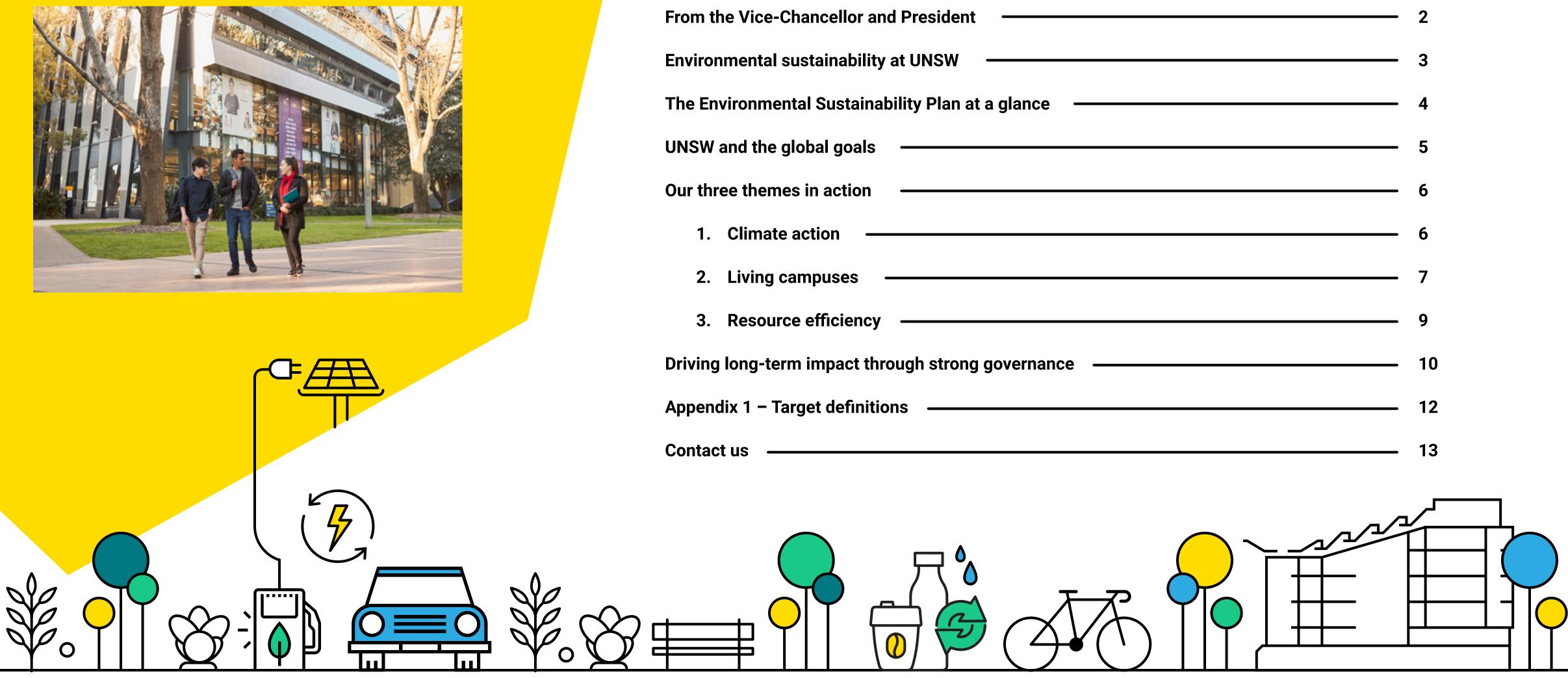


Environmental Sustainability Plan 2022-24

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From the Vice-Chancellor and President



Global momentum is building for climate action in recognition of the need to act if we want to ensure a liveable future.

The UNSW Environmental Sustainability Plan 2022-24 acknowledges that our planet is at a critical point, with the window to tackle the existential threats of climate change and nature loss closing rapidly.

Despite the challenges presented by the global COVID-19 pandemic for some environmental sustainability initiatives, we made significant progress under the Environmental Sustainability Plan 2019-21. This included introducing plastic-free dining and new recycling systems, switching to 100% solar renewable electricity, achieving net zero operational emissions, and setting out a pathway to tackle our total emissions in line with global efforts to limit temperature increase to 1.5°C.

Our plan for the next three years is informed by a survey and discussions with students and staff. as well as benchmarking our performance against leading peers, steering committee meetings, and engaging stakeholders outside UNSW.

This allowed us to focus the plan on where we can make a difference and to identify the issues that our community cares most about.

We now explicitly recognise the value of nature with a new emphasis on biodiversity, including a commitment to turn UNSW's 39,000-hectare Fowlers Gap Arid Zone Research Station in western NSW into a dedicated conservation site.

We will also phase out single-use plastics and target our indirect emissions by working with suppliers, employees and other stakeholders to tackle emissions that are outside our control, such as those from our supply chain and investment activities. Understanding and reducing these emissions is complex and requires deep collaboration with our suppliers and wider community.

Our pursuit of circular economy principles offers a major opportunity to tackle natural resource use, climate change and biodiversity loss.

I am proud to support UNSW's Environmental Sustainability Plan 2022-24 and its urgent call to action by our University's community. Together, we can make a difference by contributing to the initiatives in this plan.

Best regards

Professor Attila Brungs Vice-Chancellor and President UNSW Sydney





Environmental sustainability at UNSW

UNSW is committed to continuously improving environmental performance across our operations. From the way we plan, construct, operate and power our buildings, to how we reduce and manage waste and travel to and around our campuses – we're always looking at ways to reduce our impact on the environment.

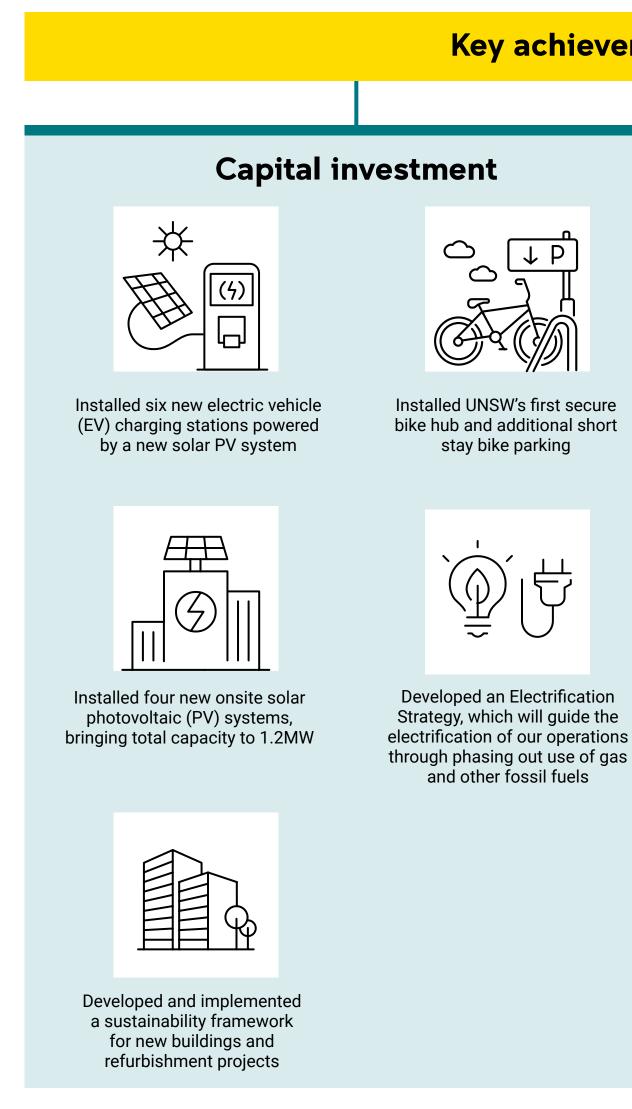
UNSW Sydney is an education and research-intensive university, which delivers outstanding teaching alongside cutting-edge research. Established in 1949 and with campuses in Sydney and Canberra, UNSW is principally focused on the scientific, technological, and professional disciplines.

UNSW Sydney's 2025 Strategy Update was released in 2020 and included a new focus on tackling real-world problems by aligning with the United Nations Sustainable Development Goals (SDGs). The Environmental Sustainability Plan is identified in the 2025 Strategy Update as a key strategic initiative through which UNSW aims to contribute to a more sustainable natural environment.

The development and implementation of the Environmental Sustainability Plan is led by the Environmental Sustainability unit, Estate Management in the Division of Operations, in collaboration with staff and students across UNSW faculties and divisions. Other key delivery units include Procure to Pay, Treasury, Insurance and Investment Services, and the Office of the Pro Vice-Chancellor Education and Student Experience (PVC-ESE).

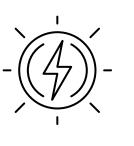
Our Environmental Sustainability Plan 2022-24 deepens our commitment to environmental sustainability

Through the Environmental Sustainability Plan 2022-24 we are deepening our commitment to environmental sustainability. We have streamlined our approach by consolidating the previous ten focus areas into seven. To support this, we have reduced the number of targets from 22 to 13, and the number of key initiatives from 40 to 16. The intent of these changes is to sharpen focus on our top priorities, improve agility and improve communication with our stakeholders, rather than attempting to define every initiative that we will action. This ensures we are focusing our resources where we can make the biggest difference.



Key achievements of our Sustainability Plan 2019-21

Campus operations



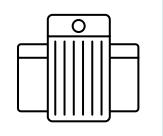
Became the first university in Australia to switch to 100% solar renewable electricity in 2020



Implemented a range of energy and water efficiency initiatives including smart building systems, optimising controls and settings to improve user comfort and energy efficiency



Installed 10 new water refill stations at Kensington and Paddington campuses



Developed a Waste Management Plan and implemented new waste segregation systems in office and external areas



Developed and launched a plan to phase out single-use plastics from campus retail dining services

Engagement



Committed to reduce total value chain (scope 1, 2 and 3) emissions in line with global efforts to limit global temperature rise to 1.5°C



Completed and launched the SDG Toolkit and SDG Module to enable UNSW academics to integrate sustainability thinking into their courses



Completed a successful pilot of the Laboratory Efficiency Assessment Framework (LEAF)



The Environmental Sustainability Plan 2022-24 at a glance

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UNSW's Environmental Sustainability Policy is the foundation of our Environmental Sustainability Plan. The three themes that support this foundation – *Climate action*, *Living campuses* and *Resource efficiency* – guide our strategic planning and contribution to the Sustainable Development Goals (SDGs). To deliver on these ambitious themes, we have identified seven focus areas, which are supported by targets and key initiatives.



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Climate action

Take urgent action to achieve net zero emission across our operations ar value chain.

Page 6

Living campuses

Create healthy, resilient places for learning and research where people and nature thrive.

Page 7

Resource efficiency

Conserve resources by reducing consumption prioritising reuse and responsibly managing waste.

Page 9

	Focus area		Targets ¹	Key initiatives
o ons	Operational emissions		 Maintain net zero operational (scope 1 and 2) emissions Increase onsite solar PV capacity to 1.5MWp 	 Implement Stage 1 of the Electrification S Procure 100% renewable electricity
and	Partnering for net zero		 Reduce total (scope 1, 2 and 3) emissions by 30% by 2025, 50% by 2030 and to net zero by 2050² Divest investments in fossil fuel companies³ 	 Complete a climate risk assessment Complete and implement the Net Zero Str Maintain the Responsible Investment Fran Maintain the Sustainable Procurement Framework
	Buildings and campuses		 Capital projects achieve our minimum sustainability requirements Kensington campus achieves a net gain in biodiversity value 	 Establish a biodiversity value metric and b Establish Fowlers Gap Arid Zone Research Station as a dedicated conservation site Maintain the Capital Projects Sustainabilit Framework Maintain the Strategic Asset Management
nt id le	Engagement and integration		 Increase student and staff awareness of environmental sustainability issues 	 Implement the Laboratory Efficiency Assessment Framework Maintain and promote the SDG Toolkit and Modules
	Travel and transport		 At least 85% of students and staff travel to campus by sustainable travel modes 	 Develop and implement an active travel masterplan
	Energy and water		 Reduce energy intensity by 5% Reduce water intensity by 5% 	 Maintain and implement the Energy and Water Action Plan
oy n, d g	Waste and recycling		 Divert at least 85% of general waste⁴ from landfill Reduce general waste by 20% At least 80% of retailers achieve Plastic Free Dining gold award status 	 Maintain and implement the Waste Management Plan Maintain and implement Plastic Free Dinir
	1 Target year is 2025 (i.e., will be measured based on fu	ull year 202	4 performance) unless stated otherwise. Target scope and baseline detail	s are shown in Appendix 1.

2 Emission reduction target will be periodically reviewed, and updates recommended so that it continues to align with best practice and reflects maximum effort towards limiting temperature increase to 1.5°C.
3 Includes direct ownership and commingled funds that include public equities and corporate bonds of companies who derive over 20% of their revenue from ownership and exploitation of fossil fuel reserves.
4 General waste includes waste from internal areas (burgundy, red, yellow and blue bins) and external areas (burgundy, white and red bins).

Strategy

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UNSW and the global goals

The 2030 Agenda for Sustainable Development, adopted by all UN member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 SDGs, which aim to tackle the world's most pressing challenges by 2030 – including ending poverty, delivering more equitable prosperity, and protecting the planet.

Universities have a critical role to play in the achievement of the SDGs. The Environmental Sustainability Plan supports UNSW's contribution to the following seven SDGs and their associated targets. Since 2019 UNSW has participated in the Times Higher Education Impact Rankings, which aim to measure global university contributions towards the SDGs. The Environmental Sustainability Plan and initiatives contribute to the submissions under SDGs 4, 6, 7, 11, 12, 13 and 15.



Climate action



- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

UNSW's vision is to improve lives globally, through innovative research, transformative education, and commitment to a just society. Through the UNSW 2025 Strategy, UNSW aims to align its efforts with the United Nations Sustainable Development Goals.

Living campuses

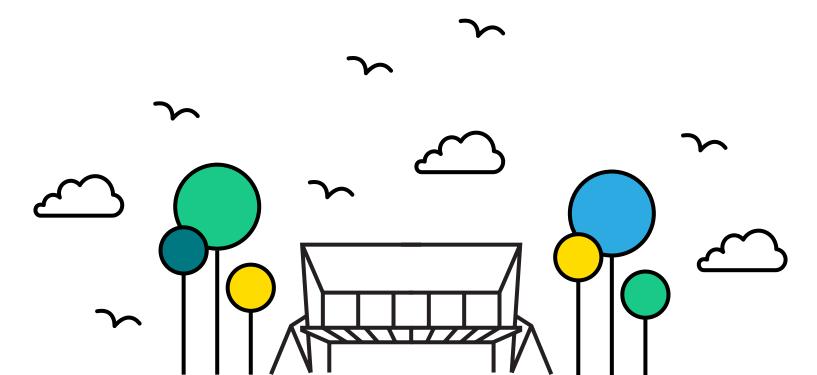


- 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development.
- 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.
- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

Resource efficiency



- 6.4 By 2030, substantially increase water use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 7.3 By 2030, double the global rate of improvement in energy efficiency.
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.
- 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.



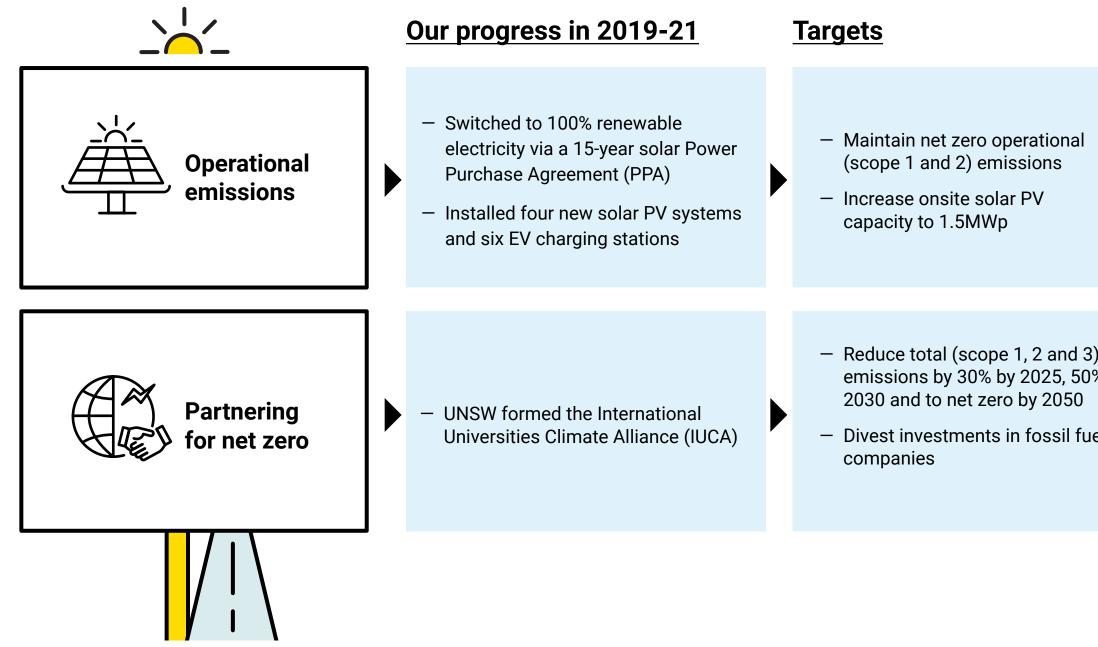


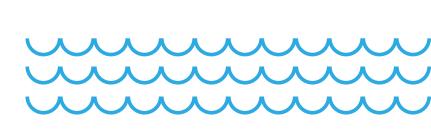




UNSW

<u>Goal:</u> Take urgent action to achieve net zero emissions across our operations and value chain.





Why this matters

Tackling climate change is a top environmental sustainability priority for our students, staff, and communities. Our *Climate action* theme includes measures to reduce operational (scope 1 and 2) emissions such as transitioning to renewable energy and electrifying our campuses, as well as reducing value chain (scope 3) emissions by engaging with our key suppliers and divesting from fossil fuel investment holdings.

How we are responding

Our approach is underpinned by a comprehensive annual inventory of our greenhouse gas emissions undertaken since 2018, and our target to reduce total emissions in line with efforts to limit temperature increase to 1.5° C, the goal of the Paris Agreement. We will continue to monitor our performance and review our target to ensure it reflects best practice and maximum effort towards – or beyond a fair share of – the necessary 50% global emission reduction by 2030 identified in the IPCC Special Report on Global Warming of 1.5° C.

Value chain emissions result from activities such as construction, procurement, travel, and investment activities over which an organisation does not have direct control. Tracking and reducing these emissions is highly complex. Through our Net Zero Strategy, developed in 2020 and 2021, we will actively engage with students and staff, suppliers, and other partners to reduce indirect emissions.

Key activities

	 Implement Ctage 1 of the
	 Implement Stage 1 of the Electrification Strategy
	 Procure 100% renewable electricity
2)	– Complete a climate risk assessment
3))% by	 Complete and implement the Net Zero Strategy
uel	 Maintain the Responsible Investment Framework
	 Maintain the Sustainable Procurement Framework

Alignment with UNSW Sydney's 2025 Strategy Update

- Theme 3 Sustainable
 Development, Objective 2: Reduce our environmental footprint by using natural resources more efficiently and reducing waste.
- Enabler 5 Ensure our Financial Stability, Objective 3: Be known as a leader in responsible investment management.
- To learn more, visit our website

How we contribute to the SDGs

Our activities in these two focus areas contribute to the following SDGs:

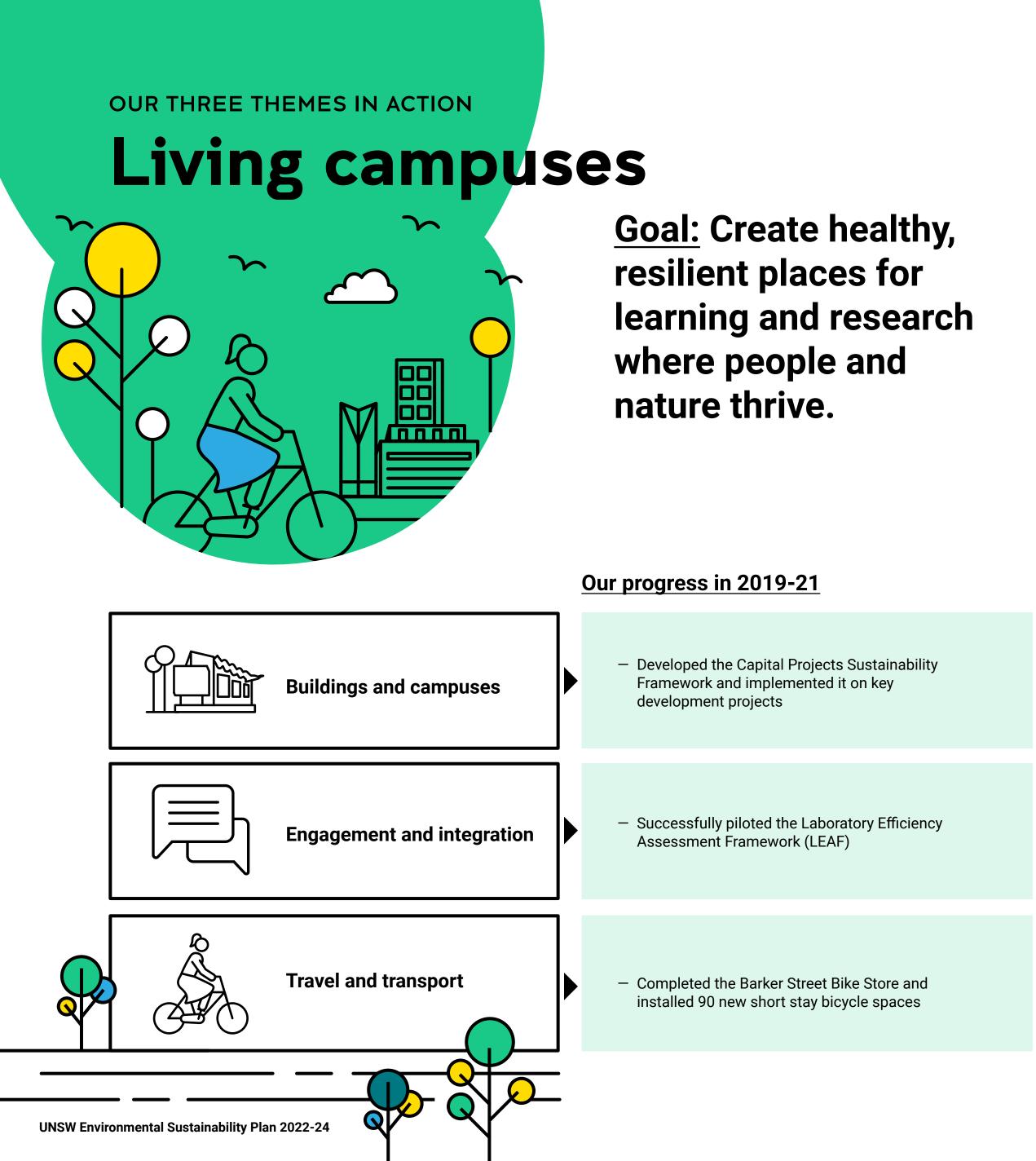


In particular, SDG targets 7.2 and 13.3









Why this matters

We aim to support active lifestyles, conserve ecosystems, and enable students and staff to connect with nature through our *Living campuses* theme. This connection not only benefits the people who interact with our campuses and field stations, but also the wildlife and ecosystems which call our spaces home. Many of our students and staff are already highly engaged in environmental sustainability issues and their time at UNSW can help prepare them to contribute to a better world.

How we are responding

Living campuses includes how we design and construct buildings and infrastructure, manage green spaces, how our students and staff travel to our campuses, and how we engage students and staff in environmental sustainability issues and behaviours. On campus, the SDG Modules and SDG Toolkit supports our educators to integrate sustainability thinking into their course content. The Laboratory **Environmental Assessment Framework** (LEAF) will also be expanded following a 2021 pilot to engage laboratory users in sustainable practices to save energy, water and waste. Beyond our campuses, UNSW has committed to transforming

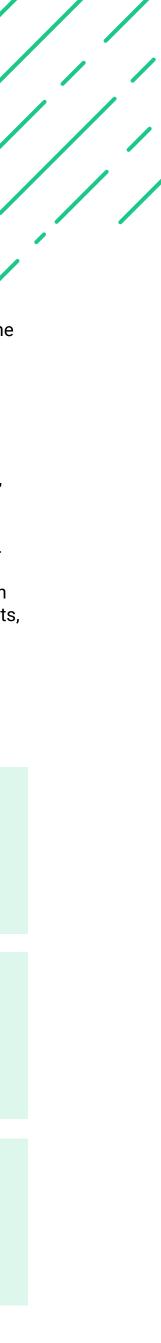
the 39,000 hectare Fowlers Gap Arid Zone Research Station in western NSW from a sheep station into a dedicated site for ecological conservation and restoration.

We are also focusing on optimising the use of existing assets throughout their life cycle. When new assets are required, our minimum sustainability standards (detailed on page 8) and the Capital Projects Sustainability Framework apply. The planning of our campuses is led by Estate Management in collaboration with UNSW faculties and divisions, consultants, contractors, government bodies and the wider community.

Targets

Key activities

 New build and refurbishment projects achieve our minimum sustainability requirements Kensington campus achieves a net gain in biodiversity value 	 Establish a biodiversity value metric and baseline Establish Fowlers Gap Arid Zone Research Station as a dedicated conservation site Maintain the Capital Projects Sustainability Framework Maintain the Strategic Asset Management Plan
 Increase student and staff awareness of environmental sustainability issues 	 Implement the Laboratory Efficiency Assessment Framework Maintain and promote the SDG Toolkit and SDG Modules
 At least 85% of students and staff travel to campus by sustainable travel modes 	– Develop and implement an active travel masterplan



OUR THREE THEMES IN ACTION

Living campuses

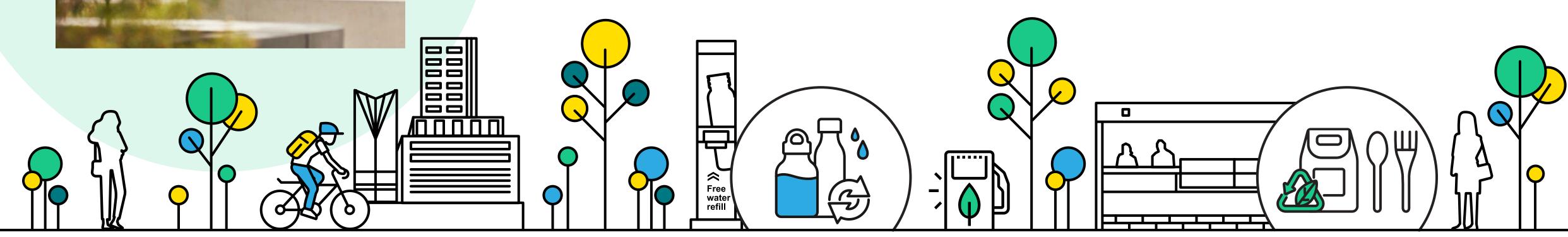
CONTINUED



Minimum sustainability standards for capital projects delivered by UNSW¹:

- New buildings and major refurbishments to achieve minimum 5 Green Star Buildings (or equivalent measurable standard aligned to its use).
- New buildings to achieve 5.5 NABERS Energy performance when applicable, or a 20% improvement compared to an allelectric reference building when NABERS is not applicable.
- New buildings to achieve 5.5 NABERS Water performance when applicable, or a 20% improvement compared to a reference building when NABERS is not applicable.
- New buildings to have onsite renewable energy generation capacity and be allelectric, producing net zero emissions in operation.

1 Applies to new buildings and refurbishment projects delivered by UNSW, where UNSW has operational control over the space.



- 30% reduction in embodied carbon compared to a reference building. - Ensure that all planting schemes use a
 - minimum of 90% native species, with a preference for local and drought-tolerant species.

New buildings to achieve a minimum

- All new water consuming fittings and appliances (including toilets, taps and shower heads) should have a minimum 5-Star WELS rating.
- Achieve minimum 90% construction & demolition waste diverted from landfill.

Alignment with UNSW Sydney's 2025 Strategy Update

- Enabler 4 Enhance our Campuses, Objective 3: Position our campuses and the activities they support as leaders in sustainability practices by minimising our environmental footprint and improving resource efficiency.
- Enabler 4 Enhance our Campuses, Objective 4: Create a modern campus that is resilient to environmental changes such as heatwaves and storms.

To learn more, visit our <u>website</u>

How we contribute to the SDGs

Our activities in these three focus areas contribute to the following SDGs:



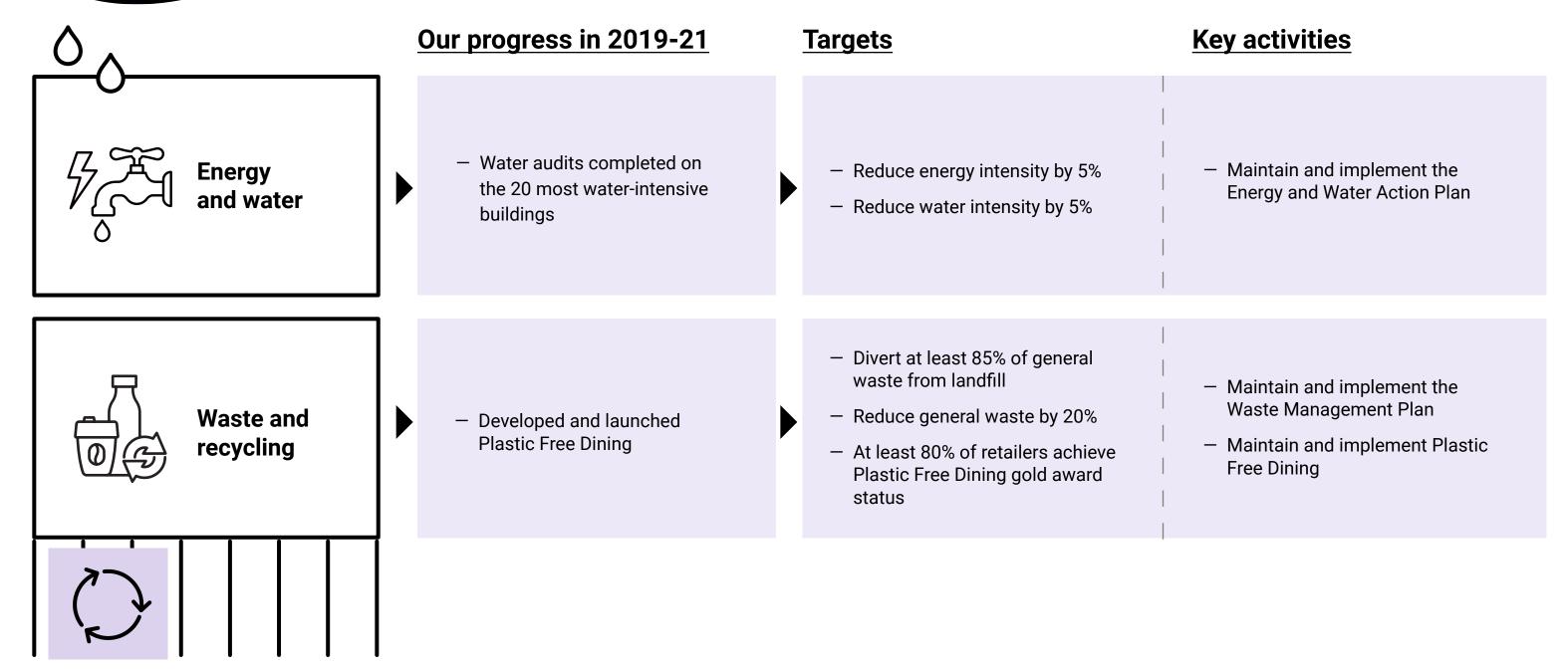
In particular, SDG targets 4.7, 11.2, 12.2, 15.1



OUR THREE THEMES IN ACTION

Resource efficiency

Goal: Conserve resources by reducing consumption, prioritising reuse and managing waste responsibly.



UNSW Environmental Sustainability Plan 2022-24

Why this matters

University campuses and activities are significant consumers of energy, water, and other natural resources. Our Resource *efficiency* theme includes programs to optimise energy and water efficiency of buildings, promote reuse over singleuse and improve our recycling systems. By minimising waste and improving waste systems and behaviours, we aim to conserve natural resources, minimise contamination, make cost savings and support sustainable waste management practices amongst our students and staff.

How we are responding

Energy and water efficiency initiatives and waste management systems are managed by Estate Management in collaboration with contractors and the wider student and staff community. We aim to promote reuse and eliminate single-use plastics from campus through Plastic Free Dining and associated communication activities. Our Waste Management Plan guides improvements to our recycling systems, our efforts to improve waste segregation behaviours and reuse initiatives such as the furniture reuse program.

Alignment with UNSW Sydney's 2025 Strategy Update

- Theme 3 Sustainable Development, Objective 2: Reduce our environmental footprint by using natural resources more efficiently and reducing waste
- Enabler 4 Enhance our Campuses, Objective 3: Position our campuses as leaders in sustainability practices by minimising our environmental footprint and improving resource efficiency.

To learn more, visit our website

How we contribute to the SDGs

Our activities in these two focus areas contribute to the following SDGs:



In particular, SDG targets 6.4, 7.3, 12.2, 12.3, 12.5













Driving long-term impact through strong governance



Implementing our key initiatives and activities

The senior sponsor for the Environmental Sustainability Plan 2022-24 is the Vice-President, Operations. The role of the senior sponsor is to provide visible senior commitment in support of the initiative and to ensure that sufficient resources are in place to successfully implement it.

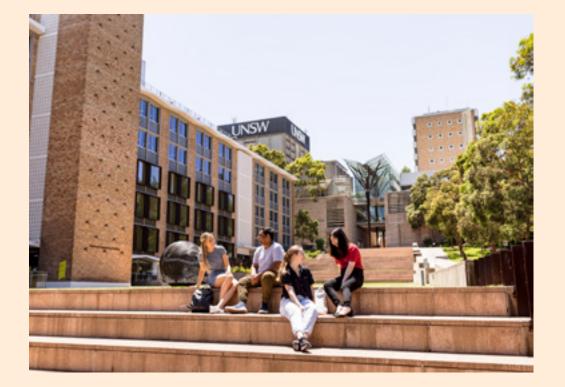
ESP theme	Key initiatives and activities	Who is accountable		
	Implement Stage 1 of the Electrification Strategy	Director, Facilities Management		
Climate	Procure 100% renewable electricity	Director, Facilities Management		
action	Complete a climate risk assessment	Head of Environmental Sustainability		
	Complete and implement the Net Zero Strategy	Head of Environmental Sustainability		
	Maintain and implement the Responsible Investment Framework	Director Treasury, Investment & Insurance		
	Maintain and implement the Sustainable Procurement Framework	Director, Procure to Pay		
	Establish a biodiversity value metric and baseline	Head of Environmental Sustainability		
Living campuses	Establish Fowlers Gap Arid Zone Research Station as a dedicated conservation site	Chief Property Officer		
	Maintain and implement the Capital Projects Sustainability Framework	Head of Environmental Sustainability & Director, Development		
	Maintain and implement the Strategic Asset Management Plan	Director, Asset Management		
	Implement the Laboratory Efficiency Assessment Framework	Head of Environmental Sustainability		
	Maintain and promote the SDG Toolkit and SDG Modules	Manager, Academic Development Programs		
	Develop and implement an active travel masterplan	Director, Development		
	Maintain and implement the Energy and Water Action Plan	Director, Facilities Management		
Resource efficiency	Maintain and implement the Waste Management Plan	Director, Facilities Management		
	Maintain and implement Plastic Free Dining	Head of Environmental Sustainability & Director, Asset Management		



Overall responsibility for coordinating the key activities detailed in the Environmental Sustainability Plan 2022-24 rests with the Head of Environmental Sustainability, Estate Management. The individuals accountable for the planning and delivery of the key initiatives and activities are listed below.



Driving long-term impact through strong governance (continued)



Embedding our ESP across the organisation

The current governance structure for the Environmental Sustainability Plan and associated activities is shown below.

Group	Role	Reporting mechanism	Frequency	Objective
University Council	Notes the Environmental Sustainability Plan.	•	Quarterly	Provide a detailed update on the
Management Board	Approves the Environmental Sustainability Plan and related initiatives.	Portfolio Board (EPB)		implementation status of key activities and issues encountered to internal decision-
Estates Portfolio	Endorses the Environmental Sustainability Plan and provides			makers.
Board (EPB)	oversight to ensure that associated activities are effectively implemented and are coordinated with wider Estate Management and University initiatives.	Annual public-facing report	Annual	Provide a comprehensive performance and activity update for a broad stakeholder grou including students, staff, and the public. Enable UNSW's contribution to the 17 UN SDGs across research, teaching, and
Project control groups and	Provide forums for the coordination of specific programs and initiatives and the monitoring of performance and discussion and resolution of relevant issues.	Times Higher Education	Annual	
working groups		(THE) Impact Rankings	Annual	
Faculty sustainability working groups	Faculty-led working groups that provide interested students and staff with the opportunity to contribute to sustainability initiatives, in coordination with the Environmental Sustainability unit.			operational activities to be compared with other global universities.

Measuring and communicating progress

We regularly monitor and report on our performance against targets and implementation of key activities. This ensures we identify and address issues and keep our stakeholders informed – both of which are critical to the successful delivery of our Environmental Sustainability Plan 2022-24. Current reporting arrangements are detailed below.





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Appendix 1 – Target definitions

Theme	Target	Baseline year	Baseline value	Target year ¹	Target value	Unit	Scope
	Maintain net zero operational (scope 1 and 2) emissions	2018	82,191	2025	0	Tonnes of carbon dioxide equivalent (tCO ₂ e)	Sites over which UNSW has operational control
Climate	Expand onsite solar PV capacity to 1.5MWp	2018	0.8	2025	1.5	Megawatts potential (MWp)	Kensington, Paddington and Randwick campuses
action	Reduce total (scope 1, 2 and 3) emissions by 30% by 2025, 50% by 2030 and to net zero by 2050 ²	2018	472,956	2025	331,069	Tonnes of carbon dioxide equivalent (tCO ₂ e)	All UNSW operations and value chain activities
	Divest investments in fossil fuel companies ³	-	-	2025	0%	% of eligible investments in fossil fuel companies	Equities and corporate debt managed by UNSW Treasury
	New build and refurbishment projects achieve our minimum sustainability requirements	-	-	2025	90%	% of relevant projects meeting requirements	Sites over which UNSW has operational control
Living campuses	Kensington campus achieves a net gain in biodiversity value	2018	20%	2025	20%	Biodiversity value rating	Kensington campus
campuses	Increase student and staff knowledge and awareness of environmental sustainability issues	2021	3.03	2025	3.1	Average rating from 1 (low) to 5 (high) measured via a survey	All sites over which UNSW has operational control
	At least 85% of students and staff travel to campus by sustainable travel modes	2016	81%	2025	85%	Travel by modes other than private car (%)	Kensington, Paddington and Randwick campuses (excl. tenants)
	Reduce energy intensity by 5%	2018	199	2025	189	Kilowatt hours per square metre GFA per year (kWh/m²/year)	Kensington, Paddington and Randwick campuses (excl. tenants)
Resource	Reduce water intensity by 5%	2018	0.95	2025	0.90	Kilolitres per square metre GFA per year (kl/m²/year)	Kensington, Paddington and Randwick campuses (excl. tenants)
efficiency	At least 85% of general waste ⁴ is diverted from landfill	-	-	2025	85%	% of general waste by weight diverted from landfill	Kensington, Paddington and Randwick campuses (excl. tenants)
	Reduce general waste by 20%	2018	2,841	2025	2,273	Tonnes (t) of general waste per year	Kensington, Paddington and Randwick campuses (excl. tenants)
	At least 80% of retailers achieve Plastic Free Dining gold award status	2021	0%	2025	80%	% of food and drink retailers receiving PFD Gold award	Kensington, Paddington and Randwick campuses

1 Target year for all targets is 2025 (i.e. performance will be assessed based on full year 2024 performance).

2 Emission reduction target will be periodically reviewed, and updates recommended so that it continues to align with best practice and reflects maximum effort towards limiting temperature increase to 1.5°C.

3 Includes direct ownership and commingled funds that include public equities and corporate bonds of companies who derive over 20% of their revenue from ownership and exploitation of fossil fuel reserves.

4 General waste includes waste from internal areas (burgundy, red, yellow and blue bins) and external areas (burgundy, white and red bins).

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Contact us





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