

# SOUTHERN CROSS UNIVERSITY ENVIRONMENTAL MANAGEMENT PLAN 2015



Giant Water Gum, Remnant Dry Rainforest on Lismore Campus

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## INTRODUCTION

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### SUSTAINABILITY AT SCU

Southern Cross University has a strong commitment to its role as a leader in achieving environmental, social and economic sustainability through our teaching, research and operations. The University Strategic Plan 2011-2015 has embedded sustainability as a core strategic goal. Goal 4 states that "We will enhance our performance in a sustainable and responsible manner".

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### FACILITIES MANAGEMENT AND SERVICES (FM&S)

Facilities Management & Service's function is to plan and provide a physical environment necessary to the University to achieve its mission of excellence in teaching and research in higher education. FM&S is responsible for providing services in the relevant areas of capital and minor works, refurbishments and maintenance; landscaping and grounds; energy and water management; cleaning and pest management; waste and recycling; and chemical storage and disposal.

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### SUSTAINABILITY, PARTNERSHIPS AND COMMUNITY ENGAGEMENT (SPACE)

SCU One Planet is the over-arching program for sustainability initiatives at SCU delivered by Sustainability, Partnerships and Community Engagement. It is a focal point for staff and students wanting to learn about our commitments, demonstrates how individuals can take action and highlights our sustainability projects and progress.

The name SCU One Planet refers to our ecological footprint. SCU One Planet outlines how we as a University and as individuals can reverse the trend of over-consumption, reduce our ecological footprint and move towards living within the means of one planet.

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### OUR COMMITMENT

In addition to the overarching strategic goals of the University, we demonstrate our commitment to sustainability in a number of ways.

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### THE SUSTAINABILITY POLICY ADVISORY GROUP (SUPA)

The SuPA Group provides advice to the Vice Chancellor's Executive Committee and advocacy, coordination and guidance to the University to promote the integration of sustainability principles and practices across the diversity of the University's activities. It is comprised of a representative from each teaching and operational unit in the University and a student representative from LEXSA.

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#### THE TALLOIRES DECLARATION

In 2005, SCU became a signatory to the Talloires Declaration - a ten point action plan for incorporating sustainability and environmental literacy into teaching, research, operations and outreach at colleges and universities. It has been signed by over 350 university presidents and chancellors in 40 countries.

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#### THE TALLOIRES NETWORK

In 2013, SCU became a member of the Talloires Network - an international association of institutions working together to implement the recommendations of the Talloires Declaration and build a global movement of engaged universities.

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#### AUSTRALIAN CAMPUSES TOWARDS SUSTAINABILITY (ACTS)

Since 2008, SCU has been a member of Australasian Campuses Towards Sustainability (ACTS) - the primary forum for sustainability in the Australian and New Zealand Tertiary sectors. All SCU staff have access to ACTS information and tools to further the cause of ESD in higher education. There are opportunities for staff and students to apply for scholarships to attend the annual ACTS Conference.

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#### SUSTAINABILITY ADVANTAGE PROGRAM

In 2008, SCU committed to the Sustainability Advantage Program in partnership with the NSW Office of Environment and Heritage and in 2013 obtained Bronze Recognition in the program for its achievements. The program facilitates a variety of modules that address sustainability challenges in all areas of the organisation.

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### SCOPE

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#### LOCATION

The SCU Environmental Management Plan is applicable to operations at campus locations where the University has full and direct management control, being the Gold Coast, Lismore and National Marine Science Centre (Coffs Harbour) campuses. The principles and strategies of environmental management and sustainability identified in this plan may be considered for implementation at other campuses in consultation with relevant management stakeholders.

**Gold Coast Campus** is located at the Gold Coast Airport in south-east Queensland on a flat alluvial plain around 300m from the beach. The campus is currently occupied by two multi-storey buildings (A and B) with the planned development of multi-storey Building C and associated car park within the undeveloped portion of the site. The broader campus of just over 5 hectares contains a mixture of cleared land and a portion of remnant/regrowth swamp sclerophyll forest dominated by Broad-leaved Paperbark that surrounds a small man-made dam.

**Lismore Campus**, the original and main campus for the University, is located in east Lismore in the Northern Rivers region of New South Wales. The Lismore campus consists of around 30 buildings of various size and function, covers 75 hectares and is approximately 3 km from Lismore's main business district. Despite a history of clearing, agricultural use and now intensive human usage, remnants of the original dry rainforest persist on campus, as well as natural koala habitat. The grounds reflect the academic environment - forestry plots, wild food and medicinal plants for research and teaching, restoration sites for practice of technical skills - as well as plantings of mixed natives and exotics for amenity and aesthetics.

The **National Marine Science Centre (NMSC)** is part of the School of Environment, Science and Engineering located in Coffs Harbour on the Mid North Coast of New South Wales adjacent to the Solitary Islands Marine Park, where both tropical and temperate currents meet. The Centre houses a number of facilities used for teaching and research and is home to the Solitary Islands Aquarium. The NMSC has a state-of-the-art flow-through seawater supply system, an aquaculture farm, hatchery, laboratory, research and teaching spaces, many of which are climate-controlled.

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#### RELEVANT LEGISLATION

##### Commonwealth

- *Environment Protection and Biodiversity Conservation Act 1999*
- *Commonwealth Airports Act 1996 (relevant to Gold Coast Campus)*
- *National Greenhouse and Energy Reporting Act 2007*

##### State (NSW)

- *Protection of the Environment Operations Act 1997*
- *Threatened Species Conservation Act 1979*
- *Waste Avoidance and Resource Recovery Act 2001*

##### State (QLD)

- *Waste Reduction and Recycling Act 2011*
- *Environmental Protection Act 1994*

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#### RELEVANT POLICY, REPORTING AND BEST PRACTICE GUIDELINES

- [Tertiary Education Facilities Management Association \(TEFMA\)](#) - annual benchmarking of energy and water consumption, waste to landfill and recycling rates
- [NSW Government Resource Efficiency Policy](#) and Reporting guidelines – NSW government agency guidelines to prepare, implement and report on energy efficiency
- [Green Building Council of Australia \(GBCA\) Education v1](#) rating tool - assesses the environmental attributes of new and refurbished education facilities in Australia and applies a star rating
- [Talloires Declaration](#) - a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities.

## OBJECTIVE

The purpose of the SCU Environmental Management Plan is to provide a strategic framework that:

- Identifies priorities
- sets objectives and targets for environmental improvement
- incorporates performance indicators driven by available data and reporting capacity
- defines the strategies required to achieve the objectives and targets
- allocates responsibilities
- establishes mechanisms to monitor, evaluate and report progress

The SCU Environmental Management Plan aims to:

- provide a guide to best practice environmental management and sustainability in the course of University operations
- identify and manage environmental risk
- comply with environmental legislation, regulations and reporting requirements
- enable the University to report on its environmental sustainability performance
- foster environmental awareness to increase the environmental literacy of staff and students
- guide and encourage staff and students to reduce their ecological footprint

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### IMPLEMENTATION – STRATEGIES, MONITORING AND REPORTING

Southern Cross University believes that all staff and students are responsible for contributing to the environmental sustainability of the University and the reduction of our ecological footprint. The SCU Environmental Management Plan identifies work units of the University responsible for implementing the strategies identified for the following themes in the table below:

- Environmentally Sustainable Design (ESD)
- Pollution Prevention
- Sustainable Procurement
- Energy Management
- Water Management
- Recycling and Waste Management
- Biodiversity
- Transport
- Education and Engagement

Performance indicators have been determined for each of the themes. Monitoring and reporting will be conducted annually and coordinated by the Manager, Sustainability.

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### REVIEW

The SCU Environmental Management Plan will be reviewed annually by the Manager, Sustainability for continual improvement by areas of the University identified as responsible for the strategies identified in the plan.

The Environmental Management Plan 2015 will be reviewed by end of 2016, and will incorporate directives for environment and sustainability related strategies, actions, monitoring and reporting activities from the SCU Strategic Plan 2016-2020 currently under development. The review will also consider setting SMART targets and the potential to align the plan with the international Environmental Management Systems Standard AS/NZS ISO 14001:2004.

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
<p><b>ENVIRONMENTALLY SUSTAINABLE DESIGN (ESD)</b></p> <p><b>Objective:</b> To use an integrated sustainable design approach that achieves a holistic outcome balancing functionality, innovation and environmental sustainability.</p> <p><b>Target:</b> ESD initiatives incorporated into the design of new buildings aim to reduce greenhouse gas emissions, increase energy efficiency, reduce potable water use, minimise waste and reduce environmental impacts.</p> <p><b>Goal:</b> Functional and innovative buildings are built that demonstrate principles of ESD and consider a Five Star Green Star equivalent standard (non-certified) where possible.</p>			
<p><b>Strategies</b> New building designs will consider whether the following Environmentally Sustainable Design (ESD) features are appropriate:</p> <p>Passive Design (refer section 15.0.2 Windows*)</p> <ul style="list-style-type: none"> <li>• high-performance glazing</li> </ul> <p>Indoor Environmental Quality considerations</p> <ul style="list-style-type: none"> <li>• appropriate selection of materials to minimise VOC's and formaldehyde emissions</li> </ul> <p>Cooling, Ventilation and Heating</p> <ul style="list-style-type: none"> <li>• energy efficient mechanical plant (min 4-Star ABGR)</li> <li>• zonal control of heating and cooling equipment</li> </ul> <p>Lighting (refer section 24.0.0 Lighting*)</p> <ul style="list-style-type: none"> <li>• energy efficient LED light fittings</li> <li>• zonal control of lighting</li> </ul> <p>Materials and Waste</p> <ul style="list-style-type: none"> <li>• sustainable purchasing</li> <li>• on-site recycling and waste management infrastructure (refer section 28.0.0 Waste Collection*)</li> </ul> <p>Building Management</p> <ul style="list-style-type: none"> <li>• sub-metering for electricity and water consumption management (refer sections 12.0.1 Energy management and 12.0.2 Domestic water*)</li> </ul> <p>Water Efficiency</p> <ul style="list-style-type: none"> <li>• rainwater harvesting to direct roof water to water storage tanks and be reticulated for use in amenities (for non-potable water toilet flushing) and/or landscaped areas</li> <li>• water efficient fittings (min 4-Star WELS rating)</li> </ul> <p>Renewable Energy</p> <ul style="list-style-type: none"> <li>• installation of solar panels where feasible (except at Gold Coast campus due to anti-glare provisions re proximity to airport)</li> </ul> <p>Sustainable Transport</p> <ul style="list-style-type: none"> <li>• pedestrian and cyclist end-of-trip facilities including on-site showers, lockers and secure bike parking</li> </ul> <p style="text-align: right;">*SCU Building Design Control Document</p>	<p>Manager, Built Infrastructure Projects Manager, Facilities Operations</p>	<p>Architect reports to SCU include assessment of Green Star equivalent standard</p>	<p><u>Green Star – Education V1</u> equivalent standard (non-certified)</p>

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
<p><b>POLLUTION PREVENTION</b></p> <p><b>Objective:</b> Campus operations minimise harm to the natural environment.  <b>Target:</b> No reportable pollution incidents.  <b>Goal:</b> Campus operations seek to prevent pollution and other environmental impacts to land, water or air.</p>			
<p><b>Strategies:</b>  The University is committed to preventing pollution and other environmental impacts by:</p> <ul style="list-style-type: none"> <li>identifying possible risks during University operations and major controls/mitigating factors to be applied in the FM&amp;S Environmental Management Risk Worksheet</li> <li>maintaining vehicles and equipment under control of management (including generators and other operational plants) in accordance with relevant standards and/or manufacturer’s specifications</li> <li>producing Safe Work Method Statements for operations identified by risk assessment (e.g. Refuelling (Vehicles, Plant &amp; Equipment) with staff training to apply them.</li> </ul>	<p>Manager, Facilities Operations</p>	<p>FM&amp;S to report pollution incidents to WHS</p>	<p>Number of pollution incidents reported</p>
<p>Workplace Health and Safety training</p> <ul style="list-style-type: none"> <li>A generic new employee WHS Induction checklist requires supervisors to identify and ensure specific workplace procedures and requirements are communicated and acted upon for new staff (e.g. further information, instruction, additional equipment or training required) that may include areas of environmental hazards and risk.</li> <li>An online WHS Induction for consultants, volunteers, visitors and work experience students defines responsibilities for recognising hazards and risks, avoiding harm to the environment and following environmental procedures including reporting incidents appropriately.</li> </ul>	<p>Manager, Workplace Health and Safety</p>	<p>Not defined</p>	<p>Not defined</p>
<p>Chemical storage, handling and disposal</p> <ul style="list-style-type: none"> <li>Staff are trained to refer to Material Safety Data Sheets (MSDS)</li> <li>Appropriate transportation, storage, use and disposal of materials (including hazardous materials) such as chemicals, herbicides and fuels is conducted in accordance with best practices, applicable legislation and as per the SCU <a href="#">Transportation, Storage And Disposal Of Hazardous Substances Manual</a>.</li> <li>University maintenance sections and laboratories are equipped with spill containment kit(s), including equipment to address both terrestrial and aquatic spills (e.g. spills from a number of sources including vehicles, herbicides, pesticides, paints and thinners, etc.) Relevant personnel are made aware of the location of the kit and trained in its effective deployment.</li> </ul>	<p>Manager, Facilities Operations  Manager, Workplace Health and Safety</p>	<p>Not defined</p>	<p>Not defined</p>
<p>Managing Stormwater. Pollutants are prevented from entering the stormwater drains by:</p> <ul style="list-style-type: none"> <li>regularly sweeping gutters and not washing litter down the drain system</li> <li>raking leaves and capturing lawn clippings</li> <li>not overusing pesticides and fertiliser that could be washed into the stormwater system</li> <li>trapping and retaining oils</li> <li>diluting runoff before entering waterways</li> </ul>	<p>Manager, Facilities Operations</p>	<p>Not defined</p>	<p>Not defined</p>

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
<p><b>SUSTAINABLE PROCUREMENT</b></p> <p><b>Objective:</b> SCU staff to consider environmental sustainability principles when making procurement decisions.  <b>Target:</b> To increase the proportion of sustainable products and services procured.  <b>Goal:</b> An increase in the proportion of office supplies purchased that are considered sustainable.</p>			
<p><b>Strategies</b>  As per the <a href="#">SCU Procurement Policy</a>, environmental sustainability principles are to be considered when assessing procurement decisions, including whether:</p> <ul style="list-style-type: none"> <li>• products contain materials produced in a sustainable manner including recycled components</li> <li>• suppliers offer product stewardship</li> <li>• goods are energy efficient</li> <li>• suppliers minimise their energy consumption and reduce adverse environmental impact</li> <li>• whole of life costs assessed</li> </ul>	All staff	Not defined	Not defined
<p>Procurement Management</p> <ul style="list-style-type: none"> <li>• restriction of items available for staff to purchase via the purchasing system to increase purchase of sustainable products</li> </ul>	Procurement Officer	Procurement Officer requests annual Environmental Report from Stationery Provider	Proportion of 'Earthsaver' items purchased via Staples
<p><b>ENERGY MANAGEMENT</b></p> <p><b>Objective:</b> To reduce energy consumption and greenhouse gas emissions generated by our operations.  <b>Target:</b> To reduce the consumption of electricity per EFTSL per annum.  <b>Goal:</b> A decrease in the consumption of electricity in the operation of our buildings (including equipment and IT services).</p>			
<p><b>Strategies</b>  The University is committed to reducing energy consumption by:</p> <ul style="list-style-type: none"> <li>• installation and retrofitting of more efficient internal and external lighting fixtures in new and old buildings respectively</li> <li>• installation and retrofitting of more efficient thermal comfort appliances in new and old buildings respectively</li> <li>• installation and retrofitting of timers, controls and sensors for lighting and heating/cooling in spaces</li> <li>• conducting lighting, heating and cooling audits of campuses</li> </ul>	Manager, Facilities Operations	Electricity supplier invoice data reported by FM&S	Energy Consumption GJ / m <sup>2</sup> GFA Energy Consumption GJ / EFTSL Carbon Emissions Tonnes CO <sub>2</sub> -e / m <sup>2</sup> GFA Carbon Emissions Tonnes CO <sub>2</sub> -e / EFTSL

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
Information Technology <ul style="list-style-type: none"> <li>installation of power-saving settings on University PCs</li> <li>rationalisation, centralisation and power management of staff printing and copying devices</li> </ul>	Director, Technology Services & Chief Information Officer	Not defined	Not defined
<b>WATER MANAGEMENT</b>			
<p><b>Objective:</b> To reduce potable water consumption in our operations and ensure water quality on campus is managed.</p> <p><b>Target:</b> To reduce the consumption of water per EFTSL per annum.</p> <p><b>Goal:</b> A decrease in the consumption of water in the operation of our buildings and grounds.</p>			
<p><b>Strategies</b></p> <p>The University is committed to reducing water consumption on campus by:</p> <ul style="list-style-type: none"> <li>considering the principles of Water Sensitive Urban Design (WSUD) in planning and construction</li> <li>adoption of natural overland flow path characteristics through drainage swales that hold and direct surface water</li> <li>protecting the water quality of surface and groundwater by retaining a large proportion of permeable surfaces</li> </ul>	Manager, Built Infrastructure Projects	Not defined	Not defined
<p>Managing water usage and disposal</p> <ul style="list-style-type: none"> <li>where possible, rainwater harvesting from the roof to be stored in a rainwater tank to provide water for flushing of toilets and urinals in new builds</li> <li>collecting stormwater in retention ponds (Lismore Campus) to use in landscaping, drought proofing and irrigation on grounds and sporting fields as required</li> <li>conducting water audits of campuses</li> <li>installing water efficiency measures such as dual flush toilets, low flush urinals, flow restrictors, sensors and timers on taps</li> </ul>	Manager, Built Infrastructure Projects Manager, Facilities Operations	Water supplier invoice data reported by FM&S	Water consumption kL/m <sup>2</sup> GFA Water consumption kL/EFTSL
<b>RECYCLING AND WASTE MANAGEMENT</b>			
<p><b>Objective:</b> To minimise environmental harm from our waste generation, management and disposal including reducing greenhouse gases, water and energy consumption, resource depletion and improving soil health.</p> <p><b>Target:</b> An increase in the rate of recycling on campus.</p> <p><b>Goal:</b> A decrease in the amount of waste generated, increase in the number and volume of waste streams being recycled or recovered and a decrease in the volume of waste being sent to landfill.</p>			
<p><b>Strategies</b></p> <p>The University is committed to minimising waste and increasing recycling by:</p>			
Waste Management, Infrastructure and Services	Manager, Sustainability	FM&S to provide invoices from waste	Recycling Rate % (ii) / (i) + (ii)

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
<ul style="list-style-type: none"> <li>developing a Waste Management Plan for Lismore campus to be piloted then rolled out to Gold Coast campus</li> <li>increase opportunities for staff and students to recover paper and cardboard, comingle recycling and food organics by providing more recycling bins across campus</li> <li>promoting source separation by staff and students by ensuring waste and recycling infrastructure signage clearly identifies waste streams</li> <li>educate staff and students about what items should be placed in each waste stream</li> <li>conducting waste and recycling audits on campus</li> </ul>	Manager, Facilities Operations	management service providers	Waste to Landfill kg / m <sup>2</sup> GFA Waste to Landfill kg / EFTSL  (i) Tonnes of waste to Landfill (ii) Tonnes of comingled recycling, paper and cardboard
Expand on single waste streams collected for re-use and recycling currently including: <ul style="list-style-type: none"> <li>garden waste for composting</li> <li>toner cartridges for re-use</li> <li>fluorescent light tubes for recycling</li> <li>furniture and equipment no longer required is stored for re-use where feasible</li> <li>polystyrene packaging materials are sent for re-processing</li> <li>e-waste is recycled</li> <li>building materials such as excess steel, aluminium are recycled when buildings are demolished</li> </ul>	Manager, Facilities Operations	Not defined	Not defined
Waste management infrastructure is designed to minimise the attractiveness of the site to undesirable fauna species at Gold Coast Airport	Manager, Built Infrastructure Projects Manager, Facilities Operations	Not defined	Not defined
<b>BIODIVERSITY</b>  <b>Objective:</b> To manage our landscape in a way that supports local genetic, species and ecosystem diversity. <b>Target:</b> Enhance flora and plant communities identified on our campuses. <b>Goal:</b> Habitats and threatened species are protected on our campuses.			
<b>Strategies</b> The University is committed to maintaining biodiversity and managing the campus landscape and habitats by: <ul style="list-style-type: none"> <li>endeavouring to protect threatened species from our operations</li> <li>conducting pest management and weed control activities to reduce invasive species</li> <li>planting native species and koala food trees on Lismore campus</li> <li>design landscaping to minimise the attractiveness of the site to undesirable fauna species at Gold Coast campus (proximity to airport)</li> <li>maintaining road signage to encourage traffic to slow down for wildlife on Lismore campus</li> </ul>	Manager, Facilities Operations	Not defined	Not defined

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
<ul style="list-style-type: none"> <li>conducting surveys of flora, fauna and plant communities on campus</li> </ul>	Manager, Facilities Operations Manager, Sustainability	Not defined	Not defined
<b>TRANSPORT</b>  <b>Objective:</b> To reduce unnecessary travel and increase active and sustainable travel undertaken by University staff and students. <b>Target:</b> To reduce single occupant car use by University staff and students travelling to and from campuses <b>Goal:</b> Car-sharing travel to and from University campuses by staff and students has increased.			
<b>Strategies</b> The University is committed to increasing active and sustainable travel thereby reducing single occupant car use and parking demand by focussing on the following areas.			
Proximity of students to campus <ul style="list-style-type: none"> <li>foster relationship with local community to increase the local accommodation pool</li> </ul>	Executive Director, Information and Physical Resources	Not defined	Not defined
Public Transport Infrastructure <ul style="list-style-type: none"> <li>improve footpath quality and connectivity between bus stops and campuses</li> <li>review bus stop facilities (shelters, seats in shelters, lighting etc.)</li> </ul>	Manager, Built Infrastructure Projects Manager, Facilities Operations	Not defined	Not defined
Public Transport Accessibility <ul style="list-style-type: none"> <li>lobby and negotiate public transport services improvements such as more frequent and optimised schedules and bus routes suitable for student and staff needs</li> <li>lobby for improved bus services to staff/student accommodation clusters</li> <li>review bus services around campus considering the provision of a dedicated university loop service providing more direct connections between the University, Airport, Coolangatta, Tweed Heads, Border Park and other student residential clusters</li> </ul>	Executive Director, Information and Physical Resources Manager, Sustainability	Not defined	Not defined
Carpooling <ul style="list-style-type: none"> <li>re-assess online car-pool schemes suitable for use by staff and students</li> <li>consider incentives such as providing a dedicated parking area for the users of the car pool scheme</li> <li>consider disincentives for on-site parking</li> </ul>	Executive Director, Information and Physical Resources Manager, Sustainability	Not defined	Not defined
Vehicle Fleet <ul style="list-style-type: none"> <li>routine reviews of the vehicle fleet to increase fuel efficiency</li> <li>utilising the Fleet Management System for the efficient management of the vehicle fleet and to provide greenhouse gas emissions reporting</li> </ul>	Fleet Management	Fleetcare self-service report generated by SPaCE	Vehicle greenhouse gas emissions Tonnes of CO <sub>2</sub> -e per EFTSL
Flights <ul style="list-style-type: none"> <li>promote virtual alternatives to air travel for meetings and other University interactions</li> </ul>	Director, Technology Services & Chief	Air Travel supplier reports provided to SPaCE	Air Travel greenhouse gas emissions

ENVIRONMENTAL MANAGEMENT CONTROL	RESPONSIBILITY	REPORTING	PERFORMANCE INDICATOR
	Information Officer Manager, Sustainability		Tonnes of CO <sub>2</sub> -e per EFTSL
Education and Engagement <ul style="list-style-type: none"> <li>• conduct research into barriers and drivers to sustainable travel</li> <li>• educate students and staff on the ‘real’ cost of travelling by car compared to other transport modes, as well as the additional environmental and health benefits of using active transport modes</li> <li>• promote sustainable transport options such as carpooling and public transport as a viable alternative to driving for staff and students</li> <li>• promote active and sustainable transport options the <a href="#">Travel to SCU web page</a></li> </ul>	Manager, Sustainability	Sustainability Survey of staff and students	Travel mode of staff and students
<b>EDUCATION AND ENGAGEMENT</b>  <b>Objective:</b> To foster a culture of sustainable practice among all staff and students. <b>Target:</b> Increase participation in sustainable practices by staff and students. <b>Goal:</b> Staff and students reduce their ecological footprint.			
<b>Strategies</b> Implement the SCU One Planet education and awareness program to: <ul style="list-style-type: none"> <li>• increase understanding of how we as a University and as individuals can reverse the trend of over-consumption, reduce our ecological footprint and move towards living within the means of one planet</li> <li>• increase knowledge of specific energy, water, waste and recycling, biodiversity and transport issues and education for sustainability</li> <li>• promote the University’s commitment to sustainability and what initiatives are being undertaken including those identified in this Environmental Management Plan</li> <li>• conduct annual staff and student surveys of sustainability knowledge, values and behaviours</li> <li>• undertake engagement programs targeting specific behaviours as per needs identified by the sustainability survey and alignment to University sustainability initiatives</li> <li>• use sustainability survey as monitoring and reporting tool of relevant EMP strategies</li> </ul>	Manager, Sustainability	Sustainability Survey of staff and students	Sustainable practice/behaviours by staff and students
Increase participation in student sustainability projects on campus <ul style="list-style-type: none"> <li>• utilise the campus environment and facilities for teaching, learning and research projects</li> <li>• encourage staff to generate campus sustainability projects available for student participation in Live Ideas</li> <li>• encourage students to join and participate in sustainability projects on Live Ideas</li> <li>• post reports and other outputs from student sustainability projects on the sustainability website</li> </ul>	Manager, Sustainability	SPaCE report generated from Live Ideas identifying One Planet projects	Number of student projects

<b>Biodiversity</b>	'Biodiversity' or 'biological diversity' is the variety of life on earth including genetic, species and ecosystem diversity. Biodiversity includes all the different plants, animals and micro-organisms such as bacteria and provides us with clean air and water, fertile soils, foods, medicines and raw materials for manufacture.
<b>Ecological Footprint</b>	The area of land needed to produce the natural resources a population consumes and to assimilate the waste that population produces.
<b>Environmentally Sustainable Design (ESD)</b>	The philosophy of designing physical objects, the built environment, and services to comply with the principles of social, economic, and ecological sustainability.
<b>SMART Targets</b>	Targets designed to conform to the following criteria: Specific, Measurable, Achievable, Relevant and Timely e.g. to reduce electricity consumption by 10% by 2020 based on 2015 levels.
<b>Water Sensitive Urban Design (WUSD)</b>	A land planning and engineering design approach which integrates the urban water cycle, including stormwater, groundwater and wastewater management and water supply, into urban design to minimise environmental degradation and improve aesthetic and recreational appeal.

DOCUMENT VERSION HISTORY

Version	Date	Author / Reviewer	Comment
1.0	3 August 2015	Manager, Sustainability	First draft
	7 August 2015	Project Team (SCU Managers - Built Infrastructure Projects, Facilities Operations and Sustainability; and Project Manager - Senior Environmental Planner, Land & Fire Assessments P/L)	Additions, amendments received
2.0	26 August 2015	Manager, Sustainability	Second draft
	1 September 2015	Manager, Facilities Operations	Request to incorporate cross-references to SCU Building Design Control Document
3.0	1 September 2015	Manager, Sustainability	Third draft
	8 September 2015	Procurement Officer	Amendments received
4.0	14 September 2015	Manager, Sustainability	Fourth draft
	17 September 2015	Manager, Insurance & Risk Management	Amendments received
5.0	29 September 2015	Manager, Sustainability	Fifth draft ready to publish
	10 November 2015	University Lawyer	Amendments received
6.0	13 November 2015	Manager, Sustainability	Sixth draft ready to publish
	14 December 2015	Manager, Sustainability	Final document