

LEADERSHIP  
ENGAGEMENT  
SUSTAINABILITY  
CONNECT: ENVIRONMENTAL  
MANAGEMENT PLAN 2014-2016

UNIVERSITY OF  
WOLLONGONG



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# 1 Introduction/Background

Goal 5.5 of the University's Strategic Plan 2013-2018 is to implement environmental standards, based on principles of environmental sustainability, to optimize our use of energy and water.

The Environment Management Plan (EMP) is the mechanism for delivering on the aims and objectives of the Environmental Policy. The previous EMP 2010-2013 delivered significant improvements in the optimization of our use of energy and water, increased recycling rates and campus biodiversity.

The University's Environmental Policy formalises the University's commitment to supporting the principles of environmental sustainability and applying such principles. The University believes that all staff and students share a role in achieving the objectives of its environmental policy.

## 1.1 Environmental Policy

The University aims to ensure that its teaching, research and support activities are aligned with its Environmental Policy. To facilitate the achievement of these overall objectives, the University will:

- Implement and maintain a structured Environmental Management System based on continual improvement and regular review to ensure that it remains relevant to the University's operations;
- Focus particularly on minimisation of energy and water consumption and waste management, including recycling, and endeavour to become a community leader in these areas;
- Comply with environmental laws, regulations and reporting requirements and set an example to the community in adopting and implementing principles of environmental sustainability;
- Foster environmental awareness within all academic and business units with a view to increasing environmental literacy of students and staff;
- Through effective communication, provide students and staff with mechanisms and opportunities to propose, discuss and participate in projects leading to improvements in environmental outcomes; and
- Through the integration of buildings with the natural environment, maintain and enhance the University's reputation for providing an outstanding and harmonious campus which facilitates engagement of members of the campus community with the natural environment.

## 2 Guiding Principles of the Environment Management Plan

The Environment Management Plan (EMP) is the mechanism for delivering on the aims and objectives of the Environmental Policy, and provides strategies and actions to ensure the University actively addresses environmental sustainability.

The staff and students at the University of Wollongong aspire to:

- Work towards being self-sufficient in energy and water use; and
- Work towards achieving zero waste to landfill.

These aspirations will be achieved through a targeted program of minimisation of non-renewable resource use through the implementation of R<sup>4</sup> – Rethink, Reduce, Reuse, Recycle, via structural and behavioural changes and then through offsetting what we cannot reduce or eliminate.

A number of assumptions underpin this Plan:

- The Plan represents a continual improvement process;
- The scope of the EMP addresses environmental aspects and impacts over which UOW has direct control, and also those over which UOW can exert influence as a consumer of goods and services;
- UOW will ensure that the principles of life cycle costing are integral to the University's physical planning, design and development, asset acquisition and management, purchasing and operations;
- Leadership at all levels and an attitude of cooperation with a "willingness to try" will need to prevail across all aspects of our campuses;
- Environmental management is incumbent on everyone to participate - it is not something that can be delegated to a single unit. "Operationalising" responsibility throughout the University for sustainability, is the ultimate preferred outcome of this Plan; and
- We will achieve our goals if we want to, not simply because we can, so people across campus, and their passion to drive change, play a crucial role in the success of the Plan.

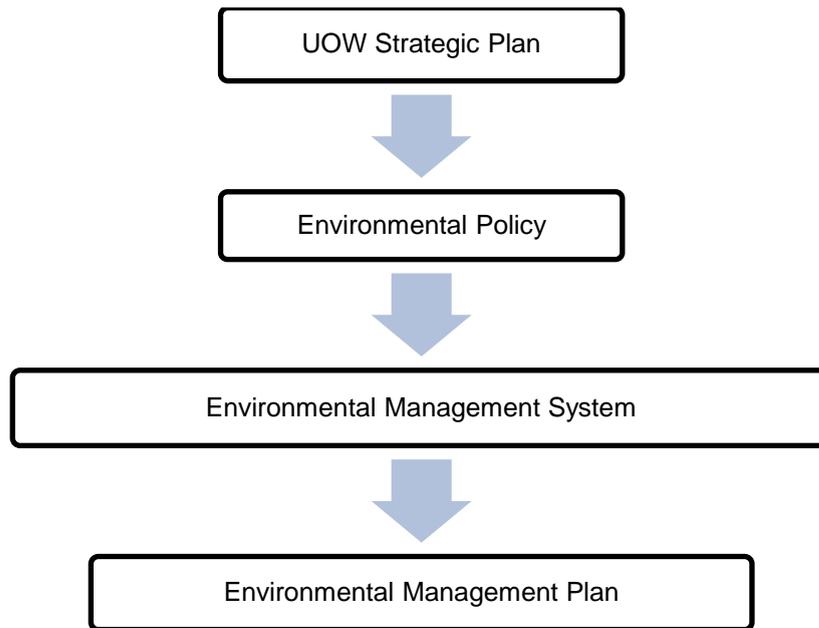
It should be noted that strategies and actions are documented within the context of a three-year plan, but that the Plan itself represents the three years of a continual improvement cycle for UOW. Further, a targeted program of communication and engagement activities will be fundamental to recruiting support, ownership and facilitating involvement in delivery of key actions, in addition to promoting the University's position of leadership in this area.

UOW is committed to environmental sustainability, as per Goal 5.5 of the Strategic Plan. Sustainability is advanced through research, education, analysis, practice and outreach. The University is committed to continuous improvement in:

- Practice and promotion of institutional ecology by increasing efficiency and use of renewable resources, decreasing the costs and reliance on non-renewable resources and decreasing production of waste and hazardous materials, both in the University's own operations and that of its suppliers;
- Promoting health, productivity and safety of the University community through design and maintenance of the built environment and landscape;
- Increasing biodiversity and the health of campus ecosystems;
- Developing business and planning tools that support comparative analysis of decisions and support long-term environmental, economic and socially responsible decision making;
- Collaborating on interdisciplinary approaches that foster "value adding" for the University and the nexus between practice, research and teaching; and
- Broadening service and outreach to national and international stakeholders.

### **3 Structure of the Environmental Management Plan**

The Environment Management Plan (EMP) is subordinate to the UOW Strategic Plan, Environmental Policy and Environmental Management System. The EMP is a strategic document that sets objectives and targets for environmental improvement and defines the strategies required to achieve the objectives. The EMP also incorporates the Council approved KPIs for energy and water consumption. The EMP 2014-2016 builds on the structure and outcomes of the previous EMP 2010-2013.



The EMP is divided into seven functions:

1. Energy Management;
2. Water Management;
3. Materials Management;
4. Management Systems;
5. Campus Environment;
6. Research, Teaching and Learning; and
7. Communication and Engagement.

## 4 Environmental Management Plan Consultation

The EMP consultation encompassed three major phases:

- An online survey was open for input between 4 and 22 November 2013. At the close, 607 participants had completed the survey (348 students and 259 staff).
- Focus groups were scheduled between 11 and 14 November 2013, with 45 staff and students attending.
- EMP briefings were given at 10 staff meetings during October and November 2013, with approximately 150 staff in attendance.

The top three key priorities identified by both students and staff were:

1. Reducing energy consumption and carbon footprint;
2. Ensuring campus sustainability (including natural and built environment); and
3. Reducing waste.

These priorities are embedded in the EMP.

## **5 Environmental Objectives, Targets, Strategies, Actions and Performance Indicators**

The international Environmental Management Systems Standard AS/NZS ISO 14001:2004 defines an environmental objective as an “overall environmental goal, consistent with the environmental policy that an organisation sets itself to achieve”. Objectives should be quantifiable wherever possible. An environmental target is defined in AS/NZS ISO 14001:2004 as a “detailed performance requirement[s], applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives”.

Consistent with the international Environmental Performance Evaluation Standard AS/NZS ISO 14031:2000, the environmental indicators used to track progress in implementing this Plan include management performance indicators relating to organisational practices and procedures, and operational performance indicators to track the significant environmental effects of the University's activities.

Table 5.1 summarises the Objectives, Targets, Strategies and Performance Indicators required to achieve our aims and collective aspirations.

## 5.1 Table of Environmental Objectives, Targets, Strategies and Performance Indicators

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
<b>1. Energy Management</b>	Reduce Energy Consumption by 5% per year per square metre at all Campuses  (2018 UOW KPI Energy consumption 0.59 GJ/m <sup>2</sup> )	Develop and Implement the Energy Savings Action Plan (ongoing)	Number of energy savings actions implemented	Environmental Advisory Committee EMP annual report card	Environmental and Sustainability Initiatives Unit Facility Managers
		Monitor electricity and natural gas used at all UOW campuses	Energy per square metre, GJ/m <sup>2</sup>  Reductions in GJ of electricity and gas used based on "business as usual scenario" from the previous year	Monthly or quarterly reports prepared by Facility managers for each campus UOW Finances and Resources Committee Report Environmental Advisory Committee National Greenhouse and Energy Report	Environmental and Sustainability Initiatives Unit Performance Indicators Unit (make data available only) Facility Managers
		Energy consumption information is made available to all Faculties/Divisions to promote user buy in	Information available from PIU and/or billing data is collated and communicated	Monthly or quarterly reports for each Faculties/Divisions and Schools/Units and student residences	Environmental and Sustainability Initiatives Unit Facility Managers
		Investigate options to make Faculties/Divisions financially accountable for the energy they consume within their buildings	Recommendations made to Senior Executive	Environmental Advisory Committee EMP annual report card	Finance Environmental and Sustainability Initiatives Unit
		Improve the efficiency of existing buildings through an integrated maintenance and retrofitting program	GJ/m <sup>2</sup>	EMP annual report card TEFMA benchmark report	Maintenance Manager Environmental and Sustainability Initiatives Unit (advisory only)
		Green IT initiatives	GJ/m <sup>2</sup>	EMP annual report card	Information Technology Services Division Environmental and Sustainability Initiatives Unit (advisory only)
		Develop and Implement energy conservation and carbon reduction education and awareness programs for staff and students (ongoing)	Programs conducted and number of attendees	Environmental Advisory Committee EMP annual report card	Environmental and Sustainability Initiatives Unit Facility Managers

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
	Increase the proportion of onsite renewable energy	Investigate renewable and alternative energy options for all campuses (ongoing)	Options investigated and business case analysis and UOW emissions reductions estimates completed.	Environmental Advisory Committee EMP annual report card	Environmental and Sustainability Initiatives Unit
<b>2. Water Management</b>	Reduce potable Water Consumption by 5% per EFTSL per year at all Campuses  (UOW KPI 2018 target 8.5 kL/EFTSL)	Develop and Implement Water Savings Action Plan (WSAP)	Number of Water savings actions implemented kL/EFTSL	EMP Annual Reports Card Environmental Advisory Committee	Environmental and Sustainability Initiatives Unit (advisory only) Facility Managers
		Monitor water used at all UOW campuses	kL/EFTSL Reductions in kL of water used based on "business as usual scenario" from the previous year	Monthly or quarterly reports prepared by Facility managers for each campus UOW Finances and Resources Committee report Environmental Advisory Committee	Facility Managers Environmental and Sustainability Initiatives Unit
		Water consumption information is made available to all Faculties/Divisions and communicated to promote user buy in	Information available from PIU and/or billing data is collated by Facility Managers and made available and communicated	Monthly or quarterly reports for Faculties/Divisions and student residences	Facility Managers Environmental and Sustainability Initiatives Unit
		Investigate options to make Faculties/Divisions financially accountable for the water they consume within their buildings	Recommendations made to Senior Executive	Environmental Advisory Committee EMP annual report card	Finance Environmental and Sustainability Initiatives Unit
		Ensure that maintenance activities continually improve water efficiency	Processes embedded into maintenance procedures kL/EFTSL	EMP annual report card Water Savings Action Plan Annual Reports	Manager Maintenance Facility Managers
		Develop and Implement water conservation education and awareness programs for staff and students (ongoing)	Programs conducted and number of attendees	Environmental Advisory Committee EMP annual report card	Environmental and Sustainability Initiatives Unit
		Increase use of water reuse and recycling at UOW sites	Investigate rainwater capture and water reuse and recycling options for all campuses (ongoing)	Options investigated Number of options installed kL/EFTSL	EMP annual report card
	Develop a management system for the Wollongong Campus to better manage the use of potable and water reuse for irrigated areas and ponds		Project proposal developed and implemented	Facilities Management Division Quarterly Reports	Facilities Management Division

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
<b>3. Materials Management</b>	Achieve continuous reduction in solid waste to landfill per EFTSL p.a.	Enable and support the provision of recycling and waste collection services at UOW campus locations and accommodation sites including data collection	Waste services provided Recycling services provided Quantities of waste and recycling per campus	Facility Managers quarterly or monthly reports Environmental Advisory Committee UOW Finances and Resources Committee report	Facility Managers Environmental Services Manager Environmental and Sustainability Initiatives Unit (advice only)
	Increase recycling rate to 66% by 2016	Undertake audits of waste streams throughout all campus and accommodation sites	Audits conducted and recommendations implemented	Facility Managers quarterly or monthly reports Environmental Advisory Committee	Environmental Services Manager Environmental and Sustainability Initiatives Unit
	Divert organic waste from landfill by 66% by 2016	Develop and implement waste reduction strategies and recycling awareness programs for all UOW campus and accommodation sites (ongoing)	Strategies developed and implemented	Facility Managers quarterly or monthly reports Environmental Advisory Committee EMP annual report card	Facility Managers Environmental Services Manager Environmental and Sustainability Initiatives Unit
		Support the development and implementation of office paper waste reduction initiatives	Reams purchased	EMP annual report card	Environmental and Sustainability Initiatives Unit Information Technology Services Division Faculty Managers
		Develop, implement and communicate an office furniture reuse program at Wollongong Campus	Program developed and implemented		Space Manager
		Explore opportunities to develop and implement reuse programs for laboratory, research and other equipment	Program developed and implemented		Faculty Managers Environmental and Sustainability Initiatives Unit
		Encourage the use of less toxic/hazardous biological and chemical materials in research and teaching and ensure best practice disposal	Compliance (nil incidents)		Faculty Managers Environmental and Sustainability Initiatives Unit (advice only)

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
		Ensure all waste is maintained and disposed according to best practice and compliant with legislation	Compliance (nil incidents)	EMP annual report card	Faculty Managers Manager Environmental Services
		Ensure waste objectives and reporting are incorporated into tenders and contracts to reduce waste and increase recycling	Appropriate contractual clauses		Facilities Management Division Finance
		Communicate the environmental requirements of UOW's Purchasing and Procurement Policy to ensure the purchase of water and energy-efficient equipment/appliances	Provision of effective communication and awareness programs		Finance Environmental and Sustainability Initiatives Unit (advice only)
<b>4. Management Systems</b>	Staff and students are aware of their environmental responsibilities while at UOW	Student and staff inductions outline environmental and sustainability responsibilities and UOW expectations	Increased awareness through inductions	EMP annual report card	Human Resources Accommodation Services Academic Registrars Division
		Provide staff training to enable them to fulfil UOW expectations and environmental responsibilities	Appropriate training provided		Human Resources Environmental and Sustainability Initiatives Unit
		Incorporate environmental responsibilities into position descriptions and contracts	Compliant position descriptions and contracts		Human Resources
	Business plans are integrated with the Environmental Policy	Planning for all units to include Environmental Sustainability within their business plans	Compliant Business Plans		Faculty Managers Directors
	Report on the achievements and process towards implementing this plan	Develop a reporting tool for annual reporting on this plan by all responsible parties	System implementation Reduced time dedicated to report preparation		Environmental and Sustainability Initiatives Unit
		Prepare an EMP annual report from the information provided by responsible parties (via the reporting tool) which will then feed into the UOW Annual reporting process	System implementation Reduced time dedicated to report preparation		Environmental and Sustainability Initiatives Unit

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
	Robust processes to ensure compliance with environmental reporting requirements	Improve the financial software and processes to ensure that UOW meets its legal reporting requirements under the National Greenhouse and Energy Act	System implementation Reduced time dedicated to report preparation	EMP annual report card	Financial Services Environmental and Sustainability Initiatives Unit
	Robust processes to ensure compliance with environmental legislative requirements	Review the EMS when legislation changes	Review completed and amendments incorporated		Environmental and Sustainability Initiatives Unit
		Review environmental risks and address identified issues	Review completed and corrective actions implemented		Environmental and Sustainability Initiatives Unit
<b>5. Campus Environment</b>	Continual improvement of ecological functionality and habitat potential for native fauna on sites under UOW control	Undertake assessments of biodiversity values and threats and develop biodiversity management plans	Preparation of biodiversity management plans Acquisition of resources to carry out the assessments and develop plans	EMP annual report card	Environmental Advisory Committee With assistance from staff/students (e.g. Biological Sciences)
		Integrate biodiversity objectives and values into tenders and contracts	Compliant contracts		Facility Management Division Finance Faculty Managers
		Ensure the landscape master plans for all UOW campuses incorporate biodiversity management	Landscape master plans		Facilities Managers Environmental Sustainability Initiatives Unit (advice)
		Continue to maintain and develop an inventory of flora species present at UOW sites and communicate this information to staff and students	Inventory of flora is updated and available		Environmental Sustainability Initiatives Unit
		Develop and implement training for landscape and maintenance staff on environmental issues	Appropriate training provided Integrated work practices		Landscape Supervisor Maintenance Manager
		Support and encourage the planting of local native species at UOW campuses.	Native species plantings Compliance with ESD Design Guidelines (which includes guidance on native species plantings)		Landscape Supervisor Environmental Sustainability Initiatives Unit

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
		Reduce cigarette butt litter and smoking near buildings at all campuses through providing of supporting landscape features and linking in with a cigarette butt litter reduction education initiatives as well as the WHS units "Share the Air Campaign"	Litter reduction	EMP annual report card	WHS Unit Landscape Supervisor Environmental Sustainability Initiatives Unit (advice)
		Investigate and seek funding opportunities for campus environmental improvement projects	Funding submissions		Environmental Sustainability Initiatives Unit Landscape Supervisor
		Establish campus tree walks to educate and engage the staff, students and community.	Tree walks established		Biological Sciences Landscape Supervisor Environmental Sustainability Initiatives Unit (advice)
		Assist with bushcare activities through establishing short bushcare programs at Wollongong Campus that incorporate experience and training for staff and students and integrate into UOW recognised volunteering and career development/work experience programs and curricula.	Programs completed Number of participants		Landscape Supervisor Environmental Sustainability Initiatives Unit Woilyungah Indigenous Centre Janet Cosh Herbarium and Biological Sciences
		Develop and implement a plan of management and monitoring for the protection of threatened species	Plan developed and implemented		Landscape Supervisor Environmental Sustainability Initiatives Unit
	Ensure UOW is meeting its responsibilities under state and federal biodiversity protection legislation	Update the Bushfire Management Plans for Wollongong and Shoalhaven Campuses to identify asset protection zones and mitigation measures and implement priority actions identified	Plans developed and promulgated	EMP annual report card	Security Manager WHS Unit Environmental Sustainability Initiatives Unit (advice only) Facility Managers

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
		Maintain a register of herbicide and pesticide applications as per Pesticides Act (including UOW and contractor applications)  Ensure that less toxic and integrated pest management options are used wherever possible	Register developed and maintained	EMP annual report card	Landscape Supervisor
	Improve the environmental performance of campus buildings	Conduct audits of older building stock to identify improvements  Review the requirements of the Ecologically Sustainable Development Design Standard	Building audits completed  Review completed and Standard updated		Facilities Management Division
<b>6. Research, Teaching and Learning</b>	Build on the recognition of UOW as an environmental leader in teaching, research and applied environmental management (ongoing)  Incorporate teaching and learning experiences with the environmental management of UOW and vice-versa	<ul style="list-style-type: none"> <li>Promote sustainability in teaching and learning. Explore with the DVC(E) options for effective implementation.</li> <li>Maintain the UOW courses information on the <a href="http://sustainability.edu.au">http://sustainability.edu.au</a></li> <li>Establish a UOW network of teaching staff with the purpose of support teaching and learning practice for those who teach sustainability or wish to teach sustainability</li> <li>Support the integration of academic programs and the environmental operations of the Facilities Management</li> </ul>	Research/environmental activity integration	<a href="http://sustainability.edu.au/material/courses/by-institution/university-of-wollongong/">http://sustainability.edu.au/material/courses/by-institution/university-of-wollongong/</a>  EMP annual report card	Environmental Advisory Committee  Deputy Vice-Chancellor (Education)  Associate Deans (Education)  Environmental Sustainability Initiatives Unit (advice only)

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
	Provide living laboratories for education and research	Facilitate food gardens and food forests on UOW land that can be used for teaching, learning and research and also be used by staff and students and the broader community to improve social capital and engagement	Living laboratories establishment in accordance with demand	EMP annual report card	Faculty Managers Environmental Sustainability Initiatives Unit (advice only)
		Investigate and support opportunities to undertake teaching, learning and research on the escarpment lands at UOW Wollongong Campus for biodiversity, threatened species, feral animal and climate change adaptation outcomes	Research/environmental activity integration		Environmental Advisory Committee  Biological Sciences Environmental Sustainability Initiatives Unit (advice only)
	Research	Integrate research academic activity with the environmental operations of facilities management	Research/environmental activity integration	EMP annual report card	Environmental Advisory Committee Faculty Managers Facilities Management Division
		Provide student opportunities for work experience and research within the Environmental and Sustainability Initiatives Unit	Opportunities provided		Environment and Sustainability Initiatives Unit Faculty Managers
<b>7. Communication and Engagement</b>	Market the University as environmentally sustainable in all aspects of its operations including teaching & research	Improve the community (internal and external) knowledge of sustainability initiatives, research and teaching being conducted by UOW	Community awareness	EMP annual report card	Environmental Advisory Committee  Marketing and Media Units
		Ensure marketing materials and promotional products are reinforcing the University's sustainable image by utilising sustainable practices	Compliant marketing materials		Marketing Unit Environmental and Sustainability Initiatives Unit (advisory only)
		Encourage and support subsidiaries (UniCentre and URAC) to implement sustainability initiatives within their operations	Provision of timely advice		Environmental Advisory Committee  Environmental and Sustainability Initiatives Unit (advisory only)

Function	Objectives and Targets	Strategies and Actions	Performance Indicators	Reported Via	Responsibility
		Develop and implement a Marketing, Communication and Engagement strategy for sustainability initiatives conducted	Strategy prepared	EMP annual report card	Environmental and Sustainability Initiatives Unit Marketing Unit (support) Media Unit (support)
		Reduce transport via improved video conferencing, pre-recorded and e-meeting options available	Options investigated and implemented		Environmental Advisory Committee University Education Committee
	Build capacity and resilience amongst the UOW community to identify issues, propose solutions and take action	Maintain a network of environmental champions amongst staff and students at all campuses	Number of active environmental champions	EMP annual report card	Environmental and Sustainability Initiatives Unit
		Develop training and support programs (including small grants) to enable staff and students to implement actions within their sphere of influence including but not limited to green office, green labs, sustainable events, sustainable procurement	Number of training courses and attendees		Environmental and Sustainability Initiatives Unit Human Resources Environmental Advisory Committee
	Recognise students, staff and work areas for their environmental performance	Establish annual awards program that recognises staff, student, business units and Faculties for campus environmental performance	Annual awards ceremony	EMP annual report card	Environmental and Sustainability Initiatives Unit
		Showcase and share stories on environmental initiatives development and implemented by staff and students at UOW	Conference papers delivered Media stories		Marketing Unit Environmental and Sustainability Initiatives Unit Faculty Managers Divisions and Units
		Ensure environment is a standing item on all Faculty/Division meeting agendas	Compliant agendas		Faculty Managers Divisions and Units
	Demonstrate Environmental Leadership	Commitment to the Talloires Declaration	Review and recommendation of actions to be implemented	EMP annual report card	Environmental Advisory Committee
		Ensure management (at all levels) support environmental initiatives of their staff and of the University	Number of environmental initiatives		Senior Executive, Faculty, Division and Unit Managers

## 6 Glossary of Terms

**Carbon Sequestration:** Capturing atmospheric carbon (carbon dioxide) and storing it by one of several mechanisms to reduce this greenhouse gas and its contribution to global warming. Carbon may be stored in living (green vegetation and forests) or non-living reservoirs (soil, geologic formations, oceans, wood products).

**Ecological Footprint:** A measure of how much biologically productive land and water area an individual, population or activity requires to produce all the resources it consumes and to absorb the waste it generates using prevailing technology and resource management practices.

**Embodied Energy:** The sum total of the energy necessary - from raw material extraction, transport, manufacturing, assembly, installation plus the capital, environmental and other costs - used to produce a service or product from its beginning through its disassembly, deconstruction and/or decomposition.

**Greenhouse Emissions:** The emissions of Greenhouse gases through human activities.

**Greenhouse Gas:** Greenhouse gases are gases in an atmosphere that absorb and emit radiation within the thermal infrared range. This process is the fundamental cause of the Greenhouse Effect. The main greenhouse gases in the Earth's atmosphere are water vapour, carbon dioxide, methane, nitrous oxide and ozone.

**Indigenous Species:** A plant or animal species that occurs at a place within its historically known natural range and that forms part of the natural biological diversity of a place.

**Life Cycle Costs:** Life cycle costs relate to the total cost of a system, product or service over its entire life. It includes the costs of production, transportation, installation costs, operating costs, maintenance costs and disposal cost.

**Locally Provenance Stock:** Locally provenanced stock refers to plants that have been propagated from locally sourced seed or cuttings from species that are indigenous to the local area.

**Permaculture:** Design system which seeks to create harmony between human needs and ecological ones; usually refers to gardening and farming techniques.

**Sustainability:** Is all about preserving the world's natural resources for future generations. A fully sustainable industry would be one that has zero impact or a positive impact on the environment.

## 7 Acronyms

CO <sub>2</sub> e	Carbon dioxide equivalent
EAC	Environmental Advisory Committee
EFSTL	Equivalent Full Time Student Load
EMP	Environmental Management Plan
EMS	Environmental Management System
ESAP	Energy Saving Action Plan
ESI	Environment and Sustainability Initiatives Unit
FTE	Full Time Equivalent
GJ	Gigajoules
kWh	Kilowatt hours
MJ	Megajoules
NGER	National Greenhouse and Energy Reporting
PIUs	Performance Indicator Unit
R <sup>4</sup>	Rethink Reduce Reuse Recycle
WSAP	Water Savings Action Plan

## 8 References

UOW Strategic Plan 2013-2018

UOW Environmental Policy

UOW Environmental Management System

International Environmental Management Systems Standard AS/NZS ISO 14001:2004

International Environmental Performance Evaluation Standard AS/NZS ISO 14031:2000

UOW Performance Indicator Unit (PIU)

UOW Energy Savings Action Plan

UOW Water Savings Action Plan

UOW Renewable Energy Plan

Talloires Declaration

Green Star Rating Scheme

UOW Landscape Plan

Emissions Trading Scheme

National Greenhouse and Energy Reporting

## 9 Version Control Table

Version Control	Date	Author/Reviewer	Approved By	Amendment
1	01032014	Lisa Miller, Environment Manager		
2	01062014	Bruce Flint, Director, Facilities Management Division		
3	01092014	Paul Cooper, Chair, Environmental Advisory Committee		
4	14052014	Bruce Flint, Director, Facilities Management Division	Environmental Advisory Committee	Agreement with DVCE