



Environmental Management Plan

Revision C: June 2010

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1. Preamble

Southern Cross University is committed to the principles of environmental responsibility and sustainable resource management. The University seeks to meet this commitment through community involvement and leadership in education, research and sustainable management practices.

The University recognises the strategic importance of an environment plan for enhancing the quality of its activities and for providing leadership in an area that is of major impact and concern. The University shall endeavour to ensure within available resources that the overall protection and improvement of the quality of the environment is a prime consideration as a result of its activities.

This policy commits the University to the following principles:

- Promote environmental awareness and responsibility among all members of the University community.
- Promote the principles and practices of environmental responsibility by sharing knowledge and experience with our stakeholders.
- Identify, monitor and report on its community, legal and ethical environmental obligations.
- Strive for environmental best practice and sustainability fostered by wide and continuing consultation.
- Recognise our environmental obligations, to present and future generations.
- Develop a balanced approach that is environmentally sound, operationally viable and designed to meet the needs of the organisation whilst allowing the University to fulfill its environmental obligations.

2. Policy Guideline

The Environmental Management Plan (EMP) provides the focus for continuing and expanding commitment by establishing a platform for addressing environmental objectives, procedures, action plans, evaluations and establishing a process that integrates environmental responsibility in all aspects of university life subject to available resources.

In order to establish the culture and practices implied in these principles, it is proposed that the following Environmental Management Plan addresses the following issues. Additionally the plan is intended to extend and interface with the University's Occupational Health and Safety Policy to formalise the commitment of the organisation to undertake its research, teaching and operational work in a way that is academically effective, is safe, is without risk to the health of staff, students, visitors, and to minimise risk to the environment.

Air Quality Management
Chemical Management
Energy Management
Waste Management

Biodiversity Management
Community Awareness
Transport Management
Water Management

3. Environmental Risk

Environmental risk arises from the relationship between humans and human activity and the environment.

Ecological risk management deals with risk associated with past, present and future human activity on flora, fauna and ecosystems, and is a subset of environmental management.

Broadly environmental risk can be defined into two categories:

- Risk to the environment and
- Risks to the organisation from environmental related issues

Implementation of an environmental policy will involve the evaluation of options for maximising environmental protection, establishing plans, targets, strategies and identifying operational responsibilities and allocating resources to programs.

It is the intention of the EMP to promote an awareness of and the need for environmental practices within the university community thereby reducing the impact on the global environment and available resources.

These include but are not limited to, electrical energy and water usage, recycling, waste disposal, chemical usage and disposal, procurement processes, noise and visual pollution.

4. Environmental Goals

To enhance, protect and conserve the university's natural and built environment.

Priority Criteria:

- Scope of impact
- Compliance to statutory requirements
- Focus on causes rather than symptoms
- Impact on human health and safety
- Impact on community
- Impact on teaching and research
- Available resources
- Effective strategic planning and understanding of key risk exposures.
- Improved audit processes.
- Effective, efficient and appropriateness of programs.
- Sustainable management
- Overall risk management for the purposes of good corporate governance.

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5. Environmental Management Plan 2008–2010

In line with stated research and teaching goals, Southern Cross University strives towards best practice in corporate environmental management and is committed to ecologically sustainable development. The purpose of the Southern Cross University Environmental Management Plan (EMP) 2004-2009 is to fulfil the University's environmental policy and to:

- Identify environmental aspects of corporate operations and the impact of those aspects
- Ensure the University is complying with legal and statutory requirements
- Develop environmental performance criteria, objective and targets
- Provide a strategic framework for the implementation and reporting of environmental programs at the corporate and local area levels.

It is proposed that the plan be reviewed by the Environmental Management Team annually and a formal report detailing performance against objectives is to be presented to the Vice Chancellor each year. The report will also be made available to the university community. A summary of performance shall be included in the Southern Cross University Annual Report.

6. Scope

This Environmental Management Plan details strategies to be implemented in the period 2004-2009 for achieving improved environmental performance in the following areas:

- Energy and Greenhouse Management
- Water Management
 - Water Usage and Disposal
 - Stormwater Management
- Pollution Prevention/Environmental Risk Assessment
- Recycling and Waste Management
- Bio-diversity
- Transport
- Community Awareness
- Environmental Management
- Chemical storage, handling and disposal

- **Scope Objectives;**
- To identify stakeholders and interested parties within the context of environmental risk, to encompass geographic, economic, political, social and technological factors that may impact on the university.

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- To identify potential environmental impacts.
 - To better understand operations and the ability to respond effectively to changes to internal and external issues.
 - Ensure appropriate communication plans.
 - Reduce exposure to risk through investigation and analysis.
-
- Improve the university's image and reputation as a leader in environmental issues.
 - The effective use of resources and the capacity to manage outcomes in times of competing demands.
 - Improve accountability and management processes.
 - Flexibility for alternative actions by understanding the source of risks and potential consequences in accordance with **AS 4360:2004 Risk Management** analysis, monitoring and review processes.
 - Compliance with relevant legislation.

7. Format

For each of the sections mentioned above an overall objective is stated. Where applicable, this is followed by a target for environmental improvement and an Environmental Performance Indicator (EPI); these indicators are used to assess the university's performance vis-à-vis its environmental targets.

8. Environmental Programs

Environmental programs relating to the strategies contained in the Plan shall be submitted to Executive for approval, these plans should address schedules, resources and responsibilities for achieving the organisation's environmental targets. They shall also provide information on the monitoring and reporting procedures in place to track program progress.

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9. Energy and Greenhouse Gas Emission Management

Objective: To achieve a continual improvement in energy conservation and to pursue the inclusion of environmental considerations in the University's purchasing procedures.

Target: To reduce absolute energy consumption and greenhouse gas emission levels, with the implementation of an energy management program to conserve energy by eliminating waste and encouraging efficient use.

Goal: To minimise the University's consumption and wastage of energy, primarily electricity.

Environmental Performance Indicators: Develop and monitor appropriate energy and greenhouse performance indicators that illustrate true progress against a background of growth for the university. Proposed performance indicators include:

- GJ energy per EFTSU and FTE
- CO₂e per EFTSU and FTE

No.	Strategy	Responsibility	Year of Commencement
9.1	Develop and monitor energy and greenhouse performance indicators across the university to provide a benchmark for measuring improvement.	Dir Facilities Mgt & Services (DFM+S)	2008
9.2	Include energy and greenhouse indicators on monthly utility reports, as well as information on energy conservation initiatives.	DFM+S	2009
9.3	Identify new energy conservation technologies and consider recommendations for action and communicate relevant information to stakeholders on a regular basis.	DFM+S	ongoing
9.4	Develop a workable environmental purchasing policy that promotes the purchase of products with energy efficiency ratings, life cycle costs where practical and data is available.	Dir Finance	2009
9.5	Develop and implement energy conservation and greenhouse awareness programs for staff and students, integrated with other environmental initiatives.	DFM+S	2008
9.6	Ensure building design provides energy efficient options for new and refurbished buildings to utilise natural light and ventilation.	DFM+S	2008

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No.	Strategy	Responsibility	Year of Commencement
9.7	Establish clauses for inclusion in all contracts for services that include specific provisions which encourage contractors to develop energy efficient work practices.	DFM+S	2008
9.8	Ensure preventive maintenance schedules exist for equipment and plant	DFM+S	Ongoing
9.9	Develop guidelines for the availability and installation of thermal comfort equipment.	DFM+S	2008

10. Water Management

A-Water Usage and Disposal

Objective: To decrease the University's consumption of water by using water efficiently and reducing waste.

Target: Reduce water consumption levels.

Goal: To achieve continual improvement in water conservation.

Environmental Performance Indicator: Kilotres/per annum

- Record water quality monitoring and status of compliance with respect to appropriate water quality guidelines.
- Record quantity and source of water entering university environs from surrounding urban runoff.
- Kilotres per EFTSU and per FTE.

No.	Strategy	Responsibility	Year of Commencement
10.1	Monitor total water consumption levels and provide sector-level reports of water consumption-where feasible.	DFM+S	2008
10.2	Review Ongoing usages audits and implement viable recommendations.	DFM+S	2008
10.3	Develop and implement a water conservation awareness campaign for staff and students, integrated into other environmental initiatives.	DFM+S	2008, 2009
10.4	Continually review water saving technologies and assess their suitability for use throughout the campus. eg dual flush toilets etc	DFM+S	2008
10.5	Develop irrigation systems to utilise grey water stored in university reservoirs for landscape watering.	DFM+S	2008

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No.	Strategy	Responsibility	Year of Commencement
10.6	Continue and enhance the practice of creating storage ponds for water reuse and wildlife habitats.	DFM+S	2008
10.7	Continue the regular monitoring of water quality of storage ponds and open water bodies on a regular basis following appropriate guidelines.	DFM+S	2008
10.8	Continue current landscaping techniques which utilise natural rainfall and manage runoff, i.e. use of mounding and swaling principles and continue the practice of planting indigenous species.	DFM+S	2008
10.9	Continue practice of storing grey water for irrigation of sporting fields	DFM+S	2008
10.10	Pursue compliance with established procedures for management of runoff from construction sites.	DFM+S	2008

B - Stormwater Management

Objective: To avoid all pollution to the stormwater system, ensuring that only rain reaches the Wilson River via the East Lismore drainage system.

Targets:

- Avoid all actions that could attract infringements for water pollution under the NSW Environmental Protection Act (1997).
- Ensure a high level of understanding of the function and location of stormwater drain entrance points, among university staff that handle potential contaminants.

Goal: To enhance the University's natural reserves of stormwater runoff to ensure sustainability of ecosystem.

Environmental Performance Indicator: No EPA breaches relating to stormwater identified during campus environmental risk assessments and other inspections.

No.	Strategy	Responsibility	Year of Commencement
10.11	Develop and implement a community stormwater awareness campaign, which includes drain locations etc.	DFM+S	2008-9
10.12	Conduct biennial reviews of water quality.	DFM+S	Ongoing
10.13	Continue to work closely with the local community and local government in the development of a catchment management plan.	DFM+S	Ongoing
10.14	Install sediment traps in all stormwater drains where existing infrastructure and practices generate a residual risk of stormwater pollution.	DFM+S	Ongoing
10.15	Potential for the testing of stormwater entering and leaving the campus to form part of student course work and research.	DFM+S	Ongoing
10.16	Further develop an SCU stormwater management plan that integrates all of the campus stormwater management initiatives. Display the plan	DFM+S	Ongoing

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No.	Strategy	Responsibility	Year of Commencement
	on the SCUgreen website		
10.17	Develop a landscape water conservation plan consistent with the University's Landscape Plan.	DFM+S	Ongoing
10.18	Amend service-level agreements to take account of stormwater management issues.	DFM+S	Ongoing
10.19	Sedimentation and erosion control shall be implemented in the event of any earthworks by placing effective barrier controls to contain silt and sediment run off Appropriate measures also relate to dust control.	DFM+S	Ongoing

11. Pollution Prevention/Environmental Risk Assessment

Objective: To continually improve pollution prevention actions, and to achieve best practice environmental management in line with legal and other requirements.

Targets:

- Avoidance of all actions that could attract infringements under the EPA.
- All relevant technical officers and contractors aware of environmental protection laws and pollution prevention strategies. Such as those outlined in the Contractor induction booklet.
- Effective pollution prevention infrastructure in place in all relevant areas across campus, with technical officers knowledgeable of maintenance and use.
- Spill kits in place in all relevant chemical and waste storage areas, with relevant technical officers trained in their use.

Environmental Performance Indicators:

- Percentage residual environmental risk based on the Comparative Environmental Risk Assessments Methodology (CERAM).
- Number of technical officers trained in stormwater pollution prevention measures.
- Number of actions that could attract infringements under the ACT EPA.

No.	Strategy	Responsibility	Year of Commencement
11.1	Ensure training activities are based on the CERAM methodology.	DFM+S	Ongoing
		OH&S	
11.2	Ensure spill kits as appropriate for each area where new or waste	DFM+S	Ongoing

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No.	Strategy	Responsibility	Year of Commencement
	chemicals are stored and used, are provided.		
11.3	Oversee the installation of pollution prevention equipment as needed for specific, identified sites. Train relevant technical officers in equipment use.	DFM+S OH&S	Ongoing
11.4	Undertake annual environmental risk audits and continually update comparative environmental risk audit methodology.	DFM+S	Ongoing
11.5	Review source pollution risks on campus and address any identified issues.	DFM+S	Ongoing
11.6	Further develop and implement an internal (within building) environmental risk audit strategy.	DFM+S	Ongoing

12. Recycling and Waste Management

Overview:

Through the implementation of environmentally sensitive purchasing procedures waste can be avoided and reused, the first and second most desirable options respectively of the waste management hierarchy.

Implementing appropriate purchasing procedures can result in significant financial savings through reduction in the cost of waste disposal.

The policy aims to demonstrate willingness to accept responsibility to achieve a substantial reduction of waste going to landfill and to be model waste managers.

The University has the capability through its purchasing power to reduce, reuse and recycle waste and to purchase products with recyclable content.

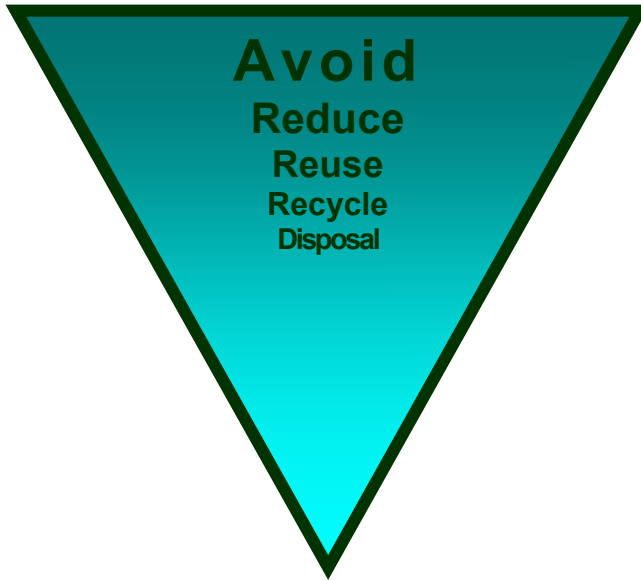
From the perspective of ecologically sustainable development it is crucial that waste activities are carried out in the future in such a way as to minimise the consumption of natural resources and the disposal of wastes to the environment.

The Environment Protection Authority (EPA) approach to waste management is based on the philosophy that sustainability of resources can only be achieved through reduced generation of waste and avoidance of over consumption.

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The EPA has adopted a waste management hierarchy which is based on a priority order of options.

Waste Minimisation and Management Hierarchy



The University has a social responsibility to conduct its operations in an environmentally sound manner and thus embrace the principles of the waste management hierarchical processes.

Objective: To achieve best practice in recycling and waste management.

Target: Reduce volume of waste going to landfill.

Goal: To integrate the principles of the recycling and waste management hierarchy with the University's management of natural resources and manufactured products.

Environmental Performance Indicator: Tonnes of waste to landfill per year relative to baseline (2002).

No.	Strategy	Responsibility	Year of Commencement
12.1	Establish, in conjunction with stakeholder groups, waste management protocols that promote innovative and flexible strategies to reduce waste and increase recycling.	DFM+S	Ongoing
12.2	Maintain the recycling program, which includes the use of standard colours and signs for recycling bins and promotional media and training of the system.	DFM+S	Ongoing
12.3	Establish a community awareness program to promote the reuse of materials, recycling and waste minimisation.	DFM+S	Ongoing

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No.	Strategy	Responsibility	Year of Commencement
12.4	Review the impact of litter on campus and establish recycling points at 'hot spots'.	DFM+S	Ongoing
12.5	Implement a purchasing policy that promotes: the use of products manufactured from recycled material, waste minimisation, material reuse and recycling.	DFM+S & Purchasing Officer DF&BS	Ongoing
12.6	Review current waste streams to establish opportunities to transform waste into a resource which could be reused on campus, or used to generate income for the University	DFM+S	Ongoing
12.7	Establish a strategy for managing organic waste or wet waste.	DFM+S	Ongoing
12.8	Develop and implement a waste monitoring and evaluation process that provides information on annual volume, weight and composition of the waste and recycling streams.	DFM+S	Ongoing
12.9	Encourage work practices which conserve resources, minimises waste, endorses recycling and makes available materials for reuse, eg waste paper for artwork.	DFM+S	Ongoing
12.10	Investigate feasibility and suitability of composting or worm systems for disposal of organic waste at the University including the University Union and other campus tenants.	DFM+S	Ongoing

13. Biodiversity

Definition: Environment Australia describes biodiversity as “*the variety of all life forms: the different plants, animals and micro-organisms, their genes and the ecosystem or which they are apart*”.

Objective: To manage biodiversity in an ecologically appropriate manner in consultation with the university community.

Target: Develop and implement a biodiversity management plan.

Goal: To minimise the University’s biodiversity impact on the local community.

Environmental Performance Indicator: Increased community awareness of biodiversity issues.

No.	Strategy	Responsibility	Year of Commencement
13.1	Develop a university Biodiversity Plan that takes into account local, state and commonwealth government environmental protection regulations*, relevant master plans, and the views of the university and local community.	DFM+S	2004
13.2	Ensure that the university is meeting its responsibilities under local and commonwealth environmental protection and biodiversity legislation.	DFM+S	Ongoing

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No.	Strategy	Responsibility	Year of Commencement
13.3	Identify all processes that are threatening and/or reducing biodiversity (eg feral weeds and animals).	DFM+S	Ongoing
13.4	Increase biodiversity by targeting and reducing those species. Subject to available resources.	DFM+S	Ongoing
13.5	Identify processes responsible for reducing biodiversity.	DFM+S	Ongoing
13.6	Protect and manage native flora and fauna through revegetation.	DFM+S	Ongoing
13.7	Remove or control species threatening biodiversity in a humane way.	DFM+S	Ongoing
13.8	Manage and maintain water courses and wildlife in a way that enhances favoured species.	DFM+S	Ongoing

* National Strategy for the Conservation of Australia's Biological Diversity
 Environment Australia
 National Parks and Wildlife
 RSPCA
 Pastures Protection Board

14. Transport

Objective: To positively contribute to addressing University-related aspects of the following sustainable transport issues unique for each campus, and to promote the use of public transport and vehicle pooling.

- Traffic congestion
- Air quality
- Traffic noise
- Road safety
- Degradation of urban landscapes
- Accessibility for non-car users of public transport, cycling, walking, paths, vehicle pooling
- Greenhouse emissions

Targets:

- University Fleet:
 - Increase the efficiency of the vehicle fleet.

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- Reduce the environmental impact of the university community's commuting by:
 - Minimising single occupant vehicle commuting
 - Maximising the accessibility and suitability of alternative modes of transport

Goal: To reduce single vehicle dependency by developing vehicle sharing, (vehicle pooling) and to increase the use of public transport alternatives.

Environmental Performance Indicators:

- University fleet:
 - TCO₂^e / km travelled per annum
 - TCO₂^e per annum
 - Fuel consumption against Ongoing baseline year
- University Commuting:
 - Percentage of staff and students using non-car transport
 - Ratio of private vehicle parking spaces to staff and student population
 - Carpooling register participation and usage rates.
 - Frequency and usage of peak and off-peak public transport services

No.	Strategy	Action by	Year of Commencement
14.1	Develop a sustainable fleet management strategy proposal, which includes a vehicle reduction and/or fleet recomposition framework.	DFM+S	Ongoing
14.2	Ensure all fleet vehicles are optimally tuned to reduce fuel consumption and emissions.	DFM+S	Ongoing
14.3	Develop strategies to assess the use of alternative transport and fuel options.	DFM+S	Ongoing
14.4	In consultation with relevant University planning groups, review campus-planning issues to determine the impact on intra-campus transport requirements.	DFM+S	Ongoing
14.5	Identify and promote alternatives to products and materials with unnecessary transport and freight impacts	DFM+S	Ongoing
14.6	Obtain research into what influences transport choices.	DFM+S	Ongoing
14.7	Review the viability of car-pooling on campus, including establishing a trial program.	DFM+S	Ongoing
14.8	Explore opportunities for salary packaging to encourage use of public or sustainable forms of transport, allowing for regional restraints.	DFM+S	Ongoing
14.9	Undertake a sustainable transport community awareness campaign, promoting diversity in transport choice.	DFM+S	Ongoing
14.10	Maintain a Sustainable Transport Information Board in the Student Union building	DFM+S	Ongoing
14.12	Develop an Ride to Uni program (dependent on legal advice).	DFM+S	Ongoing
14.13	Foster increased linkages with outside bodies such as the Lismore City Council to promote sustainable transport use.	DFM+S	Ongoing
14.14	Support the feasibility and value of an SCU campus bus interchange.	DFM+S	Ongoing
14.15	Ensure cycling access and safety to and through the campus is maintained	DFM+S	Ongoing

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No.	Strategy	Action by	Year of Commencement
	and continue to develop facilities for cyclists eg adequate cycle parking.		
14.16	Survey transport modes of SCU staff and students to inform alternative transport strategies, (identifying and addressing 'weak links' where campus commuters' transport needs are not met by public transport services, renegotiating schedules and providing shuttle services where necessary) and measure impacts.	DFM+S	Ongoing
14.17	Promote the benefits of public transport in student and staff publications	DFM+S	Ongoing

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15. Community Awareness

Objective: To promote corporate and community awareness of environmental issues.

Target: Increase awareness of **SCUgreen** as a source of assistance in relation to environmental impact.

Environmental Performance Indicators: Number of unsolicited requests for assistance from other areas of campus on environmental assistance

No.	Strategy	Action by	Year of Commencement
15.1	Design and review SCUgreen website, and link to FM&S website	DFM+S	Ongoing
15.2	Promote SCUgreen activities and operations in relevant University publications.	DFM+S	Ongoing
15.3	Ensure SCUgreen team members are appropriately trained in all aspects of environmental issues.	DFM+S	Ongoing
15.4	Promote SCUgreen as an internal environmental contact point within the University.	DFM+S	Ongoing
15.5	Maintain, support and promote environmental management with the University community including student bodies and university tenants.	DFM+S	Ongoing
15.6	Identify opportunities to amalgamate corporate environmental programs with academic activity, while continuing to support interdisciplinary initiatives.	DFM+S	Ongoing
15.7	Investigate opportunities for improving environmental awareness and promoting SCUgreen.	DFM+S	Ongoing
15.8	Undertake research into aspects of corporate environmental management that are relevant to the aims of SCUgreen and publish results.	DFM+S	Ongoing
15.9	Provide advice to University Executive on progress with regard to its obligations.	DFM+S	Ongoing
15.10	Introduce SCUgreen Environmental Achievement Awards.	DFM+S	Ongoing
15.11	Development of publications of brochures and monographs related to specific environmental issues affecting the university.	DFM+S	Ongoing

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16. Environmental Management

Objective: To promote corporate and community use of SCUgreen as an internal contact point. To assist individual areas within the university in developing integrated environmental management systems.

Target: Develop a cross institutional approach to environmental management. All major areas within the university are to develop a local Environmental Management System (**EMS**) by 2005 in conjunction with a Risk analysis.

Environmental Performance Indicators: Number of institutional areas to have developed a local environmental management system.

No.	Strategy	Action by	Year of Commencement
16.1	Develop and implement a program to assist individual areas to develop their own Environmental Management Systems.	DFM+S	Ongoing
16.2	Establish the SCUgreen team as the point of contact to assist areas in the development of an EMS.	DFM+S	Ongoing
16.3	Develop and maintain University-wide Environmentally Sustainable Design (ESD) standards for capital developments, refurbishments and maintenance.	DFM+S	Ongoing
16.4	Ensure members of the SCUgreen are involved in all relevant stages (design, value management etc) of capital developments and major refurbishments.	DFM+S	Ongoing

Chemical Incident Response

*In every situation contact
Safety & Security 3333*

And follow their instructions

appropriately and in compliance with the relevant legislation and approved procedures.

Target: To reduce the environmental impact of the university community's use of chemical substances.

Goal: Incorporate within the university community environmental awareness of chemical issues.

No.	Strategy	Action by	Year of Commencement
17.1	Continue to provide the university community the correct methods of chemical handling issues and the consequences for incorrect handling.	DFM+S OH&S	Ongoing
17.2	Ensure adherence to the Chemical Control Policy and Procedures continues.	DFM+S	Ongoing
17.3	Reduce the amount of chemical waste volumes and implement any necessary modifications to current practices.	Lab Managers OH&S	Ongoing
17.4	Ensure compliance and monitoring of environmental legislation affecting chemical issues.	OH&S	Ongoing
17.5	Continue to identify potential problem areas, provide spill kits to applicable areas, Hazmat signage kept updated and chemical lists to be provided to the Fire services with appropriate warnings.	OH&S	Ongoing
17.6	Continue to have staff undertake appropriate training.	OH&S DFM+S	Ongoing

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18. Initiatives.

Undertaken to date

- Dilution and grease pits to laboratories and other work areas regularly tested for chemical content prior to pump out and disposal by authorised contractors.
- Paper recycling, reduce landfill by 150 tonnes annually.
- Confidential paper shredding and recycling (in excess of 70 tonnes per annum).
- Introduction of recycled toilet paper and hand towel (October 2002).
- Stormwater runoff to retention ponds filtered by reed beds (microphytes) and used for irrigation purposes.
- Recycling of paper, glass and aluminium products (co-mingled waste).
- Audit conducted of Trade waste procedures.
- Completion of a waste audit.
- Implementation of waste reduction practices.
- Reduction in waste disposal costs.
- Compliance with relevant waste management legislation.
- Monitor the quantity of waste disposed.
- Monitor the quantity of material for recycling.
- Documentation of resource conserving office work practice.
- Establishment of a resource exchange.
- Delivery of paper saving guidelines.
- Replaced old and inefficient light fittings and florescent tubes with energy efficient and long lasting tubes (energy audit).

Recommended Initiatives. (Source - Universities and Sustainability publication*)

- To take full advantage to lead society towards a sustainable future.
- As a University to increase awareness, improve knowledge, create technologies and impart the moral vision that lead to a sustainable future for future generations.
- To prepare for the fact that the success of higher education in the twenty first century may be judged mainly by the extent to which sustainability becomes a cornerstone of academic practice.
- To ensure this institution contributes sustainable solutions and strategies and to be proactive in anticipating environmental problems, as opposed to reactive.
- Accommodate business sector expectations that universities are to train the next generation of accountants and business managers in '*Triple Bottom Line*' (TBL) reporting.
- Respond to the opportunities and student demands for diversity in education alliances with industry, to promote sustainable initiatives.
- Acknowledge that 'education in sustainability' is a selling point to potential students and to give the university a competitive edge in attracting students.

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Table 1

Chronology of some declarations related to sustainability in higher education

Year	General Declarations	Website
1972	The Stockholm Declaration on Human Environment	http://www.unesco.org/iau/tfsd_stockholme.html
1977	Tbilisi Declaration	http://www.gdrc.org/uem/ee/tbilisi.html
1992	The Earth Summit Agreements	http://www.igc.org/habitat/agenda21
1993	The Kyoto Declaration	http://www.unesco.org/iau/tfsd_first.html#THE KYOTO
1994	The Earth Charter	http://www.earthcharter.org
1997	Thessaloniki Declaration	http://www.unesco.org/iau/tfsd_thessalonhiki.html
Year	Higher Education Initiatives	Website
1990	Talloires (Tal-wah) Declaration	http://www.ulsf.org/programs_talloires.html
1991	Halifax Declaration	http://www.unesco.org/iau/tfsd_halifax.html
1993	Swansea Declaration	http://iisd.ca/educate/declarat/swansea.htm
1994	CRE Copernicus Charter	http://www.unesco.org/iau/tfsd_copernicus.html
1995	Student charter for a Sustainable Future	http://iisd.ca/educate/declare.htm#stud
1998	Universities of Australia Sustainable Develop Charter	http://www.unistudent.com.au/uploads/nus/campaign/susuni_ESDC.pdf
2001	Lüneburg Declaration	http://www.lueneburg-declaration.de/downloads/declaration.htm

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(Source - Universities and Sustainability publication*)

Table 2.

Common principles and themes of the various declarations of sustainability

Themes identified in charters and declarations, summarised from the Talloires Declaration, the Copernicus Charter and the Universities of Australia Charter.	Common themes: eight dimensions of sustainable university practice (seven proposed by ULSF and Cultural Inclusivity added)
Ethical and moral responsibility	Social responsibility articulated in the institutional mission and structure
The development of interdisciplinary curriculum	Integration of sustainability across the curriculum
Sustainable academic research	Academic research on sustainability and consideration of social, economic and environmental issues in all research
Partnerships with government, non-governmental organisations and industry, co-operation amongst universities and countries.	Outreach and services, including development of partnerships with schools, government, non-governmental organisations and industry.
Sustainable physical operations, the need for universities to be leaders through personal practice.	Sustainable institutional operations including effective monitoring and reporting.
Environmental literacy.	Staff development and rewards.
Co-operation amongst universities and countries,	Cultural inclusivity. Defined as cultural inclusivity in sustainable university practice as curricular and research agenda that educate students about a broad range of cultural perspectives and values, when defining and implementing economic, environmental and social initiatives.

*Australian Conservation Foundation Inc – website: www.acfonline.org.au

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Acronyms

SCU	Southern Cross University
CERAM	Comparative Environmental Risk Assessments Methodology
CNG	Compressed Natural Gas
CO ₂ ^e	Carbon Dioxide Equivalent
DEMO	District Emergency Management Officer
DFM+S	Director Facilities Management and Services
DF&BS	Director Finance and Business Services
EFTSU	Equivalent Full Time Student Unit
EMP	Environmental Management Plan
EMPC	Environmental Management Planning Committee
EMS	Environmental Management System
EPA	Environmental Protection Authority
ESD	Environmentally Sustainable Development
EPI	Environmental Performance Indicator
FTE	Full Time Equivalent
HAZMAT	Hazardous Materials
GJ	Giga joule
LPG	Liquefied Petroleum Gas
OH&S	Occupational Health and Safety
TBL	Triple Bottom Line –Corporate performance measured by profit, environmental quality and social justice.
TCO ₂ ^e	Tonnes of Carbon Dioxide Equivalent
TEFMA	Tertiary Education Facilities Management Association

Relevant Federal and State Government Legislation.

- AS/NZS ISO 14001: 1996 Environmental Management Systems
- The Waste and Minimisation and Management Act 1995
- Protection of the Environment Operations Act 1997
- Green Waste Action Plan 1996
- Waste Avoidance and Resource Recovery Act 2001
- AS 4360:2004 Risk Management

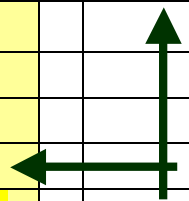
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2004 TEFMA Benchmark Survey

Environmentally Sustainable Development (ESD) Assessment Tool.

Background: TEFMA continuously strives to improve the breadth and quality of its annual benchmarking survey of Australasian Institutions. In Ongoing the ESD survey was added to consider environmentally sustainable development.

		Compliance with Statement						
		Institution is yet to develop systems in this area (0%)	Institution at early stages of developing & implementing systems in this area (1-39%)	Statement is only partially true with further work/refinement to system required (40-79%)	Statement is generally true but with some minor exceptions or omissions (80-99%)	Statement is true in all regards (100%)		
Note: indicate your scores below by deleting the four scores in each line that don't apply (e.g. if you wish to award yourself "4" for "Energy" please delete 1, 2, 3 and 5 and so on)								
<i>An environmental management system exists and is implemented detailing strategies for development in regard to:</i>								
Energy		1	2	3	4	5		
Water		1	2	3	4	5		
Waste		1	2	3	4	5		
Natural Environment		1	2	3	4	5	=	16 /20
<i>The master plan incorporates strategies for enhancing ecological values.</i>		5	10	15	20	25	=	20/25
<i>Construction and rehabilitation projects incorporate principles of 'Green Buildings'.</i>		4	8	12	16	20	=	12/20
<i>The use of space is maximised in existing and planned buildings.</i>		4	8	12	16	20	=	20 /20
<i>There are measures for minimising resource consumption and emissions of transportation to and from the institution by users.</i>		3	6	9	12	15	=	12 /15
Institution ESD - TOTAL							=	80 /100
Self- evaluation:								
	Score	Rating						
	>80	Best Practice						
	66-80	Good Practice						
	51-65	Average Practice						
	35-50	Below Average Practice						



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		<35	Poor Practice		
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