



Environmental Sustainability Plan 2016-2020

University of New England

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Photos: Jennifer Miller

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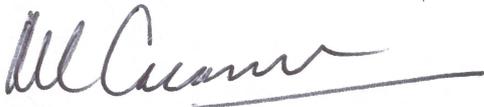
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Responsible party for review: Environmental Sustainability Manager,
Facilities Management Services

Endorsed by: Director Facilities Management Services



Sponsored by: Chief Services Officer



Approved by: Vice-Chancellor



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Glossary

biodiversity	the variety of life forms, the different plants, animals and microorganisms, the genes they contain, and the ecosystems they form. It is usually considered at three levels: genetic diversity, species diversity and ecosystem diversity. (NSW Biodiversity Strategy 2010-2015 – NSW Government, 2010)
carbon neutrality	having no net carbon emissions. Carbon neutrality is achieved by minimizing carbon emissions as much as possible and using carbon offsets or other emissions to mitigate the remaining emissions
cultural heritage	movable and immovable objects of artistic, architectural, historical, archaeological, ethnographic, paleontological and geological importance
Ecologically Sustainable Development (ESD)	the precautionary principle where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
environment	natural and physical resources (including ecosystems), the qualities and characteristics of locations, places and areas, the heritage values of places, and the social, economic and cultural aspects of these things
environmental aspect	element of an organization’s activities, products or services that can interact with the environment
environmental impact	any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization’s activities, products or services
environmental management system (EMS)	the EMS is the part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, process and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy
environmental sustainability objective	overall environmental goal, arising from the environmental policy that an organization sets itself to achieve, and which is quantified where practicable
environmental sustainability policy	statement by the organization of its intentions and principles in relation to its overall environmental sustainability performance, which provides a framework for action and for the setting of its environmental sustainability objectives and targets
environmental sustainability target	detailed performance requirement quantified where practicable, applicable to the organization or parts thereof that arises from the environmental sustainability objectives and that needs to be set and met in order to achieve those objectives
life cycle analysis	a systematic assessment of the environmental impact of each component process of materials
renewable energy	energy derived from sources that are regenerative or which, for all practical purposes, cannot be depleted
resource	available source of wealth: a new or reserve supply that can be drawn upon when needed
stakeholder	a person, group or organisation that has interest or concern in an organisation
sustainability	the quest for persistence over human generations without destroying the social and life support systems on which current and future generations of humans (and all other species on Earth) depend upon
waste	substance or material regarded as worthless

Executive Summary

Recent scientific evidence proves that climate change, as a result of greenhouse gas emissions threatens the stability of the economy, environment and population. Accordingly, the University of New England (UNE) as part of the global community and as an educator of future leaders, has an obligation to inspire, provide guidance, and demonstrate leadership to ensure that present and future practices are part of an *Ecologically Sustainable Development* concept.

UNE has a significant environmental footprint which has been trending slightly upwards over the last five years despite a number of significant projects being implemented. This is a result of increasing land area usage, new buildings and infrastructure as well as an ever-increasing cost associated with the renewal of underground infrastructure.

UNE also has the responsibility to drive climate change solutions that address the regional and community needs to ensure the University is an essential partner in preparing for and responding to the impacts of a changing climate while contributing towards a sustainable economy.

On balance, UNE is well configured to contribute positively to the environmental sustainability challenge via its unparalleled community of staff and alumni with environment and sustainability related interests - many making exemplary contributions via research, scholarship and wider professional and voluntary activities.

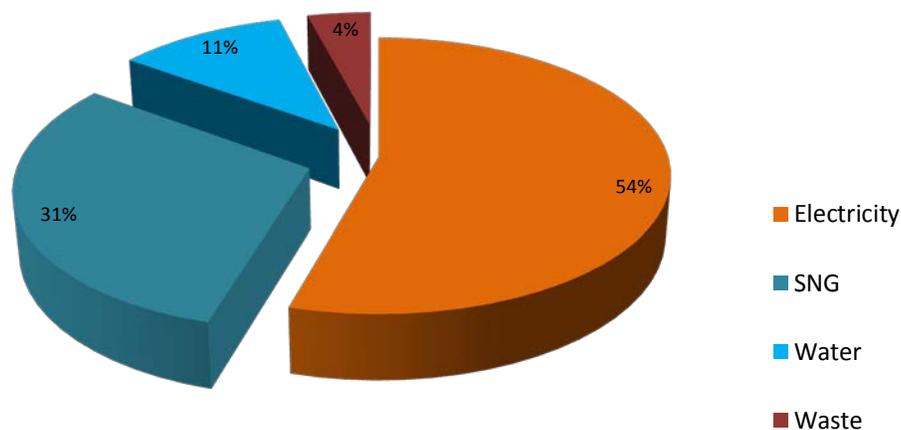
The University of New England Strategic Plan 2016-2020 places sustainability as one of the key values to the organisation with its enabling strategies focusing on:

- Diversifying and growing income through broad funding base that will provide ongoing support to University's initiatives;
- Improving operational resilience by improving efficiency and reliability; and
- Enable a bold and innovative culture by fostering a culture where creative ideas and innovation thrive.

In line with the strategic plan, major activities related to environmental sustainability over the last 3 years have been the approval of a renewable energy project (solar farm), implementing City2Soil Organic Waste initiative, as well as improving energy and water infrastructure to improve our data management approaches to report trends and provide information and financial viability to relevant stakeholders.

Over the last 5 years resource consumption costs has been dominated by electricity which accounted for more than half of the total cost, followed by Substitute Natural Gas also known as (Synthetic Natural gas), which accounted for just under one third of the total cost. Cost of water accounted for over 10% followed by waste just below 5%.

Resource Cost for UNE Academic Campus



As part of the ongoing environmental sustainability program, the Environmental Sustainability Operational Plan (ESOP) will identify specifics around budget allocations, timeframes, people resourcing, collaborations and project management responsibilities. This will be in line with the Environmental Sustainability Report Card which will be produced to report on the Key Performance Indicators and progress towards the proposed activities.

Scope & Format

Environmental Sustainability Plan (ESP), including the Environmental Sustainability Policy in Appendix 1, is overseen by the Facilities Management Services (FMS) with strategic advice from the UNE Strategic Sustainability Advisory Committee (SSAC). As this is the inaugural ESP for environmental sustainability, it has a term of 4 years (2016 – 2020), connected with performance reporting through an annual Environmental Sustainability Report Card.

A major review of the Plan will be undertaken in its final year to develop the succeeding ESP. A companion internal operational document (Environmental Sustainability Operational Plan (ESOP)) will have implementation details inclusive of program priorities, annual resourcing, and specific responsibilities.

A review will typically be undertaken:

- If there is a change in the nature or scope of the UNE Organisational Asset Management Strategy (OAMS), UNE Master Plan and ESOP;
- If there is a change in UNE compliance reporting;
- At the completion of audits.

Background

Given the rapid change in an increasingly complex higher education sector, UNE must ensure it is capable of sustaining its community, partnerships, governance and finances while maintaining harmony between industry stakeholders, and physical environment.

UNE is embracing this change and sees environmental sustainability as making a significant contribution through:

- Working with all levels of government,
- Improving the educational qualifications of communities,
- Contributing to the workforce requirements for the future, and
- Improved economic outcomes which are core to UNE's environmental sustainability agenda.

UNE's credentials in environmental sustainability have further strengthened through signing the Talloires Declaration. Talloires consists of a ten-point action plan around incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities across the world.

Environmental sustainability is a key part of this broader sustainability agenda which also includes participating in the Tertiary Education Facilities Management Association (TEFMA) higher education sector reporting over a range of facilities management, environmental planning and sustainability activities.

UNE is an institutional member of TEFMA, and regularly participates in the sector reporting, it supports the staged advancement of environmental programs and associated metrics within Australian universities generally. This will improve further collaboration with other universities on ideas and solutions for environmental sustainability.

University Site

Owner	University of New England
Address	University of New England, Armidale, NSW, 2351
Local Government	Armidale Dumaresq Council
Water Supply	The university receives its water source from the Malpas Dam
Energy Supply	Electricity: Supplies its electricity through network grid (Solar farm to supply solar power from 2018) Gas: Consumes LPG which is processed on-site to produce SNG
Locality	<p>UNE is located in the southern region of the New South Wales (NSW) Northern Tablelands approximately half way between the capital cities of Sydney and Brisbane and approximately 200 km west from the east coast of NSW. The UNE Armidale campus is positioned approximately 5 kilometres north-west of Armidale's city centre on the edge of North Hill, covering approximately 200 hectares to which it provides attractive views of the town and the surrounding rural landscape.</p> <p>UNE is located on several sites in Armidale. The main campus of the University is an attractive rural and bushland setting. Part of this campus includes the original property presented by the late Mr T R Forster to the University of Sydney for the establishment of a University College. This property comprised the old homestead, 'Booloominbah', together with several other buildings and 74 hectares of land. The UNE's Rural Properties are a unique natural resource supporting world-class research and teaching, covering an environmentally diverse area of 4837 hectares. They are comprised of nine individual properties supporting an integrated range of operations.</p>
Site Significance	<p>UNE has a range of local and state heritage sites including Trevenna, Booloominbah and its surrounding gardens and Deer Park. Booloominbah and its grounds are State Heritage listed and play a pivotal role when considering the design of all new roads, path and built form. Related to Booloominbah and a part of its original setting is the Lodge (Building E021) located to the south east.</p> <p>UNE has a range of conservation areas including Lake Zot, UNE Parklands, ABRI Precinct, and North Hill Conservation Area. North Hill Conservation Area represents unique natural and rural setting.</p>
Origins	<p>UNE has a long and proud history founded as the first regional Australian university established outside of a capital city. The University of New England was originally opened on 30 April 1938 as the New England University College. It was a satellite college of Sydney University and was established on the Booloominbah estate. The University of New England became autonomous in 1954 and pioneered teaching to external students by correspondence, making UNE Australia's most experienced provider of distance and now online education. UNE now has Regional Study Centres in Tamworth, Taree, Coonabarabran, Narrabri, Moree, Inverell, Tenterfield, Glen Innes, Gunnedah, Guyra and a Study Hub in Parramatta. They give UNE students living in those communities direct access to the Armidale campus via online, video-conferencing and telephone facilities, and provide space for meetings and quiet study.</p>

Topography:	<p>Armidale Plateau is undulating to hilly with an elevation of 1100 m. Stepped landscape across basalt flows, broad valleys, steepening to the east at the head of Great Escarpment gorges.</p> <p>The steep gradient of the academic campus presents an additional challenge of increased shade cast by built form.</p>
Soil Landscape:	<p>Siliceous sands derived from granites are found among rock outcrops. Red earths and mellow texture contrast soils of relatively low fertility and poor structure are widespread across the bioregion and are prone to acidification, salinity, erosion, invasive native scrub and loss of native vegetation. Soils with increased organic matter occur in swampy sedgeland in valleys. These soils support a variety of open forests and woodlands.</p> <p>In basalt areas, shallow stony loams are found on steep areas and deep, red brown and brown to black, fertile, well-structured loams are found on flatter slopes. Soils are sometimes waterlogged in valley floors. Siliceous sands and red earths occur on associated Tertiary sands and gravels. Harsh texture contrast soils in the bioregion derived from Permian sedimentary rocks are generally yellow, thinner and stonier on steep slopes. Some areas of slightly saline soils also occur.</p> <p>Within Armidale Plateau texture contrast soils on sedimentary rocks and granite, mellow (soft and friable) and well drained on upper slopes, harsh and poorly drained on lower slopes. Variable stony loams to deep black earths in valley floors on basalt. Deep, dark loamy alluvium in swampy valleys.</p>
Geology:	<p>The New England fold belt in the northeast of the state is composed of sedimentary rocks of Carboniferous and Permian age that were extensively faulted during a period of rapid continental plate movement associated with granite intrusions in the late Carboniferous. Much of the bedrock is now overlain by Tertiary basalt flows rarely exceeding 100m in thickness that lie on river gravels and sands or on lake sediments. As the basalt erodes the sands are exposed and have been mined for the sapphires, diamonds, gold and tin ore that they contain.</p> <p>The geology has a strong influence on topography. The eastern edge of the bioregion is at the Great Escarpment where coastal streams have cut deep gorges below the plateau. The granite country is steep with abundant boulder outcrops and rounded tors. The basalt country is more planar, except around former eruption centres that form high peaks and the individual basalt flows are seen as distinct levels across the plains.</p> <p>The basalts disrupted former drainage patterns and today the pre-basalt topography has been inverted with former valley floors, becoming ridge crests and hills. Large swamps and lagoons such as Llangothlin were partly created by these topographic changes.</p> <p>During the Quaternary, colder climates had a major impact on vegetation patterns and allowed the formation of wind-blown lunettes on the eastern margins of the lagoons. Sediment in the lagoon floor preserves a pollen record of these changes.</p>
Vegetation	<p>Within the Armidale Plateau open ribbon gum forest and woodland with snow gum and black sallee on basalt. Cold air drainage influence and inverts the tree patterns in wide valleys. Yellow box, Blakely's red gum, rough-barked apple, apple box on sedimentary rocks. Silver-top stringybark, New England stringybark on dry aspects, Blakely's red gum, yellow box and apple box on moist, well-drained slopes, and New England peppermint with ribbon gum on flats.</p>
Climate	<p>The bioregion situated at the high plateau lies mainly in the temperate to cool temperate climate zone of NSW, which is characterised by warm summers, and cold winters with uniform rainfall generally occurring from late spring to the end of summer.</p>

Aligning with other Management Plans

It is important for the ESP aligns with the key planning documents of the University. This includes but is not limited to the OAMS, and UNE Campus Master Plan. The ESP has been written so that it is responsive to these plans, while also underlining its influencing role in environmental sustainability. The ESP aligns directly to the overarching UNE Campus Master Plan, thereby setting directions for environmental sustainability through UNE’s commitment to the Talloires Declaration and, facilitation of social and environmental sustainability.

The development of UNE Campus Master Plan is to be in accordance with the future aspirations of the university and, the vision and strategies from the University’s Strategic Plan. The ESP also interconnects with OAMS (which includes Strategic Asset Management Plans (SAM Plans)).

UNE Campus Master Plan and SAM Plans provide a framework for the coordinated development of our campuses through priority infrastructure and building projects aimed at renewal and future growth.

A key objective for the SAM Plan is the inclusion and integration of environmental sustainability. The ESP’s sustainability principles for campus management and its specific infrastructure activities will guide the University on how best to manage our buildings and infrastructure assets in a more sustainable manner.

Equally important are the strategic plans for the Academic Division and Research Division, as well as the directorate and school plans for teaching, learning, research and services. Seeking to optimise student experiences and to advance world class research and teaching, these plans reflect current student needs and learning aspirations, for which environmental sustainability must be a major consideration. Student aspirations for environmental sustainability must also be considered as part of overall planning.

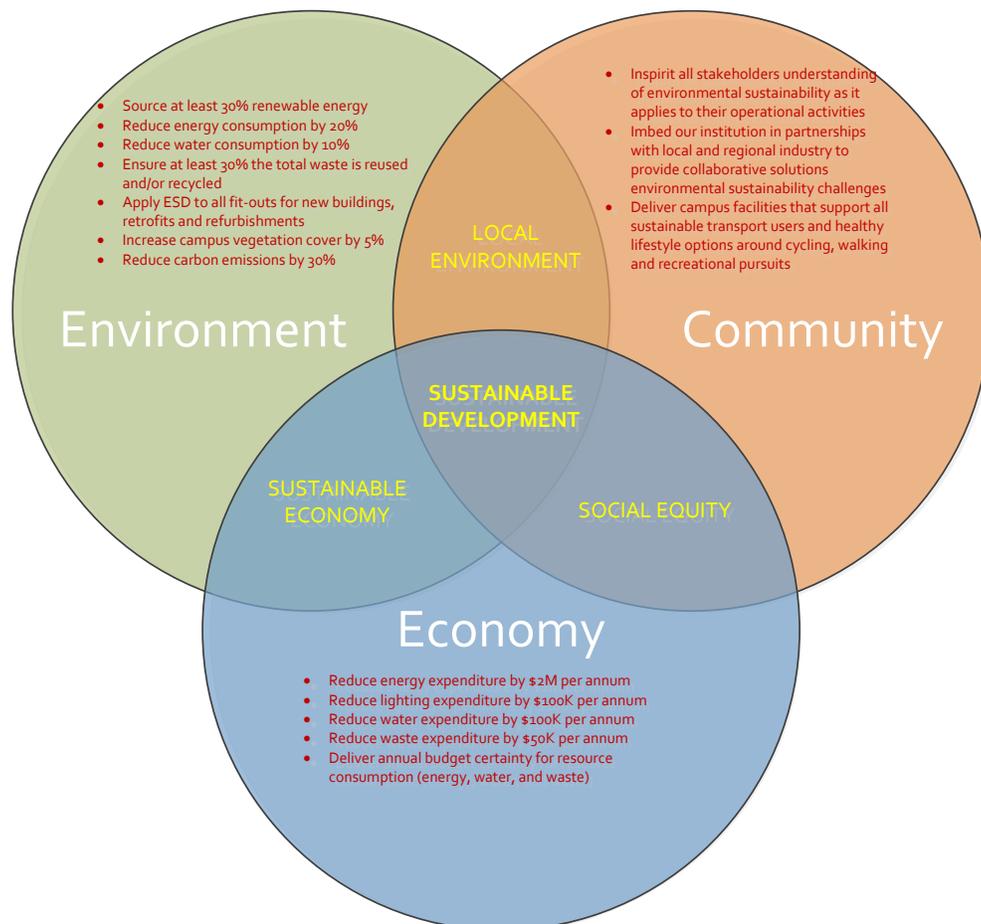


Aims & Objectives

The ESP is designed to reflect the specific status of UNE's strategic and operational activities related to environmental sustainability and therefore throughout its life this Plan is designed to:

- Be consistent with the components of the OAMS, UNE Campus Master Plan and SAM Plan;
- Be consistent with the elements of the Environmental Sustainability Policy;
- Adapt to the University's dynamic business objectives efficiently and effectively;
- Act as an overarching document for other Environmental Sustainability Management Plans (ESM Plans);
- Create overall setting directions for environmental sustainability through UNE's commitment to the Talloires Declaration;
- Provide strategic advice in relation to environmental sustainability for management, development, maintenance and disposal of the University's strategic assets;
- Manage our resource consumption (energy, water, waste...) and carbon emissions responsibly to reduce our carbon footprint through energy efficiency measures and carbon offsets; and
- Inform UNE on financial strategic operational safety and regulatory risks associated with failure to adhere to the advice to environmental sustainability.

Environmental Sustainability Targets by 2020



Commitment towards Environmental Sustainability

The Environmental Sustainability Policy will demonstrate the University's commitment to support environmentally responsible and sustainable practices to the concept of Environmental Sustainable Design (ESD).

Under the Environmental Sustainability Policy the University will implement strategies for improved environmental practices and a greater awareness and understanding of sustainability. These strategies are formed around the actions required by the Talloires Declaration that may include, but are not limited to, environmental planning, sustainable energy management, carbon, soil, water waste, research and innovation and teaching and learning.

This policy will encompass affiliates, contractors and consultants, appointed or engaged by the university to perform duties or functions, and/or recognised for their contribution to UNE.

Environmental Planning

Environmental Compliance

Strategic Importance	Recent Activities	Proposed Activities
University's environmental compliance statutory obligations	<ul style="list-style-type: none"> Reflected environmental legislative obligations in programming and contract administration for CAPEX Commenced documentation of its environmental aspects and impact register as part of a gap analysis for preparing an Environmental Management System Commenced integrating environmental compliance into the University Risk and Compliance Framework for prioritised risk monitoring 	<ul style="list-style-type: none"> Incorporate environmental compliance considerations through all projects and maintenance inductions for staff and contractors Consolidate trade waste permit requirements for all facilities and buildings incorporated into asset management system
To ingrain environmental sustainability into our asset planning processes	<ul style="list-style-type: none"> Developed University's first SAMP which aims to further integrate ESP sustainability principles for campus management to guide the University on how best to manage assets in a more sustainable manner 	<ul style="list-style-type: none"> Ensure all University's buildings and infrastructure assets are considered in the ESD Framework Ensure all capital works consider careful planning for environmental legislative requirements

Landscape Management

Strategic Importance	Recent Activities	Proposed Activities
To provide strategic zones for campus landscape management	<ul style="list-style-type: none"> Identified number of UNE zones (i.e. UNE Dumaresq Creek Catchment zone) for protection of the remnant of vegetation community Developed and implemented Koala Management Plan 	<ul style="list-style-type: none"> Strategically link University's landscape management activities with bushland activities, additional planting and reduction in maintenance costs Establish UNE Landscape Consultative Group inclusive of staff, students and external representatives to set strategic directions the landscape
To incorporate biodiversity protection, and broader campus functionality requirements	<ul style="list-style-type: none"> Developed first Strategic Landscape Plan which has incorporated bushland management zones, targeting additional planting, weeding, and proposed management actions 	<ul style="list-style-type: none"> Produce a Landscape Management Technical Manual to guide landscape maintenance Deliver specialist bush regeneration activity in areas which warrant that treatment

Strategic Transport Management

Strategic Importance	Recent Activities	Proposed Activities
To provide and promote environmentally sustainable travel options for everyday travel to, from and around the University	<ul style="list-style-type: none"> • Previous involvement with the review of bus and train timetables • Introduction of e-bikes to support sustainable transport users and healthy lifestyle options • Conducted transport surveys • Commenced Strategic Transport Management Plan (STMP) 	<ul style="list-style-type: none"> • Development of STMP in considering: <ul style="list-style-type: none"> • Stakeholder needs, model modes of transport options and best practice transport guidelines • Directions that can be translated into capital works programs, including the construction of improved cycling / walking facilities and pathways • Support future discussions between the University and state and local government New England Transport Group

Sustainable Business & Procurement

Strategic Importance	Recent Activities	Proposed Activities
To ensure social, ethical, environmental and economic responsibility is integral to the University's procurement and business processes	<ul style="list-style-type: none"> • There is nothing to report on past record for the University's sustainable business practices 	<ul style="list-style-type: none"> • Develop data collection and KPIs for our sustainable procurement model • Promote and audit the uptake of procurement practices for environmental sustainability

Energy, Thermal Comfort & Carbon Management

Strategic Importance	Recent Activities	Proposed Activities
To manage our energy consumption and carbon emissions responsibly	<ul style="list-style-type: none"> • Satisfied its greenhouse gas emissions reporting requirements under the National Greenhouse and Energy Reporting Act 2007 • Provided energy use information to staff and alumni. • The University has been participating in the national TEFMA reporting process and this has shown the University to have performed responsibly in energy use 	<ul style="list-style-type: none"> • Develop Air Conditioning Guidelines and/or Procedures • Conduct Energy Audit across buildings that are of strategic importance • Complete HVAC Analysis • Grow our sub-metering coverage and improve our data management approaches to report trends and provide information to stakeholders • Examine the implications of the Commonwealth and state government's carbon reduction policy agendas as they evolve
To reduce our carbon footprint through energy efficiency measures and carbon offsets	<ul style="list-style-type: none"> • Approved solar farm that will deliver 50% of the total electricity footprint of Academic Campus 	<ul style="list-style-type: none"> • Develop building design standards for strategies for use in refurbishments, retrofits and new buildings for energy efficiency and carbon footprint reduction • Develop energy saving program from the energy audit findings • Invest in renewable sources of power as a carbon offset strategy

Soil & Water Conservation

Strategic Importance	Recent Activities	Proposed Activities
To adopt further water sensitive urban design practices to minimise potable water consumption	<ul style="list-style-type: none"> Implemented a Lake Zot project to capture site run off in dams for reuse in the watering of university's sport ovals Have participated in the TEFMA reporting process and this has shown the University has maintained respectable performance with the sector average in water consumption. Installed additional water meters to report trends and provide information to relevant stakeholders 	<ul style="list-style-type: none"> Develop building design standards and strategies for use in refurbishments, retrofits and new buildings for water efficiency. Grow University's sub-metering coverage and improve our data management approaches to report trends and provide information to stakeholders continue collaboration with ADC Water to achieve audits and water efficiency installations
To adopt further water sensitive urban design techniques to manage rainwater and stormwater onsite and capture for reuse	<ul style="list-style-type: none"> Developed Irrigation Schedule for the Campus 	<ul style="list-style-type: none"> Continue to integrate water sensitive urban design principles with landscape practices Review the current irrigation practices for the sports ovals, gardens and other lawns to identify water efficiency and drought proofing strategies Evaluate the effectiveness of current building tank infrastructure and identify opportunities for refits and new tanks

Waste Management

Strategic Importance	Recent Activities	Proposed Activities
To deliver waste management services reflecting the waste management principles of avoid, reduce, re-use and recycle	<ul style="list-style-type: none"> Developed comprehensive Waste Audit Implemented paper recycling system Implemented comingled recycling for all staff kitchens Implemented robust outdoor bin infrastructure of high bin use and high visibility areas. Signed up for the City2Soil Organic Waste initiative Established contract arrangements for recycling of e-waste Established mulching and composting clippings from mowing or tree pruning as part of landscape works. Developed and implemented new bubbler stations in strategic locations throughout the campus 	<ul style="list-style-type: none"> Develop Waste Management Plan to capture waste stream management improvements, standard operating procedures, standardised electronic waste reporting, effective contracting arrangements and key performance Indicators for waste types Ensure building design standards which will include closed loop approaches and strategies meet the waste goal Bring additional kitchens and facilities to the City2Soil Organic Waste Initiative Develop and implement induction program for staff and students around understanding of waste segregation. Improve systematic management of chemical and hazardous waste through respective contractors

Implementation of this ESP Plan

Communication of the University's Environmental Sustainability Performance

The University will update the environmental sustainability website in 2016 to showcase its activities and to provide campus management related information. An Environmental Sustainability Report Card will be produced for the ESP to report on the Key Performance Indicators (refer to Appendix B for a summary) and progress towards the proposed activities. UNE will implement and communicate its projects, activities, and initiatives related to environmental sustainability with its stakeholders through the Environmental Sustainability Communications Plan (see Appendix C - Environmental Sustainability Communications Plan).

Celebrating University's Environmental Sustainability Performance

Across the life of this plan, staff and alumni that have an interest in and passion for, environmental sustainability will have the opportunity to engage with the activities outlined in this Plan. It is hoped that engagement activities, such as the strategic transport planning and sustainable waste management, will also yield environmental champions who will enthuse their colleagues to work and live more sustainably.

The University could aspire to develop a green awards program for staff and alumni 'environmental champions' to celebrate their achievements. This will also provide inspiration amongst the broader University community for leaders in environmental management.

This initiative could be explored as a means to fund sustainability initiatives that are put forward by Divisions, schools and student groups that would otherwise not be eligible for opex and capex budgetary pathways. This would be an ideal way to foster environmental champions and innovation.

It is anticipated that staff and alumni interest will grow in having organised environmental events to engage the University in local, state and international environmental event days. In turn, this involvement should spawn further interest and enthusiasm for sustainability. With the myriad of events on offer, however, targeting is needed to select the events that best align with the activities in this Plan.

For this inaugural Plan, event involvement should be prioritised towards events with a good history of involvement, such as the landscape management activities and sustainable waste management.

For events to be a success, adequate event organising resources will need to be made available. Development of the ESOP should therefore incorporate resources for environment events. Two useful online directories to target environmental events are the:

- NSW Green Dates Calendar – NSW Government
- Northern Inland Sustainability Business Network (NISBN)
- NSW Office of Environment and Heritage's Sustainability Advantage Program.
- Calendar of Environmental Events – Australian Government, Department of Environmental Sustainability, Environment, Water, Population and Communities.

Environmental Sustainability Operational Plan (ESOP)

The companion internal operational document will be used to identify specifics around budget allocations, timeframes, people resourcing, collaborations and project management responsibilities.

Director, FMS will provide resourcing decisions around the necessary tasks to complete the activities proposed in this the ESOP. The ESOP will also identify opportunities to leverage external funding through government programs and philanthropy.

Continuous Improvement

There may be influencing factors, positive or negative, that arise during implementation of this ESP that will require attention as part of continuous improvement activities. Where evaluation of University's progress identifies changes to specific items in this ESP, or a new opportunity arises to support the Plan's activities, an Addendum update to the ESP will be developed.

Appendix A: Environmental Sustainability Policy (draft)

Overview

The University of New England (UNE) is an integral part of the New England region with its distinct natural environment, a rich cultural heritage, with diverse links to regional, rural communities. In this regard it has unique responsibility to conduct its activities in environmentally sound and sustainable manner.

With this in mind, there is an obligation on the University as part of global community and as an educator of future leaders, to inspire, provide guidance, and demonstrate leadership to ensure that present and future practices are part of Ecologically Sustainable Development (ESD).

The University also acknowledges its potential impact on the surrounding environment, and that a systematic approach is essential along with decision-making processes to effectively integrate both long-term and short-term economic, environmental, social and equity considerations.

Scope

This policy is an overarching document that demonstrates the University's commitment to the support for environmentally responsible and sustainable practices and outlines to the concept of ESD.

The specific procedures developed within this policy will form an integral part of the management practices in all areas and at all levels within the University.

This policy encompasses affiliates, contractors and consultants, appointed or engaged by the university to perform duties or functions, and/or recognised for their contribution to the University.

Policy

Principles

The University is committed to, and will develop strategies for improved environmental practices and a greater awareness and understanding of sustainability. These strategies are formed around the actions required by the Talloires Declaration may include, but are not limited to, environmental planning, sustainable energy management practices, carbon, soil, water waste, research and innovation and teaching and learning in order to:

- a) Inspire environmental sustainability and environmental responsibility into the University's institutional culture;
- b) demonstrate leadership in the way the University manages its resources as well as natural and built environment, through achieving environmental compliance and adopting best practice;
- c) increase awareness amongst the University staff, alumni and the community of environmental sustainability and its importance to the wellbeing of current and future generations;
- d) strive for effective pathways and partnerships across the University organisational structure, and with regulatory authorities, business, industry, research and community leaders to achieve environmental sustainability solutions;
- e) deliver front-edge interdisciplinary teaching and learning experiences to endow students with knowledge, confidence and enthusiasm so they can positively engage in fostering environmentally sustainable solutions through their careers and everyday living; and
- f) engage in sustainable procurement employment practices which take a whole of life cycle analysis while incorporating the cost and impact of environmental externalities into decision making.

These strategies are further aligned to a subtheme listed below:

1. Environmental Planning

a. Environmental Compliance

The University will:

- i. employ campus management practices that minimise environmental impact and ensure compliance with regulatory requirements; and
- ii. inspire staff understanding of and procedural capacity in, environmental sustainability as it applies to their work activities and activities undertaken by contractors and consultants, appointed or engaged by the University.

b. Landscape and Biodiversity

The University will:

- i. preserve the bushland character and image of the University through the protection of our native flora and fauna;
- ii. use Australian plant species, and preferably local provenance species, for new and supplementary landscape plantings;
- iii. restore the bushland to a state where it can sustain itself naturally;
- iv. target noxious weeds and feral animals through the use of integrated pest management approaches;
- v. actively promote the ecosystem services and amenity benefits of the bushland campus;
- vi. protect remnant bushland which once covered a wider proportion of the landscape, for educational and cultural heritage purposes;
- vii. consider existing landscape with regard to the multi-functional nature of community land native vegetation in capital works projects, and employ compensatory offsets where native vegetation must be removed;
- viii. avoid development in locations of 'high' ecological value;
- ix. enable building occupants to have a view to the outside, and to source fresh outside air, where practicable; and
- x. integrate building and landscape design to provide external meeting and teaching and learning spaces.

c. Sustainable Transport

The University will:

- i. provide campus-to-community sustainable transport options that also support broader lifestyle needs around reasonable travel times, access, safety, wellbeing and an active healthy lifestyle;
- ii. facilitate sustainable travel alternatives around walking, cycling and carpooling to seek to reduce the use of single-occupancy vehicles for the University commuting and business travel;
- iii. provide IT solutions for communication needs to aid in reducing car use;
- iv. deliver secure bike facilities with lockers and showers, which showcase environmental design principles; and
- v. integrate shower and locker facilities into buildings to support sustainable transport users and healthy lifestyle options around cycling, walking and recreational pursuits.

2. Energy, Thermal Comfort & Carbon Management

The University will:

- a. apply sustainable energy end-use through planned reduction in the University's consumption of energy;
- b. progress sourcing of the University's energy needs from sustainable energy sources;
- c. progress towards carbon neutrality targets for the activities of the University directly under its control;
- d. consider energy efficiency design to all fit-outs for new buildings, retrofits and refurbishments;
- e. optimise timers, controls and sensors for lighting and air-conditioning in essential areas where a controlled environment is critical to the functions performed;
- f. create cultural change through strong leadership, the practice of sustainable energy management, and collaboration with community agencies; and
- g. enhance leading edge research into sustainable energy practices through appropriate support and resourcing;

3. Soil & Water Conservation

The University will:

- a. integrate water sensitive stormwater treatment approaches into landscape, building and car park designs to provide for multiple benefits including water quality protection, runoff management, biodiversity and amenity;
- b. capture stormwater and rainwater for reuse for non-potable purposes;
- c. install water efficient facilities and equipment, including automated monitoring systems; and
- d. protect surface water and groundwater quality through the explicit consideration in resource management decision making.

4. Waste Management

The University will:

- a. reduce the amount of waste generated and going to landfill through avoidance, waste minimisation and resource recovery (reuse, recycling, reprocessing and energy recovery);
- b. maximise the use of recycled content material and recycling of existing materials, where cost effective;
- c. provide robust outdoor bin infrastructure that will restrict fauna access and foraging, reducing waste spillage and detrimental fauna impacts;
- d. provide food and beverage services that deliver recycling and minimise waste generation;
- e. avoid building materials where practicable that have damaging ecological effects during harvesting, manufacturing, and/or construction;
- f. use materials and equipment that have minimal maintenance and longevity of expected useful life; and
- g. employ building designs that can be readily adapted to meet changing growth and use needs

Appendix B: Environmental Sustainability Report Card

THEME	KPI	TARGETS	
		Established	To be developed by 2020
Sustainability Advantage (SA) Program	University to demonstrate its progress towards sustainable practice through: <ul style="list-style-type: none"> • active participation • leadership, commitment and planning • internal and external engagement • achievements 	University endorsed the next step of UNE's membership.	Bronze Level by 2016
Environmental Compliance	Environmental sustainability addressed as a key theme in the Audit & Risk and Compliance Framework		University to endorse Climate Change Risk and Adaptation in its Audit & Risk and Compliance Framework by 2020
	Legislative compliance reflected in the Corporate Compliance System	Ongoing	Corporate Compliance to reflect EMS by 2020
	Regulatory reporting to TEFMA, Infrastructure Committee and UNE Corporate Units	Full Compliance	To Be Developed
Landscape Management	Extent of significant native vegetation conserved / protected in line with LMP	As per LMP	As per Campus Master Plan
Strategic Transport	Assessing existing modes of transport currently used	As per STMP date 2016	To Be Developed
	Developing Transport Strategies for UNE Campus Master Plan	As per STMP date 2016	To Be Developed
	Delivering Transport Management KPIs and Recommendations	As per STMP date 2016	To Be Developed
Sustainable Procurement	Sustainable procurement KPIs	As per Procurement Policy to be developed in 2016	To Be Developed
	Number of outlets offering Fair Trade coffee		100% by 2020
Carbon Management	Reduction in carbon emissions	As per the Energy Management Plan (EnMP). Reduction in carbon emissions by 2020 using Scope 1 and 2 reporting for all years, with Scope 3 reporting to be bought online as soon as feasible and in line with TEFMA directions	As per EnMP

THEME	KPI	TARGETS	
		Established	To be developed by 2020
Energy Management	Total campus energy and electricity consumption relative to university sector	Improve our position relative to the University sector using the TEFMA reporting approach of Equivalent Fulltime Staff and Student (EFTSS) and Gross Floor Area	As per EnMP
	Reduction in reliance on energy produced from fossil fuels	30% of campus energy use from accredited renewable sources	As per EnMP
Soil & Water Conservation	Total campus potable water consumption	Develop and Implement Irrigation Schedule in line with principles of agronomy	By 2017
			Improve University's position relative to the sector using the TEFMA reporting approach of Equivalent Fulltime Staff and Student (EFTSS) and Gross Floor Area by 2020
			Implement Water Savings Project by 2020, for ideas related to: <ul style="list-style-type: none"> • new infrastructure; • renewal of old infrastructure; • improving existing technologies; • water recycling and reuse options; • institutional changes; and • new management systems and practices.
Waste Management	Total volume of waste to landfill	Through improved data collection, a baseline and target will be established	As per Waste Management Plan (WMP)
	Volume of waste per waste type		As per WMP
	Amount of green waste diverted to composting (onsite and local composting facility) and mulched onsite		As per WMP
	Hazardous and chemical waste managed as per regulatory requirements and procedures	Development, execution and implementation of relevant Contracts	As per WMP
	% of coffee outlets on campus offering personal coffee cup use		As per WMP

Appendix C: Environmental Sustainability Communication

Key Stakeholder	Communication Objective	Communication Medium	
INTERNAL	Vice-Chancellor (VC)	<ul style="list-style-type: none"> Empower stakeholders share responsibility for making decisions and accountability for the outcomes of those decisions 	<ul style="list-style-type: none"> Face to Face Meetings as requested Targeted Briefings
	Steering Committees and Project Control Board (PCB)	<ul style="list-style-type: none"> Understand the status of the significant environmental sustainability projects 	<ul style="list-style-type: none"> Quarterly Status Updates
	Infrastructure Committee	<ul style="list-style-type: none"> Understand the status of the environmental sustainability and energy issues, initiatives, and outcomes. 	<ul style="list-style-type: none"> Biannual Environmental Reports Biannual Energy Reports
	Sponsor of Project / Initiative	<ul style="list-style-type: none"> Understand the impact to their portfolio/area Communicate shared information with their portfolios / Managers / Directors 	<ul style="list-style-type: none"> Face to Face Meetings as scheduled and requested Tailored Emails
	Project Owners Heads of Schools / Directorates	<ul style="list-style-type: none"> Excited advocates Actively engaged in making the project / initiative and delivery successful Understand what tasks need to be completed and assigned in order to assist the project / initiative 	<ul style="list-style-type: none"> Champion Interaction Localised Training Technical Workshops Regular Status Updates
	Project Manager Project Director Project Officer Technical Personnel	<ul style="list-style-type: none"> Know the steps that they need to complete for a successful transition Consistently understand what is being done and when so that the message is the same no matter what communication point is used Vested in the change 	<ul style="list-style-type: none"> Localised Training Workshops Technical Workshops Regular Status Updates Champion Interaction Demonstration Workshops
	Professional Staff Alumni SSAC	<ul style="list-style-type: none"> Know what will happen and when educated about the change Excited for the change and see it in a positive light Understand where to go for technical expertise 	<ul style="list-style-type: none"> Tailored Emails Regular Status Updates Advertising Campaigns Change Champion Interaction Controlled release of UNE
EXTERNAL	Armidale Council Local Interest Groups & Broad Community	<ul style="list-style-type: none"> Know what will happen and when Educated about the change Excited for the change and see it in a positive light Further the development of new knowledge 	<ul style="list-style-type: none"> Advertising Campaigns Champion Interaction Targeted Emails