

ENVIRONMENTAL MANAGEMENT PLAN 2009 - 2012

PREAMBLE

The Environment Management Plan (EMP) supports the University's Environmental Charter by providing a framework to ensure compliance with relevant regulations as well as a means for improving the University's environmental practices and minimising the adverse environmental effects of its activities.

SCOPE

The EMP details strategies for improved environmental performance in the following areas:

- Recycling and waste management
- Water and wastewater management
- Energy conservation
- Transport
- Greenhouse gas reduction
- Ecologically sustainable development
- Natural environment
- Teaching and Research
- Management services
- Legislative compliance and standards
- Community awareness

In preparing the EMP it is recognised that both financial and resource constraints will impact on the ability to meet the stated objectives. However as part of the EMP it is recommended that an environment fund be set up to support programmes across campuses that contribute to reducing the University's environmental liability.

1.0 Recycling and Waste Management:

The objective of the recycling and waste management plan is to continuously improve recycling rates and to reduce the volume of waste being sent to landfill. In particular an increase in recycling rates by 10% (per EFTSL and EFT), is sought in the period 2009 to 2012, based on 2008 levels. The strategies to be employed in order to achieve this objective include but are not limited to:

- 1.1 Expand and improve the University's recycling programme;
- 1.2 Measure and report annually on recycling rates and waste volumes;
- 1.3 Undertake an ongoing awareness programme in order to ensure students and staff are familiar with recycling programmes and procedures;
- 1.4 Investigate opportunities to compost and mulch organic/green waste produced on all campuses;
- 1.5 Undertake annual sample waste audits to identify areas for improvement;
- 1.6 Encourage re-use and recycling of surplus furniture, equipment and demolition materials;
- 1.7 Centralise purchasing of classroom and office tables and chairs with the aim of increasing flexibility of use and minimising unnecessary disposal;

- 1.8 Encourage double sided printing and reduce paper usage;
- 1.9 Discourage the use of disposable products where a suitable alternative is available;
- 1.10 Ensure that all hazardous materials are disposed of in an environmentally acceptable manner;
- 1.11 Promote the use of VU's central printing service;
- 1.12 Reduce the amount of litter in open space areas around campuses;

2.0 Water and Wastewater Management:

The objectives of the water and wastewater management plan are to ensure that water consumption is reduced and that all wastewater is either recycled or disposed of in an environmentally appropriate manner. Specifically, a 10% reduction in water consumption (on consumption per gross floor area basis), is sought in the period 2009 to 2012, based on 2008 levels.

The strategies to be employed in achieving these objectives include, but are not limited to:

- 2.1 Implementation of a City West WaterMap action plan, detailing steps to be taken to improve water efficiency across Victoria University;
- 2.2 Monitoring of water consumption and reporting of appropriate performance indicators;
- 2.3 Promotion of water conservation within the University community;
- 2.4 Progressively replace single flush toilets with dual flush systems;
- 2.5 Undertake cooling tower water audit and implement recommendations;
- 2.6 Continually review water saving technology developments and assess their suitability for future use on University campuses;
- 2.7 Seek opportunities for water harvesting and water recycling;
- 2.8 Seek opportunity to reduce water consumption of the Footscray Park pool;
- 2.9 Incorporate water efficient design in new buildings and retrofits;
- 2.10 Incorporate water efficient design in new landscapes;
- 2.11 Ensure that the conditions of all trades waste discharge agreements are met;
- 2.12 Ensure that all grease traps are regularly maintained;
- 2.13 Ensure spill containment measures are provided in all areas where there is a risk of chemicals entering the stormwater system or natural waterways;
- 2.14 Investigate opportunities for waterless urinal technologies in refurbishments and existing urinals.

3.0 Energy Conservation:

The objective of the energy conservation plan is to continually reduce the consumption of both electricity and gas (on consumption per gross floor area basis). In particular a 15% reduction is sought between 2009 and 2012, based on 2008 levels. The strategies to be considered in seeking to achieve this objective include, but are not limited to:

- 3.1 Installation of sub metering and remote web monitoring on all main buildings across all campuses in order to accurately identify consumption;

- 3.2 Annual measurement and reporting against objectives of electrical and gas consumption per building and per campus;
- 3.3 Continue auditing energy consumption at all campuses in order to identify opportunities for achieving energy efficiencies and implement audit recommendations;
- 3.4 Implement an energy conservation awareness program for staff and student and re-launch annually;
- 3.5 Maintain plant and equipment to ensure they are operating efficiently;
- 3.6 Progressively replace energy inefficient items of plant, equipment and control systems;
- 3.7 Match mechanical plant operating times with campus and building operational hours;
- 3.8 Progressively install Building Management Systems at all campuses;
- 3.9 Progressively install lighting controls and energy efficient lights into existing buildings;
- 3.10 Timetable after hours classes etc in a common building or air-conditioning zone;
- 3.11 Consider energy efficiency, life cycle costing and embodied energy when purchasing plant and equipment;
- 3.12 Constantly evaluate opportunities for the use of alternative energy sources and new technologies;
- 3.13 Ensure that all new energy-related equipment and fixtures are minimum of 4 star rated.

4.0 Transport:

The objective of the transport plan is to encourage the use of public transport, bicycles or communal transport for travel to and from campuses. The transport plan also seeks to ensure that fuel efficiency and embodied energy are considered when selecting vehicles for the University vehicle fleet. In particular an increase of 5% per annum (per EFTSL and EFT) in the number of staff /students travelling to work/study using sustainable transport, based on 2008 levels.

The strategies to be employed in achieving this objective include, but are not limited to:

- 4.1 Encourage the use of bicycles by staff and students;
- 4.2 Provide safe and secure bicycle storage facilities on campus;
- 4.3 Provide readily available maps showing public transport and bike paths in the vicinity of each campus;
- 4.4 Encourage car pooling (for example, consider priority parking areas);
- 4.5 Provide details of fuel efficiency and embodied energy for vehicles included in the University fleet;
- 4.6 Investigate 100% offset of CO₂ equivalent emissions from vehicle fleet;
- 4.7 Maintain and expand the programme of the planting of trees to compensate for the carbon dioxide emissions of fleet vehicles;
- 4.8 Encourage public transport operators to operate timetables, which suit the needs of staff and students;
- 4.9 Direct a percentage of car parking funds towards sustainable travel initiatives;
- 4.10 Target incoming first year students with un-formed travel behaviour;
- 4.11 Investigate opportunities to salary sacrifice public transport tickets.

5.0 Greenhouse gas reduction:

The objective of the greenhouse gas reduction plan is to continually reduce the amount of greenhouse emissions the University produces. This will primarily be achieved through the objectives listed within the energy conservation, waste and transport plans. In addition to these objectives the following strategies will be employed:

- 5.1** Report annually from July 2010 to National Greenhouse Emissions Reductions Strategy regarding emissions streams and totals
- 5.2** Develop emission reduction targets in line with energy reduction strategies
- 5.3** Establish a University Environment Committee under the provision each organisational unit within the University will be assisted to implement greenhouse reduction initiatives within their area.

6.0 Environmentally Sustainable Design:

The objective of the environmentally sustainable design (ESD) plan is to ensure that when the University undertakes new building works or major refurbishments that these projects are undertaken in a manner, which reflects an environmentally responsible approach.

The strategies to be considered in achieving this objective include, but are not limited to:

- 6.1** Appointing consultants with proven ESD design capabilities;
- 6.2** Acknowledgement that a life cycle costing assessment is an essential consideration in evaluating projects;
- 6.3** Including energy efficient lighting systems and efficient mechanical services in projects;
- 6.4** Using building materials which are derived from renewable resources;
- 6.5** Maximising the potential for the use of natural light and ventilation;
- 6.6** Optimisation of water conservation and the evaluation of water harvesting opportunities;
- 6.7** Preparation of an ESD brief to assist consultants in the project planning;
- 6.8** Obtain a green star rating of five or greater for major new building projects;
- 6.9** Incorporate maximum flexibility into the design, such that future change of use is easily facilitated;
- 6.10** Showcase successful ESD projects to the University and wider community.

7.0 Natural Environment:

The objective of the natural environment plan is to ensure that the University manages its natural environment in a responsible and sustainable manner. The protection of environmentally sensitive areas and maintenance of biodiversity are key elements of the natural environment plan.

The strategies to be employed in achieving this objective include, but are not limited to:

- 7.1** Developing and implementing programmes of plantings with emphasis on indigenous and drought resistant trees and shrubs;
- 7.2** Minimising the use of chemical pesticides and fertilisers;
- 7.3** Maintaining a high standard of litter and rubbish removal;
- 7.4** Actively managing the health of existing tree stock;
- 7.5** Enhancing the aesthetic qualities of our campuses and providing locations where staff and students can connect with the natural environment.

8.0 Teaching and Research

The objective of the teaching and research plan is to ensure that during their study and research all VU students learn the principles of sustainability. Students will be exposed to environmental issues relevant to their field of study and will leave the University with an awareness of, and ideally, a commitment to environmental sustainability. Principles of sustainability are to be included in all educational planning. The strategies to be employed in achieving this objective include, but are not limited to:

- 8.1** Enhancing the level of environmental knowledge of Victoria University staff and students;
- 8.2** Obtaining faculty commitment to curriculum changes that link existing material with environmental issues; ensure that what we teach and research links to the environment wherever possible;
- 8.3** Investigate development of a sustainability module which all students need to undertake;
- 8.4** Considering ways to encourage and support postgraduate research programmes aimed at the resolution of environmental problems;
- 8.5** Seek LiCW opportunities across the university that support sustainable activity;
- 8.6** Diversify class delivery modes to reduce travel requirements e.g. Increase flexible teaching delivery including web delivery;
- 8.7** Promote double sided printing of all teaching material; where duplex machines are available. Encourage use of networking to duplex machines;
- 8.8** Seek to mandate purchase of duplex printers only;
- 8.9** Increase the number of e-learning classrooms;
- 8.10** Develop educational tools to assist students to properly print web CT materials;
- 8.11** Actively support collaborative development of environmental research capability with local, regional and national business and agencies;
- 8.12** Develop a green laboratory program; providing laboratory environments within the University the opportunity to assess and reduce their environmental impact.

9.0 Management Services

The objective of the management services plan is for operational activities across the university to align with the university environment objectives. The strategies to be considered in seeking to achieve this objective include, but are not limited to:

- 9.1** Evaluate feasibility of Triple Bottom line reporting;
- 9.2** Determine VU's carbon reduction target;
- 9.3** Mandate reporting against the VU Green Value as part of the annual QIR process;
- 9.4** Achieve university endorsement for environmentally preferred purchasing policy by 2010;
- 9.5** Report annually on University environmental performance and carbon footprint;
- 9.6** Promote environmentally friendly products available from University preferred stationary suppliers;
- 9.7** Increase the use of recycled content products as a percentage of all products purchased;
- 9.8** Encourage the purchase of energy star compliant equipment;
- 9.9** Encourage contactors to adopt environmentally sound practices;
- 9.10** Ensure all University communications reflect the University green initiatives;
- 9.11** Increase the use of electronic document storage across all departments;
- 9.12** Develop a computer shut down policy requiring a mandatory network shutdown of all computers across the university;
- 9.13** Develop Facilities web page to include a section where staff and students can record their positive environmental initiatives and activities.

10.0 Legislative Compliance and Standards:

The objective of the environmental legislative compliance and standards plan is to ensure that the university fulfils all of its legal requirements and that it keeps abreast of developments in environmental legislation at the state, national and international level.

The strategies to be employed in achieving this objective include but are not limited to:

- 10.1** Creating and maintaining a register of environmental legislation that University is required to comply with;
- 10.2** Remaining abreast of new Australian Standards for environmental performance;
- 10.3** Regularly monitoring compliance with environmental legislation and standards;
- 10.4** As appropriate upgrade plant, equipment and procedures such that accepted environmental performance standards are met;
- 10.5** Monitoring of environmental discharges.

11.0 Community Awareness

The objective of the community awareness plan is to promote awareness of environmental issues across the university and the wider community, with a target of 90% staff and 80% student awareness of university environment programs by 2011.

The strategies to be employed in achieving this objective include but are not limited to:

- 11.1** Review the design of the Environment at VU website;
- 11.2** Promote environment programs during orientation week;
- 11.3** Promote environmental programs in university publications;
- 11.4** Develop an electronic newsletter for all staff members;
- 11.5** Update staff induction material;
- 11.6** Deliver environmental training programs to staff;
- 11.7** Establish a staff incentive program with awards, competitions and prizes to encourage staff to think green;
- 11.8** Establish an Environmental Initiatives fund to support projects across the university. Organisational units would submit bids and savings generated by efficiency are repaid into the fund and then used to finance new environment projects.

12.0 IMPLEMENTATION AND EVALUATION

The successful implementation of the Environmental Management Plan is the responsibility of all staff and students however it will be driven by the Facilities Department. The EMP will be reviewed at regular intervals in order to ensure that it remains an effective means of achieving the goals identified in the University's Environmental Charter.

The following mechanisms will assist in evaluating and improving the EMP:

- 12.1** Benchmarks have been established for relevant parameters and these will be monitored against similar institutions and organisations;
- 12.2** Measurement and reporting against any specific objectives stated in the EMP;
- 12.3** Provide regular advice to the University community on progress and recent initiatives, as well as undertake regular promotion of the EMP's elements;
- 12.4** Encourage feedback and provide an easy means for feedback to be provided;
- 12.5** Foster linkages with external environmental organisations.