

# Environmental Performance Plan 2011 – 2016

Version	Date	Author / Reviewers	Issued	Description of changes
3.0	16 March 2011	Drafted by Julia Callaghan, Sustainability Coordinator and approved by Brian Fenn, Associate Director Operations	In electronic copy to Andrew Frowd Director Facilities Management and Corporate Sustainability Group	Editing clarifications
3.1	25 March	Stakeholders in the operational and business areas of QUT (TILS, Marketing and Communication and FM)	In electronic form	
3.2	5 April	Jim Reeves, General Management of ISR and Chair Sustainability Working Party	In electronic form	Comments and changes from previous issue
3.3	9 May	Julia Callaghan, Sustainability Coordinator	Brian Fenn Associate Director, Operations	Reduced content from previous versions of the plan
3.4	24 May	Brian Fenn Associate Director, Operations	Andrew Frowd Jim Reeves	Editing
3.5	20 June	Jim Reeves	Sustainability Working Party	Comments incorporated For approval
3.6	5 August	Sustainability Working Party		Update to issues column
3.7	1 Sept	Sustainability Working Party	Anthony Perrau	Changed from Management Plan to Performance Plan and updated following advice on 2012-2014 funding levels

# 1. Introduction

## 1.1. Purpose

This Environmental Performance Plan documents the strategies and programs for strengthening the management of environmental sustainability issues at QUT.

## 1.2. Commitment to environmental sustainability

QUT has signed with Universities in the Australian Technology Network a [Declaration of Commitment to Sustainability](#) (2008). Following the commitment the universities further pledged to reduce carbon emissions by 25 per cent below 2007 levels by 2021. The current QUT Blueprint reinforces those commitments, prioritising integration of sustainability into the University's core activities, organisational culture and management systems. Compliance with environmental legislation and community expectations of corporate, social responsibility occur as part of QUT's operational management systems.

## 1.3. Scope and structure of the plan

This plan covers how QUT integrates environmental sustainability into its operations. The environmental **issues** relevant to QUT's operations are shown in the left-hand column of Figure 1. The environmental sustainability **programs** developed to address QUT's environmental and sustainability obligations and issues are shown in the column headings. The shaded squares highlight the issues addressed in each program.

**Figure 1: Environmental issues addressed in QUT sustainability programs.**

<b>Issues \ Programs</b>	<b>Energy</b>	<b>Water</b>	<b>Waste</b>	<b>Procurement</b>	<b>Transport</b>	<b>Built environment</b>	<b>Green IT</b>	<b>Care of immediate environment</b>	<b>Environmental management</b>	<b>Communication and engagement</b>
<b>Carbon footprint – indirect air emissions</b>										
<b>Water consumption</b>										
<b>Materials' use, waste and resources' recovery</b>										
<b>Air quality - direct air emissions</b>										
<b>Soil characteristics and contamination</b>										
<b>Environmental nuisance (Noise, odour etc.)</b>										
<b>Surface and ground water flows, availability and quality</b>										
<b>Cultural heritage and aesthetics</b>										
<b>Biodiversity and nuisance wildlife</b>										
<b>Environmental awareness, responsibility and sustainable behaviours</b>										

A summary of the programs is provided in section 2 and section 3 outlines the approach to implementation.

## 2. Sustainability Programs

Objectives, targets and strategies are pursued in response to QUT's environmental commitments and responsibilities. Specific timeframes and progress measures are used where possible. Progress measures are reported within QUT quarterly or annually depending on the measure. Reporting is coordinated by Facilities Management and reported to Divisional Executives then the Vice-Chancellor.

Program	Objectives and targets	Strategies	Progress measures
Environmental Management	Maintain compliance with environmental legislation and conformance with best environmental practices for activities  Continually improve systems for environmental management	1: Embed and coordinate the QUT environmental management system. 2: Implement the environmental management system	<ul style="list-style-type: none"> <li>- Zero reportable environmental incidents</li> <li>- Environmental risks managed and / or reduced</li> <li>- Findings of environmental checks, reporting and reviews implemented</li> </ul>
Communication and engagement	. QUT staff act as Green Champions, identifying themselves as advocating/promoting green, i.e. environmental initiatives, of QUT	3: Develop and implement a Communication, Marketing and Engagement Plan for Environmental Sustainability Programs at QUT  4: Promote sustainability initiatives of QUT  5: Encourage staff and student enthusiasm for environmental stewardship	<ul style="list-style-type: none"> <li>- Workspaces participating in environmental sustainability initiatives</li> <li>- Number of Green Champions*</li> <li>- Positive and negative comments relating to environmental issues in student surveys</li> </ul>
Energy Management	Reduce intensity of energy use to 135 (tCO <sub>2</sub> -e /m <sup>2</sup> GFA) by 2012/2013 and 105 (tCO <sub>2</sub> -e /m <sup>2</sup> GFA) by 2020/2021  Conserve energy and reduce the carbon footprint of QUT's energy use  Provide experiential learning about energy conservation	6: Continue energy management program administration* 7: Maintain, monitor and refine building control systems 8: Optimise infrastructure efficiency and facility use 9: Pursue options (project feasibility assessments / research / investigations) to lower carbon footprint of projected energy demand *  10: Provide opportunities for experiential learning about energy and carbon emissions management (e.g. displays of Building Management Information).	<ul style="list-style-type: none"> <li>- Reduction in absolute carbon emissions and energy consumption and money saved</li> <li>- Decrease in energy intensity (GJ/m<sup>2</sup>GFA)</li> <li>- Increase in number of people / students exposed to experiential learning environments and cognisant of energy conservation initiatives by QUT*</li> <li>- Increase in number of WIL and higher degree research students undertaking energy conservation projects on QUT's Facilities / Building Management Systems*</li> <li>- Increase in number of projects involving experiential learning opportunities*</li> </ul>
Water	Conserve and manage water at QUT  Maintain consumption at 0.6 KL/m <sup>2</sup> GFA /annum or less	11: Continued coordination of water conservation and management  12: Undertake water savings projects and encourage water savings actions	<ul style="list-style-type: none"> <li>- Water consumed (KLm<sup>2</sup>GFA)</li> <li>- Effective system for water metering and monitoring embedded in normal operations</li> <li>- Water initiatives and consumption reporting</li> </ul>

Program	Objectives and targets	Strategies	Progress measures
Waste	<p>Reduce total waste generated and maintain compliance with regulatory requirements.</p> <p>Increase recycling to 25% of total waste by 2014</p>	<p>13: Coordinate and formalise an Integrated Waste Management System (by 2012)</p> <p>14: Install (by 2014) and promote the use of infrastructure for recycling of paper, cardboard and beverage containers.</p> <p>15: Investigate opportunities for recycling of green and organic waste (by 2012).</p> <p>16: Formalise and improve controls for regulated and construction wastes in 2012</p> <p>17: Formalise and improve controls for bulk goods including e-waste and white goods in 2013*</p>	<ul style="list-style-type: none"> <li>- Proportion of waste recycled</li> <li>- Tonnes of paper recycled</li> <li>- Tonnes of comingled recycling</li> <li>- Tonnes of cardboard recycled</li> <li>- Organic and green waste recycled*</li> <li>- No reportable waste incidents (for regulated, clinical and related wastes)</li> <li>- Documentation and checks of regulated wastes compliant</li> <li>- Amount of e-waste and white goods recycled</li> <li>- Amount of furniture recycled</li> </ul>
Sustainable procurement	<p>Minimise the impact of QUT's acquisition of goods and services – by purchasing sustainably</p> <p>Sustainable purchasing targets set annually</p>	<p>18: Support the devolved, sustainable purchasing arrangements at QUT with training, strategic alliances and advice.</p> <p>19: Assess and reduce the impact of purchases by the QUT community.*</p> <p>20: Review the impact of purchasing kitchen and stationery supplies and promote sustainable alternatives *</p>	<ul style="list-style-type: none"> <li>- Number of staff trained in sustainable procurement</li> <li>- Proportion of procurement arrangements and contracts for purchasing services or supplies which include sustainability criteria *</li> <li>- Assets and items on inventories of plant/equipment that are reused, recycled or disposed sustainably by supplier or by other arrangements*</li> <li>- Reams of paper used</li> <li>- Proportion of recycled content in paper used*</li> </ul>
Sustainable transport	<p>Monitor and reduce the QUT travel footprint.</p> <p>Decrease the carbon footprint from domestic air travel</p> <p>Increase proportion of QUT staff and students using public and active transport</p> <p>Decrease the carbon footprint from QUT fleet and senior staff vehicles</p>	<p>21: Foster sustainable transport choices for conducting University business*</p> <p>22: Determine and implement ways to reduce the impact from commuting and travel for University business*</p> <p>23. Facilitate and promote ways to reduce the impact from commuting and travel for University business*</p>	<ul style="list-style-type: none"> <li>- Activities including promotions to encourage sustainable travel *</li> <li>- Estimates of kms travelled by car and air in conducting University business as well as equivalent carbon emissions from travel in conducting University business</li> <li>- Characteristics of University fleet and senior staff vehicles *</li> <li>- Estimates of car and public transport commuter travel *</li> <li>- End of trip facilities. Increase the showers and bike lockers available.</li> </ul>

Program	Objectives and targets	Strategies	Progress measures
Built environment	<p>Reduce the environmental footprint of QUT's built environment</p> <p>Optimise buildings / precinct efficiency and space utilisation efficiency</p>	<p>24: Integrate resource conservation into campus renewal planning, reviews and precinct developments.</p> <ul style="list-style-type: none"> <li>- Include sustainability priorities in all project phases from scoping to commissioning</li> <li>- Commission all new buildings (post 2009) to be designed and performing as built to at least a 5-Star (Green Building Council) Rating</li> <li>- Commission all refurbishments to be the equivalent of a 4-Star (Green Building Council) standard.</li> </ul> <p>25: Benchmark building efficiency (including space utilisation) and allocate space to optimise space utilisation and reduce resource consumption.</p>	<ul style="list-style-type: none"> <li>- Sustainability initiatives included in refurbishment projects*</li> <li>- Decrease in energy and water use intensity (in GJ/m<sup>2</sup>GFA and KL/m<sup>2</sup>GFA)</li> <li>- Workspace / area assessments show that HVAC (and other) infrastructure, lighting, space and equipment use are optimally matched to operational needs*</li> <li>- Proportion of furniture purchased and reused</li> </ul>
Green IT	<p>Maintain and improve QUT's performance in using Green Information Technologies</p> <p>Reduce the environmental footprint of information technologies use at QUT</p>	<p>26: Integrate environmental sustainability into QUT's central IT operations</p> <p>27: Reduce IT related consumption by end users and promote IT solutions for addressing higher consumption activities</p>	<ul style="list-style-type: none"> <li>- Power Usage Effectiveness (PUE) of data centres</li> <li>- Ratio of virtual servers versus physical servers</li> <li>- Capital and operational expenditure savings associated with decommissioning of old servers and other high energy consuming equipment</li> <li>- Workstations turned-over, reused and recycled through supplier or other means</li> <li>- Proportion of QUT's computers with the highest, environmental performance rating</li> <li>- Operation of power saving settings on computer fleet</li> <li>- Number of video-conferencing sessions *</li> <li>- Proportion of printers with technologies to limit paper use</li> </ul>
Care of the immediate environment	<p>Maintain compliance and environmental values of all QUT sites</p>	<p>28: Prevent harmful, as well as, nuisance air, noise and odour emissions</p> <p>29: Carefully use land and soil to maintain the immediate environmental values.</p> <p>30: Manage ecological integrity and impacts on biodiversity on campus and off-campus *</p>	<ul style="list-style-type: none"> <li>- Actions taken to prevent environmental harm</li> <li>- Improved reporting and rectification of environmental incidents</li> <li>- Incidences of harmful or nuisance emissions</li> <li>- Presence / absence of soil problems</li> <li>- Biodiversity on campus *</li> <li>- Biodiversity and soil protection measures in research projects*</li> <li>- Incidents involving problem wildlife</li> <li>- Measurements of ecological integrity at Samford Ecological Research Facility*</li> </ul>

\* Measures are only monitored and reported when resources extend to working on those programs. Aspects associated with "\*" measures are not funded in 2011 - 2012.

## **3. Implementation**

### **3.1. Responsibilities for implementation**

The Sustainability Working Party provides advice to the Vice Chancellor and leadership to the University on sustainability policy and programs. The corporate areas of QUT integrate sustainability into their operations in accordance with the QUT Blueprint. The Divisions involved in providing sustainable infrastructure, systems and information are:

- Administrative Services (specifically Facilities Management, Human Resources and Marketing and Communication Departments);
- Finance Resources and Planning; and
- Technology and Information Learning Services (especially Information Technology Services, Learning Environments and Technology Services and QUT Printing Services).

Each area has responsibility in leading parts of the implementation of this plan. Facilities Management has many lead responsibilities and coordinates the actions of other Divisions.

Reducing QUT's environmental footprint relies on staff and students conserving resources as well as preventing impact from their activities. The management established at QUT used for risk management, governance, health, safety, quality research and legislative compliance provide the framework for sound environmental performance. Environmental management requires particular care by those using offices, laboratories, workshops, catering outlets and off-campus facilities. Hence, the marketing, communications and engagement strategies used include supporting green champions in workspaces.

### **3.2. Funding and progressing strategies**

Energy and water conservation have delivered financial savings since 2006. Some of the funds saved were reinvested in further energy efficiency opportunities. The broader sustainability initiatives at QUT formally commenced in 2008 with the formation of the Sustainability Working Party and the recruitment of a Sustainability Coordinator.

Designated funding for sustainability initiatives commenced in 2009 with the allocation of \$4.5M over the period 2009 - 2011. Actions for each strategy are developed to guide the investment in programs. A program of initiatives is reconsidered annually.

Cost neutral solutions which can be achieved through existing operating budgets are sought when considering the business cases for sustainability projects. Projects may strengthen or augment existing organisational processes, such as environmental risk management and energy conservation.

Funded projects are to instigate action on environmental sustainability issues which would not otherwise be achieved. Progress on each program is reported quarterly and the actions taken to implement the plan are reviewed annually.