Edith Cowan University

Overview of sustainability practices and development of objectives and targets

April 2009
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Dear Brian

Final report - Overview of sustainability practices and development of objectives and targets

Please find herein, the final report for Edith Cowan University, “Overview of sustainability practices and development of objectives and targets”, per our engagement (refer contract between Edith Cowan University (ECU) and PricewaterhouseCoopers (PwC), dated 3-Dec-08).

This report highlights a large number of notable sustainability initiatives currently being undertaken at ECU across all areas of environmental and social sustainability areas considered. For each of the sustainability areas selected, this report (1) documents existing sustainability practices based on the evidence gathered, (2) provides examples of approaches taken by other selected comparable organisations, (3) suggests opportunities for improvement, and (4) documents preliminary objectives and targets, where appropriate.

Before embarking on the roll out of any of the programs outlined in Section 7 of the report, the university must first develop systems and processes to capture and measure progress against targets. During the next stage – implementation – these objectives, targets and programs will need to be developed and refined further, and cross-checked against existing university programs for consistency (i.e. square bracketed items in particular).

This report will be a key input for developing a set of responsibilities for a sustainable community at ECU. Implementation will require management commitment, adequate allocation of resources, clearly defined accountabilities (linked to management performance) and a well defined change management strategy.

We would be happy to consider what, if any, additional assistance you would like from us during implementation to help you along your sustainability journey (e.g. program assessment / review, change management etc.). Please feel free to contact us at any time to discuss your requirements further.

We have enjoyed working with ECU and look forward to continuing to build on our relationship going forward.

Yours sincerely

Liza Maimone
Partner
Sustainability & Climate Change

Cameron Jones
Partner
Business Assurance

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1 Schedule 2, contract for the provision of consultancy services to assist with developing a sustainable communities functional plan, 3-Dec-08.
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Summary and overview

Edith Cowan University (ECU) aims to develop a set of responsibilities for a sustainable community at ECU. Broad objectives include:

1. Developing a heightened awareness and practice of social and environmental sustainability amongst ECU staff, students and communities.
2. Establishing a vision that embeds social and environmental sustainability and well-being values, knowledge and skills into the curriculum and research programs.
3. Continuous improvement in reducing the university’s environmental footprint in areas of energy, water, materials, waste, biodiversity and transport.

ECU has engaged PricewaterhouseCoopers (PwC) to:

1) prepare an overview of sustainability activities and practices that are in place across a selection of sustainability areas, and to
2) assist the university to develop objectives and targets for these areas.

The 12 selected sustainability areas were derived from the Global Reporting Initiative (GRI) and spanned across social and environmental factors, including:

- product responsibility of service offerings
- occupational health and safety (OH&S) and wellness practices
- training and education programs
- diversity and equal opportunity policies and initiatives
- interaction with the wider community
- recycled and non-recycled materials used
- direct and indirect energy use and greenhouse gas emissions
- transport greenhouse gas emissions
- recycled and non-recycled water used
- biodiversity of owned and managed land
- effluent and waste produced
- environmental impact of service delivery

This report highlights a number of notable sustainability initiatives currently being undertaken at ECU across all areas of environmental and social sustainability areas considered. Specific areas for improvement were identified across each area of sustainability considered. Preliminary objectives and targets were discussed and documented against each sustainability area to varying degrees, depending on the current level of integration across the university.

Next steps

This report will be a key input for developing a set of responsibilities for a sustainable community at ECU. The next stage – implementation – will require management commitment (e.g. Vice Chancellor), adequate allocation of resources and clearly defined accountabilities (linked to management performance). ECU’s change management strategy will need to incorporate behavioural and physical changes to implement environmental and social sustainability programs. An initial assessment of the programs to determine the resources and funding required may be necessary. The success of the programs could be developed into informative case studies for future sustainability reporting at ECU.
2 Background

Sustainability in the tertiary education sector

Tertiary education institutions have an opportunity and an obligation to lead by example in implementing sustainability. This focus should not only be on environmental sustainability from a facilities management perspective – institutions should also look to provide staff, students and the broader community with access to the knowledge and education addressing the importance of social and environmental sustainability. Educational programs should be supported by the implementation of initiatives aimed at embedding sustainability across campus and in the wider community. Institutions can act now to build sustainability awareness amongst staff, students and communities to provide a brighter future for all.

Achieving sustainability at ECU

ECU outlined three core elements that it deems important in achieving sustainability at the university:\n
1. developing a heightened awareness and practice of social and environmental sustainability among ECU staff and students and communities.
2. progressively reducing the university’s environmental footprint in areas of energy, water, materials, waste, biodiversity and transport
3. embedding social and environmental sustainability and well-being values, knowledge and skills into its curriculum and research programs

“Sustainability represents… forms of progress that meets the needs of the present without compromising the ability of future generations to meet their needs”.

Source: World Commission on Environment and Development

International trends in education

Across the world there is an increasing awareness within education of the need to take a holistic approach to learning. This approach focuses on the emotional, intellectual, spiritual and physical elements of learning, to complement classical approaches and techniques.

ECU recognises the importance of embedding sustainability through its community and believes that innovative actions in this direction will enable ECU to significantly influence future generations to think in this way. ECU believes its future success hinges on the sustainability practices of its students and the wider community.

In this report, ECU has taken the steps to understand (or ‘catalogue’) existing sustainability initiatives and activities within the university community and aims to use this information to set a vision for a sustainable future. This overview of sustainability practices and development of preliminary objectives and targets was facilitated by PwC.

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2 Source: ECU Scope of Works, Developing a Sustainable Communities Functional Plan for ECU.

3 Scope of work and approach

Overview of sustainability practices and development of objectives and targets

PwC was engaged to conduct an overview of ECU’s current sustainability practices, through engagement with a selection of key stakeholders and structured information gathering. The data collected is anecdotal in nature, and the report presents a summary of facts only against a set of selected indicators. PwC also assisted the university to develop preliminary objectives and targets for the selected sustainability areas. It is intended that this report will be a key input for developing a set of responsibilities for a sustainable community at ECU. ECU’s change management programs will need to incorporate behavioural and physical changes to implement environmental and social sustainability programs.

Mobilisation and planning

- ECU selected 12 sustainability areas from a list derived from GRI (refer to Appendix A – Selection of key areas of focus).
- ECU selected five organisations for ‘case example’ research – namely RMIT University, Reading University, Yale University, Princeton University and Xstrata Mining.
- ECU nominated key personnel for discussions with PwC around the development of preliminary objectives and targets for each of the selected sustainability areas.

Engagement

- PwC facilitated workshops with key stakeholders of ECU to understand current sustainability practices and to sight relevant documentation. The workshop groups selected by ECU are included in Appendix B.
- Research was undertaken to obtain publicly available information on sustainability practices within five comparative organisations selected by ECU (‘case examples’) to highlight other initiatives that ECU might consider implementing.
- PwC held meetings with key personnel at ECU to assist in the development of preliminary objectives and targets for the selected sustainability areas, and facilitated a workshop to obtain feedback on draft outcomes (refer to Appendix B).

Reporting

- For each of the sustainability areas selected, this report (1) documents existing sustainability practices based on the evidence gathered, (2) provides examples of approaches taken by other selected comparable organisations, (3) suggests opportunities for improvement, and (4) documents preliminary objectives and targets, where appropriate.
- The structure of the report is based on the Australian Business Excellence Framework currently employed by ECU.

Scope exclusions

- The findings detailed in this report do not involve detailed testing or reviews of data accuracy and do not validate or verify the information PwC was provided by ECU. Findings are based on anecdotal evidence and information in ECU documentation provided.
- PwC’s services do not constitute an audit in accordance with Australian Auditing Standards and, accordingly, no assurance will be provided in this report or other deliverables.
- ECU is responsible for making its own decisions in relation to the information gathered.
4 Structure of this report

The format of this report is in line with the Australian Business Excellence Framework (ABEF) currently employed by ECU to integrate process management, improvement and innovation into its operations. For each sustainability area (reported in sections 5 and 6), the report outlines initiatives identified, levels of deployment, key results, case examples and areas for consideration / improvement. PwC did not undertake any detailed testing or reviews of data accuracy and did not validate or verify the information provided. The content is based on anecdotal discussions during workshops and information in documentation provided by ECU.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Initiatives communicated during the workshops and / or through documentation provided by ECU.</td>
<td>• Current deployment of each of the initiatives identified or how it is intended that they be deployed within the university and / or wider community. The coverage of the initiative has been stated, where known (e.g. university-wide, South-West campus etc.).</td>
<td>• Key results communicated during the workshops and / or through documentation provided by ECU.</td>
</tr>
<tr>
<td>• Identifies the organisation’s intent for an initiative. This outlines the planning, strategies, processes and infrastructure designed to achieve the intent.</td>
<td>• Deployment identifies those planned implementation activities supporting the improvement strategy.</td>
<td>• The results identify the performance indicators that measure the effectiveness of the approach and its deployment.</td>
</tr>
</tbody>
</table>

Ideas from case examples

- Relevant case examples drawn from similar organisations selected by ECU to inform additional areas for consideration.
- Cases studies were sourced from publicly available information from Harvard University (http://harvard.edu), Princeton University (http://www.princeton.edu), RMIT (http://www.rmit.edu.au), University of Reading (http://www.reading.ac.uk), University of Western Australia (http://www.uwa.edu.au), Xstrata (http://www.xstrata.com), and Yale University (http://www.yale.edu).

Areas for consideration / improvement

- Summary of suggested areas where ECU could improve or consider implementing new sustainability initiatives / programs, identified through the workshop and meeting discussions, case examples and professional experience. Improvements outline the process by which approach and deployment are reviewed and adapted to achieve improved results. These areas for consideration / improvement are identified as either short, medium or long term actions.
- Due to the nature of the report and the subject areas, there is some natural overlap throughout the sections.

The objectives and targets were discussed and developed to varying degrees, depending on the current level of integration and maturity across the university. For each sustainability area (reported in section 7), the report outlines the preliminary objectives, targets, programs and responsibilities. The content is based on feedback received during meetings and workshops and does not represent PwC’s view.

<table>
<thead>
<tr>
<th>Area</th>
<th>Goals</th>
<th>Objectives / Targets</th>
<th>Programs</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability area</td>
<td>• High level goal</td>
<td>• Detailed performance requirements that arise from the goals and objectives</td>
<td>• Programs to meet the objectives and targets (note, there will be some overlap with areas for consideration / improvement (sections 5 and 6))</td>
<td>• Key responsibility within ECU for achieving objectives and targets</td>
</tr>
</tbody>
</table>
5  Social

5.1  Product responsibility of service offerings

This indicator focuses on the content of ECU’s curriculum, consideration of its intended use and its mode of marketing and communications (i.e. responsibility of the service itself – ‘education’).

<table>
<thead>
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</thead>
</table>
| **ECU values**: Promote the four ECU values through learning and professional development. Keep this as a common thread – Integrity, Respect, Rational Inquiry, Personal Excellence. Promote leadership capabilities of ECU staff. | **ECU values**: Promoted throughout the university’s functional plans, professional development website to promote ECU values (university-wide). | • Courses need to meet certain requirements for accreditation.  
• Graduate Schools (currently no KPI to measure their skills). |
| **Curriculum**: A number of courses offer units in sustainability, including courses in Engineering, Environmental Science, Environmental Management, Environmental Health, Planning, Natural Resource Management, Aviation. | **Curriculum**: Increased focus on inclusion of sustainability units within the curriculum, driven by individual schools (university-wide). | |

**Ideas from case examples**

- Yale University: Promotes themselves as educating students to be citizens of a global environment. Also has environmental education, management and training.
- RMIT: Established the Global Sustainability Institute, aimed at creating working models of global sustainability and working within RMIT to integrate global sustainability principles in core scholarship program and business operations.
- University of Reading: Completed a Sustainability Appraisal Report as part of their Development Plan. Report considers a series of criteria (biodiversity, landscape / townscape and land use, historic environment, water, air quality, soil quality, traffic and transport, crime and disorder, community services, education and skills, housing; employment, economy, waste, resource use); balanced report highlighted advantages and disadvantages of development.

**Areas for consideration / improvement**

- Include sustainability principles in curriculum and research programs, focus on the development of core units, use learnings from own practices (i.e. develop ‘graduate attributes’) (medium term).
- Consider sustainability benefits and impacts of research (i.e. contribution to notion of sustainability) (medium term).
- Develop a compulsory theory unit on social and environmental sustainability (education of students is likely to be ECU’s greatest area of influence) (medium term).
- Educate staff and students on the importance of sustainability in every day life, i.e. responsible citizenship (also refer to all other indicators discussed in this report) (medium term).
- Clearly outline the way ECU intends to communicate curriculum (e.g. case studies, projects, nature of inquiry, assessments, student programs etc.) (medium term).
5.2 Occupational health and safety (OH&S) and wellness practices

This indicator identifies initiative undertaken by ECU in providing effective OH&S and wellness programs to staff and students, including education, training, counselling, prevention and risk-control.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
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<tbody>
<tr>
<td><strong>OH&amp;S office:</strong> Responsible for the implementation of ECU safety and health framework, including relevant policies and procedures such as hazard identification and accident reporting policies. Provides advice and assistance to the network of OH&amp;S representatives and OH&amp;S committees. Able to provide assistance and guidance on matters such as OH&amp;S legislation, hazard identification, risk analysis and control, safe systems of work, ergonomics, manual handling and return to work programs.</td>
<td><strong>OH&amp;S office:</strong> Run by OH&amp;S manager. Responsible for ensuring the Safety and Health framework is implemented (university-wide).</td>
<td>• Very effective safety performance.</td>
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<td></td>
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<td>• Various benchmarking has been undertaken with universities Australia wide.</td>
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<td></td>
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<td>• VCPMG (Planning Management Group) meets biannually.</td>
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<td>• Current performance metrics are reported quarterly (i.e. mostly lag indicators).</td>
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<td></td>
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<td>• Examples of OHS metrics include lost time injuries, compensation injuries, claims cost and workers compensation premium.</td>
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<td></td>
<td></td>
<td>• Examples of wellness metrics include unscheduled absence, staff turnover and staff satisfaction.</td>
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<td></td>
<td></td>
<td>• Insurance premiums are noticeably lower than other universities.</td>
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<tr>
<td><strong>Initiatives:</strong> Flexible arrangements after returning from parental leave. School holiday programs available for staff / students. Security phone number (internal: 3333, external: 0863043333). Security training, first aid training. Physical safety has been broadened over the years to encompass psychological safety (e.g. bullying), committee has been set up from Schools of Physiology and Biohealth, Wellness programs (e.g. yoga at lunch), gyms on campus.</td>
<td><strong>Initiatives:</strong> Managed through OH&amp;S office and OH&amp;S campus committees. ECU staff health and wellness program (‘live life longer’) (university-wide).</td>
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<tr>
<td><strong>Ideas from case examples</strong></td>
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<tr>
<td>• Xstrata: Sets specific targets for OH&amp;S as well as proactively getting involved in developing ergonomic design of workplace equipment.</td>
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<tr>
<td><strong>Areas for consideration / improvement</strong></td>
<td></td>
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<tr>
<td>• Review OH&amp;S accountabilities at ECU to ensure that all staff, including senior management, has appropriate levels of responsibility assigned and that they receive relevant training (short term).</td>
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<tr>
<td>• Develop and report on lead indicators for OH&amp;S (e.g. number of injury free days, consider current levels and potential improvements), undertake trend analysis of incidents and include in regular reporting against targets (short term).</td>
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<tr>
<td>• Continue to review OH&amp;S systems against relevant international standards (e.g. AS 4801) through benchmarking (medium term).</td>
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<tr>
<td>• Develop and implement the wellness program across all campuses (i.e. assess current situation, assign health and wellbeing champions, identify cost effective activities, implement programs, measure success) (medium term).</td>
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</table>
5.3 Training and education programs

This indicator identifies the extent of ECU’s training and education programs that are available to its staff (professional development) and students (curriculum).

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
</table>
| Centre for learning and teaching: Offers a variety of services to best meet the needs of the ECU teaching and learning community. Investment in this initiative will allow ECU to move forward. | Centre for learning and teaching: Online enrolment for courses conducted by the centre, additional material on website (teaching staff initiative). | • Development and integration of technology in support of learning and teaching.  
• ALTC Promoting Excellence Initiative (PEI) grants of $220,000 for 2008 and 2009.  
• Programs in place to educate staff on how to achieve environmental sustainability. |
| Research: Commitment to growing research output. | Research: Analysis of research benchmark values (2 / 3 staff are research active). A number of pathways have been developed for increasing the number of researchers. Strategic research funding is to support early research (research staff and student initiative). | |
| Training and development opportunities: Developing people capability and inheriting the way ECU delivers its message. Investment in longer term values and mentoring programs. | Training and development opportunities: Feedback on performance sought through student evaluation to determine areas of focus (university-wide). | |
| Part time / visiting lectures: Recruitment campaigns to address the problem of casual staff (students, retired professors). Adjunct staff to support full time staff. | Part time / visiting lecturers: Ongoing recruitment campaigns (university-wide). | |

**Ideas from case examples**

- University of Western Australia (additional case example): Re-entry fellowship; 1 / 2 year salary, supporting research undertaken independently or in collaboration with schools within the university by a person whose career has been interrupted by family responsibilities.
- Xstrata: Community skills and training programs are in place at many operations and projects, in particular in regions with concentration of unskilled workers or unemployment, e.g. funding an education improvement program in South America, to assist teachers in providing better quality teaching, all operations in high-risk regions to commission human rights training for all third party security personnel.
- Yale University: Establishment of teaching and learning committee which produces various reports, student evaluations.

**Areas for consideration / improvement**

- Continue to implement existing training and development programs, where appropriate (consider rationalising based on staff and student feedback to ensure a sustainable workforce, demonstrate application of flexible delivery and effective learning styles) (short term).
- Ensure that employee development objectives have been defined and documented (short term).
- Track progress through student evaluations and other metrics (refer to staff satisfaction indicators measured) (short term).
- Employ more professors and incentivise early researchers (medium term).
- Encourage wider involvement by staff and students in programs such as work integrated learning, community volunteering and leadership (long term).
5.4 Diversity and equal opportunity policies and initiatives

This indicator identifies the extent to which diversity and equal opportunity is apparent at ECU, and how these initiatives extend to the wider community.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
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<tbody>
<tr>
<td>Mature age: School mission statements specifically invite</td>
<td>Mature age: Promoted throughout the university (university-wide).</td>
<td>• The university reports to council and then to Canberra with regards to Diversity and Equal Opportunity issues. State legislation requires a plan to be in place.</td>
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<tr>
<td>mature age students to enrol in the university.</td>
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<td>• The Equity Action Plan takes into account the key internal and external influences identified as likely to have the greatest impact on equity and diversity at the university over the plan’s timeframe.</td>
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<tr>
<td>Course structure: Courses encourage team work / group work</td>
<td>Course structure: Responsibility of each School and of course coordinators</td>
<td>• National benchmarking ranks ECU quite poorly in terms of diversity.</td>
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<tr>
<td>and continues to build in diversity as the course progress.</td>
<td>to ensure courses are encouraging diversity and equal opportunity (teaching initiative).</td>
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<tr>
<td>Student housing: Promotes cross cultural living arrangements</td>
<td>Student housing: Deliberately mix students in accommodation (part of usual operations) (student initiative).</td>
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<tr>
<td>and mixed housing.</td>
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<tr>
<td>Proactive disciplines: School of Engineering run programs to</td>
<td>Proactive disciplines: Actively target minority socio-economic groups, e.g.</td>
<td></td>
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<tr>
<td>encourage more female students to enrol into courses.</td>
<td>mature age, female engineers etc. (university-wide).</td>
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<tr>
<td>Student equity, diversity and disability services: Officer</td>
<td>Student equity, diversity and disability services: Administered through</td>
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<tr>
<td>at each campus responsible for providing advice and</td>
<td>the responsible officer (university-wide).</td>
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<tr>
<td>information in relation to liaison with staff, library</td>
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<tr>
<td>services, alternate examination conditions, access to some</td>
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<tr>
<td>aids and equipment, note taking and transcription services,</td>
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<tr>
<td>guidelines for students with note-takers, provision of</td>
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<tr>
<td>interpreting services.</td>
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<tr>
<td>Alternative entries: ECU provides alternative entries</td>
<td>Equity action plan 2008-2010: Alternative entries pathways have grown in</td>
<td></td>
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<tr>
<td>pathways where students can present their portfolio for</td>
<td>popularity with students (university-wide).</td>
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<tr>
<td>consideration into ECU courses.</td>
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<tr>
<td>Equity action plan 2008-2010: Plan (August 2008) provides a</td>
<td>Equity action plan 2008-2010: To be embedded in existing functional and</td>
<td></td>
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<tr>
<td>framework that ensures ECU’s equity initiatives and activities</td>
<td>operational plans (university-wide).</td>
<td></td>
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<tr>
<td>are consistent with ECU’s broader strategic direction.</td>
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</tbody>
</table>

Ideas from case examples

• University of Reading: Engages in ethical procurement practices and Fair Trade Policy implementation.

• Xstrata: Specific cultural diversity programs are in place at Xstrata’s Australian mining operations in North Queensland. Extensive consultation exists with indigenous communities to identify, protect, manage and record culturally significant sites and artefacts on all mining sites.

Areas for consideration / improvement

• Define what diversity means to ECU, the type of diversity required and the benefits (e.g. position statement, top down approach for bottom up reform) (short term).

• Develop a system which quantifies output in relevant areas (e.g. gender imbalances, socio-cultural and ability measures) (medium term).

• Ensure more diversity amongst senior staff by identifying the reasons for imbalances and developing programs around them (also refer to ‘Interaction with the wider community’ indicator) (medium term).

• Align ECU equity and diversity policies and practices across the whole University (medium term).

4 Also refer to ‘Interaction with the wider community’ indicator, particularly in relation to Indigenous initiatives.
### 5.5 Interaction with the wider community

This indicator identifies the nature and scope of ECU’s engagement with the community, including programs and practices in place to manage the impacts of ECU’s operations on communities.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
</table>
| **Community mission:** To further develop valued citizens for the benefit of Western Australia and beyond through teaching and research inspired by engagement and partnerships. | Community mission: ‘Engaging Minds, Engaging Communities towards 2020’ provides details on functional plans and annual goals (university-wide). | • ECU has the second highest indigenous post graduate enrolments in Australia.  
• It is hard to measure the extent of some programs as the end point is hard to determine and a lot of work that is undertaken is not documented.  
• Strategic goals are defined through Indigenous action plan.  
• ‘In kind’ sponsorship of community programs undertaken on an ad-hoc basis.  
• Procedures for determining mutually beneficial relationships are not currently clear.  
• Students – promotes access to and successful participation in teaching programs for indigenous Australians.  
• Staff – fosters the employment of indigenous Australians at all levels and across all areas of the university.  
• Undertakes appropriate consultation and collaboration with indigenous Australian to shape ECU programs, services and activities in ways which address indigenous needs. |
| **Indigenous action plan 2008-2010:** ECU’s plan to deliver on commitment to indigenous Australians. | Indigenous action plan 2008-2010: Outlines goals to engage in with the indigenous community, including engaging and servicing communities, providing a supportive and stimulating working community, developing research focus, depth and impact, building organisational sustainability (university-wide). | |
| **Research:** Collaboration with external links, e.g. water authority. | Research: Research schools are responsible for identifying potential collaboration (research initiative). | |

#### Ideas from case examples
- **Xstrata:** Several community programs in place to improve health and well-being and education in surrounding areas.
- **RMIT:** The Community Sustainability Project involves a global network of researchers, scholars and community activists working together to better understand the nature of community from the local to the global across many countries in the Asia-Pacific region. The project is a matrix of community-situated projects which are conducted using common methodology and research tools.

#### Areas for consideration / improvement
- Review sponsorship budget and types of programs sponsored (short term).
- Make the entry selection criteria for individuals consistent for other enrolments, encourage indigenous student enrolment (short term).
- Build capacity with indigenous colleagues and staff (medium term).
- Review community engagement plan and programs. Ensure that both local and international programs are effectively implemented and evaluated and mutually beneficial relationships are clearly articulated. Link programs to the university’s sustainability issues to engage the community (medium term).
- Consider implementing an ‘extension program’, similar to UWA, to integrate with the Northern suburbs (long term).
- Develop programs to ensure that all ECU staff and students identify positively with our Indigenous Australian heritage, knowledge and culture (long term).
6 Environment

6.1 Recycled and non-recycled materials used

This indicator outlines initiatives undertaken by ECU to reduce its material consumption / output relating to operations and its ability to use recycled input materials.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
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<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental purchasing initiative: Purchase only recycled content paper; Encourage suppliers to reduce, reuse and recycle packaging, procurement policy.</td>
<td>Environmental purchasing initiative: Only purchase recycled content paper; Procurement policy is continuously reviewed to incorporate environmental sustainability (university-wide).</td>
<td>• There are currently no measures in place to determine the extent of material consumption or amount of recycled input materials used. Students measure recycled waste every year, which provides baseline data for outputs (refer to ‘Effluent and waste produced’ indicator).</td>
</tr>
<tr>
<td>Earth saver product catalogue: Deliver a package of alternative, environmentally friendly products that cost no more than existing (non-environmentally friendly) products.</td>
<td>Earth saver product catalogue: A program which aims to educate purchasers on the reasons why we should be buying environmentally friendly office supplies and equipment, and how to do this (university-wide).</td>
<td>• Only those students who are off-campus have access to hard copy correspondence regarding course material, which they must specifically request.</td>
</tr>
<tr>
<td>Electronic communication: Utilisation of electronic applications in Human Resources; Encourage council members to provide electronic material for council meetings; Student material (including lectures) and communications is provided electronically through the university’s website.</td>
<td>Electronic communication: Use website and IT programs to ensure material is produced electronically; Use of contractors to develop green IT initiatives (university-wide).</td>
<td>• The university encourages students to correspond in electronic form.</td>
</tr>
<tr>
<td>Green office program: Aimed at increasing staff and student awareness of the environmental impacts associated with daily work practices and to encourage and facilitate environmentally friendly alternatives. Program is due to commence in second half of 2009.</td>
<td>Green office program: Delivered through the EcoECU website, opportunity for people to become involved as representatives (university-wide). Will become active in 2009.</td>
<td>• In 2008 the university purchased photocopiers made from 95% recycled materials.</td>
</tr>
</tbody>
</table>

Ideas from case examples

• RMIT: Recycling program in place to encourage recycling materials such as paper, cardboard, co-mingled waste, computers and furniture; advanced recycling to remove fluorescent tubes.
• Harvard University: Graduate green living programs to educate residential students; office composting to collect compostable waste across campuses.
• Princeton University: Recycling program including paper, toner cartridges, dorm furniture and light bulbs.

Areas for consideration / improvement

• Determine the extent of use of recycled input materials on material consumption / output (short term).
• Develop a sustainable procurement strategy / procedure to assist decision making (short term).
• Consider applying evaluation criteria for sustainability issues on to suppliers (medium term).
• Develop an internal framework for effective electronic communication among staff and students (medium term).
• Determine the effect of electronic communication on material consumption / output through measurement of material purchases / waste (e.g. paper), put a greater emphasis on promoting electronic communication (medium term).
• Undertake life cycle analysis of a selection of products (e.g. building materials) to understand their recycled inputs, use analysis to inform decisions (e.g. procurement policy) (long term).
6.2 Direct and indirect energy use and greenhouse gas emissions

This indicator outlines initiatives undertaken by ECU to reduce its direct and indirect energy use (and associated greenhouse gas emissions) and increase energy efficiency across all university campuses.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy management program: Use of movement sensors and dimming system for office lighting, use of tri-phosphor globes (low maintenance and energy efficient) in most campus buildings; Building design aims to make use of natural lighting; A percentage of power is purchased through Western Power’s earth-friendly initiative; Pilot program to monitor trends in energy management.</td>
<td>Energy management program: EcoECU implements program; Program deployed throughout the year with ongoing reform of energy saving initiatives; The energy management plan expired in 2008; work has begun with contractors to develop energy targets and greenhouse gas targets (university-wide).</td>
<td>• Total energy use and energy use per staff full-time equivalent (FTE) and student full-time equivalent load (EFTSL) has increased in each consecutive year from 2004 (22,851 t CO2 / yr / FTE) to 2008 (25,886 t CO2 / yr / FTE). This has been attributed to new buildings developed during campus consolidation. Total energy use in 2008 was approx 105,000 GJ (26,000 t CO2), energy use in 2007 per FTE and EFTSL was 6,734 GJ. This figure is exclusive of the South-West campus and student housing. Key sources of energy consumption are cooling and heating systems and lighting (electricity derived from fossil fuels).</td>
</tr>
<tr>
<td>Measured energy use: National Greenhouse and Energy Reporting System (NGERS) used to determine ECU’s energy use and greenhouse gas emissions. Intention to voluntarily report under NGERS in 2009.</td>
<td>Measured energy use: Measured against initiatives put in place by the Sustainable Communities Steering Committee (SCSC). Targets will be developed for the Facilities and Services area not the whole University.</td>
<td>• Expect energy use to decrease with the closure of Churchlands campus.</td>
</tr>
<tr>
<td>Energy star: A power management program that aims for maximum energy efficiency on office products such as printers, copiers, computers and equipment.</td>
<td>Energy star: Activation of program through computer control panel (university-wide).</td>
<td>• The Tertiary Education Facilities Management Association place ECU in the top 10 of Australian Universities for energy efficiency (based on information from tertiary benchmarks).</td>
</tr>
<tr>
<td>Green office program: Aimed at increasing staff and student awareness of the environmental impacts associated with daily work practices and to encourage and facilitate environmentally friendly alternatives.</td>
<td>Green office program: Delivered through the EcoECU website, an opportunity for people to become involved as representatives (university-wide). Will become active in 2009.</td>
<td>• Installation of PVs.</td>
</tr>
</tbody>
</table>

Ideas from case examples

• University of Reading: Building Energy Management System (BEMS), an electronic system which centrally controls buildings’ heating and ventilation systems. Investigation into the possibility of wind farms on university land.
• Yale University: Green buildings fitted with reflective roofing materials to reduce its urban heat-island effect, designed to provide generous day lighting.

Areas for consideration / improvement

• Determine the key sources of energy consumption and emissions at each campus with a view to implementing changes where appropriate, ensure adequate resources are allocated (e.g. energy audit) (short term).
• When determining emission sources (above), also consider emissions other than greenhouse gas emissions (e.g. chemicals and gases from laboratory) (short term).
• Develop energy reduction targets for the Facilities and Services area and roll out across all campuses, consider appropriate measures (e.g. FTE, floor space) (short term).
• Investigate the opportunity to purchase renewable energy sources, consider costs and benefits, align with facilities retendering process (e.g. either through energy provider or investment in renewable energy project onsite) (medium term).
• Investigate on-campus reduction initiatives and integration of low emission technologies prior to offsetting (i.e. reduce the requirement on carbon offsets) (medium term).
• Undertake life cycle analysis of a selection of products (e.g. building materials) to understand their embodied energy, use analysis to inform decisions (e.g. procurement policy) (long term).
• Include a focus on IT energy use as a potential large source of energy savings, including a program to reduce the number of servers.
## 6.3 Transport greenhouse gas emissions

This indicator identifies greenhouse gas emissions associated with ECU’s transport and initiatives undertaken by ECU to reduce emissions.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green transport plan:</td>
<td>Green transport plan: Developed in partnership with the Departments for Planning and Infrastructure and Environment and Conservation (university-wide).</td>
<td>• 74% of employees were found to drive to work alone, and stated ‘convenience’ and ‘travel time’ required as the most common reasons for this.</td>
</tr>
<tr>
<td>deployment group</td>
<td></td>
<td>• 58% of students attending the Joondalup campus and 48% of students attending the Mt Lawley campus drove alone, ‘time saving’ was stated as the most common reason for this.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Offset emissions of 73 vehicles through carbon sequestration associated with tree planting.</td>
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<tr>
<td>ECU carpool:</td>
<td>ECU carpool: Development of a website dedicated to encouraging this initiative (university-wide).</td>
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<td></td>
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</tr>
<tr>
<td>Emission offset:</td>
<td>Emission offset: Carbon neutral; Engaged to plant trees to offset vehicle emissions (refer to Green Transport Plan (Managing the University Fleet)).</td>
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</tr>
<tr>
<td>fleet vehicles</td>
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<tr>
<td>through the Carbon</td>
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<td></td>
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<tr>
<td>Neutral program.</td>
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<tr>
<td>Travel Smart program:</td>
<td>Travel Smart program: Initiatives currently being implemented (university-wide), encourage staff to choose more efficient vehicles.</td>
<td></td>
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<tr>
<td>participation in</td>
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<tr>
<td>program; Targets have</td>
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<tr>
<td>been developed for</td>
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<tr>
<td>use of increased forms</td>
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<tr>
<td>of alternative transport and selection</td>
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<td></td>
</tr>
<tr>
<td>of more efficient vehicles etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green office program:</td>
<td>Green office program: Delivered through the EcoECU website, an opportunity for people to become involved as representatives (university-wide). Will become active in 2009.</td>
<td></td>
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<tr>
<td>aimed at increasing</td>
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<tr>
<td>staff and student</td>
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<tr>
<td>awareness of the</td>
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<tr>
<td>environmental impacts</td>
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<tr>
<td>associated with daily work practices and to encourage and facilitate environmentally friendly alternatives.</td>
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</tr>
</tbody>
</table>

### Ideas from case examples

- Princeton University: Development of comprehensive sustainability plan through initiation of task force aimed at developing policy initiatives for the sustainable use of energy at the university, task force researched other university initiatives and pulled together the best elements to develop a structured policy, goal in place to reduce emissions by 2020 to 1990 levels through on-campus mitigation rather than off-campus offset e.g. on-campus tree planting to offset, reduce the number of single-occupancy vehicles coming to and parking on campus 10% by 2020, by promoting alternative methods of travel, reduction technology utilised in buildings.

### Areas for consideration / improvement

- Determine the most intensive forms of transport used for university travel (through Travel Smart program already initiated) and focus on developing programs to address these areas (e.g. develop transport plans for inter-campus travel to encourage less greenhouse intensive forms of transport) (short term).
- Ensure that video conferencing facilities are available and its use is encouraged across staff and students (also refer to ‘Environmental and social impacts of service delivery’ indicator) (short term).
- Refer to other areas for consideration / improvement under ‘Direct and indirect energy use and greenhouse gas emissions’ indicator.
6.4 Recycled and non-recycled water used

This indicator outlines initiatives undertaken by ECU to reduce its water use and increase the amount of water recycled or reused across campus.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Showerheads and flow regulators: Water saving showerheads, flow regulators on all taps (550 at Joondalup, 50 at Bunbury).</td>
<td>Installed throughout student villages / sports centres across all campuses (university-wide).</td>
<td>• Commencement of a water recycling project funded by the Federal Government—approximately 2 million L / year from the Joondalup Campus cooling tower is being reused in campus reticulation.</td>
</tr>
<tr>
<td>Waterwise tips: Provision of tips for staff and students to decrease their water use on campus and at home.</td>
<td>Provided on the EcoECU website (university-wide).</td>
<td>• Waterless urinals are saving 35,000 L / year. Plan is to roll out 20-30 per year.</td>
</tr>
<tr>
<td>Waterless urinal system: Expansion of waterless urinals across the Joondalup campus.</td>
<td>Initially trialled a chemical system, this has since been replaced with a mechanical system and is continuing to be installed. Program of works rolled out (Joondalup).</td>
<td>• Water efficiency management plan resulted in a rapid leak response policy implemented by the maintenance call centre.</td>
</tr>
<tr>
<td>Water reuse project: Expected to save 2 million L / year funded by Federal Government.</td>
<td>Currently underway (Joondalup).</td>
<td>• Total potable water use has declined from 2004 to 2006 but rose slightly in 2007 and again in 2008. Total potable water consumption in 2008 was approx 116,000 kL, water consumption per FTE + EFTSL declined from 2004 through to 2006 but rose slightly to 7.29 kL in 2007.</td>
</tr>
<tr>
<td>Water efficiency management plan: Water management action group, completion of a water efficiency management plan for Jondalup and Mount Lawley, utilise water in cooling tower in campus reticulation.</td>
<td>Encourages staff and students to quickly report any leaks from dripping taps and toilets to maintenance (Mount Lawley and Joondalup). Prepared in conjunction with Water Corporation.</td>
<td>• Groundwater use is down significantly due to reduction in maintainable areas at Churchlands campus because of redevelopment of land.</td>
</tr>
<tr>
<td>Green office program: Aimed at increasing staff and student awareness of the environmental impacts associated with daily work practices and to encourage and facilitate environmentally friendly alternatives.</td>
<td>Delivered through the EcoECU website, an opportunity for people to become involved as representatives (university-wide).</td>
<td></td>
</tr>
</tbody>
</table>

Ideas from case examples

- Yale University: Storm water runoff is fitted to green buildings, storm water is filtered on site, condensate from the air conditioning system is stored and used to irrigate the landscape, distilled water used in research laboratories is recycled and used for toilet flushing, all faucets and toilets are ultra-low flow fixtures. Measures add up to a facility that uses about 40% less water than required by code.
- Princeton University: Rainwater collection and storage from rooftops for irrigation.

Areas for consideration / improvement

- Investigate opportunities of utilising rainwater for irrigation, e.g. install rainwater tanks and meters in all new buildings (medium term).
- Investigate the opportunity to reuse grey water, prepare feasibility study (medium term).
- Investigate alternative water sources and develop low maintenance gardens (e.g. native plants) (long term).
- Undertake life cycle analysis of a selection of products (e.g. building materials) to understand their embodied water, use analysis to inform decisions (e.g. procurement policy) (long term).
6.5  Biodiversity of owned and managed land

This indicator outlines initiatives undertaken by ECU to reduce the impact of its activities on biodiversity of owned and managed land as well as adjacent protected areas and areas of high biodiversity value.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
</table>
| Biodiversity program: Established to ensure that biodiversity values are identified and managed at the South-West campus and ensure compliance with relevant environmental legislation. Aim for 100% legal compliance with relevant legislation and no net loss of biodiversity on the campus due to development. Monitored through programs such as Land for Wildlife. | Biodiversity program: Rolled out across the campus and managed by the SCSC (South-West). | • Biodiversity program is ongoing, ECU aims for no net loss of biodiversity at the South-West campus.  
• Effective compilation and storage of biodiversity information, which can be made available on the ECU website. |
| Flora and fauna protection plan: Development of a flora and fauna plan. Forms part of the biodiversity program (relevant for South-West campus). | Flora and fauna protection plan: Rolled out across the campus (South-West). Land for Wildlife program to identify species on campus. |                                                                                                                                                                                                 |
| Geographic information system: Stores all previously identified information relating to biodiversity of campuses. | Geographic information system: Specifically captures information relating to the campus (South-West). |                                                                                                                                                                                                 |
| Campus master plans: Development of the campus physical development master plans to outline sustainable development of the land owned by the university. | Campus master plans: Developed by the Resources Committee and approved by the University Council. At this stage it does not extend to managed land (university-wide, one for each campus). |                                                                                                                                                                                                 |
| Green office program: Aimed at increasing staff and student awareness of the environmental impacts associated with daily work practices and to encourage and facilitate environmentally friendly alternatives. | Green office program: Delivered through the EcoECU website, an opportunity for people to become involved as representatives (university-wide). |                                                                                                                                                                                                 |

Ideas from case examples

• University of Reading: Bedding schemes that grow over 12,000 bedding plants for spring and for its summer displays.
• RMIT: Development of a strategy to save a group of ancient river red gums on its Bundoora campus, students undertake planting of native understorey plants.

Areas for consideration / improvement

• Determine biodiversity baselines (from flora and fauna surveys) and update the biodiversity plan for the South-West campus (short term).
• Develop native planting / protection initiative for each campus (may also help with ‘Recycled and non-recycled water used’ initiatives) (medium term).
• Document the biodiversity plans at each campus, expand beyond the South-West campus to Joondalup and Mount Lawley, ensure effective records are maintained, consider a biodiversity ‘master plan’ (medium term).
• Establish research programs as part of the biodiversity plans to determine the impact of campus activities on biodiversity (medium term).
• Improve education programs to educate staff and students on the values of biodiversity and ECU’s commitment (long term).
• Enhance the focus at Joondalup campus to promote and protect biodiversity and encourage student involvement (long term).
6.6 Effluent and waste produced

This indicator outlines initiatives undertaken by ECU to reduce effluent and waste produced and disposed of, including waste water discharges.

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste management program / strategy: Waste minimisation; Waste hierarchy (refuse, reduce, reuse, recycle); Building waste recycled at Mount Lawley; Waste action group aimed at reviewing current practices and identifying strategies for improvement.</td>
<td>Waste management program / strategy: ECU engaged a consultant to determine an effective waste management strategy; Waste action group to manage waste over three campuses (to be launched in February 2009) (university-wide).</td>
<td>• Total waste to landfill has increased from approx 86 tonnes in 2005 to 95 tonnes in 2007, waste to landfill / FTE + EFTSL has increase from 0.0132 tonnes in 2005 to 0.0154 tonnes in 2007. • Paper to landfill has decreased from 43.3 tonnes in 2005 to 5.9 tonnes in 2007. • In 2006 more than 50% of paper was recycled. • Data collected by students provides baseline measure of recycled and non-recycled waste.</td>
</tr>
<tr>
<td>Recycling programs: Aim to reduce amount of waste to landfill; Paper recycling, co-mingled recycling, on-campus recycling stations for fluorescent lights, fluoro tubes, empty printer and toner cartridges, mobile phones and batteries; Reuse of PCs or sale to auction houses.</td>
<td>Recycling programs: Recycling stations / bins available on all floors and desks and across campus (staff and students), co-mingled recycling stations, computer and printer side boxes recycling; Use of EcoECU website to provide information on program; Facilities management collection points (university-wide).</td>
<td></td>
</tr>
<tr>
<td>Green office program: Aimed at increasing staff and student awareness of the environmental impacts associated with daily work practices and to encourage and facilitate environmentally friendly alternatives.</td>
<td>Green office program: Delivered through the EcoECU website, an opportunity for people to become involved as representatives (university-wide).</td>
<td></td>
</tr>
</tbody>
</table>

Ideas from case examples

- Yale University: Nearly 75% of all construction and demolition materials were recycled, including all of the excavated rock.
- University of Reading: Active recycling, e.g. coffee granules composted, recycled paper, card and around 32% of other waste.

Areas for consideration / improvement

- Identify opportunities to avoid waste generation at the outset, refer to ‘refuse’ and ‘reduce’ aspects of waste hierarchy (e.g. refer to development of procurement strategy under ‘Recycled and non-recycled materials used’) (short term).
- Determine waste water discharges from canteens etc. (e.g. grease traps) (short term).
- Understand any agreements with EPA or other authorities (e.g. trade waste) for effluent and waste (short term).
- Determine procedures for management of waste (other than landfill waste) from campuses and set benchmarks (e.g. hazardous and atmospheric waste from laboratories) (medium term).
- Consider phasing out rubbish bins and replace with recycling stations, conduct survey to gauge feedback (medium term).
- Develop education programs and provide adequate systems to encourage sound waste management (medium term).
6.7 Environmental and social impacts of service delivery

This indicator focuses on the environmental impact of ECU’s service delivery (i.e. how education is delivered – student and staff travel, research related travel, e-learning, video conferencing etc.).

<table>
<thead>
<tr>
<th>Initiatives identified</th>
<th>Deployment</th>
<th>Results</th>
</tr>
</thead>
</table>
| Student accommodation: Potential use of home office as a hotelling initiative. | Student accommodation: A large number of students at the South-West campus require accommodation. Alternatives are being investigated, e.g. Harvard grad green living (South-West). | • Blackboard is a very diverse tool for e-learning, however many academic staff still do not utilise the technology.  
• Human Resources is moving towards more electronic correspondence.  
• ECU is seeking a whole-university strategy to utilise green IT technology. Will form part of planning process for 2010.  
• Graduate students need to travel to present papers at conferences and engage in networking events so some travel is unavoidable. |
| Campus facilities: Improve campus facilities and access in order to further support walking, cycling and public transport. | Campus facilities: Provision of paths for walking and cycling; Increase access to public transport; Funding of Joondalup CAT bus (university-wide). |                                                                                                                                      |
| E-learning: Provide student material online through ECU blackboard, possibility of merging all training into the one centre. | E-learning: ECU blackboard allows students to access electronic copies of course material. Further e-learning initiatives to be developed (university-wide). |                                                                                                                                      |
| Green office program: Aimed at increasing staff and student awareness of the environmental impacts associated with daily work practices and to encourage and facilitate environmentally friendly alternatives. | Green office program: Delivered through the EcoECU website, an opportunity for people to become involved as representatives (university-wide). |                                                                                                                                      |

Ideas from case examples

- Harvard: Web-based training material for all aspects of university life, commuter choice program to assist staff and students with determining the most environmentally way to travel to and from campus, Grad Green Living Program - invest annually in projects designed to increase energy efficiency and promote the university’s Sustainability Principles. Goal is to reach all residents in rental properties.
- Yale: Web-based course material available, establishment of transportation policy committee to manage transportation demand, sustainability targets have been identified.

Areas for consideration / improvement

- Determine hotelling strategy to allow staff to work from home (short term).
- Develop strategy for implementing e-learning across the entire university and ensure academics utilise the technology, ensure materials are electronic-friendly without compromising education quality (also refer to ‘Direct and indirect energy use and greenhouse gas emissions’ indicator) (medium term).
- Include Green IT in the next update of the IT Strategy (medium term).
- Determine and measure material inputs and outputs of service delivery through the supply chain (also refer to ‘Recycled and non-recycled materials used’) (medium term).
- Resolve transportation issues at the Mt Lawley campus through liaising with Transperth (also refer to ‘Transport greenhouse gas emissions’ indicator) (medium term).
- Determine effective transport solution whilst minimising environmental impact for students travelling between the Mt Lawley and Joondalup campuses (also refer to ‘Transport greenhouse gas emissions’ indicator) (long term).
Meetings and workshops were facilitated with ECU staff to determine preliminary objectives and targets. These objectives and targets were developed to varying degrees, depending on the current level of integration and maturity across the university.

Before embarking on the roll out of any of these programs, the university must first develop systems and processes to capture and measure progress against targets. During the next stage – implementation – these objectives, targets and programs will need to be developed and refined further, and cross-checked against existing university programs for consistency.

<table>
<thead>
<tr>
<th>Area</th>
<th>Goals</th>
<th>Objectives / Targets</th>
<th>Programs</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Product responsibility of service offerings</td>
<td>• To provide students with knowledge of integrated sustainability principles through the curriculum and research programs.</td>
<td>• Graduate student attributes demonstrate [x]% improvement in understanding of sustainability principles by Dec 2010 (Dec 2009 baseline survey).</td>
<td>• Develop and deliver [x] case studies (using ECU examples) and / or [x] core sustainability theory units. • Develop sustainability selection criteria for types of research undertaken (e.g. environmental and social considerations).</td>
<td>• Pro Vice Chancellor (Learning and Teaching)</td>
</tr>
<tr>
<td>Social Occupational health and safety (OH&amp;S) and wellness practices</td>
<td>• To provide staff and students with a safe and healthy environment to work and study. • To enhance the health and wellbeing of staff.</td>
<td>• Levels of agreement with OH&amp;S statements in annual staff survey [remain unchanged / improve by [x] / achieved [x] on 7 point scale] each year (2008 baseline).</td>
<td>• Provide OH&amp;S and wellbeing resources on ECU’s intranet. • Develop and implement wellbeing initiatives (e.g. lunch time sessions, leave policies etc.). • Implement systems to measure the cost and underlying causes of absenteeism. • Seek advice from Vario Institute on wellness programs and metrics.</td>
<td>• Deputy Vice Chancellor (Academic)</td>
</tr>
</tbody>
</table>

7 Preliminary objectives, targets and programs

To provide students with knowledge of integrated sustainability principles through the curriculum and research programs.

Graduate student attributes demonstrate [x]% improvement in understanding of sustainability principles by Dec 2010 (Dec 2009 baseline survey).

[75]% of schools with sustainability elements in the curriculum each year.

Research program choices demonstrate clear alignment with sustainability decision making criteria by Dec 2010 (Dec 2009 baseline).

Pro Vice Chancellor (Learning and Teaching)
### Preliminary objectives, targets and programs

<table>
<thead>
<tr>
<th>Area</th>
<th>Goals</th>
<th>Objectives / Targets</th>
<th>Programs</th>
<th>Responsibility</th>
</tr>
</thead>
</table>
| Social Training and education programs | • To provide staff and students with the opportunity to develop.  
• To ensure staff are sufficiently trained to undertake their role. | • Levels of agreement with development opportunity statements in annual staff survey [remain unchanged / improve by [x] / achieved [x] on 7 point scale] each year (2008 baseline).  
• Levels of agreement with training / competency statements in annual staff survey [remain unchanged / improve by [x] / achieved [x] on 7 point scale] each year (2008 baseline).  
• [x]% staff and / or student uptake of training and development programs each year. | • Implement existing training and development programs (e.g. leadership, mentoring etc.).  
Ensure competency training is mandatory (e.g. Cisco, CMS, Blackboard etc.).  
• Provide new training and development opportunities (e.g. community programs, leadership programs etc.).  
• Develop sustainability experts within faculties / centres. | • Pro Vice Chancellor (Learning and Teaching) |
| Social Diversity and equal opportunity policies and initiatives | • [To provide equal opportunities for all staff and students and promote diversity]  
• [To be the University of choice for Indigenous Australia students and staff] | • [x]% of staff and students from diverse backgrounds considered for recruitment and selection, learning and development, and promotion opportunities (i.e. gender, age, disability, ethnicity, religion, sexual orientation etc.). | • Determine ECU’s diversity and equal opportunity objective.  
• Develop and implement systems to measure diversity and equal opportunity (leverage OHS and wellbeing data).  
• Develop whole of University practices which support quality and inclusive recruitment, learning and development, and advancement opportunities for all staff and students. | • Pro Vice Chancellor (Equity and Indigenous) |
### Objectives / Targets

<table>
<thead>
<tr>
<th>Area</th>
<th>Goals</th>
<th>Objectives / Targets</th>
<th>Programs</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>To provide value / mutual benefit to the community through involvement in various programs.</td>
<td>• Engagement index results [remain unchanged / improve by [5]% / achieved [x] on 7 point scale] each year (2008 baseline).&lt;br&gt;• Provide sponsorship to selected programs to the value of $[x] per year (e.g. donations, gifts in kind, charity time).&lt;br&gt;• All community partnerships have a formal plan outlining objectives, terms of involvement and measures of success.&lt;br&gt;• [x]% indigenous student enrolments each year.</td>
<td>• Implement selected community engagement plans and programs once reviewed (including engagement with environmental agencies).&lt;br&gt;• Develop and implement indigenous student enrolment programs (e.g. selection criteria consistency).</td>
<td>Pro Vice Chancellor (Engagement)</td>
</tr>
<tr>
<td>Environment</td>
<td>To reduce the proportion of non-sustainable materials used by ECU.</td>
<td>• [100]% of ECU’s preferred suppliers have had the sustainable procurement strategy communicated to them by Dec 2010.&lt;br&gt;• [100]% of new suppliers were asked about their sustainability credentials at the time of re-tender.&lt;br&gt;• Sustainability credentials of all suppliers were considered at the time of re-tender.</td>
<td>• Develop and implement procurement strategy / procedure to include sustainability principles by Dec 2009.&lt;br&gt;• Undertake life-cycle assessments for selected high-use supplies.</td>
<td>Vice-President (Resources) and Chief Financial Officer</td>
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<tr>
<td>Environment</td>
<td>To reduce energy use and greenhouse gas emissions associated with ECU’s operations</td>
<td>• [5-15%] reduction in carbon dioxide equivalent (CO₂-e) emissions per EFTSL by Dec 2020 (2008 baseline).&lt;br&gt;• Increase percentage purchase of renewable energy through electricity provider to [x]% by Dec 2009 (2008 baseline, 5%).&lt;br&gt;• Remain in the [top quartile] of the TEFMAR benchmarking each year.</td>
<td>• Determine the key sources of energy consumption and emissions.&lt;br&gt;• Develop and implement energy and emissions environmental improvement programs across all campuses.&lt;br&gt;• Research and develop sustainable offset and investment options.</td>
<td>Vice-President (Resources) and Chief Financial Officer</td>
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<tr>
<td>Transport greenhouse gas emissions</td>
<td>To reduce greenhouse gas emissions resulting from commute trips to / from ECU</td>
<td>• Increase the proportion of staff and students who commute using alternative forms of transport to [x]% every [x] years (2008 baseline, TravelSmart Survey).&lt;br&gt;• Reduce greenhouse gas emissions from staff air travel by [x]% per EFTSL by 2020 (2009 baseline).&lt;br&gt;• Reduce greenhouse gas emissions from the university fleet by [x]% per EFTSL by 2020 (2008 baseline).&lt;br&gt;• Increase the use of collaborative tools (e.g. videoconference) to [x]% every [x] years (2008 baseline)</td>
<td>• Develop and implement sustainable transport plans across all campuses.&lt;br&gt;• Develop and implement plans for increased use of collaborative tools to reduce the need for staff air travel.</td>
<td>Vice-President (Resources) and Chief Financial Officer</td>
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</table>
## Preliminary objectives, targets and programs

<table>
<thead>
<tr>
<th>Area</th>
<th>Goals</th>
<th>Objectives / Targets</th>
<th>Programs</th>
<th>Responsibility</th>
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<tr>
<td><strong>Environment</strong></td>
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<tr>
<td>Recycled and non-recycled water used</td>
<td>• To achieve continual improvement and innovation in water conservation and efficiency</td>
<td>• Ensure all new building projects and major refurbishments incorporate sub-metering by Dec 2009.</td>
<td>• Develop and implement water environmental improvement programs across all campuses.</td>
<td>Vice-President (Resources) and Chief Financial Officer</td>
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<td>• Reduce water consumption at each campus per GFA by [5]% by Dec 2010 (2008 baseline).</td>
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<td>• Maintain water consumption across both campuses (Joondalup and Mount Lawley) below the 2007 TEFMA baseline each year.</td>
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<td>• Ensure groundwater application does not exceed [58%] of evaporation each year.</td>
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<tr>
<td><strong>Environment</strong></td>
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<tr>
<td>Biodiversity of owned and managed land</td>
<td>• To identify and manage the biodiversity values of the South-West campus and ensure compliance with relevant environmental legislation.</td>
<td>• No net loss of biodiversity (number of species present) on the South-West campus as a result of development annually (2009 baseline surveys).</td>
<td>• Update the biodiversity master plans / environmental improvement programs across all campuses.</td>
<td>Vice-President (Resources) and Chief Financial Officer</td>
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<td>• Increase the biodiversity value by [k]% across all campuses by [2020] (2009 baseline surveys).</td>
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<td><strong>Environment</strong></td>
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<tr>
<td>Effluent</td>
<td>• To reduce waste to landfill as a result of activities under the control of Facilities and Services.</td>
<td>• Reduce recyclables to landfill by [5]% per year at Mount Lawley and Joondalup campuses (2008 baseline)</td>
<td>• Develop and implement waste environmental improvement programs across all campuses.</td>
<td>Vice-President (Resources) and Chief Financial Officer</td>
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<td>• Reduce waste to landfill per EFTSL and GFA by [5]% per year at Mount Lawley and Joondalup campuses (2008 baseline).</td>
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<td>• Initiate at least [1] waste audit at Bunbury campus by 2009.</td>
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<td>• Maintain waste to landfill across both campuses (Joondalup and Mount Lawley) below the 2007 TEFMA baseline each year.</td>
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<td>• Establish metering on out flows of waste water / effluent by Dec 2009.</td>
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<td><strong>Environment and social impacts of service delivery</strong></td>
<td>• To deliver education to students in a sustainable manner without compromising quality.</td>
<td>• Determine [10] initiatives aimed at improving sustainability of ECU’s service delivery by Dec 2009 (2008 baseline).</td>
<td>• Develop and implement various initiatives outlined above (e.g. transport, material use, green IT, e-learning etc.) and make explicit in course outlines.</td>
<td>Pro Vice Chancellor (Learning and Teaching)</td>
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<td>• Facilitate flexible delivery of units by increasing the number of units available on Blackboard by [5]% each year (2008 baseline, 60%).</td>
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<td>• Increase number of digital resources available per EFTSL by [#]% (2009 baseline).</td>
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Appendix A  Selection of key areas of focus

The Global Reporting Initiative (GRI) is an international non-for-profit, multi-stakeholder governed institution collaborating to provide the global standards in sustainability reporting.

The GRI guidelines provide a structure for reporting sustainability across a range of factors categorised under three dimensions, namely environmental, social and economic.

A total of 12 sustainability areas were selected by ECU which formed the basis of this work. These were selected in areas where ECU deemed they were currently active and / or those in which they could implement improvements, namely environmental and social.

The GRI areas were adapted to suit ECU’s current sustainability initiatives and operations.

The footnotes below outline the relevance of the environmental and social reporting indicators with respect to the organisation’s activities and operations.

- The social\(^5\) indicators selected by ECU were:
  - product responsibility of service offerings
  - occupational health and safety (OH&S) and wellness practices
  - training and education programs
  - diversity and equal opportunity policies and initiatives
  - interaction with the wider community.

- The environmental\(^6\) indicators selected by ECU were:
  - recycled and non-recycled materials used
  - direct and indirect energy use and greenhouse gas emissions
  - transport greenhouse gas emissions
  - recycled and non-recycled water used
  - biodiversity of owned and managed land
  - effluent and waste produced
  - environmental impact of service delivery.

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\(^6\) The environmental dimension of sustainability concerns an organisation’s impacts on living and non-living natural systems, including ecosystems, land, air, and water. Environmental indicators cover performance related to inputs (eg, material, energy, water) and outputs (eg, emissions, effluents, waste). In addition, they cover performance related to biodiversity, environmental compliance, and other relevant information such as environmental expenditure and the impacts of products and services.
Appendix B  ECU documents and workshop attendees

Workshops and meetings

Initial workshops and meetings

**Vice Chancellor – 17 November 2008**
- ECU: Professor Kerry O Cox, Brian Yearwood.
- PwC: Simon Humphrey, Joelle McKay, Cameron Jones.

**Senior Executive – 19 November 2008**
- ECU: Warren Snell, Professor John Finlay-Jones, Professor Brenda Cherendnichenko, Brian Yearwood, Professor Ron Oliver.
- PwC: Simon Humphrey, Joelle McKay, Bijanka Gebski, Cameron Jones.

**Sustainable Communities Steering Committee – 20 November 2008**
- ECU: Professor John Finlay-Jones, Brian Yearwood, Professor Ron Oliver, Professor Ross Dowling, Dr. Rob Giblett, Professor Robert Irvine, Tony Lazzara, Garry Trinder, Julia Turner, Professor Will Stock, Dr. Graham Thompson, Christine Gunson, M Gavin, Glenda Jackson, Behrooz Eslam, John Ryan, Lena Donskyj, Belinda O’Brien.
- PwC: Simon Humphrey, Bijanka Gebski, Cameron Jones.

**Feedback workshop – Phase 1 draft report discussion – 22 January 2009**
- ECU: Sustainable Communities Steering Committee.
- PwC attendees: Cameron Jones (in person), Joelle McKay (by videoconference), Liz Dallimore (by videoconference).

**Meetings – Sustainability objectives and targets – 12-13 February 2009**
- ECU: Brenda Cherendichenko, Belinda O’Brien, Brian Yearwood, Elaine Hanlon, Gill Matthews, Garry Trinder, John Finlay-Jones, Julia Turner, Mary Ballantine, Mike Gavin, Melanie Whitton, Robert Harvey, Raymond Bernstein, Robert Irvine, Russell Noble, Ronald Oliver, Trena Ward, Fiona Peters.
- PwC: Joelle McKay.

**Feedback workshop – Draft report discussion – 26 March 2009**
- ECU: Ron Oliver, Tony Lazzara, Ross Dowling, Garry Trinder, Brian Yearwood, Christine Gunson, Behrooz Eslam, Lena Donskyj, Trena Ward, Graham Thompson, Deon van der Westhuizen (rep Phil Draber), Mike Smith (rep Elaine Hanlon), Belinda O’Brien, Brenda Cherendichenko (followed up by email 30-Mar-09), Robert Harvey (followed up by email 30-Mar-09).
- PwC: Joelle McKay.

Document / references provided by ECU

**Key documents / references**
- Environmental Performance 2008.
- Green Transport Plan.
- Engagement Functional Plan.
Notes

Meeting notes: 12-13 February 2009

- Information from this report will feed into a 3-5 year sustainability plan.
- Environment improvement plans (EIPs) have been developed for key environmental areas as part of the environmental management system (EMS).
- Align wording of EIPs to sustainability areas.

PRODUCT RESPONSIBILTY: Ron Oliver, John Finlay-Jones
Meeting: Friday 13 February 2009, 11:00am – 12:00pm

- Need to embed sustainability into ‘what’ ECU teaches
- Develop skills, understanding and values
- Consider sustainability values to be ‘graduate attributes’, i.e. what do students leave the university with?
- Investigate how to embed sustainability into courses
- Mechanisms, e.g. case studies, projects, nature of inquiry, assessments (appreciation / understanding) etc.
- Create good feedback loops, students will challenge if they don’t feel that ECU is living up to sustainability commitment
- Use students to conduct sustainability programs
- Students are considered colleagues in research programs
- How sustainable is research? i.e. poor work-life balance, substantial travel, often focused on prolonging life (medicine)
- Consider developing sustainability selection criteria for types of research undertaken
- Does research contribute to the notion of sustainability?
- Consider what research puts back into society / community
- How will outcomes of research impact / benefit sustainability?
- Granting bodies – consider social and behaviour changes re hepatitis C research
- Consider sustainability impacts and benefits of research (current and long term)
- Encourage PhD students to challenge supervisor about potential sustainability issues
- Consider incorporating a ‘sustainability score’ into assessments, unsure how this could be implemented

OCCUPATIONAL HEALTH AND SAFETY AND WELLNESS: Fiona Peters, Melanie Whitton (part), Mike Gavin, Belinda Owen
Meeting: Thursday 12 February 2009, 1:00pm – 2:00pm (Wellness), Friday 13 February 2009, 12:00pm – 1:00pm (OHS)

WELLNESS:
- Need to understand existing metrics
- Consider leave balances, staff turnover and absenteeism (including underlying causes), job satisfaction, productivity, staff attitudes
- Be cautious of survey fatigue
- Assess current situation, assign health and wellbeing champions, identify a range of cost effective activities (e.g. consider using students to deliver programs), implement programs, measure success (e.g. uptake of programs)
- Consider workplace design
- Consider flexi-time, however not everyone does timesheets
- Consider community volunteering programs
- Combine wellbeing policy with OHS to facilitate integration
- Run pilot programs
- Understand metrics then set objectives and targets
- Consider proportion of staff that exceed leave entitlements
- Use exit interviews to determine underlying causes for staff satisfaction (or lack of…)
- Fiona Peters prepared a list of preliminary objectives and targets for the wellness program. Table below:

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Method of evaluation</th>
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<tbody>
<tr>
<td>Educate staff on how to live a healthy, happy lifestyle</td>
<td>Resources on new website—monitor hits on site</td>
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<td>Number of subscribers to newsletter</td>
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<td>Annual survey (if budget permits) to tracks results</td>
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<td>Build awareness of the whole of University Health &amp; Wellness program</td>
<td>Number of participants in activities</td>
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<td>Number of champions</td>
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<td>Repeat survey each year (if budget permits)</td>
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<td>Staff change behaviour and take the next step towards health</td>
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<td>Meeting notes: 12-13 February 2009</td>
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</table>
| **•** Engage top level and middle management support for the program. | **•** Positive feedback from management  
| **•** Targeted projects for individual Faculties or Centres. | **•** Participation by management  
| **•** Identify wellness related activities that are already taking place and, where possible, ensure they are offered across the University | **•** Amount of sponsorship funding  
| **•** Encourage a ‘work-life balance’ for all staff | **•** Feedback from management and staff involved  
| **•** Sustain the program longer than the initial two years | **•** The number and variety of new activities  
| | **•** Activities are offered to all across majority of University wherever possible  
| | **•** Staff survey reflects greater satisfaction  
| | **•** Recruitment question included re. health & wellbeing  
| | **•** Exit survey question included re. health & wellbeing  
| | **•** Above measures will evaluate the program and include anecdotal evidence  

**OHS:**
- Existing lead and lag indicators
- Australian benchmarking, AS4801 self assessment, transparent and collaborative between universities, 34 out of 38 institutions participate
- Responsiveness of actions?
- Not acceptable to have anything less than ZERO target for injuries
- Not enough accountability for OHS at senior management level
- Management of performance sits with line managers
- Heads of school must also have responsibility, not just general staff
- OHS poses a behavioural education challenge university-wide
- OHS plans developed at faculty level
- Risk assessments important to maintain funding
- Phil Draper – Risk Management
- Belinda Owen sent details of reporting on safety performance, VCPMG report, refer to ‘results’ section under OH&S

**TRAINING AND EDUCATION: Gill Matthews**  
**Meeting: Thursday 12 February 2009, 2:00pm – 3:00pm**
- ECU could improve in the assessment of the following areas – skills gaps, performance appraisals, evaluation of effectiveness, identification of future training needs, application of education techniques
- Need top down and bottom up approach to staff development
- Needs to be supported by relevant policies
- Need consistency and guidelines around how to embed good practices into ECU
- Acknowledge the benefit of increased productivity
- Currently low morale amongst staff
- Change happens too frequently
- Education is ECU’s product – demonstration of effective learning styles and flexible delivery needs to be embedded
- ECU has a course management system
- Consider getting students involved in leadership programs, provides students with good development opportunity at minimal cost to ECU
- Align synergies, e.g. teaching and learning
- Extension programs
- Management performance plans
- Reach your potential – performance development framework
- ECU currently operates in a very siloed / non-sharing way, need to break down barriers and facilitate more forums to share university experiences
- Re-evaluate foundation units, e.g. communications
- Open up space for discussion, engagement mutually beneficial
- Encourage wider involvement in work integrated learning programs, e.g. employer provides supervision and assessment
- Consider integration of volunteer programs into course structure, acknowledge these programs and others (e.g. experiences abroad) as part of courses
- Encourage informal professional development, e.g. communities of practice, Etinne Wenger

**DIVERSITY AND EQUAL OPPORTUNITY: Raymond Bernstein, Brenda Cherednichenko, Mary Ballantine**  
**Meeting: Friday 13 February 2009, 8:00am – 9:00am**
- There is a growing capacity of communities – greater social capital and educational capital
- Broader impacts should not be ignored
### Meeting notes: 12-13 February 2009

- Unions and consultative committees
- Need to challenge and raise awareness of diversity and equal opportunity at ECU
- Need to engage people to drive initiative and change
- ECU currently operates an exclusion model (rather than inclusion), many myths
- ECU not clear about whether or not they want to be diverse and why
- ECU thinks it’s diverse, but some claim that it’s not
- Need position statement on equal opportunity and diversity
- Need to move along spectrum from compliance (statistically sound) to embedded (what ECU believe in, behave differently)
- Is equity going to be a label for ECU or not?
- Does ECU want to establish this status aggressively?
- Chris Gunsen, HR, Staff Planning – gender balance, targets etc.
- Diversity – How far should ECU go?
- Link social wellbeing to ECU’s health and wellbeing programs
- Need to reflect on multicultural society – staff mix and student mix
- Bring richness to community
- Need to accept direction and change
- Need to understand that transition likely to be long
- Need to understand ECU’s commitments around compliance, essence, distinctiveness etc.
- Discontinuity in thinking around history of ECU
- Element of elitism
- Area for improvement: Top down support for bottom up reform
- Coordinate with other parts of ECU (e.g. wellness) to establish and measure metrics for diversity (e.g. gender, age)

### COMMUNITY: Brian Yearwood, Robert Harvey, Julia Turner

**Meeting: Thursday 12 February 2009, 9:00am – 10:00am**

- Approx. $200k in sponsorship
- Many surveys undertaken at ECU, consider asking what community thinks of ECU, attitudes towards ECU etc.
- Activity in not-for-profits
- Sponsorship / partnership with programs that align to ECU values, e.g. Smith Family, improve education of underprivileged people
- Existing programs: Your Tutor, service to high school students
- Sponsorship coordinator – gaps
- Population growth, educate young women to help them make decisions
- Tellories Declaration, ECU signatory, weblink provided by Robert
- ECU has a community engagement plan
- ECU has a community legal centre, offers legal services to underprivileged
- Research direction of university, e.g. preventative medicine, malaria, poverty etc.
- Objective: Mission of ECU to add value to community
- Seek to be good corporate citizens
- Large number of international students
- Teach in India, Sri Lanka etc.
- Measure community perception surveys
- Develop relationships with authorities
- Think of different ways of teaching, think creatively
- University of Western Australia (UWA) has an extension program, high profile speakers
- Be more diverse in education styles and offerings
- ECU could do more around Indigenous planning
- Terms of involvement for partnerships, some formalised, could be more proactive (be on the front foot)
- Governance issues are important

### MATERIALS USE: Brian Yearwood, Garry Trinder, Belinda O’Brien, Elaine Hanlon

**Meeting: Thursday 12 February 2009, 10:00am – 11:00am**

- Need to build materials use requirements into tender process (e.g. green IT)
- Procurement strategy / procedure to outline decision making process and reiterate ‘reduce, reuse, recycle’
- Take-back programs
- Replacement of equipment, understand energy efficiencies, e.g. x% more efficient
- Some equipment / gadgets known, e.g. power-board that shuts down computer when it goes into sleep mode
Meeting notes: 12-13 February 2009

- Life cycle assessments, cost / benefit analysis, priorities
- Need to measure baseline power of computers and other equipment, install devices then measure differences
- Request electronic invoicing for transactions
- ECU does not sell second hand computers to students, 3 year turnaround, current policy does not allow this, contract with McClelands
- Drivers for policy incorrect
- Printers don’t need to be colour
- Printers are not standardised, staff buy their own printers for ease of use
- Decision making framework required for tender process
- Move all products and services to preferred supplier contracts
- Building decisions – planning design guidelines (GHD)
- Register of contracts / database of suppliers – document decisions and outcomes – to be able to demonstrate qualitative improvements
- Corporate Express to provide recommendations of other products
- Change management and education programs
- Build requirements into policy, tenders and contracts
- Evaluation criteria currently contains a 10% weighting for environmental issues, consider making percentage different for products where ‘fit for purpose’ is well established (i.e. increase environmental weighting)
- Baseline information required
- Fair trade and social issues not currently considered in purchasing decisions
- Aim to reduce number of purchase orders and aggregate procurement
- Consider asking suppliers about waste management, e.g. take back packaging
- Need overall corporate commitment to sustainability

ENERGY AND GREENHOUSE GAS EMISSIONS: Garry Trinder, Belinda O’Brien, Russell Noble
Meeting: Thursday 12 February 2009, 3:00am – 4:00pm

- Objective: Reduce energy use and greenhouse gas emissions
- Target: Consider 5-15% CO2 reduction per EFTSL
- Key sources of greenhouse gas emissions from electricity and gas consumption (including gas kiln for art)
- Some sub-metering in place, but not well reported
- Crystal reporting used
- Need to understand where meters are located and the high energy users
- Buildings contain diverse use of energy, e.g. 5000 computers, lighting, air conditioning etc.
- Need commitment and resources to gather right information and implement change
- Could potentially reduce number of servers
- Need clear baselines before targets can be set
- IT strategy plan currently includes some elements of green IT
- Units to be considered: GJ / m2 (GFA) or GJ / EFTSL
- Energy baseline for 2007 through TEFMAR benchmarking
- Take learnings from Europe around heating, cooling and temperature control
- Education is a key element of managing energy and greenhouse gas emissions
- Review heating and cooling set points
- Understand tolerance in design, sites and buildings operate differently

TRANSPORT: Belinda O’Brien, John Hayes, Raymond Bernstein, Trena Ward
Meeting: Friday 13 February 2009, 1:00pm – 2:00pm

- Objective (from EIP): Reduce greenhouse gas emissions resulting from commute trips to / from ECU and from the university fleet
- Target (from EIP): Increase the proportion of staff and students who commute using alternative forms of transport (i.e. public transport, cycling, walking, carpooling)
- Target (from EIP): Reduce the emissions to air from the university fleet
- Procurement policy should include transport aspects
- Campus travel baselines required
- Need to establish baseline for air travel
- Consider incentives regarding the smart rider devices, e.g. sale / top up facility in bookshops (good hub)
- Consider salary sacrifice for staff public transport travel
- Current staff and student ID card has smart card capability
- Currently parking permits can be salary sacrificed (perverse incentive to drive)
- Consider ways to remove resistance
### Meeting notes: 12-13 February 2009

- Contribute resources towards initiatives such as ride to work day
- Public transport not currently conducive to inter-campus travel
- Conduct a demographic survey through student services to determine where people live and what they value
- Consider approaching bus companies to coordinate inter-campus travel (e.g. northern terminal to Joondalup, discuss network issues, understand demographic map of commuters)
- University vehicle fleet assessed continuously by the fleet manager, usage and fuel types monitored
- Implement existing network / car pooling tools and determine strategy (e.g. ‘share my car’ website)
- Seek conferences that provide videoconference facilities over those that don’t
- Develop transport plans for inter-campus travel
- Ensure that security risks are addressed in any plan developed

### WATER: Belinda O’Brien, Russell Noble

**Meeting: Thursday 12 February 2009, 11:00am – 12:00pm**

- Objective (from EIP): To achieve continual improvement and innovation in water conservation and efficiency
- Target (from EIP): Ensure all new building projects and major refurbishments incorporate sub-metering and are linked to the BMS
- Target (from EIP): Reduce water consumption (KL) per Gross Floor Area (GFA) m² by 5% of 2007 baseline (TEFMA) by 2010 for the Mount Lawley and Joondalup campuses (note: ensure this target states ‘each campus’ and that both campuses should remain below the 2007 benchmark baseline)
- Target (from EIP): Groundwater application to be ≤58% of evaporation
- EIP exists for water
- TEFMA 2007 baseline measured in kL per GFA
- Sub-metering monitored
- Currently monitor usage of gas, electricity and water
- Consider grey water and rain water options further
- Thermal storage tank diverted to lake, currently used for grounds watering
- All options require cost / benefit, payback and other analysis to be prepared for business case
- Consider overall benefits (i.e. 5% of not a lot, is not a lot)
- Need to set target for 2010 around percentage of recycled water (e.g. rain water), to reduce mains water use
- Design characteristics, e.g. all buildings must have XYZ
- Aim to have less water going to sewage
- Consider dual flush toilets (where not currently installed), individual metering etc.
- Building materials – less water intensive

### BIODIVERSITY: Robert Irvine, Belinda O’Brien, Trena Ward

**Meeting: Friday 13 February 2009, 9:00am – 10:00am**

- Objective (from EIP): Identify and manage the biodiversity values of the south-west campus and ensure compliance with relevant environmental legislation
- Target (from EIP): 100% legal compliance with relevant state and commonwealth legislation (note: must do anyway, so consider removing as target)
- Target (from EIP): No net loss of biodiversity (number of species present) on the south west campus as a result of development
- Don’t know baselines
- Don’t know what you don’t know
- Determine how to involve staff and students in biodiversity programs
- Biodiversity plan currently out of date
- Aware of many protected species, however not sure how they’re travelling
- Staff are regularly updated on EPBC listing
- Species list established, programs established
- Funding to do black cockatoo mapping survey
- Vegetation surveys conducted
- Fauna surveys not well documented
- A number of new buildings were constructed last year (2008)
- Track activities in area to understand causes
- Education of students and staff, e.g. touch screens
- Need greater consultation in terms of site selection for development
- Mixed species
- Baseline data required for master plan – current proposals, future proposals, developments around sites
- National Trust – Covenant – What level of influence
- Need to manage staff changes / risk management
### Meeting notes: 12-13 February 2009

- **Target:** Active revegetation to improve biodiversity
- **Bushfire management plan** – consider relevance, e.g. spray vs fire breaks (scarified), fire fighting access and safety
- Consider ‘must-do’ vs ‘viable’ biodiversity programs
- **Next steps:** get right people together to develop biodiversity master plan

**EFFLUENT AND WASTE:** Trena Ward, Belinda O’Brien, Brian Yearwood

**Meeting:** Thursday 12 February 2009, 8:00am – 9:00am

- **Objective (from EIP):** Reduce waste to landfill as a result of activities under the control of Facilities and Services and increase the proportion waste that is reused or recycled
- **Target (from EIP):** Reduce waste to landfill by 5% per annum at Mount Lawley and Joondalup campuses (note: target should state baseline year)
- **Target (from EIP):** Reduce recyclables to landfill by 5% per annum at Mount Lawley and Joondalup campuses (note: target should state % reduction and baseline year)
- **Target (from EIP):** Initiate waste audits at Bunbury campus by 2009 (note: target should state number of audits)
- **Target (consideration):** Remain better than Australian benchmark
- **EIP exists for waste**
- **Aim to ensure adequate separation of waste**
- **Focus on education and systems development**
- **Expand Mt Lawley and Joondalup programs to Bunbury (5%)**
- **Contractor Sita collect waste**
- **Aim to have baseline by end of 2009 (calendar year)**
- **Propose 3-year target**
- **Waste not well managed currently**
- **Investigate opportunities for inclusion of sewage and effluent, set up metering**
- **Sewage currently metered from every building**

**PRODUCTS AND SERVICES (DELIVERY):** Ron Oliver, Gill Matthews

**Meeting:** Friday 13 February 2009, 10:00am – 11:00am

- **Maximise savings on water, energy, materials, transport etc.**
- **What methods and materials does ECU use to conduct teaching programs?** – i.e. buildings / offices, light, IT, paper, text books, transport (concept of central teaching location)
- **Electronic delivery service**
- **Blended delivery approaches**
- **Accessibility and equity**
- **Value set – environmental vs social**
- **Redevelop materials into format that more suited to electronic delivery, without compromising quality**
- **Transport vs electronic delivery**
- **Encourage assessments to be submitted electronically (culture change)**
- **Need for electronic service delivery without compromising learning experience, i.e. flexibility, materials use, energy etc.** (usually a win-win situation)
- **Professional development**
- **Need proactive measures**
- **Develop green teaching guidelines / considerations and articulate flow-on benefits**
- **Consider design of learning spaces**
- **Acknowledged significant overlaps and duplication in procurement**
- **Consider levels of influence**
- **Teaching and learning is a chain of events – plan curriculum, teachers select resources, deliver to students (physical presence), support, assessment models, locations etc.**
- **Process needs to be efficient and seamless**
- **Measure material inputs and outputs**
- **Consider developing skeleton of sustainability plan and distribute to faculties to obtain feedback on practicalities**