

## **Environment and Sustainability Student Projects at Murdoch University – Opportunities Available in 2009**

Gaining work experience during your degree can give you the edge when applying for work after graduation. The projects available at Murdoch University are real projects that can be listed on a resume, and you can get satisfaction from knowing that you are contributing to making your university more sustainable.

The following projects are available to complete as either work experience or as part of an Independent Study Contract (ISC) over a 6-12 month period (or shorter if possible). A desk, computer, internet access and supervision will be provided. A reference will be provided where work is completed to a high standard within agreed timeframes. Work experience will be noted on developmental transcripts where completed satisfactorily (>40 hours over 2 semesters minimum required).

Dedicated, capable and self-motivated students that have completed at least 1 year of an appropriate course are preferred. A minimum of 1 day per week availability is required, with flexibility to complete this over 2-3 days per week. A minimum of 90 hours commitment (equivalent to ~12 days in total) over a semester or 2 is necessary due to the investment required by the University to induct and supervise the student, and for valuable outcomes to be achieved for both parties.

### **Project Opportunities – 2009 (in order of urgency)**

#### **Environmental Web Content**

A new environment and sustainability website has been developed for Murdoch University, entitled 'Green Planet'. Content is needed for numerous pages about the university's current environment and sustainability program, as well as what staff and students can do to reduce their eco footprint. Liaison with both the university's Environmental Program Manager and Director of Information Technology will be required, as well as research into current and proposed initiatives and general eco-friendly practices. Knowledge of web software is *not* required.

#### **Policy Reviews**

Review and revision of the Murdoch University's current environmental policies, covering energy, resources, water, biodiversity and buildings. The policies are outdated and longwinded. Review of best practice examples and engagement of key stakeholders will be required.

#### **New Green Procurement Policy**

A sustainable procurement policy is required to guide the purchase and use of goods and services by the university to lower impact on the environment while maintaining quality, functionality and cost competitiveness. This policy should follow the other University Policies in structure and will involve liaison with the university's Strategic Procurement manager and Environmental Program Manager.

#### **Quenda Management Plan**

The Quenda or Southern Brown Bandicoot is a native marsupial that has recently been surveyed on campus. A management plan is required, based on the findings and recommendations resulting from the surveys, to ensure their long-term conservation. This project will involve reviewing survey results and fauna management plans from other organisations, followed by the drafting of a quenda management plan for campus. Key performance indicators, monitoring and auditing strategies need to be incorporated. Objectives of the plan need to align with the current Beeliar Regional Park Management Plan.

#### **Feasibility Study for Renewable Energy**

A feasibility study is needed to determine the potential for increasing the generation/use of renewable energy on campus, such as from solar, wind and biofuels. Cost-benefit analysis of various options will be required, as well as liaison with experts in the field such as on-campus representatives from RISE (Research Institute for Renewable Energy).

#### **Groundwater Monitoring and Management Plan**

Review of current groundwater monitoring capabilities and site practices will be required, in addition to groundwater monitoring to establish current groundwater quality across campus. This information will be used to develop a groundwater monitoring and management plan.

### **Friend's Group Constitution**

Murdoch Environmental Restoration Groupe (MERGe) was set up by the Guild Environmental Representative in 2007 and now has 120 registered members. A constitution and strategy is required to ensure that membership translates into action, as activities are currently adhoc and lacking direction and leadership. Many guides and good examples are available to utilise.

### **Feasibility Study for Rainwater and Stormwater Re-use**

A feasibility study is needed to determine the potential for re-use of rainwater and stormwater across campus, such as on paddocks, sportsfields and landscaping, and in toilets. Cost-benefit analysis of various options will be required, as well as liason with experts in the field such as on-campus representatives from ETC (Environment Technology Centre).

### **Waste Audit and Management Plan**

A new recycling system has been introduced across campus but its effectiveness is at present unclear. An audit of the content of recyclables, organics and waste products in waste and recycling bins is required to determine the volume of recyclables going to landfill, as well as contamination levels. Results will be used to develop a management plan to improve recycling and reduce waste on campus.

**NB Some projects may also be possible to adapt into a Honors or masters project.**

### **Potential Student Projects - 2010**

Sustainability Indicators for Campus

Bushland Management Plan

Wetland Management Plan

Carbon Management Plan

Farm Management Plan

Wetland monitoring

Health of Banksia Woodland - map vegetation condition

Dieback survey and Management Plan

Salary sacrifice for public transport and bikes

ESD assessment of new and old buildings

Sustainability induction package for student village

Living Smart course

Induction video

Review of Green Team (pilot group) effectiveness

Design information signage and planting list re aboriginal and bush tucker garden

E-Newsletter

Organic composting system