



## Not drowning, waving

The University of Sydney has been called upon by the NSW Government to make further cuts to our water consumption - above and beyond the 30% reduction in water use achieved since 1998. The University's **Water Management Working Group** (below) has welcomed the requirement to develop a 'Water Savings Action Plan' as a timely opportunity to consolidate gains made in recent years.

To provide a solid foundation for the Plan, three months were spent auditing water using fixtures and processes. Students were employed to visit 15 buildings and check taps, toilets, urinals, showers and dishwashers. Grounds irrigation, cooling towers and wet labs were investigated by Campus Property & Services staff and their consultants, Ecological Engineering Pty Ltd.

The resulting **Water Savings Action Plans** for Camperdown/Darlington Campus and Camden campus set out actions to be taken over the next four years.

*The Water Savings Action Plan for Camperdown / Darlington recommends 17 actions, costing over \$650,000 and saving 60 million litres every year.*



Student auditors spent 3 months taking stock of water fittings in 15 buildings across Camperdown / Darlington.



Some of the members of the Water Management Working Group. From left: Grahame Pepper (CP&S), Sarah Baulch (Sydney Water), Garry Murray (Landscape Architect, CP&S), David Knights (Ecological Engineering), John Lavarack (Environment Strategies, CP&S), Brett Cohen (PHD student, Geosciences), John Duckworth (Chemistry), Malcolm Harrison (St Pauls College), Mike Williams (Manager Operations, SU Sports), Don White (Chemical Engineering), Harry O'Rourke (Grounds Manager, CP&S).

**Water Savings Actions** for Camperdown Darlington in the short-mid term include:

- Finding and fixing a suspected major leak in the vicinity of Eastern Avenue.
- Continued installation of water efficient fittings
- Trial of waterless urinals
- Reporting on water savings

*Mid to long term actions:*

- Drought-proof our Sports Ovals
- Explore and trial 'grey water' reuse.

## Funds won for a 'water sensitive' University Avenue

In August 2006 the University won over \$300,000 from the NSW Government's **Water Savings Fund** on the strength of water sensitive design work undertaken as part of the Campus 2010 proposed works for Eastern and University Avenues. The design incorporates a stormwater harvesting system to collect water from the Quadrangle Building and adjacent lawns and road surfaces. The collected water will be stored in underground tanks and treated using biofiltration and UV disinfection. It will then be reused in the Fisher Library cooling towers and fixtures and for watering the grounds.

The grant also covers the replacement of high water-using lab equipment in the Chemistry Building with water-efficient technology. Savings of 11 million litres of water a year are anticipated. *Congratulations to all involved!*



### Water dreaming

On Exhibition, including work by Guan Wei (pictured).  
The University Art Gallery  
Until November 4



## SUSTAINABLE CAMPUS

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## Assessing the energy in a building near you.....

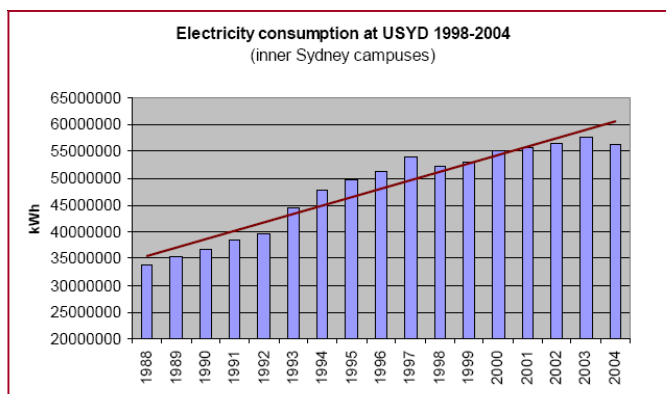
Arresting the electricity demand of a large and growing organisation is a significant challenge. The University consumes 56MegaWatt hours of power a year and so it came as no surprise when the State Government mandated that the University audit both its water and energy use and develop 'Savings Action Plans'.

The Energy audit is being coordinated by Environmental Strategies Team with the assistance of an Energy Management Working Group, our energy consultants and electricians from Campus Property & Services.

Students are working to audit the energy used by lights, air conditioning, water heating, office and computer equipment across 14 buildings - which account for more than 50% of energy use (gas and electricity).

### Audits underway at:

Anderson Stuart  
Badham  
Biochemistry \*  
Carslaw  
Chemistry \*  
Chemical Engineering  
Education  
Fisher \*  
International House \*  
Macleay  
Merewether \*  
Services  
Wilkinson  
Wooley  
\*also audited for water.



Sydney University currently spends over \$4 million a year buying power—without a plan to save we can expect the bill to increase!

A management review has compared the University's performance with other Universities and organisations. It has concluded that we could improve our understanding of the saving opportunities on campus; and improve our management practices to capture these savings.

*Key challenges for the University's Energy Savings Action Plan are to reduce 'peak summer loads' (demand on hot summer afternoons); and the power used by air conditioners and lights.*

The draft Energy Savings Action Plan outlining actions for 2007-10 will be ready in December 2006.

## The Big E-waste Clean out

Environmental Strategies has worked with ICT and Computer Support Officers across campus to clean out and recycle non-working electronic waste (e-waste).



*E-waste in large quantities contains significant amounts of precious and heavy metals: recycling is environmentally preferred to landfill.*

40 Schools and Units joined the effort, including the School of Law and the Faculty of Medicine at Nepean Hospital. Over 20 tonnes of electronic waste was recycled: that's 800 CRT monitors, 600 CPUs, and 137 printers as well as 856 peripherals such as keyboards, mice, scanners, facsimiles and telephones. Participants estimated that the clean-out freed up over 50 square meters of valuable floor space.

Many participants have suggested that a centrally funded, annual clear-out may be required. However as equipment leasing becomes more common the need for such large scale programs may lessen over time.

All in all, the inaugural E-Waste Clean out cost \$13 000 and saved \$200 000 worth of space — underlining the benefits of regular recycling.

## PROJECT UPDATES

**SU SPORTS** recently won over \$40 000 from the Community Water Grants to save water at the Noel Martin Aquatic Centre. Water efficient taps and fittings will be installed and the pool's filtration system will be upgraded. These changes will save 7,400,000 litres of water each year.

The **School of Information Technologies** has moved into a new building on Cleveland Street. 'Green' building features include energy efficient Chilled Beam Air-conditioning; an automated nightly shutdown and the passively ventilated entryway.

A **Greenhouse Working Group** is coordinating various opportunities for the University to reduce its greenhouse emissions originating from fleet, electricity, waste, and purchasing. The group are also exploring opportunities to offset CO2 such as tree planting. Contact us if you would like to attend or be part of the group.



**Sydney University Landcare** planted 7,000 native trees at the University's property, **Arthursleigh**, in 2005-2006 as part of ongoing rehabilitation work.

**SUSTAINABLE CAMPUS** has teamed with **NECO** to give away 350 free energy and water savings kits to



University Staff for their homes, saving, over 2 years: 800 tonnes of greenhouse gas; 190 000 Litres of water and over \$100 000 in household power and water bills!

## SUSTAINABLE CAMPUS

*Aiming to work with the University community to improve the environmental performance of our campuses.*

Environmental Strategies Team,  
Campus Property & Services

[www.usyd.edu.au/sustainable](http://www.usyd.edu.au/sustainable)  
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