

Environmental sustainability

Goal: to continue to lead, by example, in the areas of campus planning and development, subtropical architecture and all operations that have environmental impact.

Enhance the University's already excellent reputation as a regional exemplar and a national leader in campus development and in the conservation of natural resources

Regional exemplar

The Australasian Tertiary Education Facilities Management Association (TEFMA) prepares an annual Benchmark Report on Environmentally Sustainable Development (ESD). ESD relates to master planning for enhancing ecological values, construction and rehabilitations projects incorporating principles of 'Green Buildings', space usage, energy use, water, waste and natural environmental components.

The 2005 survey data, published in 2006, reveals that USC achieved an ESD result of 91/100 and a rating of best practice. Only three universities in Australasia—Griffith University (Mt Gravatt), Southern Cross University (Lismore) and USC—were awarded a best practice rating. This is an improvement from 2004, when USC was given a ranking of 70, which meant a rating of 'good practice'.

Campus development

Major works projects in 2006 included construction of two new buildings and a commitment to build an indoor Sports Stadium in the University's expanding Sport and Health Precinct (page 36).

Building H, located to the south of the existing science building, opened in July, and, from second semester, offered science students a range of new facilities. Students now have access to advanced computing, sports science and teaching laboratories, as well as to state-of-the-art teaching wards for nursing students. These feature human simulation models to support the University's nursing programs.

A second new building under construction in 2006, Building C, houses a lecture theatre, offices and a café for students and staff. Numerous staff, including those previously located in the offices of the Vice-Chancellor and Deputy Vice-Chancellor in Building B (Administration Building), will relocate to Building C in early 2007.

In late 2006, the University announced a start on construction of a \$10 million indoor Sports Stadium, to be completed by early 2007 (page 36). In conjunction with the stadium announcement, the University launched a \$3.5 million public fundraising campaign for the construction of a Health and Sport Centre (page 36).

Bus interchange

In 2006, a traffic consultancy company working for the Queensland Government presented the University with various options for a bus interchange to be located on the USC campus. The University approved a proposal for an interchange funded by Queensland Transport and inclusive of the existing greenlink to Scholars Way. The proposal is consistent with a past briefing presented to University Council, and the University-appointed master planners have been briefed on the initiative to ensure input on the final design. Work on the interchange is expected to begin in 2007.



Work on the 3,705 square metre Sports Stadium, which will be used for University and community sporting events and USC ceremonies, began in November 2006.

Pulse sculpture

In 2006 the University received a gift of more than \$50,000 from the Lee Graff Foundation based in California. As a result of this donation, a sculpture titled 'Pulse' has been commissioned from artist Konstantin Dimopolous, for installation in front of the Art Gallery in early 2007. The sculpture will comprise of several red and orange poles seven metres in length and, according to the artist, will focus on the 'simple but elegant and dynamic rhythms of nature!'

Continue to refine approaches to subtropical architecture, in particular for heating and cooling of work environments

Building of choice

In consultation with the architects, Building C (page 52) was constructed during 2006 as a building of choice with multi-modal ventilation. This will enable individual occupants of the building to regulate individual work area temperatures and choose to use either a passive ventilation or mechanical air-conditioning strategy, depending on conditions.

Strategies to encourage economical use of mechanical air-conditioning in Building C include a set-up that prohibits the use of air conditioning when the temperature is less than 23°C, or when windows are open. This will prompt the user to re-assess his or her needs and adjust air-conditioning appropriately after every three-hour period of operation.

Take cost-effective measures to maintain the security and environmental integrity of the Sippy Downs campus as the surrounding urban fabric becomes more dense

Campus security

In 2006, the University upgraded its access control system. The new CardaxFT system allows information about cardholders, the site and system activity to be stored on the IT network, providing full control over where and when staff, visitors or vehicles can move at all times.

The security upgrade provided an opportunity to introduce proximity smart cards to all staff areas, replacing the existing magnetic swipe technology. The new smart card technology will eventually be introduced in all student areas.

The University continues to expand its Closed Circuit Television (CCTV) network both within buildings, including main concourses, computer laboratories and high-risk areas, and in open-space areas on campus. Both of the new car parks opened in 2006 have been fitted with Emergency Call Points and CCTV. Infrastructure for the installation of CCTV in car park nine was also completed.

Security operations

Security operations expanded in 2006 to enhance the safety of staff and students, and protect University buildings and facilities. Two security personnel are now on duty at all times during each shift in a 24-hour period.

LED signage

New LED signage was erected on the roads into the campus and will be operational from first semester 2007. The signs will facilitate University communications with visitors entering the campus for special events, and with staff and students about ongoing environmental and other campus-related issues such as parking boundaries and rules regarding domestic animals on campus.

Enhance the effectiveness of the green campus corridor linking with Mooloolah National Park

Kangaroo-friendly fencing

Erection of kangaroo-friendly fencing around the perimeter of roads leading to the main campus enhanced the green campus corridor.

The fencing serves a dual function: preventing vehicles from parking in prohibited areas reserved for native wildlife; and providing safe passage for kangaroos crossing roads surrounding the campus.

The fencing was designed to be at an appropriate height. This enables kangaroos to move freely from one side of the road to the other, and also slows them down as they approach the road, so that drivers have more time in which to see them and slow their vehicles accordingly.

Kangaroos on campus

In reviewing its Master Plan, the University surveyed kangaroo population movements to measure the impacts, if any, campus development and development in surrounding areas have had on kangaroo numbers and movements. Outcomes of the review will be reported to University Council in March 2007.

Encourage a respect for the campus as an environmental sanctuary and safe haven for all native wildlife

Ongoing communication

University staff continue to explain to visitors that kangaroos and other fauna should be viewed from a distance. They also monitor domestic animals on campus, and explain to visitors why they cannot be brought into the University grounds.

Environmental sustainability

Key performance indicators

■ Awards for campus development

The University did not nominate for any campus development awards during 2006.

■ Improved energy, water consumption and waste management data

The University's data highlights its success in keeping energy and water consumption and waste management costs to a minimum while meeting the needs of a rapidly increasing number of students and staff, and campus development and construction projects undertaken during the same period. Water consumption per EFTSL improved between 2004 and 2005, as did the total cost of cleaning per EFTSL between 2003 and 2005.

The latest annual Tertiary Education Facilities Management Association (TEFMA) Benchmarking Survey was published in June 2006 (for reporting year 2005).

Energy consumption/expenditure						
	2000	2001	2002	2003	2004	2005
Annual consumption in gigajoules (GJ)	8,956	10,597	12,048	13,027	14,596	19,867
Energy consumption per EFTSL (GJ/EFTSL)	4.3	4.4	4.6	4.8	4.9	6.1

Water consumption						
	2000	2001	2002	2003	2004	2005
Total water consumption (kL)	9,995	8,731	10,375	13,605	15,960	17,154
Water consumption per EFTSL (kL/EFTSL)	4.8	3.7	3.9	5.0	5.4	5.3

Cleaning and waste management services						
	2000	2001	2002	2003	2004	2005
Total cost cleaning (\$/EFTSL)	109	118	132	132	127	110

■ Low level of security incident reporting and cost of security per EFTSL

One substantial security and safety incident—a break-in and theft—was reported during 2006. The offender was identified on security camera footage and charged by police, with most of the stolen equipment recovered. There were no serious incidents.*

The cost of security per EFTSL at USC decreased from \$182 to \$158 between 2004 and 2005. While reductions in cost were achieved in 2006, the cost continues to be higher than the Australian average (\$102), due to small student numbers skewing the factors.

**An incident of 'substantial consequence' is defined as a disabling injury requiring medical treatment; financial loss of \$5,000 to \$50,000; slight disruption to activities; and/or slight environmental impact. An incident of 'serious consequence' is defined as serious injury (amputation, permanent disability); financial loss of \$50,000 to \$500,000; notable disruption to activities; and/or notable environmental impact.*

■ Number and range of environmental projects by staff and students in the green campus corridor

Revision of the Master Plan during 2006 identified several landscaping and environmental projects to be undertaken during 2007. No new environmental projects were undertaken during 2006, pending outcomes of this review. Plantings during student Orientation and planning for the compensatory habitat project continued.