

**CHARLES STURT UNIVERSITY
CAPITAL DEVELOPMENT POOL**

ORANGE CAMPUS – Capital Development Pool Bid 2008 (\$2.0 m)

(a) Demonstrated need of the higher education provider

With the approval of the Commonwealth and the NSW State Governments, the University of Sydney (USyd) and Charles Sturt University (CSU) have advanced formal discussions during 2005 for the transfer of the Orange Campus. The formal transfer of the Orange Campus to CSU is expected to be completed by 1 January 2006.

For its part, the Commonwealth has given a commitment that with the transfer of the Orange Campus it will guarantee that “higher education opportunities will not be reduced in Orange” (Nelson, 2 July 2004). Accordingly, the Commonwealth allocated 100 new commencing places to CSU for the Orange Campus in 2005, in addition to the 240 commencing places provided to CSU to “duplicate” the existing Orange profile. These allocations represent an increase of more than 50 per cent in the funded student load at the Orange Campus. The Minister has also indicated that the Commonwealth “will be allocating further places to regional campuses including Orange to further strengthen the provision of higher education in regional Australia” (Nelson, 2 July 2004).

During 2005, CSU offered the full suite of courses from the current Faculty of Rural Management at the Orange Campus, in addition to retaining the full-time Bachelor of Nursing and Bachelor of Pharmacy degree courses. A Bachelor of Science course will be introduced in 2006 to meet the need for science based higher education in central and western New South Wales. A new Business Studies course is also planned for introduction in 2006 to provide an on-campus offering catering to the business needs of Orange and surrounds. In addition, CSU is working with the Western Institute of TAFE to provide articulation opportunities in Orange and surrounds similar to those in place at other CSU campuses. Notwithstanding the protracted nature of the campus transfer, CSU expects student numbers on the Orange Campus to increase dramatically over the next few years. Progress has also been made in developing the research profile of the Orange Campus, with the establishment of a Rural Research

Network framework for collaborative research involving CSU, the Faculties of Agriculture, Food and Natural Resources and Veterinary Science at The University of Sydney and the NSW Department of Primary Industries

With the transfer of the Orange Campus to CSU and the planned growth in Commonwealth Supported student load, it is imperative that infrastructure and technology continue to be developed to meet the increased educational and research requirements at this Campus. The Commonwealth has already acknowledged the priority of the proposal by allocating \$1.14m for 2007 (matched by \$1.0 million from CSU) primarily for the construction of new nursing laboratory facilities and associated infrastructure. Accordingly, CSU is seeking a further \$2.0m in 2008 to support the expansion of the Campus into a viable higher education facility for the Orange region.

(b) The relevance in relation to the program's objectives

CSU has conducted a detailed evaluation of the capacity and functionality of the facilities at the Orange Campus using the TEFMA benchmarks, in the context of the currently allocated Commonwealth Supported places and the associated pipeline load. The University has also compared the general condition of the existing learning and teaching facilities at Orange with CSU's infrastructure at its other campuses. These analyses have identified the necessity for \$5.495 million of infrastructure development in order for the University to adequately support the allocated Commonwealth Supported places. CSU plans to contribute \$4.99 million of the required funding from its own sources.

Central to the developments at the Orange Campus will be a focus on developing learning and teaching infrastructure through providing:

- A mix of new and refurbished, general purpose and specialist teaching facilities; and
- An enhancement of student support facilities through a major extension to the library, additional office accommodation and an upgrade of technology infrastructure.

(c) The feasibility of the project plan, its timescale and resources

Four major components to the project plan remain to be funded. These are:

1. Development of a new pharmacology laboratory;
2. Extension and refurbishment of the Library into a new “Learning Commons”, incorporating a library and associated technology capabilities that will enhance student access to support services;
3. Construction of a third, 50-place lecture theatre to accommodate growth in student load at Orange; and,
4. Provision of additional learning spaces (seminar and tutorial rooms) and office accommodation.

1. *New Pharmacology Laboratory (\$0.725 m)*

The ongoing demand for pharmacy graduates in rural and regional Australia has prompted CSU to retain a Bachelor of Pharmacy program at the Orange Campus even though there is insufficient infrastructure for the teaching of the full four year program. CSU admitted 45 students into this program in 2005 and by 2008 it is expected that there will be approximately 160 pharmacy students. Existing pharmacy facilities will be fully utilised by as early as 2007, and will definitely be inadequate from 2009. It is therefore proposed to construct a 50 seat Pharmacology Laboratory to enable the pharmacy program to sustain student numbers of up to 50 in each of the four years of the course.

2. *Learning Commons (\$3.640 m)*

The current library at the Orange Campus is poorly serviced, too small and presents a major medium to long term maintenance liability. The existing facility is 537m². The TEFMA guidelines for libraries recommend that the overall provision on a campus such as Orange to be typically 1.0 m²/EFTSL. In planning for the proposed Learning Commons, an expected growth in student load to a steady state load of 920 EFTSL has been used. The allowance for usable floor space in the Library is therefore 920 m² which represents an expected shortfall in floor space of 383 m². The design concept for the Learning Commons will also provide a campus wide wireless network that will allow seamless access to University networks from both internal and external campus

spaces. The Learning Commons will be the hub for this further development of the technology infrastructure.

The Learning Commons will also bring together student support services which are currently dispersed in a number of locations across the Orange Campus. Consolidation of these into a single location will enhance student access and improve the level of efficiency of service delivery. The space required will include a small number of offices, a computer and technology access area and two small teaching/seminar spaces.

3. Lecture Theatre (\$0.350 m)

There are currently two, 96-place lecture theatres on the Orange Campus. One of these has been upgraded and now has video conferencing capability. It is proposed to supplement these facilities with a third 50 seat capacity lecture theatre which also has video conferencing capability. With the increase in EFTSL for the Orange Campus, the demand for lecture theatre space is expected to exceed the capacity of the existing facilities within two to three years.

4. Tutorial Rooms and Office Accommodation (\$0.780 m)

The on-campus growth in student load will place significant pressure on existing general purpose teaching spaces at the Orange Campus. There are currently eight tutorial rooms on the Campus of which five are transportable buildings. The design capacity of the rooms range from 25 to 40. The increase in student load at the Orange Campus will generate demand for two additional 60 place tutorial rooms.

The current office accommodation is already at capacity. Recent modifications to existing buildings has satisfied unmet demand for general office and workspace provision for postgraduate students through until 2006. However, the increase in student load will generate additional demand for both office and workspace for postgraduate students.

The project cost estimates are as follows:-

Facilities	Total
Pharmacology Laboratory	0.725
Learning Commons	3.640
Lecture Theatre	0.350
Tutorial Rooms	0.470
Office Accommodation	0.310
Total	5.495

Budgeted Income

Income	2008	2009	Total
Capital Development Pool	2.000	1.000	3.000
University Funds	1.655	0.840	2.495
Total	3.655	1.840	5.495

Budgeted Expenditure

Facilities	2008	2009	Total
Learning Commons	1.800	1.840	3.640
Lecture Theatre	0.350		0.350
Pharmacology Laboratory	0.725		0.725
Tutorial Rooms	0.470		0.470
Office Accommodation	0.310		0.310
Total	3.655	1.840	5.495

Planning and detailed documentation for the project will commence in 2006.

(d) The degree of financial and in-kind contribution

For its health science courses at the Orange Campus, the NSW State Government continues to provide in-kind contribution in terms of support for the clinical placement and supervision of students from the Orange Campus. The State Government has also been instrumental in the provision of funding to support a professorship in rural pharmacy.

The Western Institute of TAFE already uses facilities at the Orange Campus and discussions are underway with the Institute about developing its new \$5.5 million primary industries facility on the Orange Campus. This facility will cater for 1200 TAFE students in horticulture, equine studies, agriculture and natural resource management. As already mentioned, these students will have the opportunity for

degree articulation with courses in the Faculty of Rural Management at the Orange Campus. This new and innovative primary industries facility is expected to be operational in 2008 and the pathway opportunities for these TAFE students into CSU courses at the Orange Campus will not only ensure that there continues to be a close relationship between TAFE and CSU but that degree completion for TAFE students at Orange is enhanced.

(e) Value for money

The project plan for the Orange Campus aims to make maximum use of existing facilities where possible, reducing the cost of the required additional infrastructure. For instance, the proposal for a Pharmacology Laboratory has been developed to ensure that the existing Pharmacy Laboratory is fully utilised for subjects that need facilities at its level of sophistication. Similarly, a cost benefit analysis of the existing library building has shown that it is not an economic proposition to extend the facility, due to its type of construction, its location on a relatively steeply sloping site and the condition of key building elements. The preferred, “best value” option, is to construct a new purpose built facility which creates the opportunity to fully capture the use of new technologies, while retaining the residual value in the existing building by converting it into staff offices and tutorial rooms.

(f) Performance in the delivery of previous CDP projects

In the recent past, CSU has received CDP funding for projects at its Thurgoona and Dubbo Campuses. CSU’s reports on these projects have always been submitted on time and to the satisfaction of the Commonwealth. Moreover, with its Dubbo Campus, CSU completed this project on time and to the satisfaction of the Commonwealth. The Thurgoona Campus development is continuing with CDP support for 2006.

CONTACT DETAILS: Professor David Battersby
Deputy Vice-Chancellor (Administration)
Phone: (02) 6885 7370
Fax: (02) 6885 7375
Email: dbattersby@csu.edu.au

**CHARLES STURT UNIVERSITY
CAPITAL DEVELOPMENT POOL**

**VETERINARY SCIENCE FACILITIES – Capital Development Pool Bid 2008
(\$4.4 m)**

(a) Demonstrated need of the higher education provider

In 2003, the Federal Government identified, as a matter of national importance, the declining number of veterinary scientists serving the livestock industries as practitioners in rural Australia and in other essential capacities, including diagnostic pathology, epidemiology, emergency disease management and public health. At risk are the nation's livestock industries which have major disease free status and which contribute substantially to Australia's export earnings. There is continual threat from exotic diseases and Australia's biosecurity system is at risk because of an inadequate network of rural-based veterinarians with livestock expertise. **National herd protection is a high priority for the Federal Government and livestock industries.**

The lack of rural veterinarians is reflected in the increase in the average age of veterinarians and is due to a declining number of young veterinarians choosing to remain in rural practice for more than two years (Frawley, 2003). The lack of veterinarians who are interested in forging careers by serving the livestock industries is related, at least in part, to the current selection processes used at the established veterinary schools and the nature of the training given to undergraduates at those schools. Increasingly, the interests and skills of new veterinary graduates reflect their urban origins and experiences with animals which are often limited to dogs, cats and other pets.

This was made very clear in the Frawley Review of Rural Veterinary Services (2003) commissioned by DEST and AFFA. In 2001 there were 2473 registered veterinarians in rural Australia, but 30% of the case load of those practitioners was derived from farm animals – a reduction from 70% in 1981. The balance of the case load in each case was small animals, and this trend has continued. The decrease in veterinary services for the livestock industries in rural Australia has occurred against a marked increase in total cattle numbers in Australia over the last 20 years.

The problem of retaining professionally trained graduates in rural Australia is not restricted to the veterinary profession, and there are no easy solutions. There are a number of contributing factors; some societal and financial, others related to the divergence between the evolution of veterinary education in Australia and the needs of the farm animal sector. One component of the solution is to “train the new rural veterinarians from the country in the country”. There is evidence that the selection of students with rural backgrounds and the provision of tertiary education in regional centres is likely to produce graduates who wish to live and work in rural areas.

The Federal Government accepted the viability of this approach and endorsed the establishment of a veterinary science degree at Charles Sturt University (CSU). This degree program commenced in 2005. Veterinary science was seen as being compatible with CSU’s agriculture offerings and provided an opportunity to integrate agricultural and veterinary studies for the future benefit of the livestock industries. Prior to CSU’s entry into this area, all veterinary science programs were located in metropolitan Australia (Perth, Melbourne, Sydney and Brisbane).

CSU absorbed the costs of student quota but there remains the need for investment in key facilities to ensure that the quality of the veterinary education is equal to that of the other Australian schools and that professional accreditation of graduates is not threatened. CSU is therefore seeking a Commonwealth contribution of \$4.4m in 2008 with a further \$2.1m in 2009 toward an overall investment in facilities of \$22.87m.

(b) The relevance in relation to the program’s objectives

The core objective of the CDP grants to give greater scope for projects “to support teaching and learning” is fulfilled in relation to this bid which focuses on ensuring that the teaching and learning support for veterinary science students at CSU has equivalence with that provided by similar programs at other universities.

In this context, the Commonwealth has also recognised the critical need for increasing the number of veterinary scientists servicing the livestock industry in rural Australia by endorsing the establishment of a veterinary science degree at CSU. Indeed, the very strong support given by the then Minister for Agriculture, Fisheries and Forestry (Minister Truss), and subsequent agreement by Minister Nelson, indicates that the

proposed capital developments for veterinary science are apposite to the CDP objectives especially in terms of expanding “a discipline area of national importance” (i.e., biosecurity of the livestock industries) and providing “capital developments which the Minister considers priorities for particular higher education providers” (i.e., strong support by Minister Truss, supported by Minister Nelson).

The University was given approval to commence delivery of veterinary science from 2005. The University embarked on a major planning exercise in relation to the introduction of veterinary science and its compatibility with the existing courses in agriculture, animal production, biomedical sciences and science. An objective of the planning process has been to maximise the use of current facilities while at the same time ensuring that the quality of the teaching and learning program for veterinary science students is not diminished. Thus, it has been necessary to refurbish some facilities to bring them up to acceptable standards and to cope with the increased student load, as well as providing new facilities to meet the specialised training needs of the veterinary science program.

(c) The feasibility of the project plan, its timescale and resources

The project timeframe for the veterinary science facilities has been very tight, with program approval provided in 2004 for a 2005 project commencement date. The strategy has been to maximise the use of existing infrastructure, which has limited the number and cost of new specialist facilities.

The centre-piece for Stage 1 construction has been the Pre-clinical Centre. The building is targeted for completion for second semester 2006. Construction has commenced and the target is likely to be achieved.

Planning for the Stage 2 projects has commenced. Growth in student and staff numbers necessitates the construction of additional office and teaching facilities for 2009. A new Clinical Teaching Centre is also required for completion by first semester 2009. Detailed design documentation for these projects will be completed by the end of 2006, with construction to commence in 2007 for a 2009 completion date.

In summary, CSU has committed \$9.72m to the required infrastructure thus far and plans to commit a further \$6.65m. In more detail, the project has the following components:

1. *Veterinary Science Pre-clinical Centre (\$4.5 m)*

This building is under construction in 2005/6. It will provide a Dissection Room, Bone Room and Museum for teaching Anatomy to students of veterinary science, Animal Science, Animal Production and Equine Studies. The Centre includes three tutorial/seminar rooms, a clinical skills laboratory and a facility for training in communication skills. It will be a physical focus for veterinary science students in the pre-clinical years (2 and 3) of the course.

2. *Veterinary Science Clinical Teaching Centre (\$5.2 m)*

A new building is required for teaching clinical subjects (surgery, diagnostic imaging, anaesthesiology, reproduction and obstetrics) to veterinary science students in Years 4 and 5 of the course (first required in 2008). This building will be a physical focus for students in the clinical years (4, 5 and 6) of the course.

3. *Veterinary Science Research Building (\$6.0 m)*

The academic staff appointed to deliver the veterinary program will be research-active and will require laboratories for their research. The need for additional laboratory space will rapidly exceed existing research laboratory capacity within the School.

4. *Veterinary Science Staff and Postgraduate Student Offices (\$1.1 m)*

Office accommodation and associated facilities for approximately 40 staff and postgraduate students will be required by 2008, increasing to about 70 by 2012. This proposal is for office accommodation to meet the needs of the initial 40 staff only. It is envisaged that office space within the veterinary science Research Building (see above) will be used to accommodate growing staff numbers.

5. *Additional Teaching Space (\$2.2 m)*

The additional student load of veterinary science results in a need to provide additional teaching space and other student facilities on the campus. A total of four new lecture theatres are required. Two new lecture theatres, one of 120 seats and one

of 100 seats will replace two existing theatres which are poorly located and configured and present a significant safety risk. Two additional lecture theatres, each to accommodate 60 students are required to meet the growing needs of course numbers as the course load develops in subsequent years. Existing facilities will be over-stretched from 2007. Temporary arrangements are proposed for the 2007 year, but these will not be adequate to meet needs from 2008 onwards. In addition, the temporary solution proposed is sub-optimal.

The project cost estimates are as follows:

Budgeted Income

Funding Source	Pre-2008	2008	2009	Total
DEST Funding		4.400	2.100	6.500
CSU Funding	9.720	4.500	2.150	16.370
Total	9.720	8.900	4.250	22.870

Budgeted Expenditure

Facility	Pre-2008	2008	2009	Total
Refurbishments	1.271			1.271
Pre-Clinical Building	4.510			4.510
Regional Vet Lab Purchase	1.250			1.250
Animal Holding Facilities	0.740			0.740
Site Works	0.349	0.250		0.599
Vet Science Clinical Teaching Building	0.800	4.400		5.200
Office Accommodation	0.300	0.800		1.100
Additional Teaching Space	0.500	1.700		2.200
Research		1.750	4.250	6.000
Total	9.720	8.900	4.250	22.870

CSU is seeking a capital contribution for veterinary science of \$4.4m in 2008 with a further \$2.1m in 2009. CSU's contribution to the infrastructure for veterinary science will be in the order of \$16.4m, representing over 70% of the project cost.

(d) The degree of financial and in-kind contribution

The strategy for the development of the infrastructure for veterinary science has been to maximise the use of existing facilities where possible. However, the increased student load, the need for some specialist facilities, the condition of the existing facilities and the accreditation requirements of the Australasian Veterinary Boards

Council have been drivers for a significant investment in the facilities to support the program.

In the CSU model, a number of initiatives have been taken to ensure that there is significant in-kind contribution from the communities and businesses in the region. As well, there has been collaboration with other higher education providers, in order to maximise the efficiency of program delivery and to provide substantial benefits to the region. These steps include the enrolment of regional veterinary practices in contributing to the training of veterinary undergraduates, the assistance given by regional livestock producers to resourcing the program, the establishment of linkages between the State Department of Primary Industry for both teaching and research (formally recognised by the creation of the Graham Centre), and the creation of a formal collaborative relationship between the CSU Veterinary Program and The University of Sydney Veterinary School to share teaching resources – a relationship which both Schools intend to expand.

For its part, the introduction of a large body of research-active and professional service-active experts will have significant positive impact on the regions livestock industries. This impact is well illustrated by the planned establishment of the Veterinary Diagnostic Laboratory – in the building which was once the State Government Regional Veterinary Laboratory before its closure eight years ago.

The re-creation of a regional Veterinary Diagnostic Laboratory (VDL) will substantially increase the animal disease surveillance capacity of south-eastern Australia. The facility will be staffed by at least five veterinary experts in the fields of pathobiology, and it is anticipated that the presence in the region of an affordable and accessible diagnostic facility will significantly increase the number and quality of disease investigations carried out in southern New South Wales and northern Victoria. In addition, the VDL will provide post-graduate training in farm animal pathobiology, an area that has been significantly neglected in Australia over the past twenty years. The importance of this has been recently made clear in the Frawley Review.

(e) Value for money

A key objective of the infrastructure strategy to support veterinary science has been to maximise the use of existing facilities. The veterinary science program will increase the utilisation of the existing library, computer centre, teaching laboratories, lecture theatres, student support facilities and the Equine Centre. Some of these facilities were nearing capacity, in particular, lecture theatre space.

Wherever possible, the new facilities constructed to meet the needs of the veterinary program will also contribute to the quality of education in other courses. This is the case particularly for the Pre-clinical Centre, the animal handling facilities, the refurbishment of existing teaching spaces, and their role in the Animal Production, Animal Science and other Agriculture programs.

This has resulted in the proposed development of only one specialist facility for veterinary science; the Clinical Teaching Building, focusing on teaching surgical procedures, diagnostic imaging, reproduction and obstetrics.

The re-commissioning of the Veterinary Diagnostic Laboratory, which includes the construction of a new post-mortem room and associated support spaces, is justified within the veterinary program on the basis of the undergraduate and postgraduate training in pathology, parasitology, microbiology, toxicology and clinical pathology that will be provided by the case load of the Laboratory. The significance of this facility to Australia's animal disease surveillance system cannot be over emphasised. The facility will expand Australia's biosecurity network by contributing substantially to the monitoring of endemic disease as well as increasing the likelihood of early detection of exotic disease. It will contribute directly to the protection of Australian export markets for animal products and the training of specialists to service the future needs of Australia's biosecurity systems.

(f) Performance in the delivery of previous CDP projects

In the recent past, CSU has received CDP funding for projects at its Thurgoona and Dubbo Campuses. CSU's reports on these projects have always been submitted on time and to the satisfaction of the Commonwealth. Moreover, with its Dubbo Campus, CSU completed this project on time and to the satisfaction of the

Commonwealth. The Thurgoona Campus development is continuing with CDP support for 2006.

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Email: dbattersby@csu.edu.au