

APPLICATION FOR 2009 CAPITAL DEVELOPMENT POOL (CDP) FUNDING

A Wine Science Laboratory at the Ron Potter Centre

EXECUTIVE SUMMARY

The following is a funding application for 2009 CDP funding of \$5M for a wine science laboratory at the Ron Potter Centre under criteria 5.5 (iv) – special and extraordinary circumstances.

The Ron Potter Centre is the home of the National Wine and Grape Industry Centre (NWGIC), an alliance between Charles Sturt University (CSU) and the NSW Department of Primary Industries (NSW DPI) with support from the NSW Wine Industry Association (NSW WIA). The NWGIC is a Centre of research excellence at CSU and functions to support the wine industry maintain its internationally competitive edge.

The Australian Wine Industry

The Australian wine industry is an outstanding national success story in which a small and domestic-focused industry has turned itself into a major exporter and source of regional employment. Its present value is \$5.5 billion with current export sales about \$3 billion. The industry is of major regional and national importance. There has been significant investment by individuals, companies and other investors in the expansion of the wine industry and it has had direct and indirect impacts on regional economies. For example, there has been a dramatic increase in regional employment associated with the wine industry, doubling between 1991 and 1996 and again doubling between 1996 and 2001. The employment growth within the wine industry has been coupled with a simultaneous rise in regional investment in infrastructure and a significant growth in local tourism.

Research for the wine industry

The Australian wine industry is committed to research and it recognises that research is a key factor in the success that the industry experienced over the last two decades. The industry, in partnership with the Australian government, funds research through a levy that is managed by the Grape and Wine Research and Development Corporation (GWRDC). The GWRDC is established under the PIERD Act and is committed to the national research agenda by funding activities that address

- the increase in the economic, environmental and social benefits of the wine industry;
- the sustainable use and sustainable management of natural resources.

- the effective use of the resources and skills of the community in general and the scientific community in particular.

The National Wine and Grape Industry Centre (NWGIC) is a centre of research excellence that has brought together the resources of Charles Sturt University (CSU), NSW Department of Primary Industries (DPI), and the NSW Wine Industry Association to create Australia's premier research institution serving the Australian wine industry.

The University has been a leading provider of teaching and research in wine science since the 1970's and has built a centre of excellence in the discipline on the Wagga Wagga campus. This unique initiative aims to significantly enhance the level of wine research, assisting the industry in maintaining its internationally competitive edge through research, education, training and extension.

While other providers are withdrawing from the field, CSU is taking the opportunity to expand one of its areas of research strength. Through the NWGIC, CSU has recently attracted a \$15M 5-year grant entitled the National Wine and Grape Industry Centre Winegrowing Futures Initiative from the Commonwealth Government's Grape and Wine Research and Development Corporation. This grant will be matched by a further \$15 M from the National Wine and Grape Industry Partners.

The collaborative investment in research between the GWRDC and NWGIC requires redevelopment of the NWGIC's research and research support facilities at the Ron Potter Centre including:

- expansion of the CD Blake Experimental Winery
- construction of a plant growth centre, including glass houses and bird proof cages
- expansion of laboratory facilities

NSW DPI, a NWGIC alliance partner, has recently provided CSU with \$500,000 for construction of Stage 3 of the experimental winery. This will allow significant increase in capacity for small lot winemaking to underpin viticulture and winemaking research trials. Negotiations are continuing with potential sponsors regarding the construction of the plant growth centre of shade houses and bird proof cages. The estimated cost of this development is \$1.3 million.

The CDP bid is seeking support for the construction of the expansion to the research laboratory facilities. The estimated cost of the facilities is \$10M with a \$5M CDP contribution being sought in 2009.

PROJECT DESCRIPTION

The proposed \$30M collaborative investment in research by the GWRDC and NWGIC will exceed the capacity of the current facilities to support the research. This increased demand for facilities has driven the need to:-

- expand the CD Blake Experimental Winery;
- construct a plant growth centre, including glass houses and bird proof cages;
- expand the laboratory facilities.

Funding of the expansion to the Experimental Winery (\$500K) and the plant growth centre (\$1.3M) is being provided by the collaborative research partners.

CSU is seeking to take advantage of this major opportunity by investing \$10m for 1200 m² of quality research space that will enhance the NWGIC research precinct. CSU aims to deliver a distinctive facility that will create a research environment that is responsive to present needs whilst being capable of satisfying future demands. The development aims to

- create a socially sustainable environment that supports team based research and fosters cross discipline collaboration;
- provide a facility with capacity for research of international standing and that demonstrates commitment to its clients in the wine industry;
- allow for flexibility and to accommodate change and expansion when further funding is achieved;
- support new technology and their integration with wine industry research;
- develop a financially and environmentally sustainable facility that allows best practice in research.

Research funding from the GWRDC and professorial staffing from CSU will bring to the NWGIC 12 professorial and research academic staff, 6 technical staff and 5 post-graduate students by 2008. This number is likely to double by 2012.

CSU has allocated \$5m towards the research development project and is seeking matching funding from the Commonwealth to develop what will be Australia's premier wine research facility.

RESPONSE TO ASSESSMENT CRITERIA

a) Demonstrated Need

As described, CSU was successful in collaborating with the Wine Industry and New South Wales Department of Primary Industry to earn a \$15M 5-year grant from the Commonwealth Government's Grape and Wine Research and Development Corporation. This grant will be matched by a further \$15 M from the National Wine and Grape Industry Partners. The awarding of this funding for an extensive program of research activities will stretch our current research facilities and the grant has no capital component. Hence we now need to fast track our plans about 4-5 years earlier than we expected. We need assistance to achieve this objective and have allocated \$5 Million of our own funds to support fast tracking these necessary facilities.

b) Relevance to program objectives

This proposal satisfies the program objectives under assessment criteria 5.2 (b) (iii).

CSU's wine sciences are already of national importance in that the majority of Australian Winemakers are graduates of CSU. We are now seeking support to upgrade our research facilities. The special and extraordinary circumstances are that the University has been successful in obtaining the GWRDC grant a little earlier than anticipated and we now need to fast track the expansion of our facilities to cater for the increased research.

c) Feasibility of the project plan

Considerable progress has been made to date on implementing the project. A precinct master plan has been completed that identifies and resolves the site requirements.

Funding has also been provided to develop the project brief to enable the engagement of an architect to develop the design. The project program is for the design development to be completed by the end of 2007. This would enable construction to commence in 2008, with completion in 2009. The program is therefore conservative for a project of this scope, given that the laboratory facilities will be relatively generic.

Whilst detailed concept designs have not yet been prepared, analysis of the space requirements for the new facility has been undertaken. The space requirements have been used to determine a preliminary budget for the project of \$10M. The estimate includes allowances for design costs, fitout and inflation. The estimated costs have been based on completion costs for recently completed generic laboratories.

d) In-kind contribution

The following contributions to the total project cost are proposed:-

- Experimental winery – NSW Department of Primary Industries contributing \$500K.
- Plant Growth Centre – negotiations are currently being conducted with private sector organisations to contribute \$1.3M.
- Laboratory facilities – Charles Sturt University are contributing \$5M.
- Total contribution to the project - \$6.8M.

CSU is seeking matching funding for the development of the laboratories (\$5M)

e) Value for money

The master plan for the National Wine and Grape Industry Centre is an integrated plan that maximises the use of the existing facilities. The new facilities are required to support a significant expansion in research activity and provide the capacity for further growth.

The Australian wine industry is committed to research and recognises that research is a key factor in the success future success the industry. The industry, in partnership with the Australian government, funds research through a levy that is managed by the Grape and Wine Research and Development Corporation (GWRDC). The GWRDC is established under the PIERD Act and is committed to the national research agenda by funding activities that address:-

- the increase in the economic, environmental and social benefits of the wine industry;
- the sustainable use and sustainable management of natural resources;
- the effective use of the resources and skills of the community in general and the scientific community in particular.

The investment in research facilities will enable CSU to more effectively support the research agenda which will in term provide significant economic and environmental benefits to regional Australia.

f) Previous performance

In the recent past, CSU has received CDP funding for projects at its Thurgoona and Dubbo Campuses and its reports on these projects to the Commonwealth 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.

BUDGET

Budgeted Income

Income	2006	2007	2008	2009	Total
Capital Development Pool				5.000	5.000
CSU Funds	0.060	1.178	2.610	1.246	5.094
Other Contributions		1.800			1.800
Total	0.060	2.978	2.610	6.246	11.894

Budgeted Expenditure

Facilities	2006	2007	2008	2009	Total
Experimental Winery		0.500			0.500
Plant Growth Centre		1.300			1.300
Research Laboratory	0.060	1.178	2.610	6.246	10.094
Total	0.060	2.978	2.610	6.246	11.894

CONTACT DETAILS

Peter Lennon

Executive Director Facilities Management

Ph: (02) 6933 2286

Mbl: 0419 413 233

Email: plennon@csu.edu.au

**APPLICATION FOR 2008/2009 CAPITAL DEVELOPMENT POOL (CDP)
FUNDING
Veterinary Science Facilities**

(i) EXECUTIVE SUMMARY

A grant of \$2.4M was approved in the 2005 bidding round for 2008. This is a proposal for a further \$2.1M grant in 2009 as the second year of a two year program, under the Higher Education Support Act 2003, based on grant guidelines 5.5 (ii) – a discipline of national importance, and grant condition 5.5 (v) – a project which is a priority for this provider

In 2003, the Federal Government identified as a matter of national importance (Criterion 5.2(b) ii) 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 reflects 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 – the balance was small animals, and the trend is increasing. This has occurred against a marked increase in total cattle numbers in Australia over the last 20 years.

The solution to this challenge is to “train the new rural veterinarians from the country in the country”. There is ample evidence to show that this is likely to lead to graduates who wish to stay in the rural areas as they have empathy for rural lifestyle and their social and family networks are rurally-based.

The Federal Government accepted the validity of the approach and endorsed the establishment of a Veterinary Science degree at Charles Sturt University. This degree program commenced in 2005. Veterinary Science was seen as compatible with CSU’s agriculture offerings and an opportunity to integrate agricultural and veterinary studies for the future benefit of the livestock industries. Prior to CSU’s entry in 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 accreditation of graduates is not compromised. CSU is seeking a further Commonwealth contribution of \$2.4m in 2008 with \$2.1m in 2009 toward an overall facilities investment of \$25.6m.

(ii) PROJECT DESCRIPTION

The University was given approval to commence delivery of Veterinary Science from 2005. An objective of the course delivery has been to maximise the use of current facilities. The University therefore embarked on a major planning exercise in relation to the introduction of Veterinary Science and its compatibility with Agriculture offerings. It has been necessary to refurbish facilities to bring them up to acceptable standards and to provide new facilities due to the professional accreditation requirements for registration of CSU graduates.

(a) The facilities refurbishments (all CSU funded) have included:

- upgrade of teaching laboratories \$0.648m

- refurbishment of lecture facility \$0.101
- upgrade of office accommodation \$0.101
- upgrade of animal handling facilities
(cattle yard and sheep yard) \$0.740
- purchase of regional veterinary laboratory \$1.25m

(b) Major new facilities

1. Veterinary Science Pre-clinical Building

This is the first new building for the Veterinary Science program, for teaching anatomy to veterinary students, and students in other courses. The new facility includes a large anatomy laboratory, preparation areas, Communication skill laboratory, Animal room, cold room, freezer, stores and other support space. It will provide practical class space and tutorial class space for teaching clinical skills to students in Years 2 and 3. It will be a physical focus for students in the pre-clinical years (2 and 3) of the course. This facility is currently under operation and was completed in April 2006.

Cost \$4.735m

2. Veterinary Science Clinical Teaching Centre

A new building is required to provide teaching clinical teaching and complete training in clinical skills for veterinary students in the latter part of their studies commencing from fourth year (2008) of the vet science program. The new clinical facilities will satisfy the functional requirements for small and large animals, in relation to surgery, anaesthesia, medicine, diagnostic imaging, reproduction and obstetrics, intensive care, exercise physiology, lameness evaluation, rehabilitation, pathology, farrier, dentistry, pharmacy, ambulatory practice administration and associated support spaces. This facility will also support the training needs of the Equine and Animal Science students enrolled in the School of Agricultural and Veterinary Sciences. Currently the facility is the design development stage and expected to be completed by 2008.

Cost \$8.8m

3. Veterinary Science Staff and Postgraduate Student Offices

Office accommodation and associated facilities for approximately 40 staff and postgraduate students will be required by 2008 increasing to about 70 by 2012.

Cost \$1.1m

4. Additional Teaching Space

The additional student load of Veterinary Science results in a need to provide additional teaching and student facilities on the campus.

Two new lecture theatres will be required to meet the demands of veterinary science: one, 120-seat lecture theatre and one, 100-seat lecture theatre. A problem based learning complex to support 30 students in free moving group of six with capacity to break out study areas also required. This building will be a physical focus for students in the clinical years (4, 5 and 6) of the veterinary course.

Cost \$2.2m

5. Veterinary Science Research Building

The anticipated staff will require laboratories for their research. The requirements will rapidly exceed the capacity of the existing research laboratory capacity within the School. There will need to be provision for postgraduate and postdoctoral needs in addition to academic and technical staff.

Cost \$6.0m

In summary, CSU has committed \$8.869m to the required infrastructure thus far and plans to commit a further \$9.85m. Support is therefore requested so that suitable facilities can be provided to support this important development.

(iii) RESPONSE TO ASSESSMENT CRITERIA

a) Demonstrated Need

The Commonwealth 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 Charles Sturt University.

The strategy for the development of the facilities 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 Veterinary Schools Accreditation Advisory Committee (VSAAC), have driven a significant investment in the facilities to support the program.

b) Relevance to program objectives

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 readily qualify under several criteria:

5.5 (i) The Vet Science program is run from CSU's Wagga Wagga campus, a major regional centre

5.5(ii) The Vet Science program, with its unique focus on production animals is of national importance as a discipline area in critical short supply. The facilities to be developed as part of the Vet Science program, and the graduates from the program, will be critical in ensuring the continued success of livestock as a major export industry, through ensuring continued disease-free status

c) Project Feasibility

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 of new specialist facilities that are required. All stage 1-development projects have been completed.

Planning for the stage 2 projects has commenced. The major new project is clinical building. The detailed feasibility study for the Clinical building has been completed and schematic design is well under way. As a result of the detailed investigations of the project, the initial budget set at \$5.2M has been increased to \$8.8M, and design work is proceeding on this basis. Consultants are currently working on the design development. Detailed design documentation for these projects will be completed by the early of 2007, with construction to commence in 2007 for a mid 2008 completion date.

Growth in student and staff numbers necessitates the construction of additional office and teaching facilities from 2008 onwards. To minimise risk, temporary arrangements are being made to occupy a building which is nearing the end of its economic life. Negligible work will be required to enable the temporary occupation for office and teaching purposes, while permanent facilities are being developed for occupation in 2009. Longer term occupation of this building is not appropriate due to its poor condition, but its temporary use will avoid the cost of constructing demountable accommodation for a short period, and avoid the risk of delivery failure which could occur from trying to telescope an ambitious construction program.

The proposed program is achievable with design planning commencing for the more complex projects.

d) Capital Contribution.

CSU has been granted a \$2.4M allocation in 2008 with a further \$2.0 m seen as a priority for 2009 (See attachment 1). CSU is seeking approval of a capital contribution of \$2.0M in 2009 as detailed in the minister letter of 13/12/2005. CSU's own contribution to the infrastructure for Veterinary Science will be in the order of \$21m; over 80% of the project cost.

CSU is also subsidising the operational cost of Veterinary Science. It is doing so in acknowledgement of the importance of the program to regional Australia.

e) Value for Money

A key objective of the infrastructure strategy to support the introduction of Veterinary Science has been to maximise the use of existing facilities, and, where possible, develop new facilities that support both the Veterinary Science and Agriculture course delivery. The veterinary program will increase the utilisation of the existing library, computer centre teaching laboratories, lecture theatres, student support facilities and equine centre. Some of these facilities are near capacity, in particular, lecture theatre space.

Where ever possible, new facilities that are constructed to meet 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, animal holding facilities, clinical centre, animal

handling facilities, refurbishment of the existing teaching and laboratory spaces, and their role in the animal production, animal science and agricultural programs.

(iv) PROPOSED BUDGET

Budgeted Income

Funding Source	Pre-2008	2008	2009	Total
DEST Funding		2.400	2.000	4.800
CSU Funding	8.869	10.100	2.250	21.219
Total	8.869	12.500	4.250	25.619

Budgeted Expenditure

Facility	Pre-2008	2008	2009	Total
Refurbishments	0.935			0.935
Pre-Clinical Building	4.735			4.735
Regional Vet Lab Purchase	1.250			1.250
Site Works	0.349	0.250		0.599
Vet Science Clinical Teaching Building	0.800	8.000		8.800
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	8.869	12.500	4.250	25.619

CONTACT DETAILS

Peter Lennon

Executive Director Facilities Management

Ph: (02) 6933 2286

Mbl: 0419 413 233

Email: plennon@csu.edu.au

Attachment A : Ministerial Notification of CDP Funding Approval



MINISTER FOR EDUCATION, SCIENCE AND TRAINING
THE HON DR BRENDAN NELSON MP

CHARLES STURT UNIVERSITY

19 DEC 2005

Office of the Vice-Chancellor

Professor Ian Goulter
Vice-Chancellor
Charles Sturt University
The Grange
BATHURST NSW 2795

13 DEC 2005


Dear Professor Goulter

I am writing in regard to Charles Sturt University's request for funding from the Australian Government's Capital Development Pool in 2008.

I am pleased to advise you that I have approved an allocation of \$2.4 million for the Veterinary Science Facility at the Wagga Wagga Campus, which will support the training of veterinarians in a rural setting.

I am also pleased to advise you that I will be giving priority for a further \$2 million to be allocated to this project in next year's CDP round for funding in 2009.

I wish you and the University well with this project. My Department will contact you to make the necessary funding arrangements.

Yours sincerely


BRENDAN NELSON

SUBMISSION FOR 2008-2009 CAPITAL DEVELOPMENT POOL (CDP) FUNDING

New Facilities at Orange Campus to Support Rural Pathways Program for Dentistry & Medicine

EXECUTIVE SUMMARY

This is an application for \$5.4m grant funding (\$4m in 2008 under section 4.1(b) with a further \$1.4m in 2009 under section 4.1(c) of the administrative requirements) under the Higher Education Support Act, under Grant Conditions:

5.5 (i) development on a new campus in a regional centres, to a project which supports greater collaboration between Higher Education providers; and

5.5 (ii) capital developments that assist Higher Education providers to establish courses identified by the Government as discipline areas of national importance; and,

5.5 (iv) the rebuilding of campus facilities in circumstances which are special and extraordinary; and,

5.5 (v) capital developments which are priorities for the Higher Education provider.

This is a summary for expenditure for new campus development, consistent with the Commonwealth Government's Rural Health Strategy.

With the approval of the Commonwealth and the NSW State Government, The University of Sydney's Orange campus was recently transferred to Charles Sturt University.

For its part, the Commonwealth has given a commitment that it will guarantee that "higher education opportunities will not be reduced in Orange" (Nelson, 2 July 2004). In 2005, the Commonwealth allocated to CSU 100 new commencing places for the Orange Campus along with 240 additional places giving a commencing load in 2005 of 340 fully funded places for the Orange Campus. This represents an increase of more than 50 per cent in the funded student load at the Orange Campus with the Minister also indicating that the Commonwealth "will be allocated further places to regional campuses including Orange to further strengthen the provision of higher education in regional Australia"(Nelson,2 July 2004).

The transfer of the Orange Campus to CSU is a strategically important opportunity for the University and the region. The CDP proposal, with the associated cost estimates overleaf, takes account of new

course and campus developments at Orange, the requirement to expand the campus' information technology infrastructure and, importantly, to provide additional facilities to meet the growth in load allocated to a region where there has traditionally been low tertiary participation rates.

With the introduction of the Commonwealth Government's Rural Health Strategy in 2001 there has been very significant investment in support of medical student training in rural Australia. As a result, most metropolitan based Universities with medical and dental faculties wish to attract in to their graduate entry training programs more students of rural origin.

The 'Rural Pathways Program' has been developed by Charles Sturt University (CSU) as a pathway specifically to channel high calibre CSU students from rural backgrounds into the University of Sydney (USyd) Bachelor of Dentistry (BDent) program and the University of Sydney Medical Program (MBBS). This is mediated through the rural pathway program combining a CSU-based Pre-Clinical Science degree which promotes students' opportunity to enter into the Dental rural-stream or the Medical rural-stream with the University of Sydney. To this end a formal agreement has been signed between the two Universities committing the University of Sydney to allocate at least 10 intake places per year to CSU graduates of the Pathway into the BDent and a further 10 intake places into the MBBS program.

Since the development of the program in 2005 there have been further requests for access to the Rural Pathways Program from the allied health disciplines of the University of Sydney and the collaboration of the medical programs of the Universities of Sydney, Wollongong and Western Sydney. The ultimate goal is to improve health service delivery in rural communities by producing graduates with the appropriate experience and skill-base requisite for rural recruitment and retention. Students undertake the majority of their study in a rural environment, the CSU Orange campus, followed by a combination of Sydney-based and rural community supported experience. Graduates receive a Bachelor of Clinical Sciences from Charles Sturt University and then the appropriate degree from the University of Sydney (or other institution).

This CDP bid is for assistance in providing the necessary infrastructure to support the new initiative which will become one of the centrepieces of the development of the Orange campus following its transfer to Charles Sturt University. This entails the addition of a significant profile of health science related activities and facilities to the existing agriculture and rural management operations of the Orange campus. This transformation is consistent with regional and local development plans for

Orange's major new hospital, mental health facilities and rural dental initiatives. It will also be complemented by CSU's current initiatives at Orange in pharmacy and nursing.

Since 2005, CSU has offered the full suite of courses from the current Faculty of Rural Management at the Orange Campus as well as full-time Bachelor of Nursing and Bachelor of Pharmacy degree courses. In developing the research profile of the Orange Campus, progress has already been made in establishing a Rural Research Network framework for collaborative research involving CSU, the Orange Campus, 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 growth in student load allocated by the Commonwealth to this initiative, it is imperative that the campus infrastructure and technology be developed and upgraded to achieve the ongoing educational and research needs of the campus.

The total value of proposed works is estimated at \$13.36 million. Accordingly, CSU is seeking a further \$4m in 2008 and a further \$1.4m in 2009 to support the expansion of the campus into a viable higher education facility for the Orange region. The Commonwealth has already acknowledged the priority of the proposal by allocating \$1.14m in 2007.

PROJECT DESCRIPTION

Objectives and Rationale for the Proposal

The Key objectives of the project are:

- Provision of general purpose and specialist teaching facilities to support the 'Rural Pathways Program' in response to the Commonwealth's 2001 Rural Health Strategy
- Support the growth in student numbers which is part of enhancing the financial viability of the Orange campus
- Enhancement of CSU's reputation and opportunity to attract and retain staff through the provision of appropriate additional staff office and research accommodation
- An upgrade of technology infrastructure.

By meeting these objectives, the Orange Campus will be able to cater for the increased student load the Commonwealth has allocated to the campus in line with its commitment of not diminishing educational opportunities for students at Orange. With the allocation of these new places, together with the pipeline effect of current course development, the on-campus load will increase by 54 per cent over the next four years. In order to meet standards in terms of capacity, functionality and level of service, the facilities at Orange will need significant enhancement.

Scope of Works for the Orange Project

A detailed evaluation of the Orange Campus facilities has been done using the TEFMA benchmarks in terms of capacity and functionality. The general condition of the existing facilities has also been compared with and assessed against CSU's infrastructure at its other campuses. As an outcome of this analysis, a \$13.36m million capital funding project for the Orange Campus has been developed. There are five major components to this project;

1. Development of new clinical and science teaching facilities
2. Creation of new research facilities
3. Extension and refurbishment of the existing Library into a new "Learning Commons"
4. Construction of a 120 seat lecture theatre
5. Provision of additional multi-purpose teaching spaces and office accommodation

New Clinical Skills Centre

Similar to the replacement facility proposed for nursing above, the introduction of the Clinical Skills courses will create a need for facilities to undertake practical training of students in the protective environment of the University, to develop skills in these areas to equip them for practical training in the placements which are a feature of CSU courses. The proposed facility would be a flexible flat-floored space, configured to allow for multiple uses across the dental and medical courses, with opportunities for students to practice their clinical skills under observation. Classes would then have the opportunity to learn from each others experience in these settings.

Nursing Laboratory

The existing Nursing Laboratory is in a transportable building and is designed to cater for up to 24 students. However, because of its format, the building does not currently accommodate the desired

scenario-based teaching delivery and would require significant investment to extend and refurbish it to a suitable standard. As the building is nearing the end of its construction life, further investment in the building does not represent value for money. A new nursing teaching facility to accommodate up to 30 students will be created. This space will allow problem-based learning and simulated learning, and will also include instructional, storage and preparation areas.

New Wet Science Teaching Laboratory

The existing Pharmacy laboratory has capacity for 42 students. Currently classes such as Pharmacy, with a cohort of 50, must be split requiring duplication of teaching and adding further pressure to staff resources. Projections show that the existing Pharmacy Laboratory will be over-utilised as early as 2007, due in part to the duplication of classes. From 2009, the level of usage would be unsustainable with only one laboratory. It is proposed to construct a 60-seat Wet Science Teaching Laboratory, to accommodate classes such as Pharmacy, eliminating the need for repeated classes and allowing valuable staff hours to be concentrated on research. The use of this proposed facility in tandem with the existing Pharmacy Laboratory, based on current projections, will reduce the load on facilities to a sustainable level.

Research Facilities

In order to attract high calibre research and teaching staff to the University, and to allow the research aims of CSU to be realised, new research facilities will be created including new wet and dry research labs, preparation and study areas and workspace.

Learning Commons

The current library at the Orange Campus is poorly serviced and presents a major short to medium term maintenance liability. The current facilities are also too small to support the anticipated growth in on-campus student numbers at Orange. The new Learning Commons, incorporating student services, library function and associated technology developments, will accommodate both current student numbers and projected growth at Orange, and will enhance student access to support services by consolidating currently dispersed facilities in one location. 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.

Lecture Theatre

There are currently two lecture theatres on the Orange Campus, each accommodating approximately 90 students. With the increase in EFTSL for the Orange Campus, the demand is expected to exceed the capacity of the existing facilities within two to three years. It is proposed to supplement these facilities with a third lecture theatre, designed to accommodate classes of up to 120 which will accommodate future needs and anticipated growth. The proposed lecture theatre will also have video conferencing capability.

Tutorial Rooms and Office Accommodation

The on-campus growth load will place significant pressure on existing general purpose teaching spaces at the Orange Campus. Different course structures and new and emerging pedagogies, such as problem-based learning, also require new flexible teaching spaces. The increase in student load at the Orange Campus will generate demand for 4 additional teaching rooms, each with capacity for approximately 20 students. These rooms will be flexibly designed to allow different room layouts depending on class requirements, with movable walls to allow expansion of areas as required.

The current staff and postgraduate office accommodation is almost at capacity. Recent modifications to existing buildings have satisfied previous demand for general office and workspace provision. However, the increase in student load will generate additional demand for both office and workspace.

RESPONSE TO CRITERIA

(a) The demonstrated need of the higher education provider, having regard to those of other providers and regions;

Nationally, the number of oral health practitioners (general and specialist dentists, dental therapists, dental hygienists, oral health therapists and dental prosthetists) and medical practitioners across Australia falls short of the numbers required to meet current need. The shortage of medical and dental practitioners, particularly in rural areas of Australia, is well documented.

The Charles Sturt University experience of the role of rural background and rural exposure as being major determinants of future rural allied health practice is particularly compelling. This is of major interest to CSU given that around two thirds of its on-campus enrolments are from the regions.

The Rural Pathways Program provides a pathway for students predominantly from a rural or remote background to gain entry into medicine or dentistry degrees at the University of Sydney and other graduate entry providers. In addition, it provides an opportunity for a proportion of graduates to articulate into rural allied health programs at CSU or other providers.

There is a clear and well researched need for these health workers in rural and remote areas of Australia. CSU has demonstrated a unique ability to service these regions with approximately 80% of health graduates choosing a career in rural settings. Since the graduation of Pharmacy student by CSU, graduates practising in rural areas have increased from less than 5 to more than 30 per year.

There are no other providers of similar programs anywhere in Australia, where quarantined places have been earmarked for graduates of a particular program in another University's medical and dental programs. A contract of Agreement has been signed by both parties and places have been allocated for the introduction of the program (BClinSc) in 2007.

The Orange Campus operation has been subsidised by Sydney University since it became a campus of Sydney University. To be financially viable, the Orange Campus needs to grow on-campus student numbers. With the transfer to CSU, changes in course delivery structure together with the additional Commonwealth funded student load will increase the on-campus student numbers from 320 to around 450¹ in 2008, providing a viable income for the campus. The growth in student numbers will exceed the capacity of the existing facilities by 2008. The proposed projects are to address that need and to support new courses.

(b) Relevance to Program Objectives

(i) A proposal that focuses on new campus developments:

The RPP is a major development on the new Orange Campus of CSU. It complements the CSU nursing and pharmacy programs which are now in their second year of offering and is strongly supported by the regional community, key health professional bodies and the Greater Western Area Health Service. A significant level of lobbying for this program has emanated from the Rural Dental Action Group, the Australian Dental Association, regional councils and local politicians (correspondence available).

The unique feature of the RPP is the collaboration agreement between CSU and USyd. The interaction extends beyond the quarantining of places in dentistry and medicine and includes equipment, infrastructure, curriculum, marketing and promotion sharing. The relationship feeds into the USyd Rural Clinical School in Orange, Bathurst and Dubbo with continued resource sharing between medicine and dentistry with both Universities.

- (ii) A proposal that focuses on developments to assist in establishing or expanding provision of courses of national importance:

The key position of this program in the pathway for students entering medicine, dentistry and allied health professions places it in a nationally strategic position. This is even further emphasised with outcomes addressing longstanding issues of recruitment to these disciplines in rural and remote clinical settings.

The program has the potential to feed graduates into multiple professions, each of which are represented on the Migration Occupations in Demand List, vis. general practice, dentistry, occupational therapist, physiotherapy, podiatrist, radiography, pharmacy, speech pathology. The only existing facilities available to the curriculum required in preparation for these disciplines are related to the basic needs for pharmacy. There is also a need for specialist skills laboratories for pre-medical and pre-dental instruction as well as problem-based learning infrastructure, none of which are currently available on the Orange Campus.

- (iii) A proposal that focuses on rebuilding of campus facilities in “special and extraordinary circumstances”:

The new CSU Orange Campus has evolved from prior occupation as the Orange Agricultural College, a University of New England agriculture-oriented campus and the University of Sydney Faculty of Rural Management. As a result the existing infrastructure has been designed over the past 30 years to meet the needs of agricultural education and research. CSU now intends significantly supplementing this aspect of the campus profile with an array of rural health related programs. In this manner the campus will undergo major rebuilding projects which will align it with the Orange-Bathurst Hospital developments, Bloomfield Mental Hospital activities, collaboration with the University of Newcastle’s Centre for Rural and Remote Mental Health and the University of Sydney Rural Clinical School in Orange.

(c) Project Feasibility

The project cost estimates are as follows:-

Lecture Theatre	1.423
Wet Science Laboratory	2.704
Tutorial Rooms	0.854
Nursing Laboratory	0.939
Office Accommodation	0.712
Research Accommodation	1.139
Learning Commons	3.736
Clinical Teaching Complex	1.851
Total	\$13.358m

A Master Plan to guide campus development was completed in January, 2006. Detailed planning has commenced for all projects, with consultants to be engaged to undertake the development of design work. The projects are programmed for design to be substantially completed in 2006 and construction commencing in 2007.

The proposed program for projects of this scale is conservative and achievable. Budgets have been developed for all the projects which are realistic but not excessive, requiring on-going cost control during project development.

(d) Financial contribution

Charles Sturt University is contributing a total of \$6.752m to the creation of new teaching and support facilities at Orange.

Income	2007	2008	2009	Total
Capital Development Pool	1.140*	4.000 ⁺	1.400 ⁺	6.540
University Funds	1.198	4.109	1.403	6.710
Total	2.338	8.109	2.803	13.250

* CDP funding granted as the result of previous CDP bid

⁺ CDP funding requested in this bid

(e) Value for Money

The project plan for Orange aims to make maximum use of existing facilities where possible, reducing the cost of the required infrastructure.

Current facilities for subjects such as Pharmacy are not large enough to accommodate the whole class in a single session, requiring duplication of classes and impacting on valuable staff resources. The new facilities will be designed to accommodate current class sizes and future growth, thereby allowing more

efficient use of facilities and staff time. This will enable staff to pursue research interests, raising the profile of Charles Sturt University and generating valuable research income.

The new facilities will also allow 'best fit' timetabling with classes using rooms and facilities appropriate to the class size. This will lead to greater efficiency in the use of facilities, in some cases allowing consolidation of under-utilised teaching facilities and release of space for redevelopment, in line with the Master Plan for the campus.

The proposed Nursing Laboratory will not only enable the University to address its growing needs, but will improve the condition of building stock on the campus by enabling the removal of a demountable building at the end of its economic life. The site currently occupied by the existing Nursing Laboratory will be re-used for one of the proposed developments, enabling re-use of external services infrastructure

Based on the Master Plan, the proposed facilities are likely to be aggregated into a single complex, which will reduce costs compared to individual construction. There is in addition a now redundant corporate services building available for re-allocation. Planning has identified a number of alternative uses for this sound building. The project development process will refine this planning and the re-use of this building will be at a lower cost than new construction.

(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 and its reports to the Commonwealth 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.

BUDGET

Budgeted Income

Income	2007	2008	2009	Total
Capital Development Pool	1.140*	4.000 ⁺	1.400 ⁺	6.540
University Funds	1.198	4.109	1.403	6.710
Total	2.338	8.109	2.803	13.250

* CDP funding granted as the result of previous CDP bid

⁺ CDP funding requested in this bid

Budgeted Expenditure

	2006	2007	2008	2009	Total
Lecture Theatre	0.016	0.340	1.067	0.000	1.423
Wet Science Laboratory	0.030	0.645	2.028	0.000	2.703
Tutorial Rooms	0.010	0.204	0.640	0.000	0.854
Nursing Lab & Store	0.010	0.224	0.705	0.000	0.939
Offices	0.008	0.170	0.534	0.000	0.712
Research Accommodation	0.013	0.272	0.854	0.000	1.139
Learning Commons	0.000	0.041	0.892	2.803	3.736
Clinical Science Complex	0.021	0.442	1.388	0.000	1.851
	0.108	2.338	8.108	2.803	13.357

CONTACT DETAILS

Peter Lennon

Executive Director Facilities Management

Ph: (02) 6933 2286

Mbl: 0419 413 233

Email: plennon@csu.edu.au

**APPLICATION FOR 2007 CAPITAL DEVELOPMENT POOL (CDP) FUNDING
Regional Veterinary Diagnostic Laboratory**

EXECUTIVE SUMMARY

The following is a funding application for 2007 CDP funding of \$2.5M for redevelopment of the Regional Veterinary Diagnostic Laboratory under criteria 5.5 (iii) and 5.5(iv).

Introduction

In 2005 Charles Sturt University introduced a Veterinary program with a focus on production animals and support for rural industries and rural communities. CSU plans to be Australia's centre of excellence for veterinary science with this focus.

An important segment of the veterinary program is veterinary pathology and the related disciplines of histopathology, microbiology, parasitology, immunology and clinical pathology. Teaching of and research into these subjects is dependent upon having a necropsy and diagnostic laboratory facility capable of generating appropriate case material. The accrediting authority for veterinary schools, the Australasian Veterinary Boards Council, dictates that each school has a fully functional veterinary diagnostic facility.

To meet this need, Charles Sturt University is planning the construction of a Veterinary Diagnostic Laboratory (VDL) at a total cost of \$M7.2.

Function of the facility

The proposed VDL is being built as an integrated teaching research and diagnostic facility. It will meet undergraduate and post graduate teaching needs, have a substantial research capacity, and fulfil an important diagnostic function.

The diagnostic service will offer a pathology service to livestock producers, carers of native wildlife and owners of companion and racing animals in regional New South Wales (NSW), northern Victoria and the Australian Capital Territory (ACT) through their veterinarians. This service will facilitate the safe movement of livestock and livestock products interstate

and overseas by carrying out certification testing. It will also assist in the protection of the livestock industries of regional NSW, the ACT and Victoria against outbreaks of emergency animal diseases by promptly recognising and investigating unusual occurrences of disease, enabling critical surveillance information to be supplied to veterinary regulatory authorities

Material accepted by the VDL for testing will in part provide the basis for post-graduate training and research

The proposed VDL will provide research capacity in pathology, histopathology, parasitology, immunology and conventional microbiology and will be based around a number of key appointments CSU has made in the past 18 months in pathobiology. These research staff have been appointed on the basis of their records of research and publication of international significance and bring well-established national and international collaborative links with Universities and Research Institutions in USA, Canada, UK and other European centres, as well as in Australia.

The Pathology group includes Associate Professors Shane Raidal and John Glastonbury, both eminent scientists of international standing in diseases of pigs and farmed ruminants (JG) and fish, native and farmed birds (SR).

The rapidly forming Veterinary Parasitology group is another example of a group with internationally significant research credentials. It is led by Professor Nick Sangster, who brings to CSU existing collaborations with the University of Glasgow and the Moredun Research Institute in the UK and other scientists in Australia, USA, Canada, UK, Denmark and Germany. A post-doctoral student joins the group in October, having completed her PhD in Glasgow. CSU has signed an additional strategic research professorial position to the School. This will be filled by a second veterinary parasitologist with an outstanding international research reputation.

PROJECT DESCRIPTION

The proposed building

The proposed building will comprise two parts – a new laboratory wing (685 square metres) and an office wing (690 square metres). In accordance with contemporary laboratory design practice, these will be closely linked; however, to reduce the cost of provision of this critical

facility, offices will be contained within an existing former laboratory building, which is not feasible to upgrade to PC2 and PC3 standards. This building will be extensively refurbished to provide modern office space, with new mechanical plant.

The total cost of the project is estimated at \$M8.3, inclusive of waste disposal facilities, which are discussed below. CSU will provide \$5.8M of this from its own resources. This represents cost of the undergraduate teaching component of the Veterinary diagnostic facility.

The laboratory wing will comprise a necropsy room supported by laboratories for research and teaching in the diagnosis of disease. The necropsy room will have an overhead gantry system and a hydraulic dissection table, capable of holding large animals such as cattle and horses, as well as fixed tables for the use of students. The room will be serviced by holding pens and a large cold room for storing dead animals.

The remainder of the facility will have laboratories dedicated to microbiology, parasitology, clinical biochemistry, histopathology and molecular biology. The majority of the facility will be constructed to physical containment category 2 (PC2) standards, but with a small PC3 room capable of holding disease organisms such as those causing anthrax, psittacosis and Q-fever. There will also be dedicated student and research laboratories and a microscope room.

Current Australian Design Standards and the Office of Gene Technology Regulator (OGTR) stipulate that the building needs to be certified as physical containment category 2 (PC2) as a minimum. This requirement has strict building codes and guidelines aimed at both securing the escape of potentially harmful organisms and their disposal. These regulations combine to make the disposal of biological waste difficult.

Disposal of waste

Animal wastes generated by activities to date have been buried on site. Due to the increase in mass to be disposed of (16,000 kg/ month), and to build capacity to dispose of infected animals, burial is not viable and incineration is not considered environmentally acceptable.

For biosecurity, environmental and economic reasons, alkaline digestion is the method of choice.

A high temperature Alkaline Tissue Digester capable of dissolving infected animal material into a sterile effluent that is safe to use for pasture irrigation or disposal through the sewerage system is the preferred disposal method. In the United States of America, it is now the only method of disposal recommended for animal wastes containing prions (the agents of BSE, mad cow disease and other similar conditions in animals and humans) which are among the most difficult biological wastes to deal with.

The purchase (\$US510,000) and installation of an Alkaline Tissue Digester would cost in the order of \$M1.1, but would be beneficial for biomedical researchers at Charles Sturt University, the Australian National University and other research institutions in NSW.

RESPONSE TO ASSESSMENT CRITERIA

(a) Demonstrated Need

Veterinary diagnostic laboratories and trained and experienced veterinary pathologists provide a vital defence for Australia against the incursion of an emergency animal disease. There is a rapidly developing critical shortage of specialist veterinary pathologists in Australia. A recent study demonstrated that the majority of specialist veterinary pathologists nationwide will be retiring within the next 10-20 years (pathologists >50 years; 71.9% of specialists) and will not be adequately replaced by the smaller numbers in the pipeline. Replacements from overseas will not be able to make up the shortfall, as the position internationally is similar to here and overseas salaries are significantly higher.

(b) Relevance to program objectives

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 and the Veterinary Diagnostic Laboratory readily qualify under several criteria:

- (ii)expand provision of courses identified by the Government as a discipline area of national importance (i.e. biosecurity of the livestock industries);
- (iii)restoring a facility that will reinstate the provision of diagnostic services to the region whilst addressing ongoing teaching and research needs.

(c) Feasibility of the project plan

Considerable progress has been made to date on implementing the project. A detailed project brief has been developed for the VDL and design consultants have been engaged and commenced detailed design. It is expected that construction of the project will commence in the second quarter of 2007 with completion in early 2008.

The Tissue Digester is a packaged plant unit. A feasibility study has been undertaken with an appropriate unit type selected. Installation requirements for the unit are minimal and it is expected that the unit will be installed and operational by the end of 2007.

(d) In-kind contribution

CSU is contributing \$5.8M for the project. CSU is seeking \$2.5M in funding to match our projected expenditure in 2007.

(a) Value for money

The Veterinary Diagnostic Laboratory project will represent value in the following ways:-

- It will provide a teaching facility for regionally based veterinary pathologists that will address a significant future skill shortage in an area of national priority.
- It will provide a significant research capability in an area of national importance.
- It will reinstate a critical diagnostic service to the region.

(b) Previous performance

In the recent past, CSU has received CDP funding for projects at its Thurgoona and Dubbo Campuses and its reports on these projects to the Commonwealth 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.

BUDGET

Budgeted Income (\$M)

Funding Source	2006	2007	2008	Total
DEST Funding		2.500		2.500
CSU Funding	0.300	2.520	3.000	5.820
Total	0.300	5.020	3.000	8.320

Budgeted Expenditure (\$M)

Facility	2006	2007	2008	Total
VDL Redevelopment	0.300	3.900	3.000	7.200
Tissue Digester		1.120		1.120
Total	0.300	5.020	3.000	8.320

CONTACT DETAILS

Peter Lennon

Executive Director Facilities Management

Ph: (02) 6933 2286

Mbl: 0419 413 233

Email: plennon@csu.edu.au

