



FINAL REPORT

# VETERINARY SCIENCE PROJECT

297<sup>TH</sup> REPORT

OF THE

**PUBLIC WORKS COMMITTEE**

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*Tabled in the House of Assembly and ordered to be published, 18 June 2008*

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Second Session, Fifty-First Parliament

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## ***THE PUBLIC WORKS COMMITTEE***

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The Public Works Committee is established pursuant to sections 12A, B and C of the Parliamentary Committees Act, 1991, proclaimed February 1992.

The following members constitute the Seventeenth Public Works Committee as reconstituted on 24 April 2007:

**Ms Vini Ciccarello MP (Presiding Member)**

**Hon Trish White MP**

**Mr Tom Kenyon MP**

**Mr Michael Pengilly MP**

**Mr David Pisoni MP**

Principal Research Officer:

**Mr Keith Barrie**

Administrative Officer:

**Ms Laura de Cesare**

## ***THE FUNCTIONS OF THE COMMITTEE***

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Section 12C of the Parliamentary Committees Act defines the functions of the Public Works Committee as:

- (a) to inquire into and report on any public work referred to it by or under this Act, including-
  - (i) the stated purpose of the work;
  - (ii) the necessity or advisability of constructing it;
  - (iii) where the work purports to be of a revenue-producing character, the revenue that it might reasonably be expected to produce;
  - (iv) the present and prospective public value of the work;
  - (v) the recurrent or whole-of-life costs associated with the work, including costs arising out of financial arrangements;
  - (vi) the estimated net effect on the Consolidated Account or the funds of a statutory authority of the construction and proposed use of the work;
  - (vii) the efficiency and progress of construction of the work and the reasons for any expenditure beyond the estimated costs of its construction;
- (b) to perform such other functions as are imposed on the Committee under this or any other Act or by resolution of both Houses.

## **PART ONE : PREAMBLE AND PROJECT SUMMARY**

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### **1.1 Term of Reference**

#### Parliamentary Committees

Parliamentary Committees have the specific task of examining individual initiatives, projects or policies of the government of the day, or issues of importance to society as a whole. Standing Committees are created by Act of Parliament and charged with the ongoing examination of subject categories such as public works.

Parliamentary Committees are made up of both government and opposition Members, with numbers of each calculated according to rules which reflect the numbers of seats each group holds in the Parliament. Much of the Committee process is open to the public, and completed reports are public documents.

#### This Project

The Department of Further Education, Employment, Science and Technology (DFEEST) has referred the proposal to construct a new school of veterinary sciences at the Roseworthy Campus for the University of Adelaide to the Public Works Committee pursuant to the requirements of the Parliamentary Committees Act 1991. Please refer to the "Functions of the Committee" on the previous page for a full description of the Committee's tasks.

### **1.2 Further Reporting to the Committee**

DFEEST must notify the Committee immediately in writing should there be substantial changes to the nature of the project or the evidence provided to the Committee. To enable appropriate monitoring of the project, DFEEST must also provide quarterly reports to the Committee on the progress of construction. Pursuant to section 12C (vii) of the Act, these reports must outline the efficiency and progress of construction and provide an explanation of any expenditure beyond the estimated costs quoted in this report. Evidence of any substantial changes to, or the withdrawal of, any approval (provisional or otherwise) must also be relayed to the Committee immediately with an appropriate explanation, and an assessment of the probability of a suitable resolution.

In addition, the Committee requires that it be notified of the proposed date for the commissioning of the works.

The Committee has the authority under Section 16 (1)(c) of the Parliamentary Committees Act to re-open investigations into any project for the purpose of further examination and monitoring.

### **1.3 Scope of This Report**

This Report examines the history of the proposal and the efficacy of the application of South Australian taxpayer funds to the veterinary science project. The Report structure is guided by, and largely limited to, the terms of the Parliamentary Committees Act. It describes, in summary, the evidence presented to the Committee and concludes with a brief summary incorporating findings and recommendations.

Detailed evidence upon which the Committee's decision is based is held in Parliament and, in most cases, can be examined by making an application to the Committee Administrative Officer.

## **1.4 Project Background**

Historically, South Australia and the Northern Territory have been supplied with veterinary practitioners from schools located elsewhere in Australia and overseas. South Australia has over 7% of Australia's tertiary students, yet fewer than 3.5% of veterinary students received their secondary education in this state. This has resulted in high South Australian demand for entry into interstate veterinary programs, yet has not satisfactorily addressed demand among potential veterinary students.

The lack of a veterinary school and training centre for research into animal health has also meant that there is minimal veterinary cohesion in the diverse animal health industry in the state. While CSIRO, Primary Industries and Resources South Australia (PIRSA), the South Australian Research and Development Institute (SARDI) and the Institute of Medical and Veterinary Science (IMVS) contribute significantly to research and in service provision to the animal-based industries, they have not been able to address major problems such as the continuing reduction in number of rural and remote veterinarians.

On the basis of extensive feasibility studies, the University of Adelaide concluded that a veterinary school with appropriate levels of Commonwealth and state government financial support would be viable and would add significantly to the wealth and well-being of South Australia. A veterinary program that supports existing animal industries and recognises emerging areas (such as aquaculture and biosecurity) will address unmet current and future needs.

Developing and hosting a veterinary program has presented significant novel opportunities. Rather than simply duplicating facilities that already exist within the state, the University is engaging the wider animal health and welfare community to provide the diversity of expertise and locations that a high-quality veterinary program requires. This engagement, referred to as a 'partnership model' provides a practical solution to the need for a comprehensive program for students. Conversely, the model also provides a means for the University to support the community in which it works. A University of Adelaide veterinary program has the potential to provide substantial benefits to research, industry, and education in South Australia.

The concept of the partnership model was received positively by agencies and veterinarians consulted in the course of developing the proposal. For example, this model addresses a concern raised by the Australian Veterinary Association, South Australian Branch (AVASA) that a new veterinary program will produce graduates who would compete with existing veterinarians in the small animal private practice market in areas already well served. The partnership model will give graduates the opportunity to gain hands-on experience in a wide range of government and industry based animal health sectors which will broaden their career interests and prospects. In addition to developments within the University itself, the University is working with other agencies to recruit new staff (in joint appointments) and to develop joint facilities to teach the new program.

Engagement of existing veterinarians around the state who have considerable experience in the reality of practice management and case load in South Australia will be critical to the viability and relevance of any veterinary program. Individual practitioners have expressed a willingness to contribute to the development and refinement of the program, and to participate in the teaching of courses. While the University has significant experience in delivering clinical programs, and in medical practice investment and management, involving the veterinary community will assist the program in producing graduates with relevant skills who are well regarded and highly sought after.

The University has also taken the opportunity to develop a course structure which aims to facilitate pathways across schools, address concerns about students specialising too early and, internationally, conform to the 'Bologna model'. The course will consist of a three year Pre-Veterinary BSc program plus a three-year postgraduate award, of which the final year comprises supervised clinical work (the 'intern year').

## PART TWO: EVIDENCE PRESENTED TO THE COMMITTEE

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### **2.1 The Current Proposal**

The government proposes to provide \$5 million towards Stage 3 of the establishment of a new School of Veterinary Sciences at Roseworthy, subject to conditions precedent:

1. The University of Adelaide executing a Funding Agreement with the Commonwealth Government for a contribution of \$15 million, and
2. The University of Adelaide executing a Funding Agreement with the state government, and
3. The University Council approving the allocation of at least \$12 million in funding towards the project.

The University of Adelaide intends to refurbish existing laboratories and office accommodation and build a new purpose built teaching laboratory and clinical facility on land owned by the University at the Roseworthy Campus. The building will be owned and operated by the University in close collaboration with the contributing partners.

The total project budget is greater than \$32 million ex GST and the project comprises four stages:

1. refurbishment of existing office accommodation within the Callaghan Building to provide seminar space
2. refurbishment of 2 x 154m<sup>2</sup> laboratories within the Williams Building and minor interior fitout works within the Eastick Building to modify existing spaces into academic offices
3. new teaching laboratories building of approximately 2260m<sup>2</sup> plus associated car parking, loading areas and linkways
4. new clinical building of approximately 2300m<sup>2</sup> plus associated animal holding, car parking, loading areas and linkways.

The project will be constructed at the Roseworthy Campus of the University of Adelaide. The campus land (CT 5517 / 921, Section 693, Hundred of Mudla Wirra) is held in trust under the care, control and management of the University of Adelaide. The site for this project is located north east of the existing Callaghan, Williams and Eastick Buildings and is vacant, apart from car parks and a roadway. The car parks will be relocated as part of the redevelopment.

The buildings will be owned and operated by the University of Adelaide when completed, in close collaboration with the contributing partners.

The schematic design solution for the upgrade of laboratories, upgrade of offices, new teaching laboratory building and new clinical building meet the requirements of the University of Adelaide project brief. The project is currently 75% through Phase 3 for Stage 3.

The following is a summary of accommodation requirements for the new Teaching Laboratory building:

## 2.1 The Current Proposal (cont.)

Accommodation Function Requirement	No	Area per	Area M2
<b>PATHOLOGY LABORATORIES</b>			
LABORATORY - SURGICAL SKILLS	1	150	150
PREPARATION ROOM / STORE(surgical skills)	1	30	30
SCRUB	1	30	30
E-LEARNING	1	150	150
BONE STORE	1	30	30
LABORATORY - PC2 - ANATOMY & DISSECTION	1	300	300
SHARED OFFICE (Technicians)	2	6	12
CRUSH	1	35	35
EUTHANASIA ROOM	1	15	15
WET FRESH AREA	1	50	50
WET PREPARATION	1	50	50
DRY PREPARATION	1	35	35
STORE - COLD	1	30	30
STORE - COLD (Anatomy Lab)	1	30	30
STORE (Anatomy Lab)	1	30	30
STORE - DRY/BONE (Anatomy Lab)	1	30	30
FREEZER ROOM / WET STORE (Anatomy Lab)	1	30	30
STORE - COLD (Bin)	1	15	15
STORE - FORMALIN	1	10	10
LABORATORY - PC2 - PHYSIOLOGY	1	200	200
PREPARATION ROOM (physiology)	1	30	30
STORE (Physiology)	1	30	30
<b>SUBTOTAL</b>			<b>1322</b>

## 2.1 The Current Proposal (cont.)

<b>STAFF AMENITIES/SUPPORT</b>			
WORKSTATIONS	3	6	18
STUDENT CHANGE/LOCKERS - MALE	1	50	50
STUDENT CHANGE/LOCKERS - FEMALE	1	150	150
STAFF WC/CHANGE/LOCKERS/SHR - MALE	1	30	30
STAFF WC/CHANGE/LOCKERS/SHR - FEMALE	1	30	30
TOILETS - ACCESSIBLE	2	5	10
STORE - GENERAL	1	10	10
BEVERAGE/KITCHEN	1	8	8
<b>SUBTOTAL</b>			<b>306</b>

<b>SHARED AREAS</b>			
CLEANER'S ROOM	1	2.5	2.5
LAUNDRY	1	8	8
DISPOSAL ROOM	1	8	8
BAY - LINEN	2	2	4
COMMUNICATIONS ROOM	1	10	10
CONTROL ROOM	1	15	15
<b>SUBTOTAL</b>			<b>48</b>

<b>NEW BUILD - STAGE 3 UFA</b>	<b>1676</b>
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<b>NEW BUILD - STAGE 3 GFA = UFA x 1.35</b>	<b>2262</b>
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The key design features of the new teaching laboratory building and clinical building for the Veterinary Science project include:

### *Briefed Requirements*

With the introduction of the veterinary program within the University of Adelaide, a new purpose built School of Veterinary Science is to be established.



## **2.1 The Current Proposal (cont.)**

The project must meet the following objectives:

- Provide a world leading, innovative and functional design solution that builds upon the University's reputation in the areas of animal health, biomedical and animal sciences
- Provide an efficient and flexible design solution including all required functions of the School of Veterinary Science
- Consider refurbishment of existing facilities and the location of any new facilities to support the development of a 'teaching and Veterinary Science precinct' on the Roseworthy Campus
- Meet the Australasian Veterinary Boards Council (AVBC) accreditation requirements and the objective of the University's policies on spatial allocations
- Explore and employ a holistic approach to Environmentally Sustainable Design (ESD)
- Provide appropriate urban design with regard for the rural nature of the Roseworthy Campus

### *Siting, location and orientation*

The site available for the new facilities is a triangular portion of vacant land located immediately north-east of the existing teaching facilities. It is flat and featureless, contains no significant trees, and is adjacent to existing campus roads in close proximity to the main entry to the campus.

The opportunity of creating a campus hub with pedestrian linkages to the existing teaching areas, research laboratories and library is provided with the proposed site. In addition, vacant land to the north allows for possible future expansion of the veterinary school and linkages to associated public and private research facilities that may be attracted to the campus.

The site measures approximately 190m x 160m x 240m containing an area of approximately 17,000m<sup>2</sup> and is adequate to contain the 12,750m<sup>2</sup> of new building and associated support spaces.

New development is to be predominantly north facing to maximise natural light and cross ventilation.

### *Relationships with existing facilities*

The siting for both the proposed teaching laboratory and clinical buildings provides the new developments with connections to the existing Williams, Callaghan and Eastick buildings. This will allow centralisation of the student teaching facilities and a hub for common areas and circulation spaces.

A continuous link will be created to student hub areas and other teaching spaces across campus. The development of physical and visual links between the facility and the existing campus will encourage integration and understanding between students and staff within the school environment.

### *Security/separation*

An important aspect of the planning has been the separation of private and public spaces. The sensitive nature of the loading and preparation areas needs it to be conducted in isolation and completely screened from public and student view and access. This is to be achieved with separate circulation zones, one to allow student movement in and around the existing facilities with connections into the new laboratories and the other for staff and the movement of specimens.

## **2.1 The Current Proposal (cont.)**

### *Design in accordance with relevant standards*

- Australasian Veterinary Boards Council (AVBC)
- Accreditation of Veterinary Medical Education (AVMA)
- Formaldehyde – Priority Existing Chemical Assessment Report No 28
- Standards for Veterinary Hospitals – Veterinary Surgeons Board of SA
- Building Code of Australia
- Disability Discrimination Act

### *Comfort, views, natural light and ventilation*

To encourage student comfort within the laboratory, spaces are enhanced by external view, natural light and ventilation.

Infill courtyards and high level windows will provide spaces that are to have no visual link from passing students with light and views to the surrounding natural environment and provide privacy to spaces with no public view.

Passive design principles have been incorporated to reduce reliance on energy, including the indirect natural lighting of spaces via highlight windows; ventilation via windows and sufficient roof overhangs, wall/window shading devices, appropriate wall/roof insulation and low emission material selections.

### *Construction, material palette*

- Single storey, steel framed, metal clad, light weight materials, architecture to suit its rural environment
- Robust materials that have ease of maintenance and are cost effective
- No novel or experimental materials

### *Flexible design, future expansion*

A key feature of the design is flexibility and ability for the plan to be expanded with expected future growth of the school.

The building services incorporated into the new teaching laboratory and clinical building include:

#### *Mechanical Services*

Air conditioning shall be provided throughout all occupied areas of the new buildings to levels suitable for the use and occupancy of specific areas. Air conditioning will also be installed to any areas requiring constant temperature control. Dedicated exhaust systems will be provided to all toilets, dirty utility areas, laboratories, areas where odours may be generated and to serve all fume cupboards. Specialist gases shall be reticulated about the site as required.

#### *Electrical Services*

The electricity supply network shall comprise a building main switchboard interconnected to distribution boards, power supplies shall be located to suit the specific nature of the plant and equipment utilised within the building. Interior lighting shall be in accordance with the requirements of Australian/New Zealand Standard 1680 and Australian/New Zealand Standard 2293. Communication services to the new building shall be supplied via a new underground fibre optic and copper cabling reticulated from the existing site communication server room.

## **2.1 The Current Proposal (cont.)**

### *IT Services*

Roseworthy Campus is already attached to the SabreNet ultra high speed connection linking university campuses and research hubs in South Australia. A new link that will connect SabreNet to TAFE SA and the IMVS at Gilles Plains is currently being negotiated and should be in place in the next two years.

### *Hydraulic Services*

General water supply shall be supplied as necessary to suit the specific building use and the nature of plant and equipment installed therein. Specialist water and domestic hot water services shall be incorporated into the building as necessary for the functionality of the building. General sewerage system inclusive of trade waste settling pits and neutralising pits as shall be incorporated as necessary to the functionality of the building.

### *Fire Protection Services*

The building will be provided with external fire hydrants, internal fire hose reels and portable fire extinguishers as necessary to satisfy the relevant codes and standards. Fire services water supply shall be provided via an interconnection into the existing site water reticulation services.

## **2.2 Consultation**

The project has been undertaken with the active participation of user groups, funding bodies, and approval agencies as listed below:

- The University of Adelaide
- The Commonwealth Department of Education, Employment and Workplace Relations
- The State Department of Further Education, Employment, Science and Technology (DFEEST)
- Light Regional Council
- SARDI – West Beach
- TAFE SA – Gilles Plains
- IMVS – Frome Road/Gilles Plains
- Royal Zoological Society of South Australia (RZSSA) – Frome Road/Monarto
- Lindsay Park – Angaston
- Morphettville Equine Clinic – Morphettville

The Light Regional Council has been consulted in respect to specific planning matters relevant to the proposed Veterinary School, specifically the development of Stage 3 – Teaching Lab facility at the University of Adelaide's Roseworthy Campus.

Council's Senior Development Officer has advised that the proposed use is entirely consistent with the relevant land use provisions within the subject zone. Further, the low scale nature of the building is considered appropriate in context with other built form within the locality.

There is an opportunity to argue the development as 'minor', insofar as it would be as a category 1 form of development, ensuring there would be no legislated requirement for public notification. This has obvious timing and public scrutiny benefits.

To provide a robust argument for the development to be assessed as 'minor', detailed consideration needs to be given to the intended method of waste management and disposal.

It is anticipated that a formal application for Development Approval will be submitted in August 2008.

## **2.2 Consultation (cont.)**

No trade contracts will be awarded until all the necessary council approvals have been obtained.

The Department of Treasury and Finance, the Department of Environment and Heritage, Aboriginal Affairs and Reconciliation Division, the Office of Sustainability and the Crown Solicitor have been briefed on this project and consider that it has been developed in accordance with the legal requirements and accepted procedures and guidelines. No outstanding issues were identified.

The Committee accepts that the proposing agency has undertaken all appropriate agency and community consultation.

## **2.3 Aboriginal Heritage**

A Native Title Search was made by the National Native Title Tribunal in September 2006 in respect of the Roseworthy Campus. A search of the following Tribunal databases was conducted:

- Schedule of Applications
- Register of Native Title Claims
- National Native Title Register
- Register of Indigenous Land Use Agreements
- Notified Indigenous Land Use Agreements

No known Aboriginal sacred sites are located on the project site. Should any items be found during construction, they will be managed in consultation with the appropriate authorities.

The Committee accepts that investigations undertaken by the proposing agency indicate that the proposed works will have no impact upon any sites of Aboriginal significance.

## **2.4 Heritage Buildings**

Consultants for the University of Adelaide have advised that there are two heritage items located within the whole of the parcel of land described within Certificate of Title Vol 5275 Folio 860. These are:

- Main School Building – State Heritage Item No 10061.
- Principal's Residence – recommended as a Local Heritage Place in Light Regional Heritage Survey 2004.

These items are remote from the project site, and there will be no impact on them by the proposed works. There are no other listed heritage sites that may be impacted by the proposed works. This has been confirmed by the University of Adelaide, as owners of the land.

The Committee is satisfied that investigations undertaken by the proposing agency reveal that there are no heritage listed buildings on the site that will impact on the proposed works.

## **2.5 Ecological Sustainability**

The University of Adelaide is committed to ensuring that all new buildings constructed on its campuses are based on sound ecologically sustainable development principles. The project team will take a holistic approach to the design of the facility to ensure that its construction techniques, the materials used, maintenance and building management systems all conserve resources.

## **2.5 Ecological Sustainability (cont.)**

The new building has been designed with many environmental features and energy saving initiatives. Stage 3 is currently at the Design Development Stage and will include effective and affordable ESD credentials as the design develops. The following list outlines the main ecologically design initiatives will apply to the project.

### *Maximise Use of Renewable and Recyclable Materials*

- Products with low embodied energy will be sought
- Recycled materials and recycled content of materials are to be considered
- Environmental life cycle assessments of products including extraction and processing of the raw materials, manufacture, maintenance, future recycling and / or disposal of the material will be considered.
- Products will be sourced locally to reduce their effective carbon footprint. The use of proprietary and locally manufactured materials assists this approach
- Recyclable products such as concrete, steel and timber will be utilised wherever possible

### *Protection of the Natural Environment*

- The amount of topsoil to be removed from the site resulting from excavation of the proposed footprint and bench levels will be minimised.
- Waste limitation clauses will be inserted into the construction contract to reduce construction waste going to landfill.
- Space is provided in the design to facilitate waste recycling of resources used by the office and other facilities.
- Products containing PVC and insulation products which use ozone depleting substances in their manufacture will be minimised.

### *Provision of a Healthy Working Environment*

- Good levels of daylight will be provided to occupied areas, together with appropriate direct sunlight and glare reducing screens.
- Fresh air intake to occupied areas will be maximised.
- Appropriate acoustic measures will be taken to maintain internal noise to appropriate levels.
- The use of volatile organic compounds and products containing formaldehyde will be minimised.

### *Minimise Resource Consumption: Water*

The facility will incorporate two major water efficiency and re-use features — rainwater collection and storage, and irrigation waste water collection, treatment and storage. The existing campus alternative water source shall be utilised for use for irrigation and toilet flushing.

Stormwater interceptor will collect visitor car park runoff and separate oils and solid material before entering the existing stormwater system. Settling pits collect all internal waste water for the maintenance of correct pH levels before entering the sewer system.

Low Flow 4-star WELS rated tap ware, showerheads and dual flush cisterns will be utilised to minimise water flows to sewers. All new soft landscaping will incorporate water efficient native plants.

Sub-metering of all major water uses will be utilised in order to enable the facilities manager to monitor water consumption.

## **2.5 Ecological Sustainability (cont.)**

A gas boosted solar thermal hot water system will be utilised to provide domestic hot water from a renewable source of energy.

The Roseworthy Campus has for many years recycled and used storm water and treated effluent water on sports fields within the campus. The University is currently in discussion with Light Regional Council investigating the possibility of developing a joint Waste Water recycling plant linking Roseworthy Township and Roseworthy Campus. This initiative has the potential to minimize duplicated services, increase available recycled water opportunities on Roseworthy campus, including the provision of recycled water into research projects, expanding the use of treated water on campus and minimising the reliance on SA Water infrastructure.

### *Minimise Energy Consumption: Mechanical Plant*

Spaces which require air conditioning will be served by High efficiency water cooled thermal plant. Variable frequency speed drive (VFSD) and high efficiency motors to fans and pumps. Throughout the building the size of thermal zones shall be minimised to facilitate the localised isolation of areas not in use. The air handling units will contain evaporative cooling pads so that evaporative cooling (or raw outside air) can be used at times when conditions are suitable and/or precise temperature control is not required, thus reducing the demand for chilled water.

### *Minimise Resource Consumption: Lighting System*

Artificial lighting is required in general areas for amenity. General areas such as offices and laboratories will utilise high efficiency fluorescent lighting with 'T5' lamps. Motion sensor lighting controls shall be utilised within all amenities and equipment rooms. Throughout the building the size of lighting zones shall be minimised to facilitate the localised isolation of areas not in use. Daylight sensing and BMS control of all lighting zones shall be utilised to further reduce the energy consumption of the lighting system.

### *Minimise Resource Consumption: Building Management System*

All mechanical plant, hydraulics equipment and lighting will be controlled by a Building Management System (BMS).

The BMS will provide a level of intelligent control to minimise energy wastage, over and above the industry standard control systems, by continually selecting optimum operating conditions. Furthermore the BMS will enable air handling fan energy input for both evaporative cooling and air conditioning systems to be minimised by reducing fan speed when greenhouse conditions are suitable via the use of variable speed drives.

The BMS will be monitored for a 12 month period and set points and control algorithms will be "tuned" to ensure that optimum control for minimal energy input is achieved and maintained. The use of metering of all major plant, incoming power and gas and trend logging of all operating temperatures and parameters will assist with this tuning.

## **ENVIRONMENTAL RISK MANAGEMENT**

The preservation of tissues for anatomy teaching uses a modified formalin product called Genolyn Anatomic Series patented by a local company. This product does not have the fume generation issues that occur with regular formalin embalming and thus eliminates the odour and OH&S issues. The anatomy area will have excellent air exchange in the teaching labs as well as in the rooms used for specimen preparation to minimise any odour accumulation.

## **2.5 Ecological Sustainability (cont.)**

Biomedical waste will be bagged, autoclaved where this is necessary (e.g. for infectious material) and collected by commercial contractors to remove this from the site. Whole animal disposal will occur from refrigerated holding rooms on a twice weekly basis depending on accumulation rate (which will vary during various teaching periods). The bins holding this material will be collected by a commercial contractor (see below) for removal to a remote site for incineration in a licensed facility.

Pick up on Mon-Fri and the rates for the Animal Welfare League incineration are:

- Small to medium dog/cat or small sharps container (<25 kg): \$16
- Large dog/sharps container (26-50kg): \$21
- Extra large dog (>51kg): \$27
- Horse or cattle disposal can be performed by Goldners Horse Transport or Max Kinsmore at about \$300 per horse.

Discussions are ongoing to investigate the practicality of an on site system to digest animal waste and produce methane that can be used to power other systems. This system is being investigated as a greener alternative to commercial incineration but may not be commercial ready at this stage. Texas State Vet School use a digestion system and it appears that it is between 33% and 50% cheaper than incineration.

## **PART THREE: FINDINGS OF THE COMMITTEE**

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### **3.1 Project Justification**

The University intends the new school to be a world leader in the education and training of omni-competent veterinary graduates, with particular emphasis on biosecurity, aquaculture, equine and production animals. Livestock in rural production systems will be a strong focus. The internationally recognised graduate knowledge and skills will be integrated into industry and community through co-operative partnerships in teaching, training and research.

The University also intends to build upon its tradition of innovation through high-impact research and excellent teaching across a broad range of disciplines and professions. It is to be a growing, internationally focused and financially sustainable institution, enterprising in its approach to new opportunities as they arise but clear and consistent in its essential directions.

The Committee is told that the introduction of a program in veterinary sciences provides an exceptional opportunity to increase the degree to which the University works with and assists the community in which it is located. State and regional benefits are:

- The introduction of a veterinary program will support a number of strategic initiatives outlined in the South Australian Strategic Plan. These include reducing interstate migration, improving university participation rates, increasing overseas student numbers and improving investment in science, research and innovation.
- The Institute of Medical and Veterinary Science (IMVS), which was established as a precursor to a veterinary school in South Australia, will achieve its full realisation.
- Current demographic and gender statistics show a decreasing number of veterinarians working in rural and remote areas which is exacerbated by the feminisation of the veterinary workforce. This is an issue of significant concern. While a new veterinary program will not directly resolve this situation, the proposed distributed model, and a focus on production animals in the curricula, may work to counter the trend.
- With no veterinary program in South Australia to focus and facilitate ongoing education and training practises, the professional education of veterinarians is limited and costly (necessitating interstate travel). Having a veterinary program embedded in the animal health industry of South Australia will address the ongoing local professional education requirements of the industry.
- South Australia has a number of animal industries that are not fully supported by existing veterinary graduates. It is proposed that the University of Adelaide's program will focus on areas such as aquaculture, biosecurity, production animals and equine health, and will thus specifically support South Australia's veterinary industry requirements.

Veterinary programs are high-visibility, high-status university courses. The proposed program will attract high-achieving and very motivated students to the University who will be an asset to the institution.

It is also expected that with the introduction of veterinary science, 'feeder' programs like the BSc(AnSci) will increase student demand and quality. This will assist the University and the Faculty of Sciences in meeting load targets in both Commonwealth Supported Places (CSP), and Australian and international fee-paying places. The veterinary program is likely to bring new CSP load to the University as students choose to study in Adelaide rather than interstate. New load will allow students who do not have the option of studying interstate to follow their true career aspirations. Early indications are that the first preferences for the 2007 intake into the BSc(AnSci) have increased by more than 20% compared to 2006 figures. This could well be the result of publicity around the possibility that veterinary sciences will be available at the University in the future.



### **3.1 Project Justification (cont.)**

A postgraduate veterinary program will also allow modules to be mixed and matched with other Masters programs such as the Masters in Animal Biotechnology. This is an efficient way to increase the range of programs available to meet both student and employer demands. Industry sponsored short courses and professional education courses can also be developed using the expertise and facilities required for the veterinary program.

Some students will go on to research degrees within veterinary and biomedical sciences and contribute significantly to the research profile of the University. With the specialisations envisioned there will be significant potential for agri-biotech, biomedical and biotechnological research and commercialisation, with the ability to develop solutions to capture an under-served market. The University's existing biotech precinct at the Thebarton campus would provide an ideal incubation facility for the commercialisation of research in these areas.

The distributed model also has the advantage of bringing the University into partnership with prominent industries and bodies in South Australia including SARDI, PIRSA, IMVS, Royal Zoological Society, TAFE SA, a number of Co-operative Research Centres (CRCs), and the aquaculture, equine and racing industries. Some of these organisations have current relationships and collocation histories with the University, while others would be new to the involvement with tertiary education. These partnerships would not only enrich the learning opportunities and experience of students, but also have the potential to lead to jobs and research opportunities that would otherwise not be visible to graduates.

The introduction of a program in veterinary sciences provides an exceptional opportunity to increase the degree to which the University works with and assists the community. Once established, there will be an extra 400 students including 100 international students, and 50 to 60 new staff on the Roseworthy Campus. Many staff and their families, and students will reside in the Gawler area.

The Veterinary School will also provide further opportunities for collaborative research and collocation with animal-related industries (e.g., diagnostics). Roseworthy has recently attracted a Federation Fellow from Germany whose expertise is in the area of animal stem cell research. The campus also hosts the Davies Professorial Fellow (currently in beef epigenetics), the CRC Pork and the Livestock Systems Alliance.

The campus already has strong links with TAFE SA and local high schools. These links will strengthen with the multiple educational pathways that will be provided to veterinary science and allied animal health programs. This will provide more opportunities for students from northern area high schools and will lead to a higher participation rate in tertiary education.

Roseworthy will further develop as an important animal health precinct with an enhanced national and international reputation and positive impact on the animal-based industries in the state through the provision of local research and development capabilities, and training of highly qualified and motivated personnel.

The project will result in a number of employment opportunities during and post construction.

- During construction phase approximately 75-100 construction jobs will be created.
- Post construction, the establishment of School will provide 50 to 60 ongoing employment opportunities (academic, professional, technical and support staff).

There will be a positive flow-on effect to local business from the expanded population of staff, researchers and students, and for increased needs for services and consumables. Local veterinary practices will be engaged in a variety of ways, including direct investment. There will also be opportunities to share expensive facilities and equipment: for local veterinarians to participate in the teaching of the program as affiliates; for students to do volunteer work in practices as part of their extra mural activities; and for students to complete their internships with local veterinarians.

### **3.1 Project Justification (cont.)**

As the contribution from the state government is more than \$2.5 million, the SA Government Industry Participation Policy (IPP) is applicable. At the appropriate time, the University of Adelaide will contact the Industry Capability Network to ensure the project is delivered in accordance with the IPP to ensure the maximum level of local industry participation in the project.

### **3.2 Public Value of the Proposed Project**

The objectives of the new school are to:

1. Provide veterinary education and training of the highest standing to undergraduate and postgraduate students with an emphasis on service to local, national and international communities and a commitment to lifelong learning.
2. Provide a supportive and collaborative environment for inter-disciplinary student training and scholarship with enriched learning opportunities and experience through collaborative teaching under the partnership model.
3. Establish a major centre for research in animal health and welfare, supporting major industries in South Australia.
4. Promote the dual goal of scientific excellence and relevance embedded in a tradition of engagement with local, national and international industries by dissemination and application of knowledge to address state, national and global challenges.
5. Generate new knowledge and create innovative solutions for the changing needs of veterinary practice and foster the development of scientific talent through the provision of highly trained and motivated personnel to underpin South Australia and Australia's animal-based industries and research and development capability.
6. Provide a focus for and cohesion in the animal health and welfare industry in South Australia through partnerships with prominent industries and bodies in this state.
7. Support the development of specific important industries, aquaculture, equine, and extensive livestock production, especially in rural and regional South Australia.
8. Support veterinarians throughout South Australia through an advanced digital video network allowing university specialists to provide 'remote' consultations, guide procedural interventions and deliver distance learning.

### **3.3 Revenue Earning Capacity of Proposed Project**

No revenue opportunities have been identified for this project.

### **3.4 Whole Life Costs of the Project**

The cost of Stage 3, new Teaching Laboratory Building of approximately 2260m<sup>2</sup> plus associated car parking, loading areas and linkways, for the Veterinary Science Project is budgeted to be \$16,635,000 (exclusive of GST). The allocated budget is inclusive of:

- Building Works Costs
- Furniture and Equipment
- Contingency provision
- Escalation
- AV Equipment
- Sewer Allowance
- Fees
- University Costs

### 3.4 Whole Life Costs of the Project

The current cost indication for the project (excluding GST) prepared by Rider Levett Bucknall for the project at completion, based on the concept drawings prepared by Hames Sharley and Suturs in association and team is:

ITEM	COST
Building Works	8,540,000
Furniture & Equipment	659,200
Contingency Provision	1,431,626
Escalation	1,415,592
AV equipment	1,000,000
Sewer Allowance	900,000
Fees	1,283,199
University Costs	1,405,667
<b>TOTAL</b>	<b>16,635,284</b>

The project costs have been calculated after allowing for design and construction contingencies together with escalation rates that take account of the strong construction market in Adelaide at the present time (refer below).

Contingencies and escalation	
Item	Allowance
Stage 3 Escalation on Construction items up to commencement of construction	759,771
Escalation through construction period (13 months)	655,821
Design Contingency 7.5%	689,940
Construction Contingency 7.5%	741,686
<b>Allowances for escalation and contingencies</b>	<b>2,847,218</b>

The total cash investment required from the state government is \$5 million, with the impact on the state budget being \$5 million in June 2008. This investment represents 30% of the Stage 3 project cost. All facilities will be owned by the University.

The University will be responsible for delivering the project and will underwrite the costs in excess of the \$20 million received from the state (\$5 million) and Commonwealth governments (\$15 million).

The current approved funding allocation by the University is \$12 million (total project cost \$32 million). While the costs may increase as the project moves from schematic design through to design development, any cost increases will be the responsibility of the University.

### 3.5 Estimated Net Effect of the Work, and Its Use, on Public Funds

The funding from the state government will be used solely for Stage 3.

Stage 1 has been funded and Stage 2 will be funded by the University. The principal consultants and related fees for and disbursements for Stage 3 until 30 June 2008 will be funded by The University. The state government funds will be allocated to the building works required for Stage 3 during the year ended 30 June 2009.

### 3.5 **Estimated Net Effect of the Work, and Its Use, on Public Funds (cont.)**

The funding sources for Stage 3 are detailed in the following table:

	<b>Total</b>	<b><u>Year ended</u></b> <b><u>30/6/2008</u></b>	<b><u>Year ended</u></b> <b><u>30/6/2009</u></b>	<b><u>Year ended</u></b> <b><u>30/6/2010</u></b>
Cost Stage 3	\$16.635m	\$635k	\$5m	\$11m
<b><u>Funded by:</u></b>				
University of Adelaide		\$635k		
State Government			\$5m	
Commonwealth Government				\$11m

### 3.6 **Project Delivery**

Tenders for the role of Principal Consultant for the new School of Veterinary Science closed on 7<sup>th</sup> December 2007. Tenders were sought from five selected practices. Three complying tenders were received.

A 'two envelope' tendering process was adopted, and the tenders were assessed by an evaluation panel and a cost assessor. The evaluation panel sought various clarifications from each of the tenderers, and subsequently Hames Sharley/Suters were selected as the successful Principal Consultant Team.

The Principal Consultant was engaged for Phases 1 -4 indicated below.

Phase 1: Data Collection & Analysis

Phase 2: Project Definition & Scope

Phase 3: Schematic Design, Procurement Program & Cost Plan

Phase 4: Design Development, Procurement Plan & Planning Approvals

The Principal Consultant's team is made up as follows:

Architects – Hames Sharley (Adelaide) and Suters (Victoria), in association.

Facility Planner – Alison Tidbury Consulting

Cost Planners – Rider Levett Bucknall

Civil & Structural Engineers – Wallbridge & Gilbert

Services Engineers – Bestec

Landscape Architect – Oxigen

Campus Planner - Ken Fisher

BCA/DDA Advisor – Katnich Dodd

After completion of Phase 2: Project Definition & Scope, Rider Levett Bucknall were independently engaged by the University of Adelaide as project Cost Planners.

### 3.6 Project Delivery (cont.)

The key project dates are:

#### Refurbishment of Williams building Labs and Eastick building Offices – STAGE 2

Milestone Date	Project Milestones
November 2008	Tender for Construction
December 2008	Engage Subcontractors - Construction
February 2009	Completion of Construction
March 2009	Project completion, handover of facilities and occupancy of refurbished spaces

#### Construction of new Teaching Labs – STAGE 3

Milestone Date	Project Milestones
November 2008	Tender for Construction
December 2008	Engage Subcontractors - Construction
February 2010	Completion of Construction
March 2010	Project completion, handover of facilities and occupancy of new building

#### Construction of new Clinical Building – STAGE 4

Milestone Date	Project Milestones
September 2009	Tender for Construction
November 2009	Engage Subcontractors - Construction
February 2011	Completion of Construction
March 2011	Project completion, handover of facilities and occupancy of new building

The project is currently 75% through Phase 3 for Stage 3.

The procurement method preferred by the University for specialised research buildings of this type is via a traditional full documentation and a lump sum construction contract.

The Principal Consultant is required, under their agreement, to prepare comprehensive detailed drawings and specifications suitable for a competitive tendering process.

Building Tenderers are selected on a merit and capability basis, with significant emphasis placed on previous experience in technical building projects, of a similar size and complexity to the type envisaged. A maximum of six contractors will be invited to tender.

The University will utilise an amended AS4000 contract as the basis for agreement. This document will be prepared in close collaboration with the University's legal advisors.

The University of Adelaide has directly engaged Rider Levett Bucknall for Phase 3 and Phase 4 under an AS4122 contract to carry out an independent verification of the cost estimates provided by the Principal Consultant's team.

The Veterinary Sciences project is being managed by the University's Property Services division under a project governance framework agreed to by the Deputy Vice-Chancellor & Vice-President (Academic). A Project Manager has been appointed from Property Services with experience in major project design and procurement.

A Program Manager has also been appointed by the University to assist in the development of a comprehensive Business Plan, and co-ordinate the funding, legal and prudential requirements necessary for a project of this nature.

### **3.6 Project Delivery (cont.)**

The delivery of the project has and will follow best practice management processes including:

- Appointment of a Steering Committee as a body to oversee the progress of the project. This Committee meets monthly.
- Establishment of a Project Control Group. This group has met on a weekly basis during the first three phases of the preliminary design process. It includes the University's Project Manager, State Government Representative, User Group representatives, and members of the Principal Consultant's team. Regular PCG meetings will continue throughout the design development, documentation, and construction phases of the project. These meetings have been concurrent with Consultant Design Meetings which focus on budgetary control, time management and functional suitability.
- Establishment of a Program Reference Committee. The PRC is a continuation of the Veterinary Science Project Committee (VSPC) which met fortnightly through 2007, and includes representatives from Property, Finance, Prudential Services, Roseworthy Campus, Faculty and Health Science. The Program Manager would co-ordinate the funding, legal and prudential requirements necessary for a project of this nature, assist in stakeholder management, and develop the business plans which will be necessary with the partnership model envisaged. The Program Manager can also assist in the financial control of the project by ensuring that all project costs and risks are recognised and acquitted in a manner which is appropriate for a major project of this type.

A two-day 'Workshop' was held on 29/30 January 2008. The workshop was successful in consolidating the thoughts of the key stakeholders, and providing a sense of 'inclusion' in this preliminary phase of the project design.

A continuing Risk Analysis process is being undertaken by the Program Manager. Project risks have and will be identified and managed in a methodical and professional manner.

A Value Management process has been undertaken on a day-to-day basis throughout the project to date, with each design decision being examined on the basis of cost benefit. Formal Value Management meetings will be included in the design development and detailed documentation phases of the project.

The University of Adelaide's Property Services division is responsible for the ongoing management of the University's property portfolio, and the provision of asset and facilities management and support services.

These services will apply to the Veterinary Sciences project and will include:

- Maintenance of the built asset and infrastructure
- Energy and environmental management
- Facilities records management
- OHS&W management
- Security and emergency management services
- Cleaning, caretaking and waste management
- Car parking management

The University of Adelaide and its Consultants have adopted a risk management process for the Veterinary Sciences project. Risks are identified and reviewed regularly throughout the life of the project. Mitigation strategies are developed to minimise the identified risks.

### 3.6 *Project Delivery (cont.)*

<b>Risk</b>	<b>Risk Mitigation</b>
Brief development – user group consultation, review and verification process	School employing highly qualified staff providing feedback, Engaged overseas expert, workshops to provide feedback
Construction costs greater than budget	Realistic allowances are made for design and construction contingencies, An independent quantity surveyor has been engaged directly by the University directly, to verify consultant cost estimates, Formal value-management sessions will be held on a regular basis during design and documentation.
Latent sub-soil conditions	Geotechnical borehole testing has been carried out, Environmental soil assessment testing has been carried out.
Local Authority approvals	A consultant Urban Planner has been appointed to assist in the development approval process, Regular meetings are held with Council planning staff to keep them informed of the project.
Scope creep	A detailed brief formulation and design process has been undertaken, All relevant stakeholders will be kept informed during the design and detailed documentation phases, There is a formal sign-off process in place at each design and documentation milestone.
Cost escalation	Escalation factors are built into cost plans, Potential escalation factors are monitored and will be incorporated into all pre-tender documentation
Tender market	Close attention will be paid to the market to monitor trends and optimise timing of tender, Realistic design contingency and construction contingency allowances are included in cost plan.
Program slippage	The project procurement plan is based on experience in the delivery of previous UA research facilities of a similar nature, The program is monitored and updated at each project control meeting. A specialised Construction Programming consultant is independently reviewing the Principle Consultant's programme.

### 3.7 *The Efficiency and Progress of the Project and Justification of Any Expenditure Beyond Estimated Costs*

The Committee will monitor the progress of the project as required by the Parliamentary Committees Act through the regular reports the proposing agency is required to provide prior to the completion of construction (refer to "Further Reporting to the Committee"). The Committee will provide a further statement to Parliament in the event that subsequent information provided renders this Report inaccurate or misleading.

## **PART FOUR: CONCLUSION & RECOMMENDATION**

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The Public Works Committee has examined written and oral evidence in relation to the proposal to establish a school of veterinary sciences at Roseworthy Campus. It has also been assured by the Department for Further Education, Employment, Science and Technology that acquittals have been received from the Departments of Treasury and Finance, Premier and Cabinet and the Crown Solicitor that the works and procedures are lawful. The Committee is satisfied that the proposal has been subject to the appropriate agency and community consultation and meets the criteria for examination of projects as set out in the Parliamentary Committees Act 1991.

Historically, South Australia and the Northern Territory have been supplied with veterinary practitioners from schools located elsewhere in Australia and overseas. South Australia has over 7% of Australia's tertiary students, yet fewer than 3.5% of veterinary students received their secondary education here. This has resulted in high demand for entry into interstate veterinary programs, yet has not satisfactorily addressed demand among potential veterinary students.

The lack of a veterinary school and training centre for research into animal health has also meant that there is minimal veterinary cohesion in the diverse animal health industry in the state.

A University of Adelaide veterinary program has the potential to provide substantial benefits to research, industry, and education in South Australia.

The total project budget is greater than \$32 million ex GST and the project comprises four stages:

- refurbishment of existing office accommodation within the Callaghan Building to provide seminar space
- refurbishment of 2 x 154m<sup>2</sup> laboratories within the Williams Building and minor interior fitout works within the Eastick Building to modify existing spaces into academic offices
- new teaching laboratories building of approximately 2260m<sup>2</sup> plus associated car parking, loading areas and linkways
- new clinical building of approximately 2300m<sup>2</sup> plus associated animal holding, car parking, loading areas and linkways.

The government proposes to provide \$5 million towards Stage 3 of the establishment of a new School of Veterinary Sciences at Roseworthy, subject to conditions precedent:

- The University of Adelaide executing a Funding Agreement with the Commonwealth Government for a contribution of \$15 million, and
- The University of Adelaide executing a Funding Agreement with the state government, and
- The University Council approving at least \$12 million in funding towards the project.

The University of Adelaide intends to refurbish existing laboratories and office accommodation and build a new purpose built teaching laboratory and clinical facility on land owned by the University at the Roseworthy Campus. The building will be owned and operated by the University in close collaboration with the contributing partners.

The project must meet the following objectives:

- Provide a world leading, innovative and functional design solution that builds upon the University's reputation in the areas of animal health, biomedical and animal sciences
- Provide an efficient and flexible design solution including all required functions of the School of Veterinary Science
- Consider refurbishment of existing facilities and the location of any new facilities to support the development of a 'teaching and Veterinary Science precinct' on the Roseworthy Campus
- Meet the Australasian Veterinary Boards Council (AVBC) accreditation requirements and the objective of the University's policies on spatial allocations
- Explore and employ a holistic approach to Environmentally Sustainable Design (ESD)
- Provide appropriate urban design with regard for the rural nature of the Roseworthy Campus



#### **4. Conclusion and Recommendation (cont.)**

The site measures approximately 190m x 160m x 240m containing an area of approximately 17,000m<sup>2</sup> and is adequate to contain the 12,750m<sup>2</sup> of new building and associated support spaces.

The siting for both the proposed teaching laboratory and clinical buildings provides the new developments with connections to the existing Williams, Callaghan and Eastick buildings. This will allow centralisation of the student teaching facilities and a hub for common areas and circulation spaces.

A continuous link will be created to student hub areas and other teaching spaces across campus. The development of physical and visual links between the facility and the existing campus will encourage integration and understanding between students and staff within the school.

An important aspect of the planning has been the separation of private and public spaces. The sensitive nature of the loading and preparation areas needs it to be conducted in isolation and completely screened from public and student view and access. This is to be achieved with separate circulation zones, one to allow student movement in and around the existing facilities with connections into the new laboratories and the other for staff and the movement of specimens.

Infill courtyards and high level windows will provide spaces that are to have no visual link from passing students with light and views to the surrounding natural environment and provide privacy to spaces with no public view.

Passive design principles have been incorporated to reduce reliance on energy, including the indirect natural lighting of spaces via highlight windows; ventilation via windows and sufficient roof overhangs, wall/window shading devices, appropriate wall/roof insulation and low emission material selections.

The facility will incorporate two major water efficiency and re-use features — rainwater collection and storage, and irrigation waste water collection, treatment and storage. The existing campus alternative water source shall be utilised for use for irrigation and toilet flushing.

Stormwater interceptor will collect visitor car park runoff and separate oils and solid material before entering the existing stormwater system. Settling pits collect all internal waste water for the maintenance of correct pH levels before entering the sewer system.

The Roseworthy Campus has for many years recycled and used storm water and treated effluent water on sports fields within the campus. The University is currently in discussion with Light Regional Council investigating the possibility of developing a joint Waste Water recycling plant linking Roseworthy Township and Roseworthy Campus. This initiative has the potential to minimize duplicated services, increase available recycled water opportunities on Roseworthy campus, including the provision of recycled water into research projects, expanding the use of treated water on campus and minimising the reliance on SA Water infrastructure.

The preservation of tissues for anatomy teaching uses a modified formalin product called Genolyn Anatomic Series patented by a local company. This product does not have the fume generation issues that occur with regular formalin embalming and thus eliminates the odour and OH&S issues. The anatomy area will have excellent air exchange in the teaching labs as well as in the rooms used for specimen preparation to minimise any odour accumulation.

Biomedical waste will be bagged, autoclaved where this is necessary (e.g. for infectious material) and collected by commercial contractors. Whole animal disposal will occur from refrigerated holding rooms on a twice weekly basis depending on accumulation rate (which will vary during various teaching periods). The bins holding this material will be collected by a commercial contractor (see below) for removal to a remote site for incineration in a licensed facility.

#### **4. Conclusion and Recommendation (cont.)**

The University intends the new school to be a world leader in the education and training of omni-competent veterinary graduates, with particular emphasis on biosecurity, aquaculture, equine and production animals. Livestock in rural production systems will be a strong focus. The internationally recognised graduate knowledge and skills will be integrated into industry and community through co-operative partnerships in teaching, training and research.

The University also intends to build upon its tradition of innovation through high-impact research and excellent teaching across a broad range of disciplines and professions. It is to be a growing, internationally focused and financially sustainable institution, enterprising in its approach to new opportunities as they arise but clear and consistent in its essential directions.

The Committee is told that the introduction of a program in veterinary sciences provides an exceptional opportunity to increase the degree to which the University works with and assists the community in which it is located. State and regional benefits are:

- The introduction of a veterinary program will support a number of strategic initiatives outlined in the South Australian Strategic Plan. These include reducing interstate migration, improving university participation rates, increasing overseas student numbers and improving investment in science, research and innovation.
- The Institute of Medical and Veterinary Science (IMVS), which was established as a precursor to a veterinary school in South Australia, will achieve its full realisation.
- Current demographic and gender statistics show a decreasing number of veterinarians working in rural and remote areas which is exacerbated by the feminisation of the veterinary workforce. This is an issue of significant concern. While a new veterinary program will not directly resolve this situation, the proposed distributed model, and a focus on production animals in the curricula, may work to counter the trend.
- With no veterinary program in South Australia to focus and facilitate ongoing education and training practises, the professional education of veterinarians is limited and costly (necessitating interstate travel). Having a veterinary program embedded in the animal health industry of South Australia will address the ongoing local professional education requirements of the industry.
- South Australia has a number of animal industries that are not fully supported by existing veterinary graduates. It is proposed that the University of Adelaide's program will focus on areas such as aquaculture, biosecurity, production animals and equine health, and will thus specifically support South Australia's veterinary industry requirements.

It is also expected that with the introduction of veterinary science, 'feeder' programs like the BSc(AnSci) will increase student demand and quality. This will assist the University and the Faculty of Sciences in meeting load targets in both Commonwealth Supported Places (CSP), and Australian and international fee-paying places.

A postgraduate veterinary program will also allow modules to be mixed and matched with other Masters programs such as the Masters in Animal Biotechnology. This is an efficient way to increase the range of programs available to meet both student and employer demands. Industry sponsored short courses and professional education courses can also be developed using the expertise and facilities required for the veterinary program.

The introduction of a program in veterinary sciences provides an exceptional opportunity to increase the degree to which the University works with and assists the community. Once established, there will be an extra 400 students including 100 international students, and 50 to 60 new staff on the Roseworthy Campus. Many staff and their families, and students will reside in the Gawler area.

The Veterinary School will also provide further opportunities for collaborative research and co-location with animal-related industries (e.g., diagnostics).

#### **4. Conclusion and Recommendation (cont.)**

Roseworthy will further develop as an important animal health precinct with an enhanced national and international reputation and positive impact on the animal-based industries in the state through the provision of local research and development capabilities, and training of highly qualified and motivated personnel.

The project will result in a number of employment opportunities during and post construction.

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- Post construction, the establishment of School will provide 50 to 60 ongoing employment opportunities (academic, professional, technical and support staff).

There will be a positive flow-on effect to local business from the expanded population of staff, researchers and students, and for increased needs for services and consumables. Local veterinary practices will be engaged in a variety of ways, including direct investment. There will also be opportunities to share expensive facilities and equipment: for local veterinarians to participate in the teaching of the program as affiliates; for students to do volunteer work in practices as part of their extra mural activities; and for students to complete their internships with local veterinarians.

The objectives of the new school are to:

- Provide veterinary education and training of the highest standing to undergraduate and postgraduate students with an emphasis on service to local, national and international communities and a commitment to lifelong learning.
- Provide a supportive and collaborative environment for inter-disciplinary student training and scholarship with enriched learning opportunities and experience through collaborative teaching under the partnership model.
- Establish a major centre for research in animal health and welfare, supporting major industries in South Australia.
- Promote the dual goal of scientific excellence and relevance embedded in a tradition of engagement with local, national and international industries by dissemination and application of knowledge to address state, national and global challenges.
- Generate new knowledge and create innovative solutions for the changing needs of veterinary practice and foster the development of scientific talent through the provision of highly trained and motivated personnel to underpin South Australia and Australia's animal-based industries and research and development capability.
- Provide a focus for and cohesion in the animal health and welfare industry in South Australia through partnerships with prominent industries and bodies in this state.
- Support the development of specific important industries, aquaculture, equine, and extensive livestock production, especially in rural and regional South Australia.
- Support veterinarians throughout South Australia through an advanced digital video network allowing university specialists to provide 'remote' consultations, guide procedural interventions and deliver distance learning.

Given the above and pursuant to Section 12C of the Parliamentary Committees Act, 1991, the Public Works Committee reports to Parliament that it recommends the proposed public work.

**Vini Ciccarello MP**  
**PRESIDING MEMBER**  
**Public Works Committee**

**2008**

## **PART FIVE : ATTACHMENTS**

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### **5.1 List of Witnesses and Submissions**

#### **Witnesses**

The following persons appeared before the Committee on Wednesday, 4 June 2008 at Old Parliament House, North Terrace, Adelaide:

Ms Gail Anderson - Head of School, School of Veterinary Science, The University of Adelaide;

Mr Iain Reid - School of Chemistry and Physics, The University of Adelaide;

Mr Simon Fenwick - Senior Project Officer, Property Services, The University of Adelaide;

Mr Carlo Gnezda - Principal of Architecture, Hames Sharley;

Mr Mark Morelli – Partner, PKF;

Mr Richard Symonds – Director, Higher Education, Department of Further Education, Employment, Science and Technology;

Ms Heidi Greaves - Senior Policy Officer, Higher Education Directorate, Department of Further Education, Employment, Science & Technology.

#### **Submissions**

Department of Further Education, Employment, Science and Technology, Veterinary Science Project, May 2008.

