MAJOR PROJECT ASSESSMENT: Hunter Medical Research Institute Project

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

March 2010

Cover photo: Artists impression of view from Kookaburra Circuit

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EXECUTIVE SUMMARY

The Hunter Medical Research Institute proposes to develop a new research facility within the grounds of the John Hunter and Newcastle Private Hospital, at New Lambton Heights, in the Newcastle Local Government Area.

The hospital grounds are surrounded by bushland on three sides, with three residential areas approximately 500m to the north, east and west of the site. The project site is a predominantly bushland area adjacent to the John Hunter Hospital, and contains a small building and car park.

The proposal involves the demolition of the existing building and car park and the development of a 4 storey research facility with 3 tiered at grade car parking. The project has a capital investment value of $84.6 million and would provide 450 jobs once operational.

The proposal constitutes a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and consequently the Minister is the approval authority for the project.

During the public exhibition of the project the Department received 10 submissions on the project, 7 of which were from public authorities and 3 from the general public (including 2 objections). Key issues raised in submissions from the public authorities were the potential impacts on the threatened species (particularly *Tetratheca juncea*), the suitability of the design and bushfire risks. The 2 objections from residents related to the parking and traffic issues.

The Department has assessed the merits of the project. This assessment found the key issues from the project related to flora and fauna (particularly the potential impacts on *Tetratheca juncea*), transport, parking and design. These issues have been assessed in detail and the Department is satisfied they can be adequately mitigated and managed through the recommended conditions of approval.

The assessment also found the project would have social and economic benefits for the region, and would assist with the delivery of the State Plan, as it would:

- support the continued operation of the third largest medical research institute in NSW;
- provide world class research facilities and opportunities for collaboration and support for the John Hunter Hospital;
- provide 450 jobs once operational; and
- represent a capital investment of $84.6 million.

Consequently, the Department considers the project is in the public interest and should be approved, subject to conditions.

1. PROPOSED PROJECT

1.1 Project Description

The Hunter Medical Research Institute (HMRI) is a partnership between Hunter New England Area Health and the University of Newcastle. HMRI undertake research on a range of diseases and illnesses and the facility would support research programs for:

- pregnancy and reproduction;
- viruses, immunity, vaccines and asthma;
- molecular genetics and bioinformatics; and
- public health programs.

HMRI is seeking to consolidate its health and medical research facilities onto three sites in the region. The project involves construction and operation of a research facility on one of these sites, adjacent to the John Hunter Hospital. The John Hunter and Newcastle Private Hospitals are located on 33 hectares of land at New Lambton Heights in the Newcastle Local Government Area (see Figure 1).

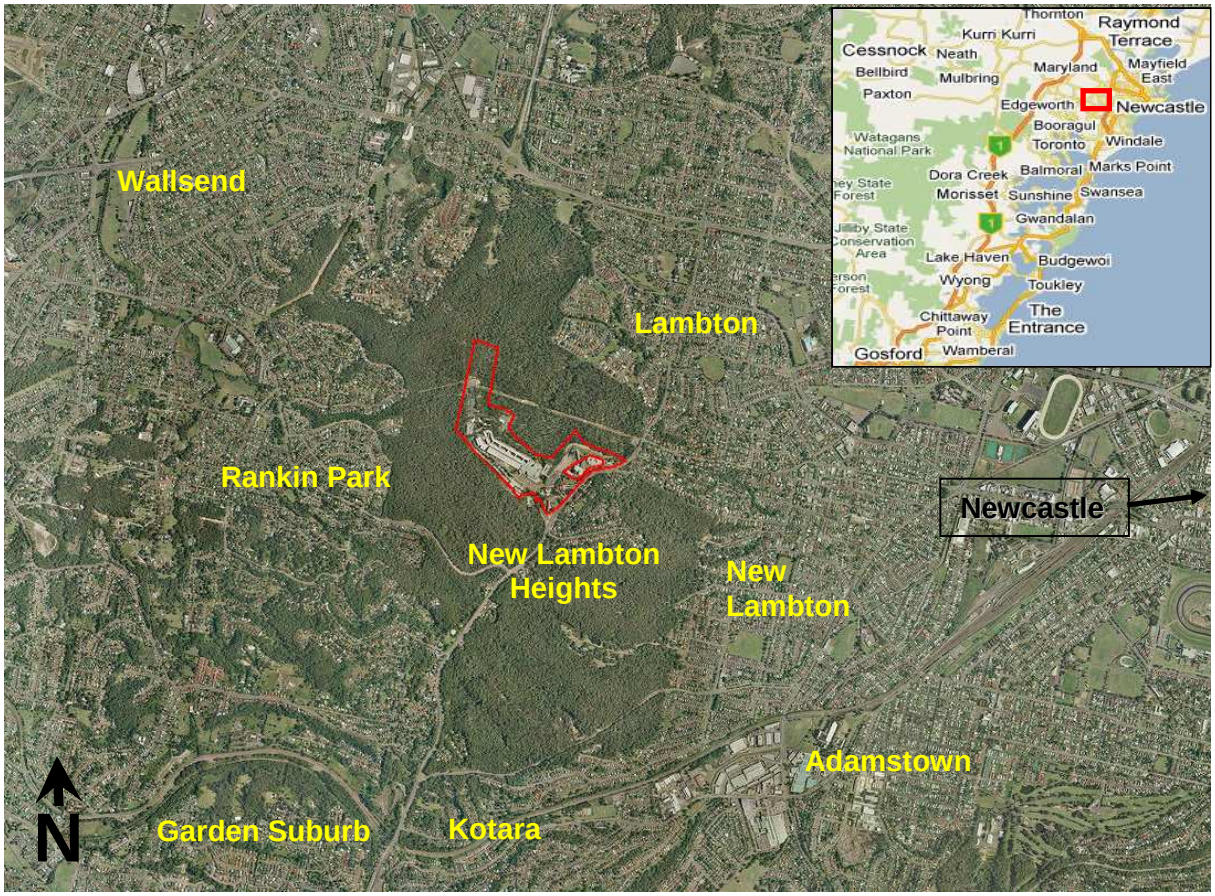

Figure 1 – Regional Context (John Hunter and Newcastle Private Hospital Grounds outlined in red)

The proposal would involve demolition of an existing building and car park (see Figure 2) and the development of a new research facility and car park, within the hospital grounds.

Figure 2 – Hospital grounds, with approximate location of HMRI's proposed research facility, adjacent to John Hunter Hospital

The major components of the project are summarised in Table 1, and depicted in Figure 3 and Figure 4. The project is described in full in HMRI's Environmental Assessment (EA), which is attached as Appendix E.

Table 1 – Major components of the project

Aspect	Description
Project Summary	To demolish the existing structures and parking onsite and to develop a 4 storey research facility (composed of 2 wings and an elevated 2 storey entry pod); a three tiered at grade car park; and associated works.
Research Facility	A 4 storey research facility, consisting of an eastern and western wing and an elevated entry pod, with a gross floor area of 15,962m^2.
	Level 1 would accommodate service and support space for the laboratories.
	Level 2 would accommodate various laboratory and office spaces.
	Level 3 would accommodate various laboratory and office spaces; and would also connect to the lower level of the Entry Pod, with space for the clinical trials unit.
	Level 4 would contain the main access and reception, through the Entry Pod Building and 'skywalk' access. The eastern wing would contain staff facilities and lecture theatres. The western wing would provide further laboratory space.
Parking	422 car parking spaces
Operating Hours	24 hours a day. Although most activities would occur from 8.30 am to 5 pm, some research would require the facility to operate on weekends and overnight.
CIV	$84.6 million
Employment	450 once operational

Figure 3 – Site Plan

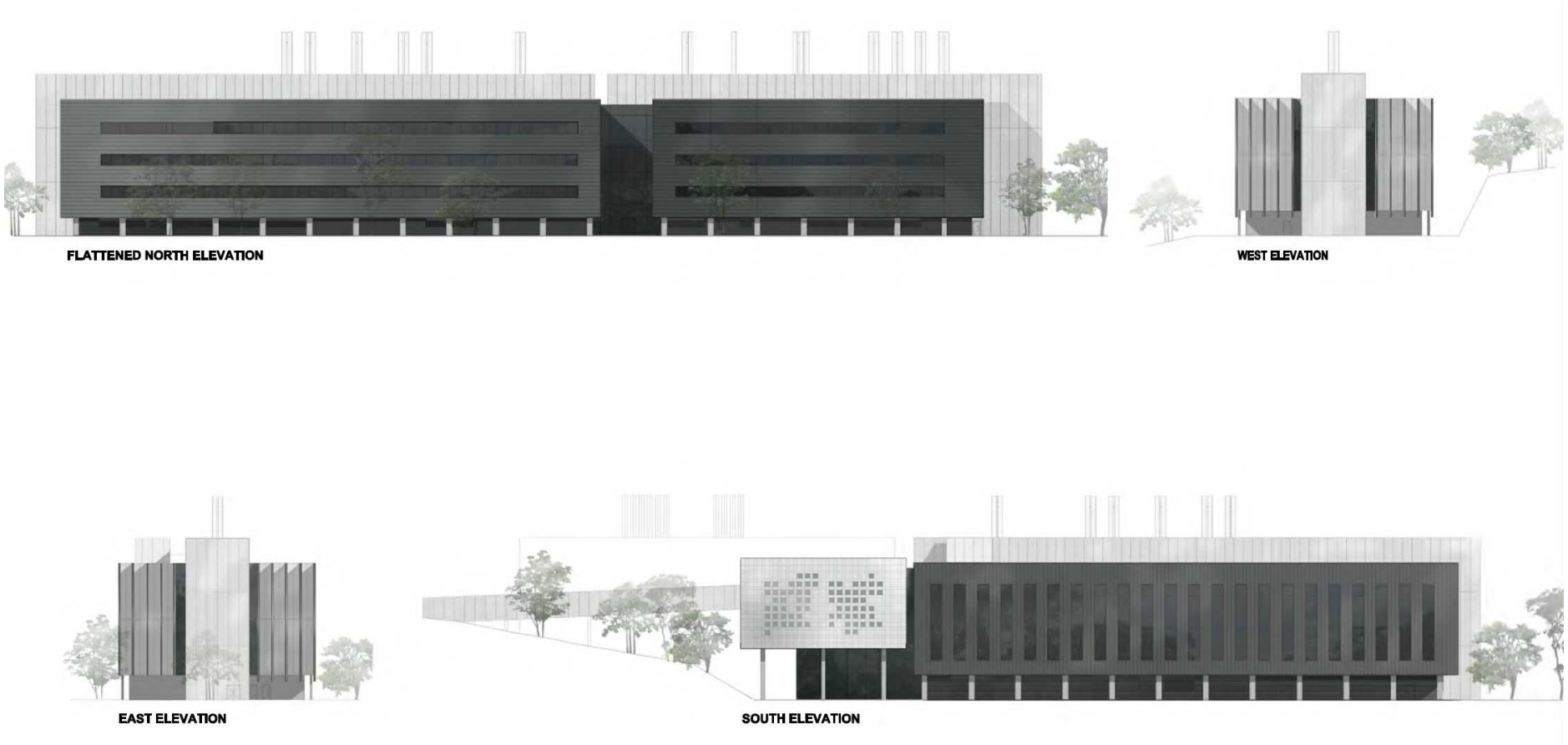

Figure 4 – Building Elevations

1.2 Project Setting

The site is within the existing John Hunter and Newcastle Private Hospital grounds. The hospital grounds are surrounded by the Jesmond Bushland Reserve on three sides and are adjacent to the New Lambton Heights residential area on the opposite side of Lookout Road. In addition, both the residential suburbs of Lambton to the north and Elemore Vale to the West, are approximately 500m from the site, beyond the Jesmond Bushland Reserve. The nearest sensitive receivers are the adjacent John Hunter Hospital Building and short term accommodation facilities for patients' families (the Kookaburra Cottages).

Access to the site is from Kookaburra Drive which runs through the hospital grounds, from the signalised intersection of Lookout Road.

The site is comprised of bushland surrounding a small medical officers' amenities building, a tennis court and a bitumen car park. These existing facilities would be demolished, as the building would be constructed over this area.

Development of the site is constrained by the site's topography, with a ridge running through the centre of the site, and gullies to the east, north and west. The building would be built along the ridge, running through the site, while a tiered car park is proposed to run down the eastern slope. Earthworks, regrading and shaping of the car parking area would be required to stabilise the slope.

Department representatives visited the site on 29 July 2009.

1.3 Project Need

HMRI is the third largest medical research institute in NSW. The project would allow HMRI to consolidate some of its operations onto a single site with state of the art research facilities, adjacent to an existing hospital. The proximity to the hospital would provide opportunities for collaboration, to achieve better research and medical care. This combination of modern, purpose built facilities in close proximity to the existing hospital services may also help attract leading researchers to the Institute.

The Lower Hunter Regional Strategy recognises the John Hunter Regional Hospital Precinct as a specialised centre that performs vital economic and employment roles in the region. The project is consistent with this role as it would maintain and enhance the specialist capabilities of the precinct and expand the economic, investment and employment capacity of the area.

The Project is also consistent with a number of priorities in the State Plan, including:

- increase business investment and support jobs;
- increase access to knowledge and skills in partnership with Universities; and
- increase the number of jobs closer to home.

In summary, the project would expand the capabilities of the existing medical precinct; it would provide 450 jobs once operational and represents a capital investment of at least $84.6 million to the region.

2. STATUTORY CONTEXT

2.1 Major Project

The proposal is classified as a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), because it is development for the purpose of medical research, with a capital investment value of more than $15 million, that would employ over 100 people, and therefore triggers the criteria in Clause 19 of Schedule 1 of *State Environmental Planning Policy (Major Development) 2005*.

Consequently, the Minister for Planning is the approval authority for the project.

2.2 Permissibility

The site is zoned 5(a) Special Uses Zone under the *Newcastle Local Environmental Plan 2003* and the project is permissible with development consent in this zone.

2.3 Exhibition and Notification

Under Section 75(3) of the EP&A Act, the Director-General is required to make the Environmental Assessment (EA) of a project publicly available for at least 30 days.

After accepting the EA for the project, the Department:

- made it publicly available from 12 October 2009 until 10 November 2009:
  - on the Department's website, and
  - at the Department's Information Centre, and Newcastle City Council Offices;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Newcastle City Council by letter; and
- advertised the exhibition in the Newcastle Herald.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

During the assessment process the Department also made a number of documents available for download on the Department's website. These documents included the:

- project application;
- Director-General's environmental assessment requirements;
- EA; and
- Proponent's responses to issues raised in submissions.

2.4 Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General's report is to include a copy of or reference to the provisions of any:

- *State Environmental Planning Policy* (SEPP) that substantially govern the carrying out of the project; and
- environmental planning instrument that would (but for Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project.

The Department has considered the project against the relevant provisions of several environmental planning instruments (including *State Environmental Planning Policy (Major Development) 2005; State Environmental Planning Policy No 44 – Koala Habitat Protection; State Environmental Planning Policy No 33 – Hazardous and Offensive Development*; *State Environmental Planning Policy No 55 – Remediation of Land; State Environmental Planning Policy (Infrastructure) 2007*; and the *Newcastle Local Environmental Plan 2003*).

The Department is satisfied that, subject to the implementation of the recommended conditions of approval, the proposal is generally consistent with the aims and objectives of these instruments (see Appendix B).

2.5 Objects of the Environmental Planning and Assessment Act 1979

The Minister's consideration and determination of the application must be consistent with the relevant provisions of the EP&A Act, including the objects set out in section 5 of the Act. The objects of most relevance to the Minister's decision on whether or not to approve the proposed project are found in section 5(a)(i), (ii), (iv), (vi) and (vii). They are:

The objects of this Act are:

(a) to encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,

(ii) the promotion and co-ordination of the orderly and economic use and development of land,

(iii) the protection, provision and co-ordination of communication and utility services,

(iv) the provision of land for public purposes,

(v) the provision and co-ordination of community services and facilities, and

(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and

(vii) ecologically sustainable development, and

(viii) the provision and maintenance of affordable housing, and

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and

(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

The Department has considered the Objects of the EP&A Act and considers that the application is consistent with the relevant objects. The assessment of the application in relation to these relevant objects is provided in Section 4.

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the Protection of the Environment Administration Act 1991. Section 6(2) of that Act states that ESD "requires the effective integration of economic and environmental considerations in decision-making processes" and that ESD "can be achieved through" the implementation of the principles and programs including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, public decisions should be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.

The Department has fully considered the objects of the EP&A Act, including the encouragement of ESD, in its assessment of the application. ESD issues have been considered in detail in section 4.7. On the basis of this assessment, the Department is satisfied that the proposal encourages ESD, in accordance with the Objects of the EP&A Act.

2.6 Section 75I(2) of the EP&A Act

Section 75I(2) of the EP&A Act and clause 8B of the Environmental Planning and Assessment Regulation 2000 provides that the Director General's report is to address a number of requirements in the Director General's Report. These matters and the Department's response are set out as follows:

Table 2 - Section 75I(2) requirements for Director General's Report

Section 75I(2) criteria	***Response***
Copy of the proponent's environmental assessment and any preferred project report	The proponent's EA is located on the assessment file (attached at Appendix E).
Any advice provided by public authorities on the	All advice provided by public authorities on the

project	project for the Minister's consideration is set out in Section 3 of this report (and attached in Appendix D.
Copy of any report of the Planning Assessment Commission in respect of the project	The project was not referred to the Planning Assessment Commission.
Copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project	Each relevant SEPP that substantially governs the carrying out of the project is identified in Section 2.4 and considered in Appendix B.
Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division	An assessment of the development relative to the prevailing environmental planning instrument is provided in Appendix B of this report.
Any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.	The environmental assessment of the project application is this report in its entirety.
A statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.	The Department is satisfied that the environmental assessment requirements have been complied with.
Clause 8B criteria	***Response***
An assessment of the environmental impact of the project	An assessment of the environmental impact of the proposal is discussed in Section 4 of this report.
Any aspect of the public interest that the Director General considers relevant to the project	The public interest is discussed in Section 4 of this report.
The suitability of the site for the project	The proposed uses are permitted in the zone and based on the Department's assessment of key issues, it is considered the site is suitable for the project.
Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in the submissions is provided in Section 3 of this report.

3. ISSUES RAISED IN SUBMISSIONS

In response to the exhibition and notification, the Department received a total of 10 submissions on the project:

- 7 from public authorities (The Department of Environment, Climate Change and Water (DECCW), Newcastle City Council (Council), NSW Rural Fire Service (RFS), NSW Transport and Infrastructure, the Roads and Traffic Authority (RTA), the Office of Water (a part of DECCW) and the Mine Subsidence Board); and
- 3 submissions from the general public (including 2 objections).

A summary of the issues raised in submission is provided below. A full copy of these submissions is attached in Appendix D.

3.1 Public Authorities

DECCW raised concerns about the proposed measures to mitigate the project's impacts on flora and fauna. In particular, DECCW raised concerns about the proposed translocation of the Black-eyed Susan *Tetratheca juncea* (*T. juncea*), citing a study which found there is a low survival rate for translocation of this species, as the plant is dependent on a number of mycorrhizal fungi (found in the soil around the plant's root zone). DECCW recommended that the flora and fauna impacts should be offset, through a biodiversity offset or biobanking scheme.

Council raised a number of issues, as outlined below:

- Threatened species: Council requested further details of the proposed translocation program for the *T. juncea* and raised concerns about adequacy of the proposed translocation program in light of the low survival rate reported. Council also raised concerns about the loss of habitat, given a number of threatened species were identified onsite.
- Urban design and visual impacts: Council referred to the minutes of the Urban Design Consultative Group which raised concerns about the visual impacts on the building and car park. In particular the Urban Design Consultative Group raised concerns about the large footprint of the parking area, recommending a more compact multi deck parking structure. The group also recommended: the roof should be treated as some of the existing hospital buildings would have direct views of the roof and the pedestrian access should be more distinctive and defined.
- Bushfire: Council requested clarification of the extent of the Asset Protection Zone around the facility. Council also noted the site is on bushfire prone land and could become isolated in the event of a bushfire, as it only has 1 access road. Council recommended preparation of a comprehensive bushfire management and emergency evacuation plans would be needed.
- Traffic and Parking: Council requested clarification of some of the traffic modelling, noted the parking areas would need to include turning lanes to comply with Australian Standards and recommended extension of the shuttle bus service.
- Council also recommended construction noise and vibration should be assessed, and requested a Concept Stormwater Management Plan, as the site would drain to a flood prone catchment.

The NSW Rural Fire Service recommended conditions relating to: the management of asset protection zones and landscaping; the design of building, roads and fire trails; and the development of an emergency evacuation plan.

NSW Transport and Infrastructure support the proposed encouragement of public transport use and recommended the provision of a travel access guide and workplace travel plan, facilities for cyclists and improved pedestrian connectivity.

The RTA did not raise any issues and referred to the comments of the Hunter Regional Development Committee. These comments recommend that: use of non-car travel modes should be encouraged due to the high traffic levels and demand for parking onsite; access and parking should designed in accordance with Australian Standards; the project should provide for cyclists, motorcyclists and pedestrians; and a Construction Traffic Management Plan should be prepared.

The Office of Water advised that the proposal adequately addressed stormwater management and water sensitive urban design principles.

The Mine Subsidence Board confirmed the site is within a mine subsidence district and that the mine subsidence risks would need to be managed through grouting or further geotechnical investigations and modelling to demonstrate the proposal could be supported.

The Department's Hunter and Central Coast Regional Office also provided comments on the proposal, noting it is within the John Hunter Hospital area, which is identified as a specialist centre that provides vital economic and employment roles for the region. The regional office noted that the proposal is approximately 400 m from the Croudace House and remnant garden, which are listed as items of local significance, and advised the proposal would be unlikely to have a detrimental impact as it would not be visible from the curtilage of the heritage items.

3.2 General Public

Two submissions objected to the project. Both considered that there is inadequate parking in the hospital grounds and that the project's parking provisions were inadequate. One of these submissions also noted that the project would increase traffic in the area and that cars from the hospital are already parking in the surrounding residential streets.

One resident inquired whether the pedestrian track through the site (which provides access to the hospital) would be removed during construction and operation of the facility.

3.3 Response to Submissions

The Proponent has provided responses to the issues raised in submissions (see Appendix C), as well as a revised Statement of Commitments for the project. These have been made publicly available on the Department's website.

The Department has considered the issues raised in submissions, and the Proponent's responses to these issues, in its assessment of the project.

4. ASSESSMENT

4.1 Flora and Fauna

The majority of the site is covered in disturbed open forest (the Coastal Plains Smooth Barked Apple Woodlands Community). 3.2 hectares of this vegetation would be cleared in order to prepare the building pad and re-contour the site for access and parking. An additional 1 hectare would be modified to create a bushfire asset protection zone around the facility.

This open forest bushland supports a number of hollow bearing trees and a number of threatened flora and fauna species were identified on the site (see Table 3).

Table 3 – threatened flora and fauna identified on site

Species Identified		Status under the *Threatened Species Conservation Act 1995*	Status under the *Environmental Protection and Biodiversity Conservation Act 1999*
Scientific Name	Common Name		
Ninox strenua	Powerful Owl	Vulnerable	-
Tyto novaehollandiae	Masked Owl	Vulnerable	-
Miniopterus australis	Little Bentwing-bat	Vulnerable	-
Miniopterus oceanensis	Eastern Bentwing-bat	Vulnerable	-
Mormopterus norfolkensis	Eastern Freetail-bat	Vulnerable	-
Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Vulnerable
Tetratheca juncea	Black-eyed Susan	Vulnerable	Vulnerable

The site also has habitat with the potential to support the Swift Parrot (*Lathamus discolor*), the Regent Honeyeater (*Anthochaera phrygia*), the Glossy Black Cockatoo (*Calytorhynchus lathami*), the Squirrel Glider (*Petaurus norfolcensis*) and the Greater Broad-nosed Bat (*Scoteanax rueppellii*), although none were detected during the site surveys. Crushed *Allocasuarina* cones found on site indicate the Glossy Black Cockatoo uses the site.

In order to minimise impacts on the threatened fauna species identified, a range of nesting boxes would be placed in nearby trees. Hollow bearing trees would be inspected prior to felling and would be soft felled (nudged to encourage fauna to relocate prior to felling), with an ecologist on site to supervise clearing operations.

Both Council and DECCW raised concerns about impacts on habitat for these threatened fauna species and that the presence of these threatened species indicates the high quality of this habitat. The Proponent subsequently committed to providing a nesting box for each tree hollow that was lost as a result of the clearing.

11 *Tetratheca juncea* (*T. juncea*) plants were identified on the site, within the proposed car parking area. The Proponent proposes to relocate the plants to an area within the surrounding bushland, and monitor the success of the relocation for a period of 5 years.

DECCW and Council raised concerns about the proposed relocation. In particular DECCW cited a study which found *T. juncea* to be dependent on a number of mycorrhizal fungi in the root zone; consequently the plants would have to be moved into an appropriate soil type.

To date efforts to transplant this species have not been successful. Consequently, the Department also raised concerns that the *T. juncea* plants may not survive the translocation.

Options to rearrange or realign the car park to minimise these impact have been considered, however the Proponent has advised that due to site constraints (including topography, the site boundaries and emergency access requirements) and funding limits, alternative parking options are not feasible.

DECCW recommended the Proponent should provide an offset for the flora and fauna impacts of the proposal.

In addition to providing an offset, the Proponent has indicated that it would also undertake the translocation. Due to the difficulties in identifying *T. juncea* outside its flowering period (September to December), the details of the offset to be provided would need to be resolved when surveys for *T. juncea* can be undertaken (from September to December).

Consequently, the Department has recommended conditions requiring arrangements to be made to provide for an offset of the impacts on the *T. juncea*, to the satisfaction of DECCW, within 12 months of approval of the project. This would allow enough time to undertake surveys for the *T. juncea* during the flowering season, so that a suitable offset location can be identified.

Any translocation undertaken in addition to this would need to be managed to minimise impacts on the area where the plants would be moved. As the translocation would be undertaken using a small excavator (to minimise disturbance of the plant and mycorrhizal fungi) the transport of the plant would also need to be carefully considered.

The Proponent has not confirmed the proposed relocation site, but has indicated it is considering a site in the neighbouring conservation lands to the north of the site (Jesmond Bushland Reserve).

Consequently, the Department has recommended conditions requiring any translocation to be undertaken in consultation with DECCW and to be managed by a suitably qualified and experienced ecologist.

The Department is satisfied that the impacts on threatened species would be minimised through soft felling and replacement of tree hollows with nesting boxes and by offsetting the potential impacts on *T. juncea* plants to the satisfaction of DECCW.

4.2 Traffic, Transport and Parking

The hospital grounds have two internal roads, Kookaburra Circuit and Jacaranda Drive. Both roads connect to Lookout Road, with traffic lights at each intersection.

The project has the potential to generate up to 384 vehicle trips during the morning peak hour and 299 during the evening peak hour. Modelling shows this would reduce the level of service for through traffic heading north on Lookout Road by one level of service during both the morning and evening peak periods (from E to F and D to E respectively), increasing the delay by up to 16 seconds. The project's traffic would also reduce the level of service for vehicles entering and exiting the hospital grounds via Jacaranda Drive during the evening. Internal roads would maintain a high level of service (A or B).

In light of the traffic congestion and limited parking around the hospital grounds, the RTA, Council and NSW Transport and Infrastructure all recommended the project should be required to consider expansion of the hospital's park and ride shuttle bus operations and/or implementation of measures to encourage greater use of public transport.

The Department agrees with these agencies and considers that traffic impacts can be minimised through the provision of additional support for cyclist, pedestrians and those using public transport.

There are currently 5 bus routes which stop at the hospital grounds. Most of these services run every 20 minutes during peak periods and every 30 minutes at other times. A free park and ride service runs every 40 minutes, connecting the hospital site to parking facilities in Broadmeadow. The service is mainly used by staff. Approximately 70-90 staff use the shuttle bus each day.

Nonetheless, two residents objected to the project, stating that the parking provisions are inadequate.

The proposal includes 416 car parking spaces to be constructed in a 3 tiered at grade car park to the south east of the building (and 6 disabled parking spaces beside the building). 150 of these spaces would replace the existing car parking to be demolished and 16 would replace parking spaces that would be removed on Kookaburra Circuit. Consequently, 250 car spaces would be provided to cater for the proposed facility. While Newcastle City Council's Development Control Plan (the DCP) does not specify parking requirements for research facilities, the Proponent has considered the proposal against the DCP's requirements for a commercial office building. Based on this 319 car parking spaces would be required, although the DCP does recommend a balanced approach to encourage reduced private motor vehicle use.

The Proponent also undertook a survey of the Institute's existing staff regarding their proposed travel patterns. Approximately 78% of staff surveyed indicated they wished to drive to work at the project site, and on this basis, 350 spaces would be required for the Institute's staff.

The Department notes the proposed parking deficiency and the concerns from local residents that there are already parking shortages on site. Nonetheless, the Department recognises that car use can be influenced by parking availability, and notes NSW Transport and Infrastructure support limiting of the parking availability, confirming the site is highly accessible by public transport.

As the proposed parking would not cater for all staff, some staff would need to rely on alternative travel arrangements including the shuttle service and other bus services that operate to the site. This would also reduce the project's traffic impacts.

To ensure that the inconvenience of finding alternative transport would be minimised the Department has recommended a sustainable travel plan is prepared and implemented, to look at options to reduce travel times, and to ensure that parking is allocated equitably. This recommended condition is consistent with advice from NSW Transport and Infrastructure.

The Department is satisfied this would ensure that parking is available for those who need it most, while encouraging the use of public transport and minimising traffic impacts. Consequently, the Department considers that the parking arrangements would be satisfactory.

4.3 Design and Visual Impacts

Council's Urban Design Consultative Group expressed concerns about the character and presence of the proposed building. In particular, they are concerned the building would not have a welcoming presence on the site and that its character was alien to the natural bushland setting.

The Proponent has stated that the design rationale of the proposal is for the building to stand out from the surrounding hospital and reflect the advanced scientific nature of the Proponent's work.

The entry pod would be the public entry and 'face' of the facility and is considered to have a strong distinctive design appropriate to the site (see Figure 5).

Figure 5 – artist's impression of the view looking north to the proposed building

The Department understands the intention to create a bold, confident structure, reflecting the advanced technical capabilities of the facility, and is not opposed to the use of blades and planar elements as a metaphor for microscope slides. Nonetheless, the Department is concerned the facility may have a dominant and stark presence (see Figure 6 and Figure 7) against the adjoining bushland.

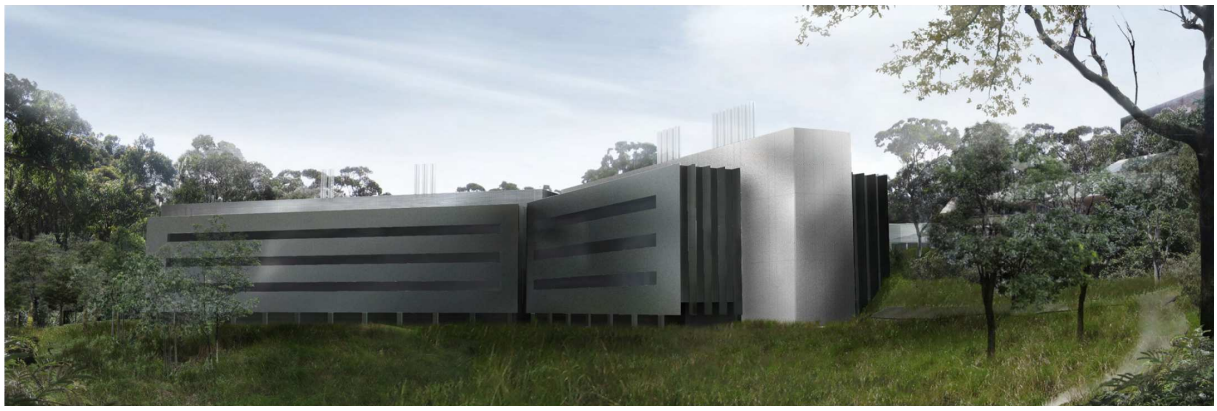

Figure 6 - artist's impression of the view looking east to the proposed building

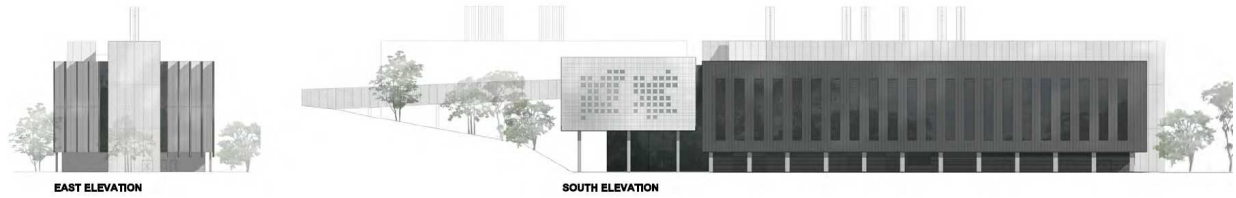

Figure 7 – east and south elevations

The Department considers this could be alleviated through use of colour and articulation to represent prepared and/or stained rather than blank slides, to lighten the character of the building.

The Department also notes that views of the facility would be very limited, as it would be set into the side of the hill and mainly surrounded by bushland. The main views of the facility would be from the internal access road around the hospital, which looks over the skywalk and entry pod. Consequently, the Department considers that the improvements to the appearance of the building can be resolved through conditions.

The Department has therefore recommended conditions requiring the design of the building façade to be reviewed to incorporate colour and articulation, prior to issue of a construction certificate.

Council's Urban Design Consultative Group raised concerns about the roof, as it would be visible from the John Hunter Hospital, above the facility. The green (landscaped) roof suggested by the Group was not pursued by the Proponent, due to the cost and need for structural reinforcements to support the weight of a landscaped roof. While it may be possible to provide additional screening and enclosure of the roof top plant and equipment, the Department does not expect this to make a significant difference to the view from the John Hunter Hospital and considers that it does not warrant additional expense and structural redesign. Consequently, the Department has only recommended conditions to ensure glare from the roof is managed.

Council's Urban Design Consultative Group also raised concerns about the parking area. The group suggested a multi-deck car park would be far less visually intrusive. At a minimum the group recommended the car park fingers should be curved to follow the natural contours of the site.

Options to realign or redesign the car park have been considered, however alternative designs have not been pursued due to issues with the site's topography and the high cost of alternative designs.

Also the Department disagrees with Council and considers that a multistorey car park would be likely to have greater intrusions on views.

The Department is satisfied that the visual impacts of the project would be generally acceptable, as it would only be visible from the existing hospital buildings and surrounding bushland. Nonetheless, the design of the facility could be improved and the Department is satisfied this would be achieved through the review of the building façade and car parking, required by the recommended conditions.

Some of the parking spaces are required to replace existing parking to be used by hospital staff and visitors, so this parking area is likely to be in use outside standard office hours and during times when the research institute building is closed. The large size of the car park and its isolation from the building and nearby hospital makes natural surveillance difficult. To address this issue, the Department has recommended conditions requiring security measures to be implemented to protect the safety of those using the car park out of standard business hours.

Landscaping would also need to be undertaken in accordance with the requirements of the NSW Rural Fire Service's *Planning for Bushfire Protection 2006* to ensure it would not increase risks from bushfires, or conflict with the asset protection zone. Given the site is surrounded by native vegetation, the Department considers the landscaping should use endemic species and would need to be maintained to prevent weeds spreading into the adjacent area. There may also be scope to replace some of those species that would be removed during the construction works.

The Department has recommended conditions requiring a landscape management plan to be prepared and implemented to ensure landscaping would be suitably designed and maintained, to manage risks from bushfire and minimise edge effects with the adjacent bushland.

4.4 Soil and Water

Cut and fill would be undertaken to level out the building footprint, car parking areas and access roads. These works would be designed to minimise the need to import or export fill, by seeking to achieve a cut and fill balance on site.

Detailed geotechnical investigations have been undertaken to examine the site; slope stability; and the resulting design requirements for foundations, embankments and batter slopes. The geotechnical investigation provided a number of recommendations and concluded that with the implementation of the recommendations, the site would be appropriate for the proposed facility.

There is currently minimal surface water control on site, with runoff from the existing building and car park flowing down the hillside to a detention basin in the gully below. This detention basin is one of the primary discharge points for the hospital complex and water from other areas of the hospital grounds is also directed to this basin. The water then drains into a small tributary of Dark Creek, which drains into the Hexham Swamp Nature Reserve.

Sediment and erosion controls would need to be implemented to manage any water on site during construction. These controls would include silt fences and filters and the stabilisation of areas where cut and fill has occurred, with vegetation or by sealing. All sediment and erosion controls would be carried out in accordance with standards outlined in Landcom's

Managing Urban Stormwater: Soils and Construction Manual and the Department has incorporated this requirement into the recommended conditions of approval.

A stormwater management plan has been prepared and involves a site drainage system, with a series of stormwater pipes and swales and expansion of the detention basin. Roof water harvesting would also be undertaken, with any overflow from the 150KL tank connected to the site's drainage infrastructure.

Council noted that the Dark Creek catchment is prone to flooding and consequently, that stormwater would need to be detained to prevent discharges exceeding predevelopment flows. This is included in the proposed plan and Council did not raise concerns with this drainage plan for the project.

4.5 Bushfire

The site is currently bushfire prone land and the facility would be surrounded by bushland on three sides. Consequently threats from bushfires would need to be managed. A bushfire protection assessment was provided in the Proponent's Environmental Assessment which provided a number of recommendations relating to asset protection zones, fuel management, construction, access and water supply requirements and evacuation planning.

The NSW Rural Fire Service reviewed the proposal and recommended conditions relating to the size and management of the asset protection zone, requirements for construction of the building, access and emergency evacuation planning. The Department has incorporated the NSW Rural Fire Service's requirements into the recommended conditions and is satisfied this would minimise threats from bushfire.

4.6 Mine Subsidence

Underground mining occurred around the site up until the 1920s, with an abandoned borehole seam approximately 85 m below the site. The Mine Subsidence Board has reviewed the proposal and provided conditions under the *Mine Subsidence Compensation Act 1961*.

These conditions require the Proponent to remove the risk of subsidence, by means such as grouting, or undertake geotechnical investigations to confirm the workings are stable with no risk of mine subsidence.

The proposal includes detailed consideration of the subsidence profile and required structural design. The Mine Subsidence Board has indicated the proposal would achieve the geotechnical requirements for the site, but would require the final drawings to be certified by a suitably qualified structural engineer.

In order to ensure the requirements of the Mine Subsidence Board are met the Department has recommended conditions to ensure that the Mine Subsidence Board is satisfied risks from mine subsidence would be managed, prior to the commencement of construction.

The Department is satisfied this would ensure the project would be designed to manage risks from mine subsidence.

4.7 Ecologically Sustainable Development

The project would generate the equivalent of 3,811 tonnes of CO_2 a year. The majority of this would come from heating and cooling and from the operation of equipment (including the server).

The project would incorporate a number of water and energy efficiencies, such as a hot water system with solar preheating and gas boosting as required. Where possible, the

building has been designed to incorporate passive solar design and energy efficient plant, equipment and lighting would also be selected.

A 150,000 litre rainwater tank would be installed to provide water for toilets and modelling indicates that this tank capacity would be sufficient to supply all of the project's non potable water requirements.

The Department supports these initiatives, however considers there may be scope to further reduce the greenhouse gas emissions of the proposal. Consequently, the Department's recommended conditions require a water and energy efficiency program to be developed, to consider additional options, such as the inclusion of a cogeneration plant and/or installation of solar panels.

The Department is satisfied this would ensure opportunities to minimise the greenhouse gas emissions from the project would be identified and incorporated in the detailed design.

4.8 Heritage

Aboriginal Cultural Heritage

While some of the site has been disturbed during construction of the existing building, tennis court and car park on site, the majority of the site is covered in native vegetation and consequently, it is possible that Aboriginal artefacts and/or sites of cultural significance may occur on site.

DECCW advised that the hospital grounds have previously been surveyed for Aboriginal cultural heritage and that to date no Aboriginal cultural sites have been identified in the area. Consequently, Aboriginal cultural heritage items are unlikely to occur on site. Nonetheless, the Department has recommended conditions to ensure that should any artefact be found on site, it would be suitably managed, in consultation with DECCW and local Aboriginal groups.

European Heritage

The Croudace House and remnant gardens are approximately 400m to the east of the site within the hospital grounds. Both items are listed as items of local heritage significance under the *Newcastle Local Environmental Plan 2003*. The view corridor to the north was found to be one of the key heritage values of the house. The project would not have any direct impact on the building, the view corridor or the remnant gardens and consequently, the Department is satisfied the project would not impact on any local heritage items.

4.9 Noise and Vibration

The project would generate noise during construction and operation. The nearest sensitive receivers are the Kookaburra Cottages 20-50m to the west of the site. The cottages are used as short term accommodation for patient's families. Three residential areas are approximately 500m from the site: Elemore Vale to the West, Lambton to the north and New Lambton Heights to the East.

Construction

Construction works would generate noise and vibration. Some construction noise levels may exceed L_{Aeq} 75dB(A), which represents the noise level at which there may be a strong community reaction to noise. Consequently, works would need to be managed to minimise impacts on occupants of the Kookaburra Cottages and the hospital buildings.

Some construction activities would generate vibration. While the vibration levels are not expected to be substantial, operating theatres have very low tolerance for vibration. Consequently, the site's proximity to hospital buildings means that activities that are likely to cause vibration would need to be scheduled to avoid conflicts with scheduled operations being undertaken in the hospital.

The Department has recommended conditions requiring a construction noise and vibration management plan to be prepared and implemented. The Department is satisfied this would ensure construction noise and vibration levels would be managed, with standard measures such as noise barriers and through scheduling of works to minimise cumulative impacts and disruptions to operating theatre schedules.

Operation

Noise from the operations of the project is predicted to be inaudible at all residential areas. However noise from the project has the potential to impact on occupants of the Kookaburra Cottages.

The facility would generally operate during normal office hours; however some activities would occur during the evenings and on weekends depending on the requirements of the research work being undertaken. Also, some mechanical plant such as extractor fans or air conditioning would be required to run 24 hours a day in order to achieve stable laboratory conditions. An emergency generator would also be installed to provide backup power should the mains power connection be disrupted.

While operations during the day are not expected to substantially increase noise levels in the hospital precinct, mechanical plant and equipment have the potential to increase night time noise levels and cause sleep disturbance for occupants of the nearby Kookaburra Cottages.

In order to minimise noise impacts, acoustic louvers would be installed on air intake and exhausts and the emergency generator would have a residential grade muffler system.

In order to ensure noise levels are managed the Department has included noise limits in the recommended conditions. The Department is satisfied this would ensure plant and equipment installed would be designed to meet these levels and that should noise levels be exceeded, they could be attenuated with suitable enclosures, mufflers or louvers. Consequently, the Department is satisfied the noise amenity of the Kookaburra Cottages would be protected.

Traffic Noise

The project would generate up to 200 additional vehicle movements an hour during the morning and afternoon peak hours. This would result in a two way hourly flow of 3800 vehicles along Lookout Road, during the evening peak hour. At these levels, traffic from the project is predicted to increase traffic noise levels by 0.2 dB. This is substantially less than the 2dB increase allowed in DECCW's *Environmental Criteria for Road Traffic Noise* and is considered acceptable.

4.10 Development Contributions

Newcastle City Council's Section 94A Development Contributions Plan 2006 applies to the area, however development for the purposes of education establishments (including universities) and hospitals are exempt from the application of the section 94A levy under the plan. The project would be for the purposes of medical research and is a joint venture with the University of Newcastle. Consequently, the Department considers the project can be defined as an education facility and is exempt from development contributions. Council confirmed that development contributions would not be required.

4.11 Waste

Waste would be generated during construction and operation and this would need to be minimised and managed.

To ensure this occurs, the Department has recommended conditions requiring waste to be minimised, managed and appropriately classified and disposed of in accordance with the relevant guidelines.

5. RECOMMENDED CONDITIONS

The Department has prepared recommended conditions of approval for the project (see Appendix A). These conditions are required to:

- prevent, minimise, and/or offset adverse impacts of the project;
- ensure the site is appropriately managed for the proposed use;
- encourage ecologically sustainable development;
- adequately mitigate the environmental impacts of the project;
- protect the amenity of the local area; and
- protect the public interest.

6. CONCLUSION

The Department has assessed the merits of the project and this assessment found that the environmental impacts of the project can be adequately managed to ensure an acceptable level of performance.

While the project would involve the clearing of some native vegetation and has the potential to impact on the threatened species *Tetratheca juncea*, these impacts would be offset in accordance with the requirements of the DECCW. The proposal also includes restricted car parking provisions to minimise the clearing required and to encourage greater use of public transport.

The Department is satisfied that the project would have significant economic and social benefits, as it would:

- support the continued operation of the third largest medical research institute in NSW;
- provide world class, purpose built, research facilities and opportunities for collaboration and support for the John Hunter Hospital;
- provide 450 jobs once operational; and
- represent a capital investment of $84.6 million.

Consequently, the Department believes the project is in the public interest and should be approved, subject to the recommended conditions.

7. RECOMMENDATION

It is RECOMMENDED that the Minister:

- consider the findings and recommendations of this report;
- approve the project application, subject to conditions, under section 75J of the *Environmental Planning and Assessment Act 1979*; and
- sign the attached project approval (see Appendix A).

Endorsed by:

1/3/10

Daniel Keary
Director
Government Land and Social Projects

9.3.10

Chris Wilson
Executive Director
Major Projects Assessment

Richard Pearson
Deputy Director General
Development Assessment & Systems Performance

APPENDIX B: CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy (Major Development) 2005
On 25 August 2008 the proposal was declared to be a project to which Part 3A of the *Environmental Planning and Assessment Act 1979* applies, as it triggers the criteria of the *SEPP (Major Development) 2005*, see section 2.1 of this report.

State Environmental Planning Policy No. 44 – Koala Habitat Protection
SEPP 44 aims to encourage the proper conservation and management of Koala habitat. One preferred Koala feed tree species was identified on site, however the proportion of feed trees in the vegetation community is less than 15 percent and consequently is not considered potential Koala habitat under SEPP 44. No Koalas were identified onsite and the Department is satisfied the site does not support Koala habitat.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/ or offence (odour, noise etc). A development is defined as potentially hazardous and/ or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/ or offence impact, on off-site receptors. The dangerous goods to be stored and handled onsite will be below the threshold limit, and consequently the project is not potentially hazardous for the purposes of SEPP 33.

State Environmental Planning Policy No. 55 – Remediation of Land
SEPP 55 aims to promote the remediation of contaminated land. As the site is predominantly undeveloped, the site is unlikely to be contaminated. The areas of existing development would be demolished and this work would ensure that any contamination present would be identified and could be suitably managed. Consequently, the Department is satisfied the project is consistent with the aims of SEPP 55.

State Environmental Planning Policy (Infrastructure) 2007
State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) commenced in January 2008, consolidating and updating a number of State planning instruments. The Infrastructure SEPP details planning provision and development controls for infrastructure works and development located adjacent to particular types of infrastructure development. One of the aims of the SEPP is to ensure the RTA is made aware of and allowed to comment on projects for developments listed in Schedule 3 of the SEPP. Schedule 3 identifies development including industry with a site area of more than 20,000m^2, or any purpose with a capacity of 200 or more motor vehicles. The project therefore triggers the Infrastructure SEPP. The project was referred to the RTA for comment in accordance with the Infrastructure SEPP.

Hunter Regional Environmental Plan 1989
This plan has been repealed.

Newcastle Local Environmental Plan 2003
The site is zoned 5(a) Special Uses Zone under the *Newcastle Local Environmental Plan 2003*, and proposed development is permissible with consent in this zone. The objectives of the zone include to accommodate large scale facilities and services and large scale community establishments.
Clause 26 of the *Newcastle Local Environmental Plan* 2003 requires the consent authority to be satisfied with the measures to protect persons, property and the environment from danger that may arise from a bush fire. This is assessed in Section 4.5 of this report.

Clause 33 of the *Newcastle Local Environmental Plan 2003* requires the consent authority to assess the impact of the development on any heritage item or heritage conservation area in the vicinity of the site. Impacts on the Croudace House and remnant gardens have been assessed in Section 4.8 of this report.