

**MAJOR PROJECT ASSESSMENT:  
Wahroonga Estate Concept Plan**



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

March 2010

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# 1 EXECUTIVE SUMMARY

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This is a report from the Director-General to the Minister for an application seeking Concept Plan approval under Part 3A of the *Environmental Planning and Assessment Act, 1979* ('the Act'). This report is provided to the Minister for the purposes of determining the Concept Plan application under section 75O(2)(a) of the Act.

## Site

The subject site 'Wahroonga Estate', incorporating Sydney Adventist Hospital is 62.4ha in area and located within the Ku-ring-gai and Hornsby Local Government Areas. The site is approximately 18km northwest of the Sydney CBD and 1km south of the intersection of Pacific Highway, Pennant Hills Road and the F3 Freeway.

## Proposal

Johnson Property Group (the Proponent) is seeking Concept Plan approval for the general layout of land uses, maximum dwelling number, gross floor area and building height controls, conceptual road design and traffic management works, landscaping and public domain treatments.

The main elements of development proposed under the Concept Plan are an upgrade and expansion of the existing hospital to create a total floor area of 94,000m<sup>2</sup>; 500 new low, medium and high density private residential dwellings; 538 other accommodation types including seniors living and student accommodation; educational facilities including a K-12 school and faculty of nursing; and commercial / retail floor space.

The estimated capital investment value of development allowed under the Concept Plan is \$573.31 million. 3000 - 5000 operational jobs are expected to be created.

## Public Exhibition

Having adequately addressed the Director-General's Requirements, the Environmental Assessment was exhibited for a period of 44 days from 7 May 2009 to 19 June 2009.

In response to public exhibition, the Department received a total of 677 public submissions, including:

- 154 individual submissions in objection
- 6 individual submissions in support
- 51 proforma submissions in objection
- 465 proforma submissions in support
- 1 petition with 45 signatures in objection.

Submissions were also received from 9 State agencies and Ku-ring-gai Council and Hornsby Council.

In accordance with the Commonwealth and NSW Government environmental assessment bilateral agreement, the Commonwealth Department of the Environment, Water, Heritage and the Arts provided comment on the proposal during the assessment process.

The key issues raised in public and authority submissions which form the basis for assessment include: density, layout and urban design; biodiversity; bushfire; traffic, transport and car parking; heritage; infrastructure and utilities; drainage, stormwater and groundwater management; geotechnical and contamination; land ownership and title; and ecologically sustainable development.

## Community Reference Group

When agreeing to consider the site a potential State significant site the then Minister directed that the Department form a community reference group (CRG). The two main purposes of the CRG were to provide information to a diverse range of stakeholders to enable them to make considered submissions and also to provide an opportunity for the Department to understand stakeholder issues and comments.

The Department formed the CRG with community members, Councillors and Council officers nominated by Ku-ring-gai and Hornsby Councils. The CRG met 5 times during the assessment process, including twice during public exhibition and many members made formal submissions.

## Response to Submissions

Following gazettal of the site as a State significant site in December 2009, the Proponent amended the Concept Plan through the Preferred Project Report in January 2010 to address issues raised by the Department and in submissions. The amendments include:

- Revised development footprint and increase in conservation land
- Reduction in the number of the private residential dwellings to 500
- Removal of proposed residential development east of Fox Valley Road
- Replacement of the proposed residential flat buildings north of Mount Pleasant Avenue with lower scale townhouses
- Deletion of the proposed Osborn Road link
- Relocation of the proposed school and oval
- Relocation of the proposed retail and commercial component from the Central Church Precinct to the Central Hospital Precinct.

### Public Benefits

Development at Wahroonga Estate proposed under the Concept Plan will result in significant benefits for the community, including:

- Providing for the expansion of the Sydney Adventist Hospital, the third largest health-based employer in the northern Sydney region through approved maximum gross floor area and heights.
- Providing approved maximum gross floor area and heights for supporting hospital, commercial, retail and community uses to support generation of 1000 operational jobs over the short term (5 years) and 3000-5000 jobs over the medium term.
- Providing for up to 500 low, medium and high density dwellings in a single area, representing just under 2.5% of the total 21,000 new dwelling target identified in the draft North Subregional Strategy.
- Providing contributions for local infrastructure, including road intersection upgrades.
- Protecting approximately 31 hectares of conservation land, including two State and Commonwealth listed critically / endangered ecological communities within an urban setting, representing 50% of the site area.

### Recommendations

Key recommendations and further assessment requirements to apply to any Concept Plan approval issued include:

- Approval of the revised development footprint and increase in conservation land.
- Application of a number of further assessment requirements to address urban design issues such as building footprints, setbacks and road design.
- Requirement for an expanded Biodiversity Management Plan to address direct and indirect impacts on critically / endangered ecological communities and future ownership / management of conservation lands.
- Application of further assessment requirements to ensure future development avoids impacts on critically / endangered ecological communities and maximises retention of the communities.
- Application of further assessment requirements to ensure Asset Protection Zones are not located with conservation areas and that they comply with the requirements of *Planning for Bushfire Protection 2006*.
- Requirement for a number of local road work improvements to improve capacity and assist with bushfire evacuation.
- Requirement for Work Place Travel Management Plans to address transport requirements for employment generating uses.
- Application of further assessment requirements requiring car parking rates for residential development to be in accordance with Council Development Control Plans and further merit based assessment of car parking requirements to be undertaken at project or development application stage for employment generating uses.

### Conclusion

The Department has assessed the merits of the proposal and is satisfied that the impacts of the Concept Plan have been addressed through the Proponent's Preferred Project Report, the Statement of Commitments and the Department's recommended further assessment requirements.

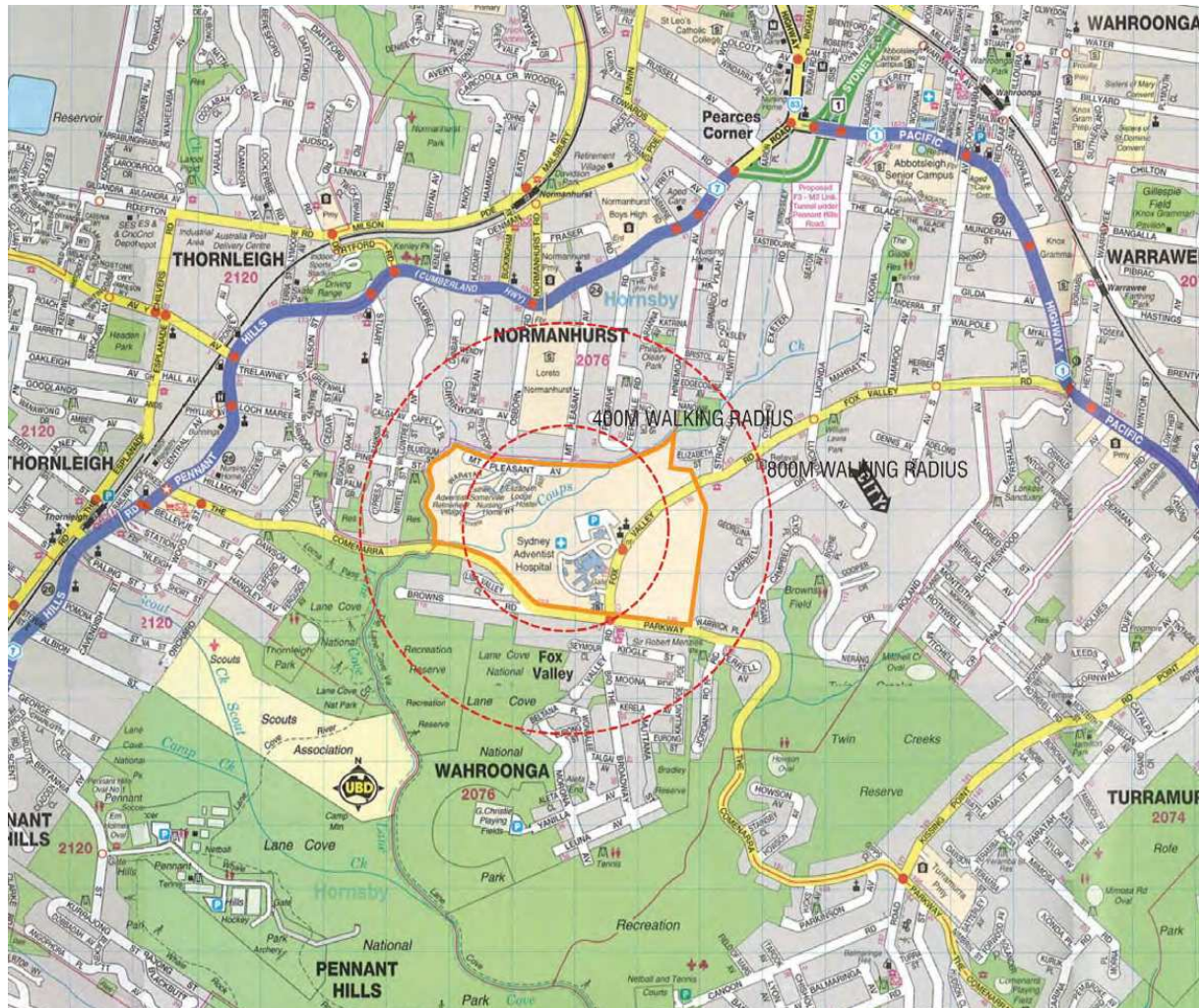
The Department is satisfied that the site is suitable for development proposed under the Concept Plan and that it will provide environmental, social and economic benefits to the region. All statutory requirements have been met. It is also recommended that the Minister determine that approval to carry out future development on the site be subject to Part 4 of the Act in accordance with section 75P(1)(b).



## 2 BACKGROUND

### 2.1 SITE AND SURROUNDING AREA

The Wahroonga Estate site is located on the boundary of Ku-ring-gai and Hornsby Local Government Areas within the suburbs of Wahroonga and Normanhurst. The site is approximately 18km northwest of the Sydney CBD and 1km south of the intersection of the Pacific Highway, Pennant Hills Road and the F3 Freeway. **Figure 1** shows the subject site and the surrounding locality.



**Figure 1.** Location map (Environmental Assessment, April 2009)

The majority of the 62.4ha site is located within the Ku-ring-gai Local Government Area, with a small portion located in the Hornsby Local Government Area. It consists of 59 separate property titles managed by the Australasian Conference Association as property trustees of the Seventh Day Adventist Church and 2 titles in private ownership.

**Figure 2** shows an aerial photograph of the Wahroonga Estate site and surrounds. Features of the site include:

- Frontages to both Fox Valley Road and The Comenarra Parkway
- Northern access from Mount Pleasant Avenue
- Sydney Adventist Hospital, ancillary medical services, health education facilities and associated car parking
- Fox Valley Seventh Day Church, headquarters and associated community facilities
- Retirement Village and aged care accommodation
- Wahroonga Adventist Primary School
- Residential dwellings and staff housing
- Large areas of remnant vegetation including species of national environmental significance.



**Figure 2.** Aerial Photograph (Environmental Assessment, April 2009)

The surrounding area is characterised by low density residential dwellings within a bush setting. Fox Valley Shopping Centre is located opposite the southern boundary of the site. Extensive areas of vegetation in the locality provide connectivity to Lane Cove National Park and local recreation reserves.

Fox Valley Road connects to the Pacific Highway, while The Comenarra Parkway connects to both Pennant Hills Road and through to Ryde Road. The closest local centres and train stations are located at Normanhurst (1.5km north), Thornleigh (2km west) and Turramurra (3km east). Bus services also link the site with local centres.

### 3 PROPOSED DEVELOPMENT

#### 3.1 CONCEPT PLAN OVERVIEW

The Concept Plan application seeks approval for expansion of the existing Sydney Adventist Hospital, new low, medium and high density dwellings, supporting commercial and community uses and conservation land.

Approval is not sought for development of buildings or subdivision, rather Concept Plan approval is sought for the following key elements:

- General layout of land uses
- Maximum gross floor areas for land uses
- Maximum number of dwellings and other accommodation types
- Building heights
- Asset Protection Zones
- Road design and traffic management works
- Landscape, open space and public domain treatments.

The Concept Plan application also provides for

- Protection and management of conservation areas
- Protection of heritage items.

The Concept Plan application as exhibited, sought approval for the following land uses:

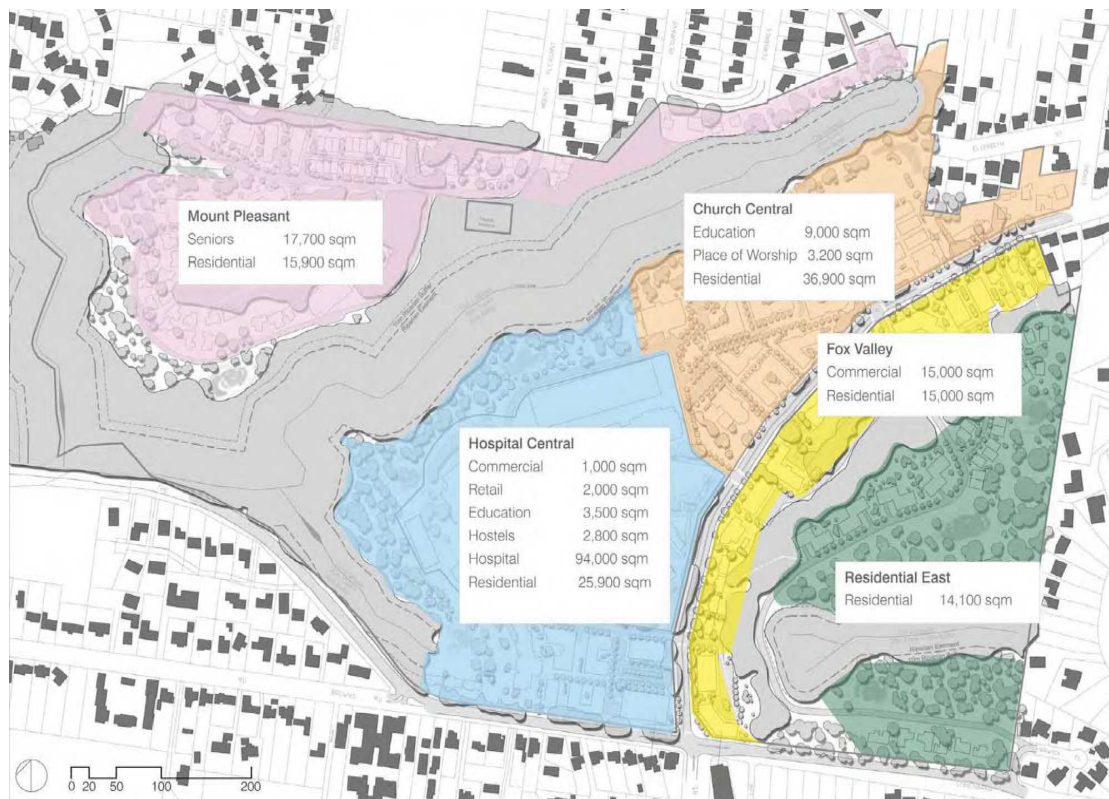
Land Use	GFA / Ha
Hospital	94,000m <sup>2</sup> *
Commercial	16,000m <sup>2</sup>
Education (K-12 School)	9,000m <sup>2</sup>
Faculty of Nursing	3,500m <sup>2</sup>
Church	3,200m <sup>2</sup>
Retail	2,000m <sup>2</sup>
<b>Total GFA</b>	<b>127,700m<sup>2</sup></b>
Conservation	18ha
* Existing hospital GFA 66,000m <sup>2</sup> , additional proposed GFA 28,000m <sup>2</sup> for total of 94,000m <sup>2</sup>	
** Total GFA not including dwellings below	
Dwellings / Accommodation	Number
Dwelling Houses	44
Town Houses	36
Residential Flat Building Dwellings	622
<b>Total Dwellings</b>	<b>702</b>
Seniors Housing	195
Student/ Staff Accommodation	301
Hostel Beds	42
<b>Total Other Accommodation Types</b>	<b>538</b>
<b>Total Dwellings / Accommodation</b>	<b>1240</b>

The Concept Plan layout, as exhibited, is shown in **Figure 3** below.



**Figure 3.** Concept Plan (Environmental Assessment, April 2009)

The Concept Plan, as exhibited, proposed five development precincts. The exhibited precincts and proposed GFAs are shown in **Figure 4** below:



**Figure 4.** Precinct / GFA Plan (Environmental Assessment, April 2009)

### 3.2 CONCEPT PLAN AMENDMENTS

The Proponent lodged a Preferred Project Report (PPR) on 3 September 2009 to address the issues raised during public exhibition.

At the time the Department was commissioning an independent review of the Proponent's vegetation mapping to inform the setting of a future development footprint by establishing boundaries for conservation zoned land in the concurrent SEPP Amendment. The SEPP Amendment gazetted in December 2009, sets boundaries between development and conservation zones based on the results of the independent vegetation mapping and limits the maximum permitted number of private residential dwellings at 500.

A final PPR was lodged on 22 January 2010 incorporating additional amendments to respond to the zone boundaries and controls in the gazetted SEPP Amendment. The final PPR seeks approval for the following land uses:

Land Use	GFA / Ha
Hospital ( <i>light orange</i> <sup>^</sup> )	94,000m <sup>2</sup> *
Commercial ( <i>light blue</i> <sup>^</sup> )	16,000m <sup>2</sup>
Education (K-12 School) ( <i>yellow</i> <sup>^</sup> )	9,000m <sup>2</sup>
Faculty of Nursing ( <i>dark orange</i> <sup>^</sup> )	3,500m <sup>2</sup>
Church ( <i>dark pink</i> <sup>^</sup> )	3,200m <sup>2</sup>
Retail ( <i>dark blue</i> <sup>^</sup> )	2,000m <sup>2</sup>
Seniors Housing ( <i>all residential light pink</i> <sup>^</sup> )	17,700m <sup>2</sup>
Student/ Staff Accommodation ( <i>all residential light pink</i> <sup>^</sup> )	14,500m <sup>2</sup>
Hostel Beds ( <i>all residential light pink</i> <sup>^</sup> )	
<b>Sub total GFA excluding private dwellings</b>	<b>159,900m<sup>2</sup>**</b>
Conservation	31.4ha

<sup>^</sup> Refers to the colour depicted in Figure 5. Amended Concept Plan diagram on page 8

\* Existing hospital GFA 66,000m<sup>2</sup>, additional proposed GFA 28,000m<sup>2</sup> for total of 94,000m<sup>2</sup>

\*\* Sub total GFA not including 500 private dwellings, refer to table below

Private Dwellings / Accommodation	Number
Dwelling Houses	42
Townhouses	38
Residential Flat Building Dwellings	420
<b>Total private dwellings</b>	<b>500</b>
Seniors Housing	195
Student/ Staff Accommodation	301
Hostel Beds	42
<b>Total Other Accommodation Types</b>	<b>538</b>
<b>Total Dwellings / Accommodation</b>	<b>1038</b>

The following changes were made to the original Concept Plan proposal and incorporated into the PPR:

	Exhibited Concept Plan	Preferred Project Report
<b>Total Dwelling / Accommodation Yield</b>	1240 Dwellings	1038 Dwellings
<b>Dwelling Yield</b>	702 Dwellings	500 Dwellings
<b>Conservation</b>	18ha	31.4ha

<b>School</b>	Oval and APZ located in vegetated area	School relocated to west along Fox Valley Road due to bushfire (APZ) constraints and oval relocated out of vegetated area
<b>Precinct A: Mt Pleasant</b>	15 dwelling houses 20 townhouses 69 residential flat building dwellings Osborn Road link	16 dwelling houses 38 townhouses 27 residential flat building dwellings Osborn Road link deleted
<b>Precinct B: Central Church</b>	7 dwelling houses 302 residential flat building dwellings	9 dwelling houses 200 residential flat building dwellings
<b>Precinct C: Central Hospital</b>	91 residential flat building dwellings	105 residential flat building dwellings
<b>Precinct D: Fox Valley</b>	10 dwelling houses	8 dwelling houses
<b>Precinct E: Residential East Precinct</b>	9 dwelling houses 16 townhouses 72 residential flat building dwellings	6 dwelling houses 0 townhouses 0 residential flat building dwellings

In summary, key aspects of the PPR include:

- Amended development footprint and increase in conservation land
- Removal of the majority of proposed residential development east of Fox Valley Road
- Relocation of proposed school and oval
- Replacement of proposed residential flat buildings on north side of Mount Pleasant Avenue with low scale townhouses
- Deletion of proposed Osborn Road link
- No change in other proposed traffic management works
- Amended APZs to reflect the revised land use layout
- Relocation of proposed retail and commercial component from Central Church Precinct to Central Hospital Precinct.

The amended layout is shown in the revised Concept Plan layout in **Figure 5** following.



**Figure 5.** Amended Concept Plan (Final Preferred Project Report, January 2010)

## 4 STATUTORY FRAMEWORK

### 4.1 PART 3A OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AND STATE ENVIRONMENTAL PLANNING POLICY (MAJOR DEVELOPMENT) 2005

On 2 December 2007, the then Minister formed the opinion that the proposed development is described in Schedule 1 Clause 18 – Hospitals of the Major Development SEPP and therefore development to which Part 3A of the Act applies. In accordance with section 75M of the Act, the then Minister also authorised the Proponent to submit a Concept Plan.

At the same time the then Minister agreed to a concurrent request to consider listing the subject site in Schedule 3 of the Major Development SEPP as a State significant site. The resulting SEPP Amendment rezoning the land to facilitate development proposed under the Concept Plan was gazetted on 18 December 2009.

#### 4.1.1 Director-General's Environmental Assessment Requirements

Section 75F of the Act requires that the Director-General prepare Environmental Assessment requirements (DGRs) for Major Project applications. The DGR's were issued on 9 April 2008 following consultation with relevant authorities.

The DGR's were subsequently modified to include input from the Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA) for matters relating to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), following confirmation from DEWHA that development allowed under the proposed Concept Plan involves a 'controlled action' (refer to section 4.3 below for further details). The modified DGR's were issued on 3 December 2008. The modified DGR's are provided in **Appendix D**.

### 4.2 ENVIRONMENTAL PLANNING INSTRUMENTS

#### 4.2.1 State Environmental Planning Instruments / Permissibility

A number of State environmental planning instruments govern the carrying out of the proposal and these have been taken into consideration during assessment of the proposal. A summary of the instruments and provisions as they apply to the site is provided in **Appendix E**.

The Wahroonga Estate State significant site listing in Schedule 3 of the Major Development SEPP has also been taken into consideration during assessment of the proposal. Key elements of the listing are:

- Identifies that the consent authority for development other than to which Part 3A applies is the relevant Council.
- Establishes permitted and prohibited land uses through allocation of the following zones:
 

R1	General Residential	B1	Neighbourhood Centre
R2	Low Density Residential	SP1	Special Activities
R3	Medium Density Residential	E2	Environmental Conservation
R4	High Density Residential		
- Establishes development standards including maximum building heights, gross floor area and number of dwellings.
- Establishes general provisions for bushfire hazard reduction, preservation of vegetation and heritage conservation.
- Incorporates standard clauses including exceptions to development standards, infrastructure development and use of existing buildings by the Crown and temporary use of land.

All land uses proposed under the Concept Plan are permissible with or without consent under the Major Development SEPP or various other SEPP as discussed in **Appendix E**.

#### 4.2.2 Local Environmental Planning Instruments

As a result of the site being listed in Schedule 3 of the Major Development SEPP, no local Environmental Planning Instruments apply to the site.

### **4.3 OTHER RELEVANT LEGISLATION**

The Commonwealth EPBC Act requires Commonwealth environmental assessment and approval for actions that are likely to have a significant impact on matters of national environmental significance.

The Department of the Environment, Water, Heritage and the Arts, the Commonwealth agency responsible for administering the EPBC Act, has determined that the proposal involves actions that are likely to have a significant impact on matters of national environmental significance. This is because the proposed development/action is likely to have a significant impact on threatened species, communities and migratory species protected under the EPBC Act, including Sydney Blue Gum High Forest, Sydney Turpentine Ironbark Forest, the Grey Headed Flying Fox and Swift Parrot.



## 5 CONSULTATION AND ISSUES RAISED

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### 5.1 TEST OF ADEQUACY

Section 75H(3) of the Act requires that after an Environmental Assessment has been accepted by the Director-General, it be made publicly available for at least 30 days.

A Test of Adequacy was undertaken by the Department which determined that the matters contained in the DGRs were adequately addressed in the Environmental Assessment and the document could proceed to public exhibition. The Proponent was notified that the Environmental Assessment was determined to be adequate on 24 April 2009. A copy of the Environmental Assessment is provided at **Appendix B**.

### 5.2 PUBLIC EXHIBITION

The Environmental Assessment was publicly exhibited for a period of 44 days from 7 May 2009 to 19 June 2009, with notices inviting submissions placed in the following newspapers:

- North Shore Times
- Hornsby Upper North Shore Advocate
- Sydney Morning Herald
- The Australian (a newspaper circulating nationally, satisfying EPBC Act bilateral obligations).

The Environmental Assessment documentation was made available at the following locations:

- Department of Planning Information Centre, Bridge Street, Sydney
- Ku-ring-gai Council Chambers and Customer Service Centre
- Hornsby Shire Council Administration Centre
- Turramurra Library.

The Environmental Assessment was also placed on the Department's website during the exhibition period.

Local stakeholders within proximity of the site were informed of the Concept Plan proposal in writing and invited to make a written submission. The extent of properties notified was at the recommendation of Ku-ring-gai and Hornsby Councils. Relevant government agencies, Ku-ring-gai and Hornsby Councils and other public authorities were also consulted.

When agreeing to consider the site a potential State significant site the then Minister directed that the Department form a community reference group (CRG). The two main purposes of the CRG were to provide information to a diverse range of stakeholders to enable them to make considered submissions and also to provide an opportunity for the Department to understand stakeholder issues and comments.

The Department formed the CRG with community members, Councillors and Council officers nominated by Ku-ring-gai and Hornsby Councils. The CRG met 5 times during the assessment process, including twice during public exhibition and many members made formal submissions.

### 5.3 SUBMISSIONS

In response to public exhibition, the Department received a total of 677 public submissions, including:

- 154 individual submissions in objection
- 6 individual submissions in support
- 51 proforma submissions in objection
- 465 proforma submissions in support
- 1 petition with 45 signatures in objection.

Submissions were also received from 11 public authorities including Department of Education and Training, Energy Australia, Department of the Environment and Climate Change, NSW Health, Department of Primary Industries, Rural Fire Service, Roads Traffic Authority, Sydney Water, Ministry of Transport, Ku-ring-gai Council and Hornsby Shire Council.

In accordance with EPBC Act bilateral obligations the Department of the Environment, Water, Heritage and the Arts (DEWHA) provided comment on the application.

#### **5.4 RESPONSE TO SUBMISSIONS AND PREFERRED PROJECT REPORT**

The Proponent was provided with copies of all agency submissions and a summary of public submissions and asked to respond to the issues raised, in accordance with section 75H(6) of the Act and asked to submit a Preferred Project Report (PPR).

The exhibited Concept Plan was amended in response to the issues raised in submissions and the changes documented in the PPR submitted to the Department on 3 September 2009. At this time the PPR was made publicly available on the Department's website.

The Proponent submitted an amended and final PPR on 22 January 2010 responding to the zone boundaries and controls in the gazetted SEPP Amendment. The amended PPR was made publicly available on the Department's website and a copy is provided at **Appendix B**.

## 6 ASSESSMENT

### 6.1 DIRECTOR-GENERAL'S REPORT

This report has been prepared on behalf of the Director-General to provide to the Minister for the purposes of deciding whether or not to grant approval of the Concept Plan pursuant to section 750(2)(a) of the Act. Section 751(2) of the Act and 8B of the Regulations sets out the requirements of the Director General's Report to the Minister. Each of the requirements is separately addressed below:

<b>Section 751(2) criteria</b>	<b>Response</b>
A copy of the proponent's environmental assessment and any preferred project report	The Environmental Assessment and Preferred Project Report is provided at <b>Appendix B</b> .
Any advice provided by public authorities on the project	All advice provided by public authorities is provided at <b>Appendix G</b> .
A copy of any report of the Planning Assessment Commission in respect of the project	No review was undertaken by the Planning Assessment Commission in respect of this project.
A copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project	All relevant SEPPs are identified and assessed at <b>Appendix E</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 all environmental planning instruments is provided at <b>Appendix E</b> .
Any environmental assessment undertaken by the Director-General or other matter the Director-General considers appropriate	The Environmental Assessment of the Concept Plan 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 Proponent's Environmental Assessment addressed the DGR requirements and was found to be adequate on 24 April 2009.
<b>Clause 8B criteria</b>	<b>Response</b>
An assessment of the environmental impact of the project	An assessment of the environmental impact of the proposal is discussed in section 6.2 below.
Any aspect of the public interest that the Director-General considers relevant to the project	The public interest is discussed in section 7 below.
The suitability of the site for the project	The suitability of the site is discussed in section 6.2 below.
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 <b>Appendix F</b> of this report.

In addition, the Objects set out in section 5 of the Act which inform the purpose and intent of the legislation and give guidance to its operation have been considered in the following assessment of the Concept Plan application.

### 6.2 KEY ISSUES

The Department has reviewed the Environmental Assessment and Preferred Project Report, and considered advice from public authorities and issues raised in public submissions in accordance with section 751(2) of the Act.

The key issues identified are concept plan density, layout and urban design; biodiversity; bushfire; traffic, transport and car parking; heritage; infrastructure and utilities; drainage, stormwater and groundwater management; geotechnical and contamination; construction management; land ownership and title; and ecologically sustainable development.

## 6.3 CONCEPT PLAN DENSITY, LAYOUT & URBAN DESIGN

### 6.3.1 Density / Neighbourhood Character

A significant number of submissions raised issues about the density proposed by the Concept Plan, particularly concerns regarding the large size / scale of the proposal and inconsistency with the existing low density residential neighbourhood character. The issues can be summarised as:

- High density development is not consistent with local or State planning policies
- Locality is unsuitable for medium to high density development given distance to transport
- Site is not within a 'town centre' where increased densities are planned
- Character of area will change from low density / hospital to high density residential / commercial
- Medium density development on the north side of Mount Pleasant Avenue is out of character with surrounding low density dwellings
- Size / scale should be reduced to better suit site capabilities and neighbourhood character.

The original Preferred Project Report submitted in September 2009 acknowledged many of the above issues and made a number of changes to the layout of the Concept Plan, including deleting much of the residential development proposed in the Residential East Precinct. The total number of dwellings / other accommodation types however was increased from the exhibited 1240 to 1255.

The Proponent also acknowledged the concerns raised by Hornsby and Ku-ring-gai Councils and in a number of public submissions that the proposed medium density development (including residential flat buildings) on the north side of Mount Pleasant Avenue was inconsistent with the surrounding low density bushland residential character, particularly with the established neighbourhood to the north of Mount Pleasant Avenue.

In response, the Proponent deleted the residential flat buildings, replacing them with townhouses and also reduced the building height to a maximum of 2 storeys. No other significant changes were proposed to reduce the size / scale of the supporting commercial, retail and community uses elsewhere on the site.

The final Preferred Project Report submitted in January 2010 adopted the development footprint in the gazetted SEPP maps and reduced the maximum number of private residential dwellings to 500 consistent with the gazetted SEPP Amendment. In combination with the 538 'other accommodation type' dwellings (including seniors housing etc.) this represents a total of 1038 dwellings on the site, reduced from 1255 as originally proposed.

#### Department Comment

Issues raised about local and State planning policies and appropriate locations for increased densities were considered during preparation of the SEPP Amendment. As too was concern from the Department of Environment, Climate Change and Water and community members that proposed higher residential and business zonings were inconsistent with the Metropolitan Strategy and draft North Subregional Strategy principles of planning for increased development close to existing urban centres and public transport.

The draft North Subregional Strategy provides strategic justification for the proposal, identifying Sydney Adventist Hospital as one of a number of existing business activity clusters associated with knowledge infrastructure utilising the skills of the resident workforce and identifies opportunities for this relationship to be strengthened.

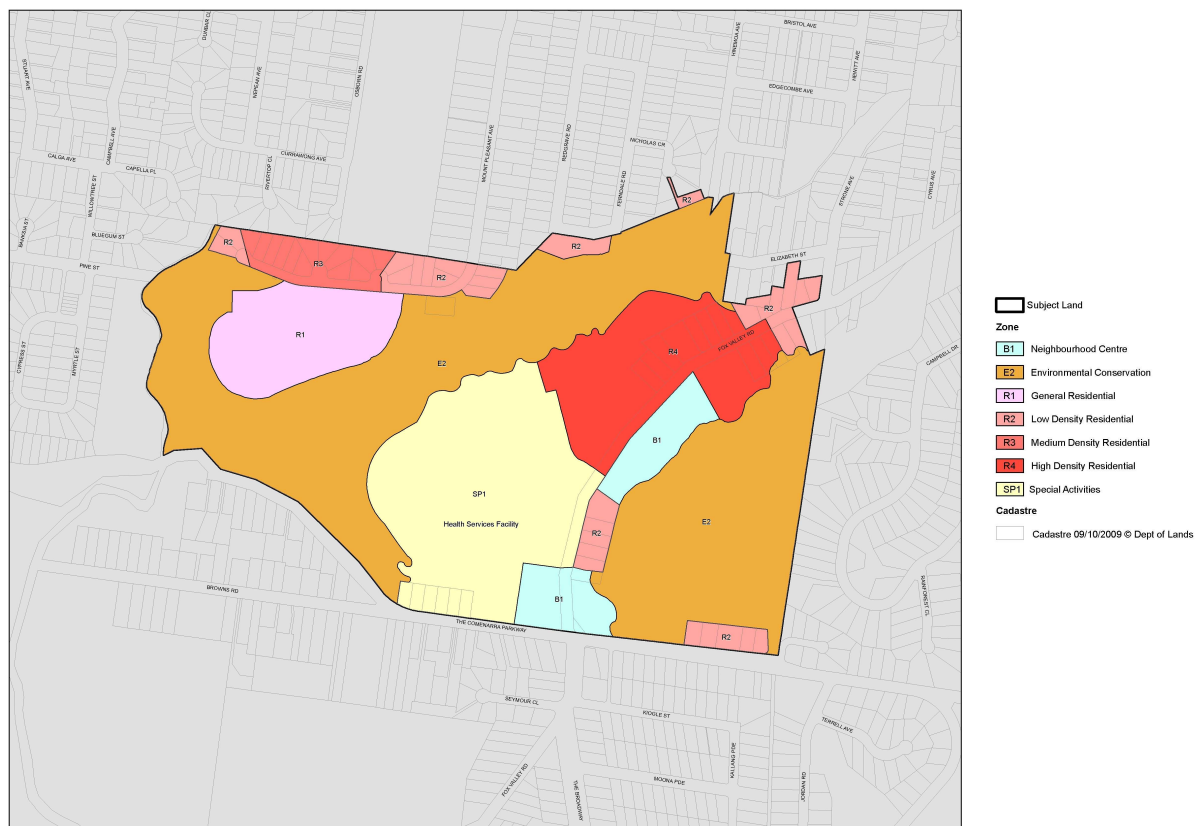
The Concept Plan will allow for expansion of Sydney Adventist Hospital, associated education facilities and services, as well as supporting residential development providing opportunities for the existing business cluster to be reinforced.

The gazetted SEPP Amendment incorporates the following measures to establish an appropriate density for the site and surrounding neighbourhood, including:

- Application of the R2 Low Density Residential zone at the edges of the site to better reflect surrounding densities and neighbourhood character.
- Application of the R3 Medium Density and R4 High Density Residential zones to the less environmentally sensitive areas within the central part of the site close to hospital / aged care facilities.
- Application of the B1 Neighbourhood Centre zone replaced the proposed B4 Mixed Use zone to better reflect the less intense nature of uses proposed

- Setting the maximum number of dwellings at 500 as opposed to 717 proposed under the exhibited Concept Plan, a 30% reduction in the number of private dwellings proposed in the exhibited Concept Plan

The gazetted zonings are shown in Figure 6 below.



**Figure 6.** State Environment Planning Policy (Major Development) 2005 Wahroonga Estate Land Zoning Map

These zonings ensure that impacts on the amenity of existing residential areas adjoining the site are minimised by having lower densities at the edges of the site and greater densities within the central part of the site close to existing hospital and church buildings.

The maximum number of 500 private residential dwellings equates to a density of 8 dwellings per hectare across the site and the combined private residential dwellings and other accommodation types equates to a density of 16 dwellings / other accommodation per hectare. The density of private residential dwellings is consistent with the surrounding residential areas.

While the combined dwelling / other accommodation density is higher than surrounding areas, the location of greater densities within the central parts of the site will minimise impacts on the surrounding amenity. The higher density is also acceptable as it incorporates hospital and church related accommodation which supports the key existing land uses on the site.

The final Preferred Project Report is consistent with the gazetted SEPP zoning map and has adopted 500 as the maximum number of private dwellings in accordance with SEPP controls. These amendments are satisfactory in that they reflect the gazetted SEPP amendment and provide for an overall density that is more consistent with the existing low density residential neighbourhood character.

### 6.3.2 Uses and Layout

A number of public submissions, Ku-ring-gai Council and the Department of Environment, Climate Change and Water raised issues about land uses and the layout proposed in the Concept Plan. The issues can be summarised as:

- Expansion of hospital and development of hospital-related facilities is acceptable
- Location of buildings should avoid critically / endangered ecological communities, respect topography and minimise excavation

- Land allocated for the proposed school is too small to accommodate a school of that size
- School proposal is not accompanied by sufficient detail on parking, bus arrangements or noise impacts
- Location of school oval requires vegetation removal
- Locality is already well serviced by schools, churches and retail facilities
- Retail expansion would threaten viability of the existing Fox Valley Shopping Centre.

A number of submissions from persons associated with the existing Adventist school on the site offered support for expanding the existing educational facilities.

The original Preferred Project Report submitted in September 2009 responded to the issues by reconfiguring the oval and a portion of the school to allow greater retention of vegetation. The Proponent also provided the following written responses to issues raised:

- Concept Plan approval is sought for the broad development distribution across the site, details of the final designs within these broad parameters will be provided under separate project / development applications.
- Additional issues associated with the school (e.g. layout, design, traffic management) can be further investigated at project / development application stage.
- A mix of commercial, residential and retail is required to make the Estate a successful working-living community.
- The Estate will not have any significant retail development that might compete with other town centres and the overall retail hierarchy.

The final Preferred Project Report submitted in January 2010 relocated the school to a more central location on Fox Valley Road directly opposite the heritage-listed Administration Building. The oval has also been relocated out of the vegetated area in the north east of the site.

#### Department Comment

The Concept Plan application sets out the distribution of land uses across the site and provides an indication as to how these uses interact across the site. The distribution of uses is acceptable for the following reasons:

- Future hospital and church uses are located close to existing like uses
- The proposed school is centrally located with good access to Fox Valley Road
- Low scale residential uses are located at the edges of the site adjoining existing low scale development
- Higher scale residential uses are centrally located within the site, close to existing hospital and church buildings taking advantage of access to Fox Valley Road and sloping topography
- Retail and commercial uses are grouped opposite the existing Fox Valley Shopping Centre
- Critically / endangered ecological communities are retained.

The site has been used for hospital and church purposes for over 100 years and it is appropriate to allow its expansion. Expansion of the hospital is also consistent with the intended future use of the site set out in the *draft North Subregional Strategy*. The mix of hospital, commercial, retail, residential and community uses is acceptable given the size of the site and that the vast majority (87.5%) of the total 159,900m<sup>2</sup> of GFA is to be for hospital and church purposes, the historically dominant land uses of the site.

The remaining 18,000m<sup>2</sup> or 12.5% of GFA consists of commercial (16,000m<sup>2</sup>) and retail (2,000m<sup>2</sup>) uses. It is noted that commercial uses allowed under the gazetted SEPP Amendment and proposed as future uses in the Concept Plan support the existing hospital and church functions.

A Social and Economic Impact Report was also submitted with the Environmental Assessment advising detailed modelling concludes that no existing centre will be detrimentally impacted by the proposal as it responds to a current local undersupply of retail floor space and also the demand which will be created by the overall redevelopment proposal. The 2,000m<sup>2</sup> of retail floor area proposed to consist of 1,000m<sup>2</sup> local supermarket and 1,000m<sup>2</sup> of speciality retail floor area will support the existing Fox Valley Shopping Centre and provide social benefits such as a greater range of local services.

Ku-ring-gai Council commented on proposed building layout / footprint issues such as impacts on vegetation, suitability for natural topography and extent of excavation required for the building envelopes proposed in the exhibited Environmental Assessment. While the building footprints have been amended since this time and some

of the building specific comments are no longer relevant, the key concepts conveyed by Council remain relevant considerations for further project or development applications.

It is recommended that a further assessment requirement apply to any Concept Plan approval issued indicating that the building footprints are indicative only and to be finalised through detailed assessment of project or development applications.

The indicative footprints for residential buildings are generally sited to ensure adequate solar amenity and appropriate building separation as per the *Residential Flat Design Code*. Further assessment of the final building design will be undertaken for future applications however the footprints appear generally acceptable.

A number of submissions raised issues regarding the design and operational aspects of the proposed school. These issues included whether the site area allocated was sufficient for a school of this size and whether bus bays and set down/pick-up areas for students could be accommodated on the site. The site has accommodated a primary school for over 100 years and it is appropriate to allow expansion of the school. Detailed designs are required for a significant development such as a K-12 school and it is recommended that a further assessment requirement apply to any Concept Plan approval issued outlining matters to be considered during the assessment of future applications.

Relocation of the school oval out of the critically endangered ecological communities of Sydney Blue Gum High Forest and Sydney Turpentine Ironbark Forest is supported.

### 6.3.3 Urban Design

A number of public submissions raised issues about urban design aspects of the Concept Plan. The issues can be summarised as:

- 4-6 storeys along Fox Valley Road is excessive and inconsistent with the local neighbourhood character
- Buildings fronting The Comenarra Parkway should be limited to 2 storeys
- 4 storeys on north side of Mount Pleasant Avenue is inconsistent with the existing low density neighbourhood character and will result in overlooking
- Height of buildings in east of site will overlook / shadow existing dwellings in Georgina Avenue
- Taller buildings should be located on the lower middle parts of the site away from main roads
- Buildings along Fox Valley Road should be adequately set back.

Ku-ring-gai Council lodged a detailed submission raising a number of urban design issues, such as height and bulk of the indicative buildings, overlooking / shadowing, design of internal road network and pedestrian links.

Hornsby Council lodged a submission noting that the final height and design of buildings adjoining Rivertop Close and Osborn Road (within the Hornsby Shire) had not been accurately provided. It noted that the potential for privacy, amenity impacts and view loss could therefore not be determined at this stage. Council recommended that buildings in this area should be low scale to maintain existing view and minimise the potential for privacy and amenity impacts.

The original Preferred Project Report submitted in September 2009 responded to the issues by:

- Amending the maximum building height on the north side of Mount Pleasant Avenue adjoining Rivertop Close and Osborn Road from 4 storeys to 2 storeys
- Deleting the 90 dwellings in the Residential East which residents in Georgina Avenue had raised concern about due to overlooking/shadowing
- Noting that greater heights had been maintained in areas away from Fox Valley Road.

The final Preferred Project Report submitted in January 2010 adopted the building heights in the gazetted SEPP Amendment.

#### Department Comment

The Department noted and addressed a number of issues raised in submissions relating to building height during preparation of the SEPP Amendment. Building heights in the gazetted SEPP Amendment were determined having regard to the site conditions and the surrounding environment. In particular, the gazetted SEPP Amendment incorporates the following measures to address concerns about building heights:

- Maximum height of 9.5m (2 storeys) around the edges of the site adjoining existing low scale residential areas

- Maximum height of 9.5m (2 storeys) on the north side of Mount Pleasant Avenue adjoining Rivertop Close and Osborn Road
- Maximum height of 14.5m (4 storeys) for the majority of new development along Fox Valley Road and wrapping around the corner of The Comenarra Parkway
- Maximum heights of 20.5m, 26.5m and 39.5m (6, 8 and 12 storeys) in close proximity to the existing hospital tower and / or to take advantage of sloping topography towards the centre of the site.

The heights are shown in Figure 7 below.



**Figure 7.** State Environment Planning Policy (Major Development) 2005 Wahroonga Estate Height Map

The maximum building heights in the final Preferred Project Report are acceptable as they are consistent with the maximum building heights in the gazetted SEPP Amendment. The SEPP heights were established for the following reasons:

- Heights for the Central Hospital Precinct reflect the maximum existing heights and are suitable for expansion of the hospital. Maximum GFA controls will ensure that the maximum height of 39.5m is not adopted across the entire Precinct.
- Heights for residential areas at the edges of the site are consistent with the adjoining low scale development.
- Greater heights are allowed in the central parts of the site and along Fox Valley Road to take advantage of sloping topography and location close to existing taller buildings.

Ku-ring-gai Council commented on urban design issues such as bulk of the indicative buildings, overshadowing, design of internal road network and pedestrian links proposed in the exhibited Environmental Assessment. While the indicative designs of many of the buildings and the proposed internal road design has been amended since this time and some of the comments are no longer relevant, the key concepts conveyed by Council remain relevant considerations for further project / development applications.

It is recommended that further assessment requirements apply to any Concept Plan approval identifying considerations the consent authority must have prior to issuing project or development approval for final building and internal road designs. Such matters are recommended to include providing good solar access, minimising overlooking and shadowing and the provision of a minimum setback of 10m along Fox Valley Road, to allow for active frontages and provide some consistency with existing buildings.



In addition, the consent authority has to consider *SEPP 65 – Design Quality of Residential Flat Development* and the *Residential Flat Design Code*.

## 6.4 BIODIVERSITY

### 6.4.1 Critically / Endangered Ecological Communities

A significant number of public and agency submissions, including Ku-ring-gai Council and the Department of Environment, Climate Change and Water raised issues concerning the Commonwealth and NSW listed critically / endangered ecological communities of Sydney Blue Gum High Forest and Sydney Turpentine Ironbark Forest located on the site.

The Commonwealth Department of the Environment, Water, Heritage and the Arts provided comment on the proposal in accordance with the accredited assessment processes between the Commonwealth and NSW governments, as it has determined development under the Concept Plan involves a 'controlled action' under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The key issues raised can be summarised as:

- Loss / degradation of critically / endangered ecological communities should be avoided / minimised
- Management / mitigation strategies for critically / endangered ecological communities are inadequate
- Offsets should be provided for any loss of critically / endangered ecological communities
- Appropriate buffers should be provided between development and critically / endangered ecological communities
- Proponent's vegetation mapping is inconsistent with mapping prepared by Council, resulting in an underestimation of loss / impacts on critically / endangered ecological communities.

The Proponent made a number of amendments to the Concept Plan in the Preferred Project Reports to respond to issues raised which are discussed below. The following issues however remain outstanding:

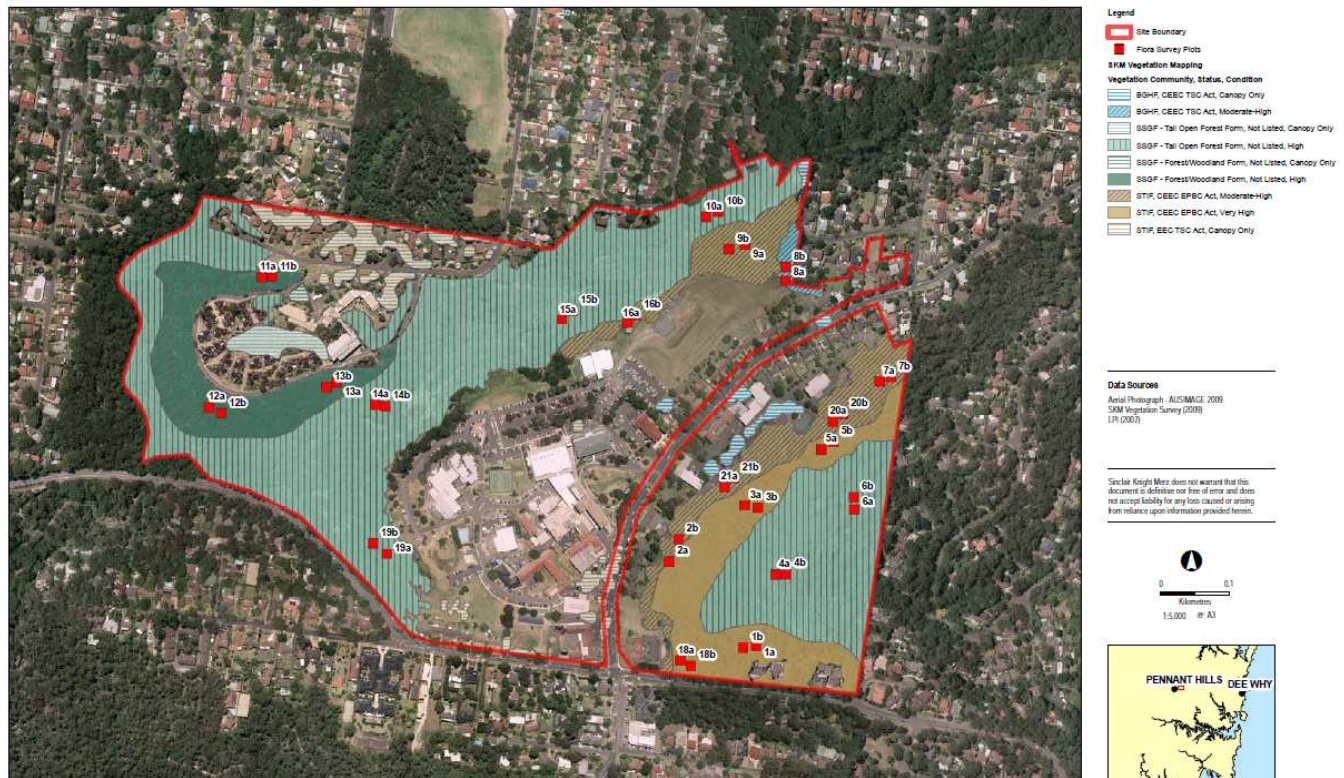
- The total amount of Sydney Turpentine Ironbark Forest listed under the EPBC Act to be impacted (ie. Modified, removed or 'lost' through fragmentation) for two proposed dwellings on The Comenarra Parkway requires clarification.
- Firm commitment to the ongoing long term management and financial support of the areas zoned Environmental Conservation and containing EPBC / Threatened Species Conservation Act 1995 (TSC Act) listed ecological communities has not been provided, including ownership, responsibility for ongoing management and monitoring, and details of proposed financial contributions to enable effective long term management.
- Mitigation measures to protect EPBC / TSC Act listed ecological communities from edge effects and recreational use need to be developed including a commitment to application and ongoing management, particularly where development is proposed close to conservation areas as is proposed for the school oval.

#### Department Comment

#### **Vegetation Mapping / Development Footprint and Conservation Areas**

The original Preferred Project Report submitted in September 2009 provided additional advice from the Proponent's ecological consultant which generally maintained support for its mapping of vegetation communities. The original Preferred Project Report did however delete residential development in the eastern part of the Site (approximately 90 dwellings and associated roads) and relocate the school oval / detention basin to avoid loss of critically endangered ecological communities.

The Department commissioned an independent review of the vegetation mapping to resolve concerns about inconsistencies in the ecological mapping prepared by the Proponent and Ku-ring-gai Council. The review methodology included field surveys and was developed in consultation with the NSW Department of Environment, Climate Change and Water and the Commonwealth Department of the Environment, Water, Heritage and the Arts. The results were generally consistent with the mapping prepared by Council and are shown in Figure 8 below.



**Figure 8. Vegetation Mapping (SKM Wahroonga Estate Redevelopment Ecological Assessment Report)**

In summary, it was found that the following listed ecological communities are located on the site:

- Sydney Turpentine Ironbark Forest listed as a critically endangered ecological community under the Commonwealth EPBC Act
- Sydney Turpentine Ironbark Forest listed as an endangered ecological community under the NSW TSC Act
- Sydney Blue Gum High Forest listed as a critically endangered ecological community under the NSW TSC Act.

The development footprint and conservation zones in the SEPP Amendment were subsequently positioned in accordance with the results of the independent mapping review and follow the line of vegetation communities, ensuring direct impacts on critically / endangered ecological communities are avoided.

The amended development footprint in the final Preferred Project Report submitted in January 2010 responds to the zone boundaries and controls in the gazetted SEPP Amendment. This increases conservation land from the 18ha proposed in the exhibited Environmental Assessment to 31ha, or 50% of the site area, which is an appropriate response to site conditions, ecological values and the surrounding bushland character.

**Direct and Indirect Impacts - Critically / Endangered Ecological Communities**

The amended development footprint ensures there are no direct impacts on the critically endangered ecological community of Sydney Blue Gum High Forest and limited direct impacts on the critically ecological community of Sydney Turpentine Ironbark Forest from development proposed under the Concept Plan.

Residential East Precinct

Land in the Residential East Precinct is mapped in the Department’s independent review of vegetation communities as Sydney Turpentine Ironbark Forest and listed as a critically endangered ecological community under the EPBC Act. The gazetted SEPP Amendment applies a residential zoning in some parts of this Precinct in response to the land being developed with existing dwellings. However, there is opportunity for two new infill dwelling houses, which have been identified in the Concept Plan.

The final Preferred Project Report does not specifically discuss potential impacts on the Sydney Turpentine Ironbark Forest from two new dwellings in this location. The Proponent however provided subsequent advice indicating that the proposed dwellings would require removal / modification of approximately 0.28ha of the Sydney Turpentine Ironbark Forest, assuming the trees along the front (The Comenarra Parkway) boundary

remain undisturbed in the same manner as the existing development on surrounding lots. This issue will be resolved by further assessment under the EPBC Act as the community is Commonwealth listed.

### Mount Pleasant Precinct

Land in the Mount Pleasant Precinct is mapped in the independent review of vegetation communities as Sydney Turpentine Ironbark Forest and listed as an endangered ecological community under the NSW TSC Act. The Proponent's mapping had incorrectly identified this vegetation as Blackbutt Turpentine Smooth Barked Apple Open Forest, which is not listed as endangered.

The gazetted SEPP Amendment applies a residential zoning over this land in response to the land being developed with existing dwellings which are proposed to be replaced with low scale town houses. While the NSW Department of Environment, Climate Change and Water did not specifically mention vegetation values in the Mount Pleasant Precinct in its submission, it did recommend that loss of endangered Sydney Turpentine Ironbark Forest should be avoided.

### General

Regarding direct and indirect impacts in general, the final Preferred Project Report does not specifically address or provide a firm commitment to the ongoing long-term management and financial support of conservation areas containing EPBC / TSC Act listed ecological communities. It also does not contain specific measures to protect EPBC / TSC Act listed ecological communities from indirect impacts such as edge effects and recreational use.

### **Further Assessment Requirements**

The Proponent's Statement of Commitments provides an undertaking to adopt a biodiversity management plan for the site, including a vegetation management plan, weed management plan, erosion and sediment control plan, and revegetation and landscaping plan. The final Preferred Project Report also states that some conservation areas are proposed to be transferred to a public authority or community organisation through a separate agreement and that consultation is on-going with the Department of Environment, Climate Change and Water in this regard. No agreement with the Department of Environment, Climate Change and Water or Council to accept the lands has been reached to date.

To address the outstanding issues regarding direct and indirect impacts on critically / endangered ecological communities it is recommended that a further assessment requirement require an expanded biodiversity management plan be developed and implemented by the Proponent, and approved by the Commonwealth Department of the Environment, Water, Heritage, prior to any works commencing on the site. The plan should include:

- Vegetation management plan
- Pest and weed plan
- Hydrology and nutrient management plan
- Habitat corridor and linkages management plan
- Fire management plan
- Management plan outlining public access and impacts on the E2 Environmental Conservation zone
- Ownership, management, maintenance and monitoring responsibilities and funding arrangements.

The total amount of Sydney Turpentine Ironbark Forest listed under the EPBC Act to be modified or removed and any required offsets will need to be confirmed in order to prepare the biodiversity management plan.

Noting the recommendation of section 6.3.2 above, that the footprint of buildings proposed under the Concept Plan be considered indicative only and subject to further project or development application assessment, it is recommended a further assessment requirement apply to the two dwellings in the Residential East Precinct which are proposed to be located within Sydney Turpentine Ironbark Forest listed under the EPBC Act. It is recommended this require any new development be sited to avoid the critically / endangered ecological communities and that the design and location of buildings, driveways and access maximise retention of the community.

Likewise, it is recommended that this further assessment requirement apply to the Mount Pleasant Precinct to ensure that the Sydney Turpentine Ironbark Forest protected under the NSW TSC Act (and not EPBC Act) is also retained.

In any case, the Proponent will still need to obtain approval from the Department of the Environment, Water, Heritage and the Arts for the controlled action under the EPBC Act. Any further assessment and / or determination of the controlled action by the Department of the Environment, Water, Heritage and the Arts will have regard to matters protected under the EPBC Act, which may be additional to the requirements of any Concept Plan approval.

#### 6.4.2 Other Biodiversity Issues

A number of public and agency submissions raised issues about other impacts on the natural environment, bushland, native flora/fauna and habitat. The issues can be summarised as:

- Little conservation of the site due to over development
- Retention of 30% of bushland is insufficient
- Destruction of bushland corridors that connect existing reserves and Lane Cove National Park
- Impacts on threatened fauna such as powerful owls and wildlife such as frog populations
- Asset Protection Zones should not be located in conservation areas
- Impacts from construction and excavation close to waterways.

#### Department Comment

Most of the issues raised in submissions about other impacts on the natural environment, bushland, native flora/fauna and habitat have been addressed by setting the boundary between the development footprint and conservation areas along vegetation communities. For example:

- Conservation land has increased from around 30% of the site to 50% of the site
- Bushland corridors that connect existing reserves and Lane Cove National Park will be preserved
- Habitat for threatened fauna will be maintained.

The further assessment requirements recommended in the above section will also address these issues, for example through the requirement for a habitat corridor and linkages management plan to be approved and implemented. The key exception is the concern that Asset Protection Zones should not be located in conservation areas given that vegetation would need to be modified to provide appropriate asset protection.

The final Preferred Project Report shows that Asset Protection Zones are to be located outside conservation zone boundaries in accordance with the gazetted SEPP Amendment and allocates widths to the Protection Zones. This is supported however it is also recommended that further protection to that offered under the SEPP Amendment be provided through the terms of any Concept Plan approval. It is recommended that a further assessment requirement note that the widths of the Asset Protection Zones are indicative only and a further assessment requirement state that Asset Protection Zones for all development approved after the date of Concept Plan approval must be contained within development footprint and meet the requirements of *Planning for Bushfire Protection 2006*.

Concerns regarding impacts from construction and excavation close to waterways can be dealt with in assessment of project or development applications and through the requirement for a Construction Management Plan (refer to section 6.11 below for more detail).

#### 6.5 BUSHFIRE

A number of public submissions and agencies such as the Department of Environment, Climate Change and Water raised issues about bushfire risk management and evacuation measures relating to the redevelopment of the site. The issues can be summarised as:

- Amount of clearing and modification of vegetation for bushfire management is excessive
- Asset Protection Zones should not impact on sensitive vegetation and conservation areas
- Impacts of increased development of the site on evacuation during bushfire events
- Setbacks, roads and new development need to comply with Rural Fire Service policies.

Both the Rural Fire Service and Ku-ring-gai Council also lodged detailed submissions identifying many instances where the Concept Plan did not meet Planning for Bushfire Protection requirements, including:

- Riparian buffers around Core Riparian Zones are proposed for Asset Protection Zones and it is unclear whether the riparian buffers will conflict with the requirements for Asset Protection Zones

- Proposed Asset Protection Zones are unclear and / or insufficient in the Mount Pleasant, Central Hospital, Central Church, Fox Valley and Residential East precincts
- Adequacy of access into and within the Mount Pleasant Precinct
- New hospital buildings in the flame zone do not meet Asset Protection Zone requirements
- Unclear whether the proposed school can provide and maintain the required Asset Protection Zone
- New access roads will be required to comply with *Planning for Bushfire Protection 2006*.

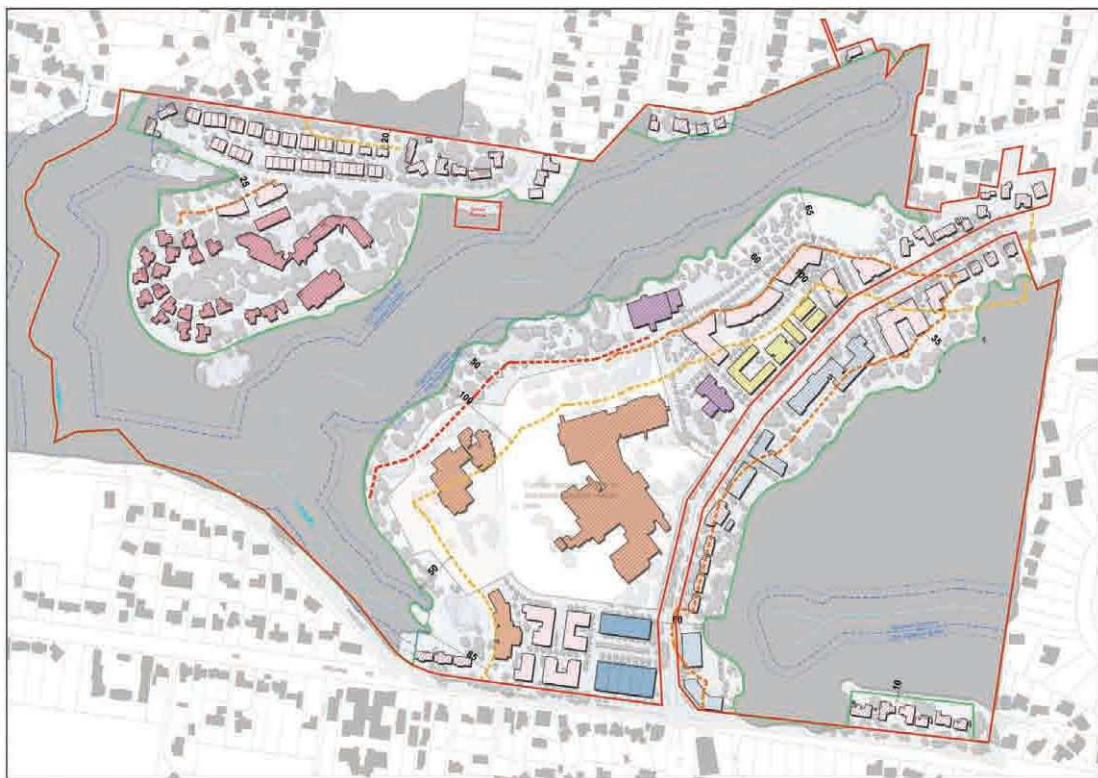
Both submissions are provided in full at **Appendix F**.

The Proponent made a number of changes to the development footprint in the original Preferred Project Report submitted in September 2009. The introduction of a number of new and enlarged Asset Protection Zones resolved agency and community concerns expressed during the exhibition process. The Rural Fire Service reviewed the draft document and advised of its support for the amendments relating to bushfire issues. It also indicated the Service had no objection to the approval of the amended proposal, subject to the Proponent demonstrating that all Asset Protection Zones satisfy the performance requirements of *Planning for Bushfire Protection 2006*.

The final Preferred Project Report submitted in January 2010 responding to the zone boundaries and controls in the gazetted SEPP Amendment, relocated the proposed school and oval to a more central location on Fox Valley Road and revised a number of the indicative building footprints. The key amendments relating to bushfire issues include:

- Modification of Asset Protection Zones across the site to be located wholly outside of the E2 Environmental Conservation zoned land and within the development footprint.
- Reduction of the Asset Protection Zone in the Mount Pleasant Precinct for the two new residential flat buildings to a minimum of 25m from a minimum of 35m in the original Preferred Project Report.
- Increase in the minimum Special Fire Protection Purpose Asset Protection Zone for the proposed school in the Central Church Precinct to 100m, from a minimum of 77m proposed under the original Preferred Project Report.
- Reduction in the width of the Asset Protection Zone servicing two proposed and four existing dwelling houses in the Residential East Precinct to 10m from a minimum of 60m under the original Preferred Project Report.

The amended Asset Protection Zones are shown in Figure 9 below.



**Figure 9.** Asset Protection Zones (Final Preferred Project Report, January 2010)

### Department Comment

Most of the concerns raised by agencies and the public about the extent of clearing and/or modification for Asset Protection Zones and impacts on conservation areas have been resolved through the zoning provisions of the gazetted SEPP Amendment and further assessment requirements, which is discussed in detail in section 6.4.2 above.

Noting the Rural Fire Service supported the draft amended Concept Plan from September 2009 subject to complying with *Planning for Bushfire Protection 2006*, but that a number of additional amendments have been made to the layout since, it is recommended that a further assessment requirement be included in any Concept Plan approval issued requiring that all Asset Protection Zones and other bushfire protection measures comply with *Planning for Bushfire Protection 2006*. This will ensure the need for and management of Asset Protection Zones is examined in detail during the assessment of all future applications when the location of buildings and structures is finalised to ensure consistency with the approved Concept Plan and *Planning for Bushfire Protection* requirements.

In terms of evacuation issues, the proposal was referred to the Rural Fire Service, the agency responsible for fire management and prevention in NSW numerous times throughout the assessment process. The RFS did not raise issue with evacuation measures on the site.

The Proponent's Statement of Commitments also contains an undertaking to create an Emergency Liaison Committee (ELC) to coordinate ongoing emergency management functions on the site. The aim of the committee is to coordinate the preparation of evacuation plans for each land use within the site, and to represent the Estate on Council's Local Emergency Management Committee. The Sydney Adventist Hospital is already represented on the committee.

The total package of measures to address bushfire issues including SEPP Amendment controls, further assessment requirements and commitments from the Proponent such as road upgrades and establishing an Emergency Liaison Committee address issues raised in submissions and will provide an appropriate bushfire management outcome for the redevelopment of the site.

## **6.6 TRAFFIC, TRANSPORT AND CAR PARKING**

### **6.6.1 Traffic**

A significant number of agency and public submissions raised issues relating to traffic management. General concern was raised regarding the increased residential population, expansion of the hospital and the ability of the road network to accommodate this increased demand. Local issues were also raised including the proposed link to Osborn Road. The issues can be summarised as:

- Increased development will exacerbate local traffic congestion
- Numerous local intersections require upgrading to accommodate additional traffic from the development
- Local intersection upgrades may not be achievable within existing road reservations
- Proposed link to Osborn Road is inappropriate
- All internal roads and access into the site should comply with design and evacuation requirements
- Inadequate connections and facilities for pedestrians and cyclists.

The Roads and Traffic Authority (RTA) lodged a submission which provides general support for the proposal, subject to a number of intersection upgrades and road improvement works being carried out in conjunction with the development. The necessary works and additional requirements are specified in detail in the RTA's submission on the Concept Plan (**Appendix F**) and include:

1. Reconstruction / upgrading of the existing traffic signals at the following locations:
  - a. The Comenarra Parkway / Fox Valley Road
  - b. Pacific Highway / Fox Valley Road (Contributions or Works in Kind)
  - c. The Comenarra Parkway / Kissing Point Road
2. Intersection improvements at the following locations:
  - d. Fox Valley Road and Site Accesses to the Precinct.

The original Preferred Project Report submitted in September 2009 responded to the issues raised in submissions by:

- Deleting the Osborn Road link
- Reducing the number of proposed dwellings in the Mount Pleasant Precinct by 11 dwellings
- Providing additional traffic modelling concluding that any increased traffic resulting from this level of development could be accommodated via the existing non-signalised intersection of Mount Pleasant Avenue and Pennant Hills Road, rather than the by the Osborn Road link
- Deleting proposed upgrade works at the intersection of The Comenarra Parkway and Pennant Hills Road.

Following the maximum number of dwellings being set at the reduced number of 500 in the gazetted SEPP Amendment, the Proponent reviewed the road works required by the RTA to inform preparation of the final Preferred Project Report submitted in January 2010. Advice was provided from the Proponent's traffic consultant with the final Preferred Project Report indicating that the full scope of works set out in the RTA's submission remain necessary to accommodate the proposed development.

#### Department Comment

While it is noted that the RTA support the Osborn Road link, its deletion is an acceptable response to issues raised in public submissions, noting the land ownership issues involved in realising the link and that the Proponent's traffic consultant has provided confirmation that any increase in traffic can be accommodated by the existing intersection of Mount Pleasant Avenue and Pennant Hills Road.

It is recommended that a further assessment requirement be included in any Concept Plan approval requiring the Proponent to enter into a binding Deed of Agreement with the Roads and Traffic Authority to undertake all road improvement works specified in the Authorities letter of 18 June 2009. This will ensure that satisfactory road works are undertaken by the proponent to accommodate the expansion of the hospital and the increased development / population on the site at the appropriate stage / time.

The proposed internal road layout was amended from the layout publicly exhibited in both the original and final Preferred Project Reports. It is noted that the Proponent has sought approval for the road layouts as part of the Concept Plan application, however given the nature of changes made throughout the assessment process it is recommended that the proposed road layouts be considered as indicative only and that a further assessment requirement apply to any Concept Plan approval requiring the final layout and design of roads to comply with relevant Council Development Control Plans.

The Environmental Assessment commits to ensuring that all roads will comply with the road design, evacuation and emergency services access requirements specified in *Planning for Bushfire Protection 2006*. It is recommended that further assessment requirement regarding internal road layout and design also require that road works are carried out in accordance with the construction standards prescribed in *Planning for Bushfire Protection 2006*.

#### **6.6.2 Transport**

Public submissions which raised transport issues primarily noted the difficulties in accessing nearby railway stations from the site and the need for improved linkages for pedestrians and cyclists to the surrounding area. A number of agency submissions raised issues about transport, including:

##### *Ministry of Transport*

- The Transport Management and Accessibility Plan (TMAP) does not adequately address preparation of an implementation strategy, preparation of a Transport Access Guide (TAG) or identify all possible options for pedestrian and cycle connections through the subject site and adjoining neighbourhood, including the provision of bicycle storage facilities.
- The TMAP requires a specific package of transport measures to ensure a targeted mode share to public transport, this should form part of the implementation strategy.
- The needs of pedestrian, cyclist and public transport users need greater consideration in terms of the Mount Pleasant Precinct, the provision of cycle links and pedestrian links (shared paths) are encouraged through riparian areas.
- Internal roads and intersections should be designed to accommodate potential bus movements.

*Roads and Traffic Authority*

- Appropriate end of trip facilities should be provided for pedestrians and cyclists.
- Work Place Travel Plans and/or Transport Access Guides should be prepared and implemented for all employment generating land uses on the site.

*Ku-ring-gai Council*

- Proponent's proposal to provide a new bus shelter on the southern side of Fox Valley Road is supported.
- Agree with statements in the Environmental Assessment that the two existing bus routes servicing the site are presently underutilised and increased promotion of these services would raise awareness / patronage of the services.
- Bus routes and services may require modification in order to accommodate the proposed school.

The original Preferred Project Report submitted in September 2009 did not make any significant amendments in response to the transport issues raised during public exhibition. It did however refer to the undertaking which had been provided in the Statement of Commitments proposing to prepare a package of transport measures to promote modal shift to public transport, including bus infrastructure and service improvements, bicycle facilities including end of trip facilities and information promoting public transport options.

The final Preferred Project Report submitted in January 2010 did not make any additional amendments relating to transport issues.

Department Comment

It is recommended that a further assessment requirement require the submission of Work Place Travel Plans and Transport Access Guides for employment generating activities. This will ensure options to improve public transport mode share, cycling and pedestrian travel can be explored / confirmed when consideration is given to individual development proposals for the site. The Transport Access Guides will also assist with the dissemination of information about transport options.

Any modifications or extensions to bus stops and travel routes can be considered in detail at the project / development application stage to ensure arrangements are responsive to the development occurring on the site. A further assessment requirement of any Concept Plan approval can ensure that all signposting and other bus infrastructure improvement works required for the proposed development are funded by the Proponent.

To address concerns regarding the needs of pedestrians and cyclists it is recommended that a further assessment requirement be applied to any Concept Plan approval issued. It is recommended that this require the submission of a pedestrian / cyclist linkages plan, including internal linkages, linkages to the Mount Pleasant Precinct and linkages to existing formal council networks prior to or accompanying the first project / development application for either the Central Hospital and Central Church precincts.

Noting that the number of internal roads has been reduced and that development is concentrated close to the established roads of Fox Valley Road, The Comenarra Parkway and Mount Pleasant Avenue, it is not anticipated that buses will need to enter the site. On this basis it is not considered necessary for a further assessment requirement to specify that the internal roads and intersections are to be designed to accommodate bus movements. As discussed in section 6.6.1 above however, the design of internal roads will need to comply with relevant Council Development Control Plans.

The total package of measures to address transport issues including commitments from the Proponent and further assessment requirements such as the preparation of Work Place Travel Plans and Transport Access Guides address issues raised in submissions and will provide an appropriate transport outcome for the redevelopment of the site.

**6.6.3 Car Parking**

A number of public submissions raised concerns about the provision of car parking on the site. Many submissions did however offer support for the proposal to remove on-street car parking on Fox Valley Road for the length of the site. The issues of concern can be summarised as:

- There is already a shortage of car parking in the locality
- Car parking shortage will be exacerbated by removing on-street car parking from Fox Valley Road
- Proposed car parking rates for future development are inadequate
- Insufficient parking details have been provided for the proposed school



- Impacts of the proposed car sharing scheme have been overestimated and it is likely that resident car parking demand will be higher than anticipated
- The documentation lacks detail on the operation of the proposed car sharing scheme.

The Ministry of Transport's submission advised that a minimalist approach to car parking is supported, including the removal of car parking on Fox Valley Road and the introduction of the formal car sharing scheme, although these initiatives should form part of an overall car parking management strategy to reduce car parking provision in favour of public transport, cycling and walking.

Ku-ring-gai Council's submission raised concern that the proposed degree of trip containment and therefore reduced parking requirements is dependent on a significant portion of the proposed residential dwellings being dedicated to staff and students. Council raised concern that no firm commitment has been offered to ensure this dedication, and that therefore parking demand could be higher than suggested in the documentation.

Ku-ring-gai Council's submission also raised concern that inadequate details of the car parking provision and demand generated by the projected future expansion of the hospital made it difficult to properly assess the adequacy of the proposed car parking rates for residential and business uses. A substantial number of public submissions also supported this view.

The original Preferred Project Report submitted in September 2009 responded to the issues raised by advising:

- The hospital is to be expanded in a number of stages and separate parking analysis will be provided at the project application stage.
- It is not known how many dwellings will be used by staff and students and the parking plan will be fine tuned as the residential component is progressed, it is not in the interest of the hospital or church to create long term parking problems.
- Car parking, drop off and pick up arrangements for the school will be supplied at project application stage.
- It is anticipated that details of the car sharing scheme will be the subject of conditions of consent.

The final Preferred Project Report submitted in January 2010 adopted 500 as the maximum number of dwellings. As such the total number of private residential dwellings was substantially reduced from 702 in the exhibited Concept Plan to 500 in the final Preferred Project Report. Residential car parking provision was also increased from an average rate of 1.36 spaces per residential dwelling under the exhibited Concept Plan to 1.41 spaces per dwelling in the final Preferred Project Report.

In total, it is proposed to provide 1,671 car spaces (including 250 on-street parking spaces) on the site in conjunction with the development. This includes 980 residential spaces in total, to be provided at the following rates:

- Dwelling Houses                    2 spaces per dwelling house
- Townhouses                        2 spaces per townhouse
- Residential Flat Units            1 bedroom units: 0.5 space per unit  
     2 bedroom units: 1 space per unit  
     3 bedroom units: 1 space per unit  
     Visitors parking: 1 space per 4 units  
     Car sharing scheme: 1 space per 6 units

A comparison between the car parking rates required under Ku-ring-gai and Hornsby Councils relevant Development Control Plans for all uses proposed for the site is provided below:

<b>Requirements for land in Ku-ring-gai Local Government Area (DCP 43 – Car Parking Code)</b>		
<b>Landuse</b>	<b>DCP Requirement</b>	<b>Proposed provision in Final PPR</b>
<b>Residential</b> Dwelling Houses	2 spaces per single dwelling	2 spaces per dwelling
Residential Flat Buildings	1 bedroom unit: 1 space per unit 2 bedroom unit: 1 space per unit 3 bedroom unit: 1.5 spaces per unit Visitors: 1 space per 4 units	1 bedroom unit: 0.5 spaces per unit 2 bedroom unit: 1 space per unit 3 bedroom unit: 1 space per unit Visitors: 1 space per 4 units Car share: 1 space per 6 units
<b>Residential Buildings (Boarding Houses)</b>	Assessed on merit (1 space per staff member recommended)	Studio/hostel: 1 space per 4 units 1 bedroom unit: 0.5 spaces per unit Visitors: 1 space per 4 units/beds Car Share: 1 space per 6 units
<b>Office and Commercial Premises</b>	1 space per 33m <sup>2</sup> gross floor area (plus 1 courier/resident manager space)	1 space per 100m <sup>2</sup>
<b>Retail Shops</b>	1 space per 17m <sup>2</sup> gross floor area	1 space per 33m <sup>2</sup>
<b>Hospitals</b>	1 space per 3 beds 1 space per 2 day-shift staff 1 ambulance space 1 space per 1 full-time night shift staff	<i>Assessed on merit</i>
<b>Primary and Secondary Schools</b>	1 space per equivalent full-time employee 1 space per 8 Year 12 students	1 space per equivalent full-time employee 1 space per 8 Year 12 students
<b>Tertiary Education</b>	1 space per equivalent full-time employee 1 space per 3 students	40% at 1.5 spaces per student

<b>Requirements for land in Hornsby Local Government Area (Mount Pleasant Precinct) (Car Parking DCP)</b>		
<b>Landuse</b>	<b>DCP Requirement</b>	<b>Proposed provision in Final PPR</b>
<b>Residential</b> Dwelling Houses	Dwellings under 100m <sup>2</sup> : 1 space Dwellings over 100m <sup>2</sup> : 2 spaces	2 spaces per dwelling
Multi-unit housing	Dwellings under 100m <sup>2</sup> : 1 space Dwellings over 100m <sup>2</sup> : 2 spaces Visitors: 1 space per 5 dwellings	1 bedroom unit: 0.5 spaces per unit 2 bedroom unit: 1 space per unit 3 bedroom unit: 1 space per unit Visitors: 1 space per 4 units
<b>Seniors Housing</b> Nursing Homes	1 space per 10 beds 1 space per 2 employees 1 ambulance parking space	1 space per 2 subsidised independent living units 1 space per 5 non-subsidised independent living units
Hostels	1 space per 2 employees 1 ambulance parking space	1 space per 10 dwellings 1 space per 2 employees

### Department Comment

Noting the size and extent of uses proposed in the overall development, and that components such as the car sharing scheme are yet to be fully developed, it is recommended that car parking rates for all non residential land uses be further assessed at project or development application stage.

To provide some certainty in relation to the level of car parking that will be required to be provided as part of future residential development, it is appropriate to establish parking rates for these uses. The residential parking rates proposed by the Proponent are generally in line with the current car parking requirements under Ku-ring-gai and Hornsby Council's relevant Development Control Plans, except for rates for residential flat development

which are generally lower than Council requirements, as indicated below and approved as part of the Concept Plan:

<b>Ku-ring-gai Council DCP 43 Car Parking Code</b>	<b>Hornsby Council Car Parking Development Control Plan</b>	<b>Proposed parking provision Final Preferred Project Report</b>
<i>Residential flat buildings</i> 1 bedroom unit: 1 space per unit 2 bedroom unit: 1 space per unit 3 bedroom unit: 1.5 spaces per unit Visitors: 1 space per 4 units	<i>Multi-unit housing</i> Dwellings under 100m <sup>2</sup> : 1 space Dwellings over 100m <sup>2</sup> : 2 spaces Visitors: 1 space per 5 dwellings	Residential flat buildings: 1 bedroom unit: 0.5 spaces per unit 2 bedroom unit: 1 space per unit 3 bedroom unit: 1 space per unit Visitors: 1 space per 4 units Car share: 1 space per 6 units

Noting the proposed residential rates are generally in line with existing Council rates but that the transport agencies support a minimalist approach to car parking provision, it is recommended that the minimum residential car parking rate be as per the rates indicated in the Final Preferred Project Report.

Traffic / car parking assessments detailing the number and location of parking spaces, loading and unloading facilities and traffic management arrangements will be required for future applications for employment generating uses. This will require a suitably qualified transport planner to assess impacts on traffic efficiency, safety and provide appropriate justification for any departures from the parking rates specified in Council's DCP, having regard to the requirements for traffic generating developments.

The recommended approach to the provision of car parking will provide certainty for smaller scale residential development, but allow more detailed merit based assessments of larger scale and mixed use developments at project or development application stage.

The Statement of Commitments gives an undertaking to establish a residential car share scheme with levies to be applied to future medium and high density residential dwellings. This undertaking is supported and it is recommended it be supplemented by a further assessment requirement requiring future project / development applications to provide designated parking spaces for the car share scheme.

## **6.7 HERITAGE**

### **6.7.1 Aboriginal Heritage**

Both Ku-ring-gai Council and Department of Environment, Climate Change and Water commented on Aboriginal heritage issues in their submissions. Both agencies noted that the Proponent's Aboriginal Heritage Assessment was satisfactorily undertaken in accordance with the Director General's Requirements and supported the key recommendations of the Aboriginal Heritage Assessment which have also been included in the Statement of Commitments, being:

- The registered Aboriginal site and the undisturbed areas adjacent to Coups Creek should remain undeveloped
- Should development of these areas be proposed in future a Heritage Impact Assessment should be prepared in consultation with the local Aboriginal community.

Ku-ring-gai Council also recommended that measures be put in place during construction relating to the Coups Creek corridor in case Aboriginal sites are uncovered.

The Proponent did not make any response to submissions relating to Aboriginal heritage matters. It is noted however that no significant issues were raised.

#### Department Comment

To address Ku-ring-gai Council's recommendation that measures be put in place during construction relating to the Coups Creek corridor in case Aboriginal sites are uncovered, it is recommended that a further assessment requirement be applied to any Concept Plan approval issued requiring the consent authority to consider any measures that should be put in place for development in the Coups Creek corridor if Aboriginal sites are uncovered during construction activities. In addition, it is noted that consent under section 90 of the *National Parks and Wildlife Act 1974* will be required if there is likely to be any impacts on Aboriginal objects or places.

The combination of the recommendations in the Proponent's Aboriginal Heritage Assessment / Statement of Commitments and the recommended further assessment requirement will ensure that Aboriginal heritage matters are satisfactorily addressed by the Concept Plan.

### **6.7.2 European Heritage**

Ku-ring-gai Council commented on European heritage issues in its submission, noting that the site contains one locally listed heritage item, the Administration Offices at 146 – 148 Fox Valley Road (proposed to be retained). It also noted that the Proponent's Heritage Impact Statement was prepared to a satisfactory standard and undertaken in accordance with the Director General's Requirements.

The Heritage Impact Statement makes six main recommendations and Council advised it does not support all of the recommendations. Council does not support the recommendation that a number of timber framed cottages along Fox Valley Road be relocated or salvaged materials reused, despite the cottages having no heritage listing. Council also noted that the Heritage Impact Statement contained conflicting information about the demolition of early hospital buildings.

The Proponent did not make any response to submissions relating to aboriginal heritage matters. It is noted however that no significant issues were raised.

#### Department Comment

A number of other buildings on the site have historical interest or heritage potential and the Proponent has adequately committed to addressing matters related to European heritage through recommendations in the Heritage Impact Statement and the Statement of Commitments.

## **6.8 INFRASTRUCTURE & UTILITIES**

### **6.8.1 State Infrastructure**

The Roads and Traffic Authority submission did not raise any requirement for major upgrades to existing State infrastructure as a result of development proposed under the Concept Plan.

The Department of Education's public submission advised that it is presumed that most new residents' school aged children will primarily be attending the Adventist education facilities. It was noted however, that if this assumption is not correct then there will be an impact on State education facilities. Turrumurra High School could accommodate additional students within its existing facilities, but Warrawee Public School may require up to two additional classrooms.

#### Department Comment

Government policy does not cover infrastructure contributions for the provision of education facilities such as classrooms, only reservation of land for community purposes. It is expected however that a number of new school age residents will be accommodated by the new K-12 Adventist School proposed under the Concept Plan.

### **6.8.2 Local Infrastructure**

Ku-ring-gai Council commented on local infrastructure and associated development contributions in its submission. It noted that the calculated contribution rates in the Environmental Assessment provide a broad guide to the contributions that would arise from development of the site. Council also recommended that negotiations for a local planning agreement should be commenced prior to lodgement of the first project or development application.

Hornsby Shire Council did not raise any issues in its submission regarding local infrastructure or development contributions.

#### Department Comment

The Statement of Commitments provides that local contributions are to be provided in accordance with Council section 94 developer contribution plans including provision for levies, works in kind or voluntary planning agreement and that this provision is to be made prior to determination or in accordance with conditions of any project or development approval. This undertaking is sufficient to address local infrastructure requirements.

### 6.8.3 Utilities

A Civil Engineering Utilities Report was submitted with the Environmental Assessment. The report outlines existing utilities servicing the Wahroonga Estate site and details likely infrastructure upgrades for development proposed under the Concept Plan.

The Utilities Report identifies that the following utilities service the site and will require upgrade works at the time of construction to maintain supply to the development:

- Sewer: Sydney Water has advised there is insufficient capacity in the existing wastewater system to service development proposed under the Concept Plan. Upgrade or duplication of the existing local sewers will be required.
- Water: Sydney Water has advised there is insufficient capacity in the existing water system to service development proposed under the Concept Plan. The existing mains will require upgrade to provide sufficient capacity.
- Gas: At this stage there are no major supply constraints identified for the area, however it is noted that Alinta do not reserve capacity.
- Electricity: The Turramurra zone substation which services the site is approaching full capacity, however Energy Australia have scheduled works to augment its capacity between 2010 and 2012. The developer will be required to supply at least one new 11kV feeder, distribution kiosk/substation, low voltage distribution cables and street lighting.
- Telecommunications: The site is serviced by both optical fibre and local cable, however the network is insufficient to meet the anticipated demand of the proposed development and would require upgrading.

Sydney Water and Energy Australia both made submissions during public exhibition. Sydney Water confirmed the above advice that the Proponent must fund any adjustments needed to Sydney Water infrastructure as a result of the Concept Plan. Energy Australia advised that several new substations on the site and at least one new high voltage underground cable to the Turramurra Zone substation may be required for service development under the Concept Plan at the Proponent's expense.

Ku-ring-gai Council's submission noted that the Environmental Assessment was unclear as to the extent of works required to upgrade the sewer and associated impacts on endangered ecological communities.

#### Department Comment

The Environmental Assessment states that a number of utility upgrades will be required to service development proposed under the Concept Plan. The Statement of Commitments includes an undertaking to liaise with utility providers to determine service requirements for each stage of the development. Also that augmentation must be provided to support the capacity proposed in the development. These undertakings are sufficient to address utility requirements.

## 6.9 DRAINAGE, STORMWATER & WATERWAY MANAGEMENT

### 6.9.1 Drainage and Stormwater Management

Ku-ring-gai Council advised in its public exhibition submission that the Wahroonga Estate Flooding and Stormwater Master Plan submitted with the Environmental Assessment is sufficient to address stormwater issues.

Council also advised that it strongly supports the incorporation of water sensitive urban design features and expressed its view that the proposal should exceed the minimum BASIX requirements. However it recommended that such design features should not be implemented in place of retaining natural watercourses and riparian zones which appeared to be the approach in some circumstances. In order to avoid this, Council recommends that a stronger emphasis should be placed at the individual allotment scale rather than development as a whole.

The use of excess harvested stormwater to irrigate gardens and recreational areas is also supported by Council. Its submission noted that pollutant reduction targets used for the Wahroonga Estate Flooding and Stormwater Master Plan have been sourced from Council's *DCP 47 – Water Management*, however given the large scale of the development, Council recommended that the Growth Centres Commission targets be adopted which are in excess of the targets in DCP 47.

The NSW Department of Primary Industries advised that to minimise local and downstream impacts on water quality, it is important that development incorporates water sensitive urban design principles. It recommends that

there should be no significant increase in the volume of water discharging to adjacent streams and that the water quality of these systems should not be reduced.

### Department Comment

Ku-ring-gai Council's general support for the proposed management of stormwater issues is noted.

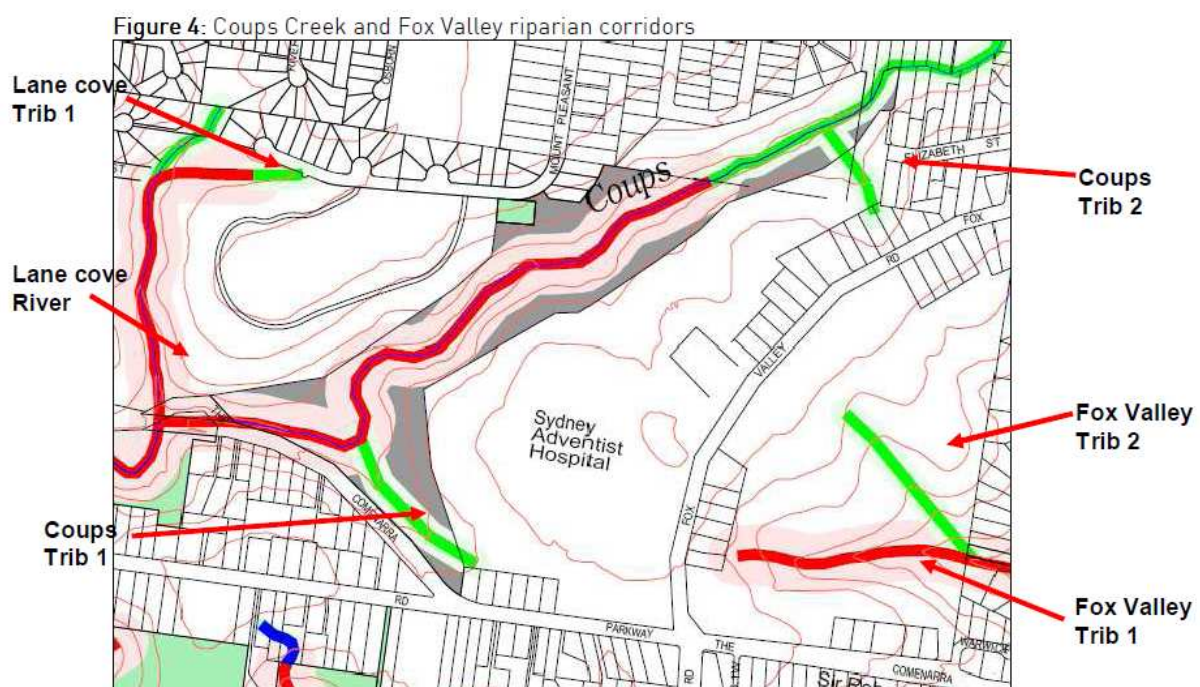
To ensure appropriate emphasis is placed on achieving positive environmental outcomes it is recommended that a further assessment requirement apply to any Concept Plan approval issued requiring the consent authority to give appropriate consideration to water sensitive urban design features when approving future development proposals.

Council's recommendation to have Growth Centres Commission pollutant reduction targets apply to the Concept Plan is noted. DCP 47 already provides targets previously endorsed for the Ku-ring-gai Council area, it is considered appropriate that the targets in the DCP that are appropriate for the area form part of the Concept Plan approval.

The Department of Primary Industries' recommendations to minimise local and downstream impacts on water quality ensure there is no significant increase in the volume of water discharging into adjacent streams and that water quality of these not be reduced can be addressed during assessment of project or development applications. The Wahroonga Estate Flooding and Stormwater Master Plan commits to undertaking development in accordance with DCP 47, and it is recommended that a further assessment requirement apply to any Concept Plan approval requiring the consent authority to consider DCP 47 in its assessment of development applications.

### 6.9.2 Waterway Management

Ku-ring-gai Council's public exhibition submission expressed major concern that the Concept Plan effectively removes two waterways and associated riparian zones from the area or imposes detention systems on them. The submission notes that site investigations and Council's Riparian Policy identify seven drainage lines on the site as follows:



**Figure 10.** Ku-ring-gai Council Submission - waterways and riparian corridors (Figure 4)

Council's submission raises concern about a number of specific issues including:

- Two of the riparian zones (Coups Creek Tributary 2 and Fox Valley Tributary 2) have not been retained in the Concept Plan and that one (Lane Cove Tributary 1) is to be substantially altered.
- Coups Creek Tributary 2 has not been identified on any documents and this should be justified.
- Stormwater basins are proposed in three riparian zones (Lane Cove Tributary 1, Fox Valley Tributary 2 and Coups Creek Tributary 2), at the very least development around the smaller watercourses should

align with NSW Department of Water and Energy (DWE) requirements for first order watercourses (10m CRZ), from *Guidelines for controlled activities: Riparian Corridors* and preferably align with the *Ku-ring-gai Council Riparian Policy (2004)*.

- Proposal to include detention basins in riparian corridors is against DWE's *Guidelines for controlled activities : In-stream works*.

The NSW Department of Primary Industries also advised that degradation of riparian vegetation along watercourses is listed as a Key Threatening Process under the *Fisheries Management Act 1994* and that it is important that vegetated riparian zones are maintained in the development of the site.

#### Department Comment

The gazetted SEPP Amendment applies the E2 Environmental Conservation zone to approximately 50% of the site protecting the majority of the existing riparian zones. Specifically, this has protected the Fox Valley Tributary 2 and the majority of the Lane Cove Tributary 1 and Coups Creek Tributary 2 which largely addresses Council's concerns about protecting these riparian zones.

It is recommended that a further assessment requirement apply to any Concept Plan approval issued to indicate that the locations of stormwater basins shown in the Preferred Project Report are indicative and are to be considered in the assessment of future development applications.

It is noted that a controlled activities approval for construction works in a watercourse and / or riparian corridor (section 91 of the *Water Management Act 2000*) will be required. Any such approvals will give further consideration to the objectives and provisions of the relevant legislation and guidelines, particularly relating to recommended Core Riparian Zones.

## **6.10 GEOTECHNICAL & CONTAMINATION**

### **6.10.1 Geotechnical**

The Geotechnical Assessment submitted with the Environmental Assessment did not find any significant issues which would make the site unsuitable for the proposed development. Key findings of the Geotechnical Assessment include:

- Areas earmarked for development in Concept Plan are generally flatter areas where there is no obvious sign of instability
- Slope stability is not considered a major issue and can be addressed by batters and engineer-designed retaining walls
- One exception is the north-eastern corner of the site which has a typical slope of 10° – 15° where good engineering design will be required to provide a stable development
- Filled areas, especially along the northern edges of the car parks associated with the hospital, appear stable however they should be reviewed as part of any future development
- Cut and fill techniques can be employed to provide level sites for development on gentle slopes.

The Proponent's Statement of Commitments provides that a detailed intrusive geotechnical assessment will be undertaken prior to or accompanying project or development applications.

#### Department Comment

The Concept Plan has adequately addressed geotechnical issues and committed to further intrusive geotechnical assessments being undertaken prior to or accompanying project or development applications.

It is recommended that a further assessment requirement also apply to any Concept Plan approval requiring the consent authority to have special consideration for good engineering design in the north-eastern corner for development on slopes in excess of 10 degrees, and that filled areas (especially along the northern edges of the car parks associated with the hospital) be reviewed as part of any future development or project applications.

### **6.10.2 Contamination**

Ku-ring-gai Council's submission noted that the Phase 1 Contamination Assessment submitted with the Environmental Assessment identified a number of areas of environmental concern including:

- Footprints of buildings to be demolished, particularly timber or timber frames buildings
- Areas of fill
- Sewer lines

- Underground and above-ground fuel storage tanks
- Pesticide store
- Small areas of waste disposal on the bushland fringe.

In light of the results of the Phase 1 assessment and the sensitive uses proposed under the Concept Plan, Council recommended that further site investigations and site management measures be undertaken prior to approval for the new land uses in the affected areas.

Council also noted that site investigations and site management must be undertaken in accordance with the *Contaminated Land Management Act 1997* and *Draft Contaminated Land Management Amendment Act 2008*.

DECCW recommends contaminated spoil should be treated and disposed of using best practice techniques and uncontaminated spoil should be reused rather than land filled. Further, it should be ensured that appropriate measures are put in place to manage runoff from any contaminated area during construction.

#### Department Comments

The Stage 1 Assessment concludes that the site is considered to have a low potential for both soil and groundwater contamination and can be made suitable for the proposed land uses, including residential with gardens, subject to the appropriate verification, attenuation and / or remediation of the abovementioned areas of concern.

While it is noted that the Phase 1 Assessment which forms part of the Concept Plan application states that areas of concern need to be verified, attenuated and / or remediated, no further commitment to do this is offered in the Statement of Commitments. It is therefore recommended that any Concept Plan approval contain a further assessment requirement requiring that the first project or development application for development in or adjacent to potentially affected areas identified in the Phase 1 Assessment must be accompanied by a Phase 2 Detailed Site Contamination Assessment in accordance with *SEPP 55 – Remediation of Land* and associated guidelines.

To address recommendations from the Department of Environment, Climate Change and Water that contaminated spoil should be treated and disposed of using best practice techniques and uncontaminated spoil should be reused rather than being land filled, it is recommended that a further assessment requirement apply to any Concept Plan approval to this effect. Ensuring that appropriate measures are put in place to manage runoff from any contaminated area during construction can be dealt with as part of the Construction Management Plan required in section 6.11 below.

### **6.11 CONSTRUCTION MANAGEMENT**

A number of public and agency submissions raised concern about construction management issues and impacts on traffic, local amenity, noise, vibration, sediment and erosion control. Many submissions noted that the Environmental Assessment did not provide sufficient detail on this matter to enable informed comment.

The Preferred Project Report submitted in September 2009 responded to the issues by stating it is expected that the consent authority will require a construction, noise and traffic management plan be produced and submitted prior to the issue of a construction certificate to allow construction to commence.

The Proponent's Statement of Commitments also gives an undertaking to prepare construction traffic management plans to accompany individual project or development applications to take account of construction access requirements, temporary parking for construction / staff and other construction traffic related matters.

#### Department Comment

Concept Plan applications under Part 3A of the *Environmental Planning and Assessment Act 1979* are used to determine the broad parameters of a large development prior to finalising the detail of individual components. It is therefore reasonable that specific issues associated with the management of construction impacts be considered during the assessment of project and development applications.

It is recommended that a further assessment requirement apply to any Concept Plan approval issued expanding on the Proponent's commitment to prepare construction management plans. It is recommended that the further assessment requirement should require all project and development applications to be accompanied by a construction management plan addressing impacts on traffic, local amenity, noise, vibration, sediment and erosion control.



## 6.12 LAND OWNERSHIP & TITLE

A number of public submissions raised concerns over land ownership. In particular, concerns were raised about how residential development would be retained for students and staff of the hospital, and who would have care and control over the management of the vegetated areas of the site. There was however general support for the provision of affordable housing for workers employed on the site.

### Department Comment

The gazetted SEPP Amendment prohibits subdivision and dwellings (unless ancillary to the hospital) in the SP1 Special Activities (Health Services Facility) zone. This measure will ensure that a substantial proportion of residential accommodation for students and staff of the Sydney Adventist Hospital (approximately 350 student accommodation units / hostel rooms) is maintained for this purpose and cannot be subdivided or used to provide private residential dwellings.

Likewise, the Concept Plan seeks approval for the individual land uses and future Council development approvals must be consistent with any Concept Plan approval, ensuring that student / nurses accommodation cannot be converted to private residential dwellings.

This is important as the continued operation and expansion of the hospital is the impetus for the redevelopment of complimentary residential, business and medical activities on the Wahroonga Estate site. The prohibition of subdivision and dwellings in the SP1 zone (unless ancillary to the hospital) in the gazetted SEPP Amendment is considered to provide sufficient certainty and regulation of the ongoing ownership of these hospital-related facilities.

The care and control of vegetated areas is discussed in section 6.4.1 above.

## 6.13 ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT PRINCIPLES

Of the five accepted Environmentally Sustainable Development (ESD) principles, the following are considered relevant to the proposal:

- decision-making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations (the integration principle)
- if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle)
- the principle of inter-generational equity - that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle)
- the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle)

### Department Comment

These are discussed individually below:

**Integration Principle** – Development resulting from the Concept Plan will provide both short term social and economic benefits in the form of nursing and student accommodation, worker housing and construction jobs. Over the longer term, development resulting from the Concept Plan will provide additional social and economic benefits such as community infrastructure and employment in the locality. Setting of the development footprint along the boundaries of vegetation communities will have both short and long term conservation benefits.

**Precautionary Principle** – An independent review of the vegetation on the site undertaken by the Department has confirmed the presence of State and Commonwealth listed critically / endangered ecological communities. The boundary between the development footprint and conservation land has been set along vegetation communities to avoid direct impacts on the critically / endangered ecological communities. Indirect impacts will be managed through further assessment requirements of any Concept Plan approval.

**Inter-Generational Principle** – Conservation of approximately 50% of the site including critically / endangered ecological communities will assist in maintaining the health, diversity and productivity of the local environment. The Biodiversity Management Plan to be prepared in accordance with the Proponent's Statement of

Commitments and expanded further assessment requirement will also contribute to enhancing the land for the benefit of future generations.

**Biodiversity Principle** – The conservation of biological diversity and ecological integrity was a fundamental consideration in assessment of the Concept Plan. This consideration has resulted in 31ha or 50% of the site being set aside for conservation purposes including two listed critically / endangered ecological communities, a significant increase from the 18ha of conservation land proposed in the exhibited Environmental Assessment.

In addition to the above considerations, it is expected that further site specific assessment of ESD principles will also be undertaken by Ku-ring-gai and Hornsby Council's in accordance with their existing policies when considering future development applications for the site.

## 7 PUBLIC INTEREST

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Development at Wahroonga Estate resulting from the Concept Plan will provide significant benefits to the community, including:

- Providing for the expansion of the Sydney Adventist Hospital, the third largest health-based employer in the northern Sydney region through approved maximum gross floor area and heights.
- Providing approved maximum gross floor area and heights for supporting hospital, commercial, retail and community uses to support generation of 1,000 operational jobs over the short term (5 years) and 3,000-5,000 jobs over the medium term.
- Providing for up to 500 low, medium and high density dwellings in a single area, representing just under 2.5% of the total 21,000 new dwelling target identified in the draft North Subregional Strategy.
- Protecting approximately 31 hectares of conservation land, including two State and Commonwealth listed Critically / Endangered Ecological Communities within an urban setting, representing 50% of the site area.
- Providing contributions for local infrastructure, including road intersection upgrades.

For these reasons the proposal is considered to be in the public interest.

## 8 CONCLUSION

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The Department has reviewed the Environmental Assessment and the Preferred Project Report and considered advice from public authorities as well as issues raised in public submissions in accordance with Section 75I(2) of the Act. All the relevant environmental issues associated with the proposal have been extensively assessed.

In balancing the State significant planning outcomes with the issues raised in the body of this report, the Department is of the view that recommended further assessment requirements will satisfactorily mitigate the environmental impacts arising from development proposed in the Wahroonga Estate Concept Plan. In assessing the proposal, the Department has resolved any outstanding environmental issues through terms of approval and recommended further assessment requirements.

The Proponent has given an undertaking through their Statements of Commitments to a number of measures to ensure that the development proceeds appropriately and does not adversely impact on local amenity or landscapes. The Department is also recommending further assessment requirements to the Concept Plan to augment commitments made by the Proponent.

Recommended further assessment requirements are provided at **Appendix A**. The reasons for the further assessment requirements are to mitigate the environmental impact of the development, encourage good urban design and maintain the amenity of the local area.

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**APPENDIX A. TERMS OF APPROVAL**

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**APPENDIX B. ENVIRONMENTAL ASSESSMENT & PREFERRED  
PROJECT REPORT**

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**APPENDIX C. REVISED STATEMENT OF COMMITMENTS**

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**APPENDIX D. DIRECTOR-GENERAL'S REQUIREMENTS**

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**APPENDIX E. ENVIRONMENTAL PLANNING INSTRUMENTS**

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**APPENDIX F. SUMMARY OF SUBMISSIONS**

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**APPENDIX G. PUBLIC AUTHORITY ADVICE**

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