

19th March 2018

Applicants Submission to North Sydney Planning Panel

Purpose of this Paper

This paper addresses the 3 key areas, for which Council has recommended refusal of the DA 2017/0385, as summarised on page 3 of Council's Supplementary Report and discussed in its Appendix 1, namely:

- The assessment of impact upon the Duffys Forest Ecological Community within the APZ's and existing 88b Easement;
- The impacts on the Eastern Pygmy Possum; and
- Impacts on the Coastal Upland Swamp.

We note that opportunity to resolve these matters has not been provided by Council during the assessment of the Species Impact Statement (SIS), submitted in late December 2017.

Request for Consent

It is requested that the Planning Panel consider the responses set out in this paper and its appendices and that the Panel resolve to approve the application with necessary and appropriate conditions of consent.

Draft Conditions of Consent, prepared by the Northern Beaches Council, have been reviewed by the Applicant project team and are acceptable.

88b Easement and APZ

Appendix 2 sets out the status and terms of the 88b Easement, confirming the lawful requirement and terms for management of vegetation within the entire easement in order to serve bushfire protection purposes for the German School.

APZ areas, outside of the 88b Easement area, balance the retention of ecology with necessary bushfire hazard reduction works. These matters are addressed in the SIS and Appendix 2.

Eastern Pygmy-possum

As set out in Appendix 3, Narla have undertaken a Population Viability Analysis (PVA) on the Eastern Pygmy-possum (EPP) on the Subject Site. It reveals all EPP in Dundundra Falls Reserve and Ku-ring-gai Chase National Park are likely part of a single population. The PVA revealed that if the EPP were ever rendered 'isolated' on the subject site, in the past or future, the EPP population would be destined for natural extinction as a result of combined effects from inbreeding depression and natural mortality from random events such as predation or disease. Any perceived impacts from the hospital upon EPP would be non-significant in an isolated, unviable population. Since the EPP population is likely to be currently connected across the Subject Site, Dundundra and Ku-ring-gai, the SIS concludes that the population would withstand small scale impacts (including anything arising from this DA) and the proposed DA would have non-significant impact.

Appendix 3 also addresses the issue of effectiveness of proposed mitigation measures such as rope bridges.

Appendix 4 presents an independent review of the proposal and reasons for refusal, by the respected Aquila Environmental, and confirms that the likely ecological impacts of the proposal have either been reduced to a non-significant level by the proposed ameliorative measures or are inconsequential to the viability of the Eastern Pygmy-possum.

Clarifying the SIS compensatory method

Appendix 7 contains a letter sent to Council on 21 February 2018 providing clarity to the Council regarding the compensatory options in the SIS and a commitment to a Biodiversity Stewardship Site. The suggestion by Council that no clarity exists is refuted.

Consistency with the Warringah DCP

Appendix 1 addresses the refusal of the Development Application, on the basis of inconsistency with the Warringah DCP clauses E2, E3, E4, E5, E6 & E8.

Notwithstanding that clauses E3 and E8 of the DCP do not apply to the application, the proposal is consistent with the Warringah DCP. While evidence has not been provided that the proposal is inconsistent with the DCP in the Council assessment, the prepared documents demonstrate that the proposal has addressed the objectives of all stated DCP Clauses, is consistent with these clauses, and results in a proposal that will provide a -

“positive biodiversity conservation outcome for the threatened species and communities on the site and their local occurrence” (Species Impact Statement)

Coastal Upland Swamp

We note that there is consensus between Council’s expert Ecologist (Elizabeth Ashby, Keystone Ecology) and Narla Environmental that the proposed development will have no significant impact upon Coastal Upland Swamp.

Appendix 5 provides a comprehensive response by Martens and Associates, to the stormwater management regime proposed for the Coastal Upland Swamp. Importantly, this matter is resolved by way of Council’s independent expert confirming that a workable water management solution can be implemented subject to the application of 6 conditions of consent. These conditions have been reviewed and Martens confirms that the current stormwater concept design can accommodate the proposed conditions without any change to the layout of the development or material change to the concept stormwater design.

Conditions of Consent

Appendix 8 contains the draft conditions of consent prepared by the Council. These conditions have been reviewed and are considered acceptable.

Conclusion

For the reasons summarised above, and articulated more fully in the Appendices, it is evident that the proposed Private Hospital will not have a significant environmental impact. Rather, the proposal will have a positive biodiversity conservation outcome.

Having regard to the public benefit and ecological initiatives imbedded in the proposal, it is requested that the Planning Panel approve the Development Application subject to the conditions set out in Appendix 8.

Appendices

- Appendix 1** Think Planners response to Northern Beaches Council Warringah DCP issues
- Appendix 2** HWL Ebsworth legal response to 88b easement
- Appendix 3** Narla Environmental response to Northern Beaches Council NECC referral and per review
- Appendix 4** Aquila Ecological Surveys review of outstanding issues
- Appendix 5** Martens & Associates response to Northern Beaches Council NECC referral
- Appendix 6** Carmichael Studios response NBC Draft Conditions of Consent and peer review
- Appendix 7** Wyvern Health Stewardship agreement letter to Northern Beaches Council 21.02.18
- Appendix 8** Northern Beaches Council Draft Conditions of Consent

Appendix 1

Think Planners response to Northern Beaches Council Warringah DCP issues

REASON FOR REFUSAL – THE WARRINGAH DCP

Introduction

The Reason for Refusal incorrectly references Clauses E3 and E8 of the DCP, which do not apply to the application.

Notwithstanding, the environmental issues identified for assessment in all referenced clauses have been fully addressed and the proposal is consistent with Clauses E2, E3, E4, E5, E6, and E8 of the DCP.

Reason for Refusal

The proposal is recommended for refusal on the basis that it is inconsistent with the Warringah Development Control Plan 2011, in particular –

- E2 – Prescribed Vegetation
- E3 – Threatened species, populations, ecological communities listed under State or Commonwealth legislation, or High Conservation Habitat;
- E4 – Wildlife Corridors;
- E5 – Native Vegetation;
- E6 Retaining Unique Environmental Features; and
- E8 – Waterway and Riparian Land.

Each clause is addressed in turn below.

E2 – Prescribed Vegetation

Development is to be situated and designed to minimise the impact on prescribed vegetation.

The DCP states that *“The following is prescribed for the purposes of Clause 5.9(2) of the WLEP”* and references a series of DCP maps. It is noted that Clause 5.9 of the LEP is Repealed. However, the intent of the clause is replaced by Vegetation SEPP 2017.

Notwithstanding, the site is identified by DCP maps as being a “Wildlife Corridor” and “Native Vegetation”. These maps are shown in the relevant Clauses discussion below.

The proposal has been situated and designed to minimise the impact on prescribed vegetation, including canopy trees, understorey vegetation, and ground cover species.

The SIS clearly establishes that the hospital is proposed within highly disturbed weed infested areas, thereby limiting impacts to threatened species and endangered ecological communities. Where residual affects are identified, amelioration measures are detailed. Accordingly the proposal is consistent and compliant with the E2 requirement that development is situated and designed to minimise impacts.

The Reason for Refusal that the development is inconsistent with Clause E2 of the DCP is not substantiated and is false.

E3 – Threatened Species, Populations, Ecological Communities listed under State or Commonwealth Legislation, or High Conservation Habitat

This Clause does not strictly apply to the application.

This Clause is activated only where the land is identified on DCP Map Threatened and High Conservation Habitat AND land identified as known or potential habitat for threatened species, as identified in the NSW Wildlife Atlas.

The land is NOT identified on DCP Map Threatened and High Conservation Habitat.

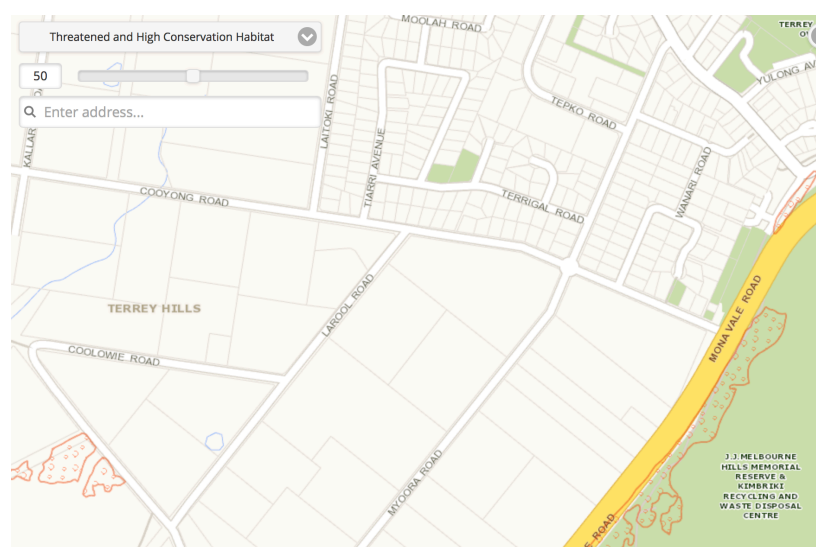
The land WAS NOT identified in the NSW Wildlife Atlas at the time of lodgement. The site is now identified in the NSW Wildlife Atlas due to the work completed for the DA lodgement.

The objectives of E3 relate to protection, preservation, enhancement and improvement of EEC's or that have a high conservation significance. However, the objectives include the generic statement "To preserve and enhance the area's amenity, whilst protecting human life and property" and even extend to providing "psychological and social benefits".

The Clause requires that the objectives are achieved through a Flora and Fauna Assessment and Biodiversity Management Plan.

The proposal includes a Flora and Fauna Assessment and a BMP. In addition the application includes a Species Impact Statement and a Conservation Agreement.

The Reason for Refusal that the development is inconsistent with Clause E3 of the DCP is not substantiated and is false.



E4 – Wildlife Corridors

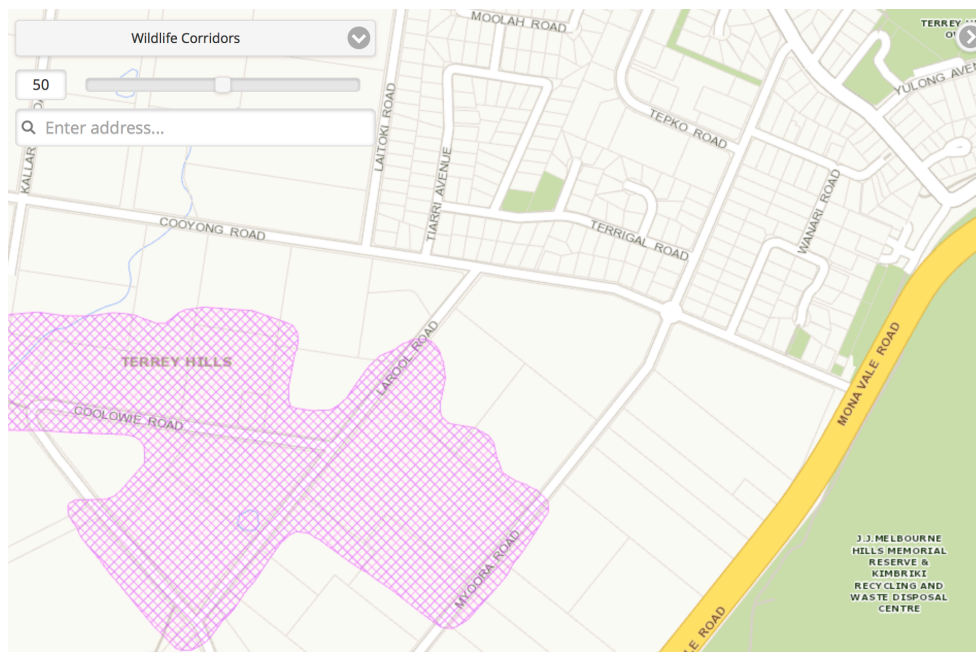
The clause is applicable as the site is identified as a Wildlife Corridor on the relevant DCP map.

The clause sets out 5 objectives that generally seek the preservation, enhancement, retention and reconstruction of wildlife corridors. Where greater than 50m² of vegetation is to be modified the clause requires that the objectives have been achieved through a Flora and Fauna Assessment and BMP.

The proposal includes a Flora and Fauna Assessment and a BMP. In addition the application includes a Species Impact Statement and a Conservation Agreement.

As articulated in the application to Council, the proposal meets the objectives of the DCP in relation to Wildlife Corridors and proposes actions that will result in *“a positive biodiversity conservation outcome for the threatened species and communities on the site and their local occurrence”* (SIS page 167).

The Reason for Refusal that the development is inconsistent with Clause E4 of the DCP is not substantiated and is false.



E5 – Native Vegetation

The clause is applicable as the site is identified as Native Vegetation on the relevant DCP map.

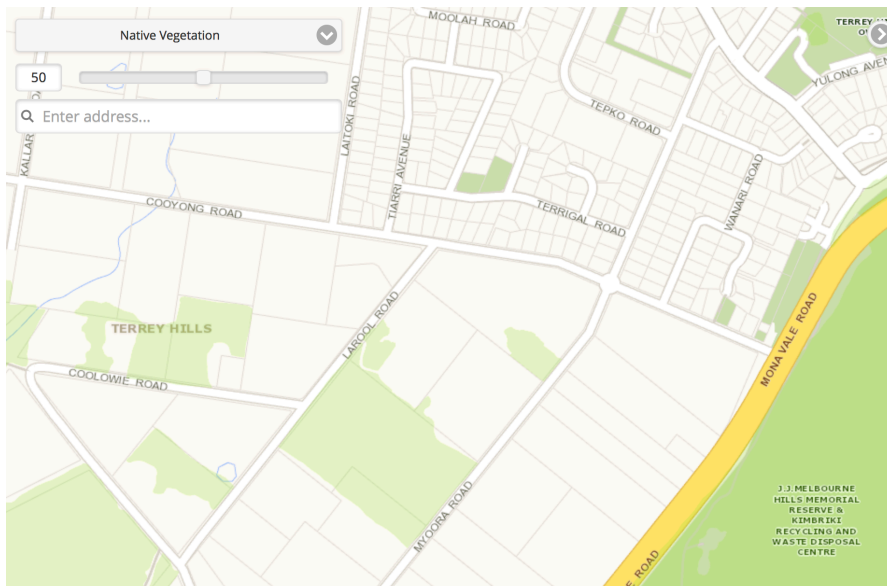
The clause sets out 5 objectives that generally seek the preservation, enhancement, and retention of Native Vegetation. Where greater than 100m² of land supporting native vegetation is to be modified the clause requires that the objectives have been achieved through a Flora and Fauna Assessment and BMP.

The proposal includes a Flora and Fauna Assessment and a BMP. In addition the application includes a Species Impact Statement and a Conservation Agreement.

As articulated in the application to Council, the proposal meets the objectives of the DCP in relation to Native Vegetation and proposes actions that will result in *“a positive biodiversity conservation outcome for the threatened species and communities on the site and their local occurrence”* (SIS page 167).

It must be noted that the amelioration measures proposed in the application include the planting of a minimum of 1,180 and a maximum of 3,120 *Banksia ericifolia*; and undertaking of intensive weed control through the site that will benefit the native vegetation.

The Reason for Refusal that the development is inconsistent with Clause E5 of the DCP is not substantiated and is false.



E6 – Retaining Unique Environmental Features

The sole objective of E6 is *“To conserve those parts of land which distinguish it from its surroundings.”*

The site is distinguished from its surroundings by a vegetated knoll facing Larool Road and a highly disturbed lower area facing Myoora Road. The proposal has been intentionally located and designed to conserve the vegetated knoll and enhance that unique environmental feature of the site. In addition the application proposes:

- Protecting 0.95Ha of Duffys Forest Endangered Ecological Community;
- Protecting all sandstone caves and crevices; and
- Implementation of a Biodiversity Stewardship Agreement that will protect the regionally significant population of Critically Endangered *Grevillea caleyi* plants.

Council’s Landscape Officer notes –

“The plans indicate that the proposed works are located largely over weed dominated areas of the site, ie the eastern portion.

A significant rock outcrop traverses the site, however the proposed works are forward of the outcrops which are to be retained.”

The location and design of the proposal deliberately retains the unique environmental features of the site. Additionally, and consistent with the requirements of E6, the expressed intent of the hospital is to ensure that patients and staff enjoy an outlook over the unique environmental features of the site.

The Reason for Refusal that the development is inconsistent with Clause E6 of the DCP is not substantiated and is false.

E8 – Waterways and Riparian Lands

This Clause does not strictly apply to the application.

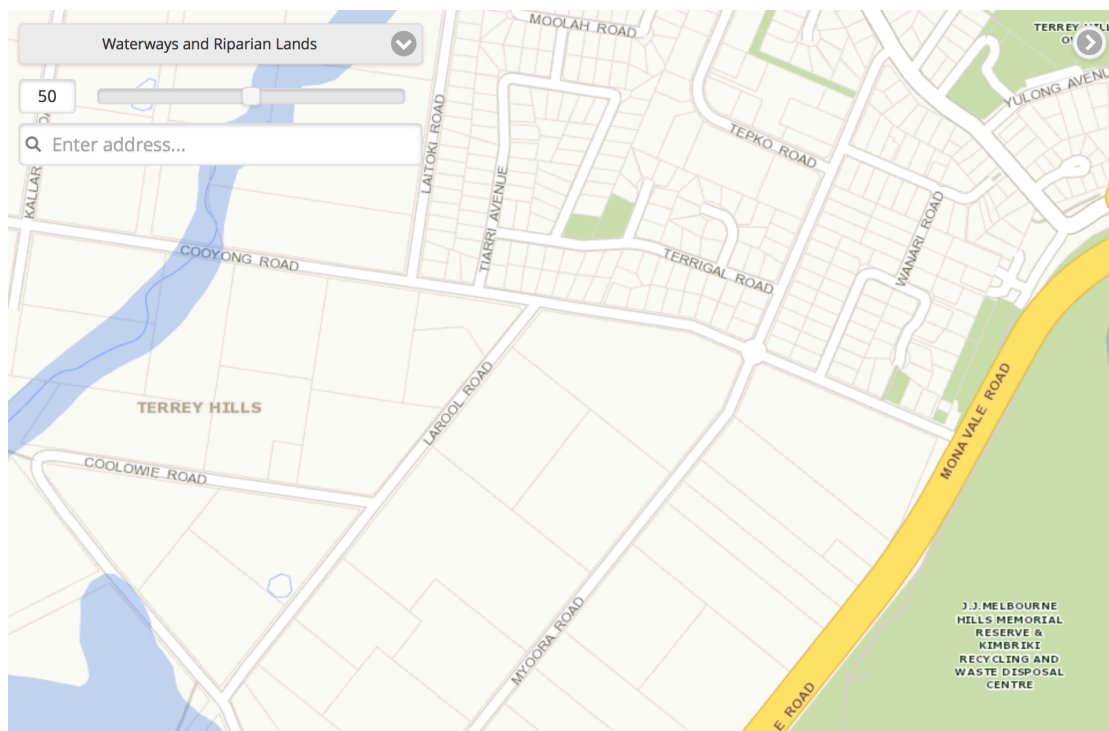
The control applies to land identified as waterway or riparian land on the relevant DCP Map.

The site is NOT identified as waterway or riparian land on the DCP Map.

Clause E8 of the DCP is not applicable to the application.

Notwithstanding the irrelevance of Clause E8 to the application, it is noted that Councils independent review of the Coastal Upland Swamp EEC concluded that *“a workable water management solution can be implemented with the following recommended design improvements / changes....”*.

The Reason for Refusal that the development is inconsistent with Clause E8 of the DCP is not substantiated and is false.



Adam Byrnes
Director
Think Planners Pty Ltd

Appendix 2

HWL Ebsworth legal response to 88b easement

Our Ref: JEH:678041

20 March 2018

Sydney North Planning Panel
Planning Panels Secretariat
320 Pitt Street
SYDNEY NSW 2000

Attention: Peter Debnam

Dear Sir

88B Instrument - Asset Protection Zone
Development application DA2017-0385
Property: 4A Larool Road, Terry Hills

We act on behalf of Wyvern Health the owner of the property at 4A Larool Road, Terrey Hills (Lot 2 in DP 1145029) **(the Property)**.

We refer to the Supplementary Report of Council to the Sydney North Planning Panel.

The report raises issues in relation to the extent of clearing required to establish APZ's including within the existing 88B easement (dealing DP1145029B) **(the Easement)**.

The clearing of the land within the Easement has been approved and assessed in relation to the Infrastructure Project Application No. 09/0113EI (Amendment No. 1) and therefore impacts on this vegetation within the Easement area have already been assessed and determined to be acceptable. The current Easement permits extensive reduction/clearing of vegetation in the Easement area.

School Site

The School Site has an authorisation for an infrastructure project issued under the now repealed *National Building and Jobs Plan (State Infrastructure Delivery) Act 2009 (NBJP Act)*. That authorisation approved the subdivision of the lots and construction of a single storey library building, single storey classroom building, sports field and other works. Notably that authorisation provided as follows:

- Conditions 5-7 of the authorisation related to bushfire impacts and in summary, required the entire school lot to be managed as an inner protection zone. It then established a certain distance around the properties that would be managed as an IPA and then outer protection zone.
- Condition 7 required that where the IPA or outer protection zone extended beyond Lot 1 (and onto the hospital site) then the management arrangements had to be formalised under a section 88B instrument which would be included in the subdivision plan.

Adelaide
Brisbane
Canberra
Darwin
Hobart
Melbourne
Norwest
Perth
Sydney

- If the 88B instrument couldn't be implemented the buildings had to be relocated to achieve compliance with the APZ requirements in section 4.1.3 of the Planning for Bushfire Protection 2006 within the boundaries of Lot 1.

The School continues to rely on the easement to address the bushfire risks in accordance with their consent. The section 88B instrument creating the Easement was approved by Council as registered on the title (dealing DP1145029B).

Current DA for Lot 2 - Hospital Site

The current DA relies on maintaining the terms of the Easement as part of its bushfire strategy. The bushfire report accompanying the application has a number of strategies/treatments proposed to address bushfire risk for the proposed development. One of those treatments is the management of the already existing Easement area as an IPA according to the terms of the existing instrument.

The RFS has provided a bushfire safety authority on 12 September 2017. The authority is subject to a number of conditions which must be met. Whilst not a condition the authority states *"The assessment for this Bush Fire Safety Authority is reliant on the management of the vegetation within the existing easement over the south western portion of the site"*

It is clear that the terms of the Easement have been relied on to support the proposed development. This would likely be reflected in any conditions of consent.

Easement

The Easement requires the School to undertake and maintain works within the area of the Easement. The relevant terms of the Easement are attached at Appendix A.

It is apparent that both the School Site and the proposed DA rely on the Easement and specifically the measures it outlines for reducing bushfire hazard. These measures apply to the **whole** of the Easement area and not part of it. The School is required to comply with the terms of the Easement at all times.

The Council report suggests that impacts on this vegetation need to be reassessed as part of the current DA. This is incorrect. The hazard reduction works and impacts of these works on the vegetation has already been assessed and approved. In assessing the current DA, the consent authority **cannot** reassess the impact of works that are already approved. It must however take into account the particular circumstances of the land, which includes the Easement.

Yours faithfully



Jane Hewitt
Partner
HWL Ebsworth Lawyers

+61 2 9334 8639
jhewitt@hwle.com.au



Danielle Le Breton
Special Counsel
HWL Ebsworth

+61 2 9334 8408
dlebreton@hwle.com.au

APPENDIX A

1. *Full and free right, for every person who at any time is entitled to an estate or interest in the Lot Benefited or any part thereof ("**grantee**") and every person authorised by the grantee, from time to time and at all times to enter onto the Lot Burdened within the site of the Easement indicated on the plan ("**Asset Protection Zone**"), together with the right to carry out bush fire hazard reduction work in the Asset Protection Zone to manage or reduce the bushfire hazard to the improvements on the Lot Benefited and to **do anything reasonable necessary for the purpose including but not limited to:***
 - 1.1 *the establishment or maintenance of fire breaks within the Asset Protection Zone;*
 - 1.2 *the controlled application of appropriate fire regimes or other means for the reductions or modification of available fuels in the Asset Protection Zone to mitigate against the spread of a bushfire;*
 - 1.3 *entering upon and obtaining access to the Asset Protection Zone at any time with surveyors, workmen, vehicles, materials, machinery or implements or any other necessary things or persons; and*
 - 1.4 *placing and leaving on or removing from the Asset Protection Zone, all necessary materials, machinery, implements and other things which work is being undertaken.*

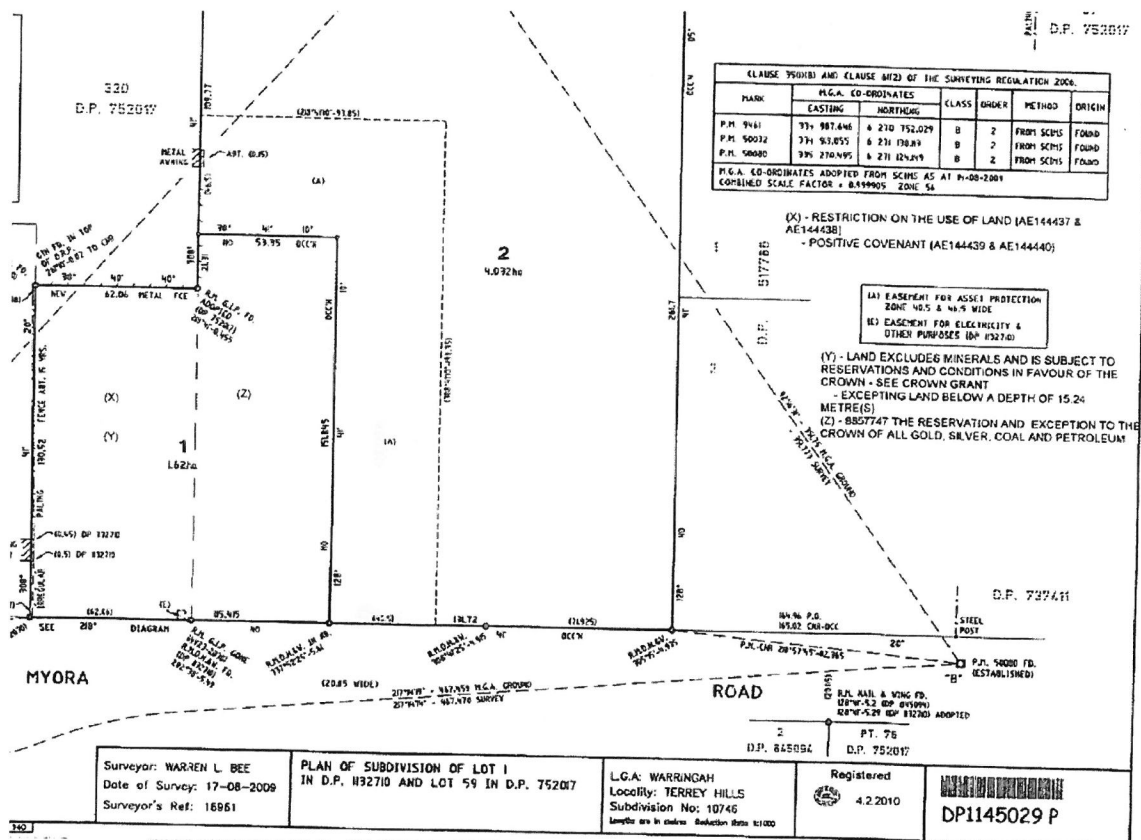
...
4. *The grantee and the registered proprietor of the Lot Burdened covenant and agree that subject to clauses 5 and 6 of these terms:*
 - 4.1 *The grantee will maintain the Asset Protection Zone being the subject of this Easement so that the Asset Protection Zone possesses at all relevant times the following characteristics:*
 - 4.1.1 *ground fuels such as fallen leaves, twigs (less than 6mm in diameter) and bark should be removed on a regular basis;*
 - 4.1.2 *grass must be kept short and, where reasonably possible, green;*
 - 4.1.3 *existing vegetation must be controlled by selective fuel reduction (removal, thinning and pruning) and the retention of vegetation;*
 - 4.1.4 *trees must be pruned or removed so that so that there is not a continuous tree canopy leading from any hazardous area to the buildings on the Lot Benefited;*
 - 4.1.5 *tree crowns must be separated by 2 to 5 metres;*
 - 4.1.6 *a canopy must not overhang within 2 to 5 metres of a building; and*



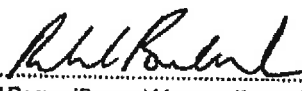
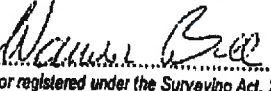
4.1.7 native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the Asset Protection Zone.

The cost of such maintenance and repair shall be borne by the grantee;

(our emphasis)

The relevant area of the Easement is shown below:



<p>SIGNATURES, SEALS and STATEMENTS of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.</p> <p>Pursuant to Section 88B of the Conveyancing Act 1919 it is intended to create:</p> <p>1. Easement for Asset Protection Zone 40.5 and 46.5 metres wide.</p> <p>Use PLAN FORM 6A for additional certificates, signatures, seals and statements</p>		 DP1145029 S
<p>Crown Lands NSW/Western Lands Office Approval</p> <p>I.....in approving this plan certify (Authorised Officer) that all necessary approvals in regard to the allocation of the land shown herein have been given</p> <p>Signature:..... Date:..... File Number:..... Office:.....</p>		<p>Registered:  4.2.2010</p> <p>Title System: TORRENS</p> <p>Purpose: SUBDIVISION</p>
<p>Subdivision Certificate</p> <p>I certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to:</p> <p>the proposed.....<u>SUBDIVISION</u>..... set out herein (insert 'subdivision' or 'new road')</p> <p> * Authorised Person/General Manager/Accredited Certifier</p> <p>Consent Authority: <u>WARRINGAH COUNCIL</u> Date of Endorsement: <u>25-11-2009</u> Accreditation no: Subdivision Certificate no: <u>10746</u> File no: <u>92-9718</u></p>		<p>PLAN OF SUBDIVISION OF LOT 1 IN DP 1132710 AND LOT 59 IN DP 752017</p> <p>LGA: WARRINGAH Locality: TERREY HILLS Parish: BROKEN BAY County: CUMBERLAND</p> <p>Surveying Regulation, 2006</p> <p>I, Warren L Bee of PO Box 330 Forestville NSW 2087 a surveyor registered under the <i>Surveying Act, 2002</i>, certify that the survey represented in this plan is accurate, has been made in accordance with the <i>Surveying Regulation, 2006</i> and was completed on: 17/08/09</p> <p>The survey relates to Lots 1 and 2 (specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey)</p> <p>Signature  Dated: 17/08/09 Surveyor registered under the <i>Surveying Act, 2002</i></p> <p>Datum Line: A-B Type: Urban/Rural</p> <p>Plans used in the preparation of survey/compilation DP 1132710 DP 845094 DP 883821 C 6535-2030 C 4336-2030</p> <p>(if insufficient space use Plan Form 6A annexure sheet)</p> <p>SURVEYOR'S REFERENCE: 16961</p>

* OFFICE USE ONLY

* Delete whichever is inapplicable.

* OFFICE USE ONLY

PLAN OF SUBDIVISION OF LOT 1 IN DP 1132710
 AND LOT 59 IN DP 752017

DP1145029

Registered:  4.2.2010

Subdivision Certificate No: 10746

Date of Endorsement: 25-11-2009

Executed by Ipan-dia Investments Pty
 Limited in accordance with S127 of the
 Corporations Act by:

Frank Huston

ACN 000 790 223

Mr Corbett
 MALCOLM CORBETT
 DIRECTOR

Diane Preston
 SECRETARY

Executed by German School Johannes
 Gutenberg in accordance with S127 of the
 Corporations Act by:

ACN 003 484 204 Director

B. P. Tucker
 Bernadette Verana Tucker

Dr. J. Prochaska
 Dr. J. Prochaska
 Director

Signed by the Consul General of the
 Consulate General of the Federal
 Republic of Germany in the presence of

Hans G. G. G.
 Hans G. G. G.

Christiane G. G.
 Christiane G. G.
 13 Telarney Street
 German Consulate, Wollahra, 2025

AUSTRALIA AND NEW ZEALAND
 BANKING GROUP LIMITED
 ACN 005 357 522
 BY ITS ATTORNEY UNDER POWER
 OF ATTORNEY BOOK 4465 NO 246

Amelia Bare
 Amelia Bare

Belen Drazza
 WITNESS

Land and Property Information
 NEW SOUTH WALES

I certify the person(s) signing opposite,
 with whom I am personally acquainted or
 as to whose identity I am otherwise satisfied,
 signed this instrument in my presence.

Certified correct for the purposes of the
 Real Property Act 1900 by the person(s)
 named below who signed this
 instrument pursuant to the power of
 attorney specified

Signature of witness: *Amelia Bare*

Name of witness: *Amelia Bare*

Address of witness: *13 Telarney Street*

Signature of attorney: *Paul Kinnear*

Attorney's name: *Paul Kinnear*

Attorney's position: *Director*

Signing on behalf of: COMMONWEALTH
 BANK OF AUSTRALIA
 ABN 48 123 123 123

Power of attorney

-Book: 4518 No: 198

**INSTRUMENT SETTING OUT TERMS OF EASEMENT INTENDED TO BE CREATED
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED**

Lengths are in metres



DP1145029 B

PART 1

Plan of Easement within Lot 2 DP 1145029
German School Johannes Gutenberg
33 Myoora Road, Terry Hills NSW 2084

Full name and address of Proprietor of the Land

Gran-Dia Investments Pty Limited
90 Braeside Street, Wahroonga NSW 2076

1. Identity of Easement firstly referred
to in the abovementioned plan

Easement for Asset Protection Zone 40.5 and 46.5
wide

SCHEDULE OF LOTS, ETC AFFECTED

Lot Burdened

 Lot 2 DP ~~1145029~~

Lot Benefited

Lot 1 DP ~~1145029~~ 

PART 2

Terms of Easement for Asset Protection Zone firstly referred to in the abovementioned plan

1. Full and free right, for every person who at any time is entitled to an estate or interest in the Lot Benefited or any part thereof ("grantee") and every person authorised by the grantee, from time to time and at all times to enter onto the Lot Burdened within the site of the Easement indicated on the plan ("Asset Protection Zone"), together with the right to carry out bushfire hazard reduction work in the Asset Protection Zone to manage or reduce the bushfire hazard to the improvements on the Lot Benefited and to do anything reasonable necessary for the purpose including but not limited to:
 - 1.1. the establishment or maintenance of fire breaks within the Asset Protection Zone;
 - 1.2. the controlled application of appropriate fire regimes or other means for the reductions or modification of available fuels in the Asset Protection Zone to mitigate against the spread of a bushfire;
 - 1.3. entering upon and obtaining access to the Asset Protection Zone at any time with surveyors, workmen, vehicles, materials, machinery or implements or any other necessary things or persons; and
 - 1.4. placing and leaving on or removing from the Asset Protection Zone, all necessary materials, machinery, implements and other things which work is being undertaken.
2. In exercising its rights, the grantee must:
 - 2.1. ensure that all work is done properly;
 - 2.2. cause as little inconvenience as practicable to the registered proprietor of the Lot Burdened and any occupier of the Lot Burdened;

**INSTRUMENT SETTING OUT TERMS OF EASEMENT INTENDED TO BE CREATED
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED**

Lengths are in metres

PART 1

DP1145029

Plan of Easement within Lot 2 DP 1145029

- 2.3. cause as little damage as is practicable to the Lot Burdened and any improvement on it;
- 2.4. make good within a reasonable time any damage the grantee causes to the surface of the Lot Burdened and any improvement on it; and
- 2.5. restore the Lot Burdened as nearly as practicable to its former condition and make good any collateral damage.
3. The registered proprietor of the Lot Burdened must not:
 - 3.1. do or neglect to do or permit or suffer anything to be done which may result in the Asset Protection Zone being interfered with or compromised in terms of its capacity to reduce the bushfire hazard to the improvements on the Lot Benefited; or
 - 3.2. erect or permit to be erected any building, structure or other erection or improvement of any kind or description on, over or under the Asset Protection Zone or carry out any form of construction affecting the surface, under surface or subsoil of the Asset Protection Zone which may obstruct or interfere with access to the Asset Protection Zone without the written consent of Warringah Council or interfere with the capacity of the Asset Protection Zone to reduce the bushfire hazard to the improvements on the Lot Benefited.
4. The grantee and the registered proprietor of the Lot Burdened covenant and agree that subject to clauses 5 and 6 of these terms:
 - 4.1. the grantee will maintain the Asset Protection Zone being the subject of this Easement so that the Asset Protection Zone possesses at all relevant times the following characteristics:
 - 4.1.1. ground fuels such as fallen leaves, twigs (less than 6mm in diameter) and bark should be removed on a regular basis;
 - 4.1.2. grass must be kept short and, where reasonably possible, green;
 - 4.1.3. existing vegetation must be controlled by selective fuel reduction (removal, thinning and pruning) and the retention of vegetation;
 - 4.1.4. trees must be pruned or removed so that so that there is not a continuous tree canopy leading from any hazardous area to the buildings on the Lot Benefited;
 - 4.1.5. tree crowns must be separated by 2 to 5 metres;
 - 4.1.6. a canopy must not overhang within 2 to 5 metres of a building; and

x
no building

**INSTRUMENT SETTING OUT TERMS OF EASEMENT INTENDED TO BE CREATED
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED**

Lengths are in metres

PART 1

Plan of Easement with  in Lot 2 DP 1145029

DP1145029

4.1.7. native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the Asset Protection Zone.

The cost of such maintenance and repair shall be borne by the grantee;

4.2. the grantee is to undertake routine maintenance of the Asset Protection Zone and must repair any damage the grantee causes to the Lot Burdened;

4.3. the grantee indemnifies and keeps the registered proprietor of the Lot Burdened indemnified against all actions, suits, claims and damages of whatsoever nature which may be brought against the registered proprietor of the Lot Burdened to the extent that they arise because of the exercise by the grantee of the grantee's rights under this Easement or the grantee's failure to comply with the grantee's obligations under this Easement and all costs charges and expenses which the registered proprietor of the Lot Burdened may incur as a result of any act or omission of the grantee to the extent that they arise because of the exercise by the grantee of the grantee's rights, or the grantee's failure to comply with the grantee's obligations under this Easement; and

4.4. without limiting clause 4.3 above, the grantee and the registered proprietor of the Lot Burdened acknowledge that, from time to time, the local authority for the Land under

the *Rural Fires Act* 1997 ("Rural Fires Act") or the Commissioner under the Rural Fires Act may issue notices to the registered proprietor or the occupier of the Lot Burdened in respect of the land pursuant to section 66 of the Rural Fires Act.

Where a notice referred to in this clause 4.4 is issued to the registered proprietor of the Lot Burdened, the registered proprietor must provide a copy of the notice to the grantee as soon as practicable after receiving the notice.

Upon receipt of a copy of the notice referred to in this clause 4.4, the grantee must comply with the terms of the notice:

4.4.1. within the time specified in the notice; and

4.4.2. at the grantee's expense.

Where:

(i) the grantee fails to comply with the terms of a notice referred to in this clause 4.4; and

(ii) the local authority or the Commissioner elects to perform the work the subject of such a notice; and

(iii) the local authority or the Commissioner seeks to recover the costs of performing such work from the registered proprietor of the Lot Burdened pursuant to section 70 of the Rural Fires Act,

**INSTRUMENT SETTING OUT TERMS OF EASEMENT INTENDED TO BE CREATED
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED**

Lengths are in metres

PART 1

DP1145029

Plan of Easement within Lot 2 DP 1145029

the grantee indemnifies the registered proprietor of the Lot Burdened from any costs, liabilities, suits or other actions which may arise by virtue of the operation of section 70 of the Rural Fires Act; and

- 4.5. the grantee agrees that the use will be abandoned and the Easement will be released if:

4.5.1. the grantee intends to permanently cease using the Asset Protection Zone; or

4.5.2. the local authority or the Commissioner under the Rural Fire Act gives notice in writing to the grantee or the registered proprietor of the Lot Burdened that an Asset Protection Zone is no longer required on the Lot Burdened.

5. The grantee and the registered proprietor of the Lot Burdened also covenant and agree that if:

5.1. any development is carried out on the Lot Burdened;

5.2. an asset protection zone in similar terms to the Asset Protection Zone created by this Instrument is registered on or over the title of the Lot Burdened for the purpose of protecting such development; and

5.3. any portion of the area the subject of such asset protection zone overlaps with any portion of the Asset Protection Zone created by this Instrument,

then the cost of maintaining the area where such asset protection zone and Asset Protection Zone created by this Instrument overlap will be borne by the registered proprietor of the Lot Burdened and the registered proprietor of the Lot Benefited by this Instrument equally.

6. The grantee and the registered proprietor of the Lot Burdened further covenant and agree that if any building or other erection or structure or improvement of any kind or description is built, constructed, erected or permitted to remain on, over or under any portion of the Asset Protection Zone pursuant to clause 3.2 then the Easement will at the grantee's reasonable expense be released insofar as it effects the area of such building, structure or other erection or improvement and for an area of 40 metres around such building, structure or other erection or improvement.

7. The terms of the Easement may not be varied except with the prior written agreement of the Commissioner of New South Wales Rural Fire Service ("RFS") from time to time, or the successor of the RFS.

8. If there is a dispute relating to the need to carry out work under this Easement or the nature of the work, that dispute shall be determined by a single arbitrator (being a barrister of at least five (5) years standing) appointed under the *Commercial Arbitration Act 1984* (NSW) whose determination shall be conclusive. The costs incurred in the determination by the appointed arbitrator.

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WARRINGAH COUNCIL

[Signature]
Authorized Person

**INSTRUMENT SETTING OUT TERMS OF EASEMENT INTENDED TO BE CREATED
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED**

Lengths are in metres

PART I

DP1145029

Plan of Easement within Lot 2 DP 1145029

EXECUTION:

Executed by Gran-dia Investments Pty Ltd in)
accordance with section 127 of the Corporations Act)
by: ACN 000 790 223

Diane Preston
.....
Signature
DIANE PRESTON
.....
Name of Authorised Officer
SECRETARY
.....
Office Held

Malcolm Corbett
.....
Signature
MALCOLM CORBETT
.....
Name of Authorised Officer
DIRECTOR
.....
Office Held

Signed by *Bank of Australia*
a duly authorised officer of COMMONWEALTH
BANK OF AUSTRALIA and I certify that the said
officer with whom I am personally acquainted or
as to whose identity I am otherwise satisfied, signed
this mortgage in my presence:

Certified correct for the purpose of the
Real Property Act 1900 by the
Mortgagee

.....
Signature of Witness
.....
Full Name of Witness (BLOCK LETTERS)
.....
Address of Witness

.....
A duly authorised officer of the MORTGAGEE

AUSTRALIA AND NEW ZEALAND
BANKING GROUP LIMITED
ACN 005 357 522
BY ITS ATTORNEY UNDER POWER
OF ATTORNEY BOOK 4485 NO 248

Helen Uzanza
.....
Helen Uzanza
WITNESS

Amelia Bare
.....
Amelia Bare

20 Martin place, Sydney

WARRINGAH COUNCIL

Authorised Person
.....
Authorised Person

**INSTRUMENT SETTING OUT TERMS OF EASEMENT INTENDED TO BE CREATED
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED**

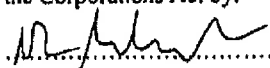
Lengths are in metres

PART 1

DP1145029

Plan of Easement within Lot 2 DP 1145029

Executed by German School Johannes Gutenberg
ACN 003 484 204 in accordance with section 127 of
the Corporations Act by:


Signature

Gernot Gunter Prochaska
Name of Authorised Officer

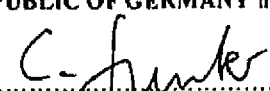
Director
Office Held


Signature

Bernadette Verena Jucker
Name of Authorised Officer

Director
Office Held

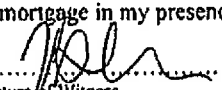
Signed by the Consul General of the FEDERAL
REPUBLIC OF GERMANY in the presence of:


Signature (Witness)
Christiane Gruber
Print Full Name

13 Trelawney Street
Address
German Consulate, Wodlakra, 2025
Address
Consular Officer
Occupation

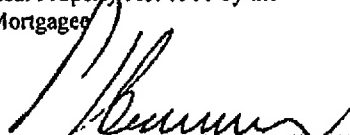

Hans Gnodtke

Signed by PAUL KAMMEL
a duly authorised officer of COMMONWEALTH
BANK OF AUSTRALIA and I certify that the said
officer with whom I am personally acquainted or
as to whose identity I am otherwise satisfied, signed
this mortgage in my presence:


Signature of Witness
JESNA ARBANAS
Full Name of Witness (BLOCK LETTERS)

LEVEL 12 363 GEORGE STREET
Address of Witness
SYDNEY

Certified correct for the purpose of the
Real Property Act 1900 by the
Mortgagee


A duly authorised officer of the MORTGAGEE

00104177

WARRINGAH COUNCIL


Authorized Person

4.2.2010



REGISTERED

Form: OIT
Release: 2.1
www.lpi.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900



9857747J

PRIVACY NOTE: this information is legally required and will be

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY

06-08-2003

0001538116-001

SECTION 18(2)

DUTY

\$ *****2.00

(A) TORRENS TITLE

FOLIO IDENTIFIER 59/752017

(B) LODGED BY

Delivery
Box

Name, Address and Telephone
CITY AGENTS
BOX 256L

Reference:

PHA | 31

CODES

T

TW

(Sheriff)

(C) TRANSFEROR

METROPOLITAN LOCAL ABORIGINAL LAND COUNCIL

(D) CONSIDERATION

The transferor acknowledges receipt of the consideration of \$ 3,000,000.

and as regards

(E) ESTATE

the land specified above transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED

(G)

Encumbrances (if applicable).

(H) TRANSFEREE

GRAN-DIA INVESTMENTS PTY LTD
ACN 000 790 223

(I)

TENANCY:

(J) DATE

31.7.03

off BL
on XC

I certify that the person(s) signing opposite, with whom
I am personally acquainted or as to whose identity I am
otherwise satisfied, signed this instrument in my presence.

Certified correct for the purposes of the Real
Property Act 1900 by the transferor.

Signature of witness:

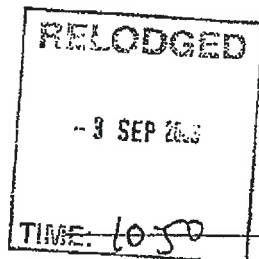
Signature of transferor:

Name of witness:

Address of witness:

See annexure

Certified for the purposes of the Real Property Act
1900 by the person whose signature appears below.



Signature:

Signatory's name:

MICHAEL FLAXLEY

Signatory's capacity:

SOLICITOR FOR PURCHASER

Page 1 of
number additional
pages sequentially

All handwriting must be in block capitals.

Land and Property Information NSW.

CT 256L 1/5

48.
Oiled Terminals Photo.

12

Appendix 3

Narla Environmental response to Northern Beaches Council referral and per review

Northern Beaches Council
725 Pittwater Rd
Dee Why
NSW 2099



Narla Environmental Pty Ltd

www.narla.com.au

(02) 9986 1295
2, 26-30 Tepko Road
Terrey Hills NSW 2084

16th March 2018

**Re: Expert Ecologist Response to Current Referral Response - Natural Environment Climate Change – Biodiversity
02/03/2018 and Keystone Ecology's Review of Species Impact Statement (SIS) for DA2017/0385**

Narla Environmental Pty Ltd (Narla) is pleased to present you with this comprehensive, evidence-based, scientific expert response to the following two documents:

- 'outstanding matters of contention' listed in Northern Beaches Council Referral Response - DA2017/0385 – Private Hospital, Terrey Hills (dated 2nd March 2018); and
- the peer-review of the Species Impact Statement (SIS) for DA2017/0385 that was undertaken by Elizabeth Ashby of Keystone Ecological (Keystone) "RE: Ecological review of Species Impact Statement for DA2017/0385" (dated 11th March 2018).

Executive Summary

In this letter Narla demonstrate that the following items are no longer 'outstanding matters of contention' since these matters have all been addressed. Narla has provided a short summary response to each matter of contention:

Outstanding matter of contention 1: The extent of vegetation clearing and impacts required to establish APZs including within the existing 88b easement

The entire section 88b easement is legally required to be managed as an APZ. A requirement since 04/03/2010. All proposed APZ works will not significantly impact, but rather maintain and enhance Eastern Pygmy-possum habitat and Duffys Forest EEC floristic diversity by eradicating weeds, reducing resource competition from build-up of dead organic material in the ground, mid and canopy layers of bushland and allow better regeneration of *Banksia ericifolia* (main food source of EPP).

Outstanding matter of contention 2: Demonstration that the local population of Eastern Pygmy- possum is part of population located in nearby larger areas including Dundundra Falls Reserve (Crown Land) and Ku-ring-gai National Park

Narla have undertaken a Population Viability Analysis (PVA) on the EPP on the Subject Site. It reveals all EPP in EPP in Dundundra Falls Reserve and Ku-ring-gai Chase National Park are likely part of a single population. The PVA revealed that if the EPP were ever rendered 'isolated' on the subject site in the past or future, this isolated EPP population would be destined for natural extinction within 100 years from the date of isolation, as a result of the combined effects of inbreeding depression and natural mortality from random events such as predation, or disease. Any perceived impacts from the hospital upon EPP would be non-significant since the population of EPP on the site is considered to be unviable if it is isolated. Since the EPP population is likely to be currently connected across the Subject Site, Dundundra and Ku-ring-gai the SIS concludes that the population would be able to withstand small scale impacts (such as anything arising from this DA) and therefore the proposed DA would remain a non-significant impact.

Outstanding matter of contention 3: A lack of clarity around compensatory options described in the SIS including either a Conservation Agreement OR Biodiversity Stewardship Site established over the residual 0.95ha of vegetation on site (note, subsequent clarification has been provided by the applicant outside of the SIS)

Council confirmed this issue was clarified outside of the SIS, therefore is no longer a matter of contention.

Outstanding matter of contention 4: The feasibility of the effectiveness of proposed mitigation measures including rope bridges over Larool Road, revegetation within the road verge/carriageway and revegetation within already vegetated areas on site

Narla are aware of NECC Biodiversity's concern regarding the future security of the vegetation lining Larool Road, which forms a connective habitat link between the Subject Site and Dundundra Falls Reserve/Ku-ring-gai Chase NP for EPP. The proposed road crossing bridges were just one of many impact mitigation measures proposed to further reduce any perceived impacts to EPP from the proposed development. Narla understand the issues regarding the feasibility of constructing these road bridges over Larool Road. Should the EPP occurrence on the site be rendered 'isolated' from future clearing of habitat caused by council/services roadside maintenance works, then (as the PVA revealed) this 'isolated population' of EPP would be facing natural extinction within 100 years from the date the isolation event took place. This renders any isolated population of EPP non-viable and a non-viable population of EPP cannot be significantly impacted by a DA of this nature, since the population faces extinction regardless of whether the hospital development is approved or not.

Outstanding matter of contention 5: The inconsistency of the proposal with WDCP 2011-part E – the Natural Environment

The detailed response by ThinkPlanners shows that the proponent has addressed all of the items listed from the WDCP, some of which do not apply to this DA.

Since these matters have all been addressed, Narla believe that NECC Biodiversity should recommend approval of the DA.

About Narla Environmental and the Authors of the Species Impact Statement

Narla prepared the SIS for DA2017/0385 (Narla 2017a). Narla is a professional Ecological Consultancy that has been providing high-quality, scientifically robust and impartial ecological impact assessment advice for industry, government and non-government clients across New South Wales since 2011. We have a strong reputation for our quality of work. Our team of consulting scientists span the fields of botany, zoology and landscape ecology. All of our consultants have tertiary qualifications in Ecology or Conservation Biology with backgrounds in wildlife and ecological conservation. The three authors of the SIS are all passionate Conservation Biologists with demonstrated experience in the research and conservation of Biodiversity of the Sydney basin, in particular, the Eastern Pygmy-possum (*Cercartetus nanus*).

Kurtis Lindsay

As Principal Ecologist of Narla Environmental, led the delivery of the SIS. Kurtis have a Bachelor of Science in Biodiversity and Conservation with first class honours from Macquarie University. His professional experience in wildlife and vegetation conservation extends over ten years of working for conservation organisations, researchers and government agencies. For several years Kurtis was involved in extensive radio tracking and population ecology surveys of Eastern Pygmy-possum in Royal National Park Sydney. He held the position of Conservation Coordinator for the Sydney committee of Australia's oldest continuing conservation-focused non-government organisation. He was one of the selected industry experts responsible for providing expert advice to the Commonwealth that saw the listing of two fauna species as 'threatened' under the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999*. Kurtis is regularly called upon as an expert consultant and witness to advise regulatory authorities on the significance of impacts from proposed developments or illegal clearing and have delivered workshops, conservation plans and impact assessments for state government and ten different Sydney Councils. As a Zoologist and landscape Ecologist Kurtis holds over 10 years of experience in surveying Eastern Pygmy-possum and coastal upland swamp in the Sydney Basin IBRA Bioregion.

Alexander Graham

Alex has a Bachelor of Science in Biodiversity and Conservation from Macquarie University. Alex has been involved in the preparation of SIS reports for developments across Sydney and has undertaken thousands of hours of fauna and flora survey over his career. For several years Alex was involved in extensive radio tracking and population ecology surveys of Eastern Pygmy-possum working alongside one of Australia's foremost Eastern Pygmy-possum researchers, Dr Ross Goldingay of Southern Cross University.

Emily Benn

Emily has a Bachelor of Science in Biodiversity and Conservation from Macquarie University and Honours from Sydney University in Fauna Ecology. Emily was previously employed as a Zoologist researcher full-time by Australia's largest mammal conservation, non-government organisation and was responsible for surveying and monitoring populations of Eastern Pygmy-possums across the Pittwater IBRA subregion of the Sydney Basin IBRA Bioregion. Emily has accrued thousands of hours undertaking surveys and assessment of Eastern Pygmy-possum habitat across the species distribution in the Sydney basin and was key to confirming presence of Eastern Pygmy-possum at 4a Larool Road, Terrey Hills.

Current Referral Response - Natural Environment Climate Change – Biodiversity 02/03/2018

Narla appreciate Northern Beaches Council's acknowledgement that the SIS (Narla 2017a) is a detailed document which comprehensively addresses the matters identified in the Chief Executives Requirements (CERs) as issued by the Office of Environment and Heritage in relation to the proposal. However, we wish to address the following items that were identified by Northern Beaches Council Natural Environment and Climate Change Department (NECC) as 'outstanding matters of contention' relating to the proposal.

1. The extent of vegetation clearing and impacts required to establish APZs including within the existing 88b easement

Northern Beaches Council Statement:

Part of the proposed hospital APZs are located within an existing Section 88b Easement associated with pre-existing APZ requirements for the adjacent German School. The SIS states that the entire easement must be managed as an APZ and therefore does not require assessment in this SIS. Council notes that APZ clearing associated with the German School development consents has been undertaken and does not extend to the easement boundary but is largely contained within the approved APZs as shown (Figure 1). Council's NECC Biodiversity section considers that the extent of clearing currently permitted within the easement is based on what is 'reasonably necessary' for management of the school APZs. Council's assessment of what is reasonably necessary in terms of managing the APZ within the easement is based on the requirements of Planning for Bushfire Protection 2006 and the existing school development consents (including bushfire reports) which identify APZs within the easement consistent with those mapped in Figure 1. Note that on the basis of the SIS, the entire easement would be an APZ including the area which appears to fall outside both the school and hospital APZs (see north-west of easement in Figure 1). Vegetation within the easement but outside of the approved school APZs includes both Endangered Ecological Communities and habitat for threatened species. Impact assessments within the SIS do not account for these areas on the premise that clearing is already permitted within the entire easement.



Figure 1. Figure showing APZ easement as presented by Northern Beaches Council in NECC Biodiversity Section Referral response.

Narla Response:

Council's NECC Biodiversity section is misguided in their interpretation of the purpose and necessary land uses of this existing easement. This easement was declared under section 88b of the Conveyancing Act 1919 (s88b easement) by court ruling and registered on 04/02/2010. The sole purpose of this easement is to allow Asset Protection Zone (APZ) bushfire management. The terms of the Easement may not be varied except with the prior written agreement of the Commissioner of New South Wales Rural Fire Service (RFS).

What Council's NECC Biodiversity section may 'consider' is not the way the 88b instrument is written or to be interpreted. For convenience we have copied and pasted the relevant section of the 88b document.

4. The grantee and the registered proprietor of the Lot Burdened covenant and agree that subject to clauses 5 and 6 of these terms:

4.1. the grantee will maintain the Asset Protection Zone being the subject of this Easement so that the Asset Protection Zone possesses at all relevant times the following characteristics:

- 4.1.1. ground fuels such as fallen leaves, twigs (less than 6mm in diameter) and bark should be removed on a regular basis;
- 4.1.2. grass must be kept short and, where reasonably possible, green;
- 4.1.3. existing vegetation must be controlled by selective fuel reduction (removal, thinning and pruning) and the retention of vegetation;
- 4.1.4. trees must be pruned or removed so that so that there is not a continuous tree canopy leading from any hazardous area to the buildings on the Lot Benefited;
- 4.1.5. tree crowns must be separated by 2 to 5 metres;
- 4.1.6. a canopy must not overhang within 2 to 5 metres of a building; and

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2 of 6 pages

WARRINGAH COUNCIL


Authorized Person

- 4.1.7. native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the Asset Protection Zone.

Conclusion – Matter of Contention No. 1

The opinion held by NECC Biodiversity that impact assessment is required for all future APZ works undertaken in an existing 88b easement dedicated for APZ management is false. Their mistaken opinion is not a valid reason to reject the Hospital DA.

2. Demonstration that the local population of Eastern Pygmy-possum is part of a population located in nearby larger areas including Dundundra Falls Reserve (Crown Land) and Ku-ring-gai National Park

Northern Beaches Council Statement

As required in Section 4.2.2 of the CERs, the applicant has been unable to demonstrate the assumption in the assessment supporting the development application that the Eastern Pygmy-possums recorded on the site are part of a larger local population that exhibits has interconnectivity between the site and adjoining areas of habitat.

It is acknowledged that individuals may on occasion cross Larool Road, however, as previously noted, roadside vegetation along Larool Road is a fragmented mixture of local native species, planted non-local natives and exotic weeds occurring as a narrow strip along the road verge. Much of this vegetation is considered to be in poor condition and is also subject to periodic clearing by energy providers and roadside maintenance teams. The persistence of patches of vegetation and/or trees on adjacent private property is doubtful, especially where such properties are bushfire prone and subject to the Rural Fire Service 10/50 Vegetation Clearing Code.

Narla Response:

Narla Environmental remains convinced through extensive modelling that the population of Eastern Pygmy-possum on the subject site forms part of a population located in nearby larger areas including Dundundra Falls Reserve (Crown Land) and Ku-ring-gai Chase National Park.

If the Eastern Pygmy-possums at both locations were not part of the same local population, Narla is still convinced that proposed development will hold no significant impact / effect on this population that it could be placed at risk of extinction. We detail the reasons why in the SIS (page 107-110) and summarise them here.

- The extensive revegetation and enhancement of Eastern Pygmy-possum feed plants through the planting of a minimum of 1160 *Banksia ericifolia* plants (mostly mature, nursery-reared stock) to replace the 80-116 Eastern pygmy-possum feed trees removed for the hospital construction,
- Extensive replacement of all potentially utilised tree hollows lost with augmented nesting resources (custom designed, natural nest boxes/nest hollows) in suitable locations within the subject site.

Eastern Pygmy-possums in these locations are all connected by a vegetation corridor that lines Larool Road (discussed in great detail along with maps and photos/description in section 5.5.3 of the SIS). If the future persistence of this vegetation that lines Larool road is doubtful (like Council's NECC Dept. suggests), then that would indicate the Eastern Pygmy-possums on 4a Larool Road are isolated from Dundundra Falls Reserve and Kuring-gai Chase National Park. Likewise, if it was concluded that Eastern Pygmy-possum never utilised the habitat along Larool Road to move between Dundundra Falls Reserve and the Subject Site.

Isolated populations are often not considered to be viable since they face extinction pressures (Lacy 1993)

Narla carried-out a Population Viability Analysis (PVA) of Eastern Pygmy-possums on Larool Road using 'Vortex 10.0' (Lacy 1993) population modelling software. The results are presented for a PVA conducted assuming the Eastern Pygmy-possums are isolated to 4a Larool Road (the Subject Site) (**Figure 2**) and assuming there is a small amount of movement of individuals between both sites (e.g. one male and one female every 10 years) (**Figure 3**).

Since there was no scope or resources to obtain Eastern Pygmy-possum population demographic data specific to 4a Larool (Subject Site), it was unreasonable to expect the proponent to obtain such information in preparation of the SIS. This would require hundreds of hours of possum trapping, radio tracking, sexing and associated field works. Instead, we harnessed the extensive information available in the published, peer-reviewed scientific literature to run our PVA.

The input data used in the PVA is listed below:

- Home range / territory = 0.04 Ha (Law et al. 2013) – it is assumed that 4 ha of the site was habitable by Eastern Pygmy Possum this meant that a maximum of 100 individuals could occur on the site. However, models were also run assuming 50 (home range of 0.08 Ha), 20 (home range of 0.2 from Bladon et al. 2002) and 10 (home range of 0.2 Bladon et al. 2002; Harris et al. 2014), assuming a home range size of 0.4 (Harris et al.
- Carrying capacity = 100 based on the maximum possible population size based on the smallest home range recorded for an Eastern Pygmy-possum (Law et al. 2013).
- Sex ratios at birth = parity, like most mammals (Bladon et al. 2002)
- Population proportions of adults by sex (to define standard percentage mortality in adulthood):
 - males = 65% (Harris et al. 2014) (65 males)
 - females = 35% (Harris et al. 2014) (35 females)
- Maximum young per litter/brood = 6 (Ward 1990) This is the upper limit of litter/brood size but not the norm across Eastern Pygmy-possums, litters are usually much smaller.
- Maximum litters/broods per year = 3 (Ward 1990). The normal litter number per year is 2 but we assumed the maximum when developing our model.
- Maximum longevity = 4 years (Ward 1990)
- Maturity = 0.5 years (Ward 1990). The minimum value available that can be used in Vortex 10.0 is 1 year.
- Distribution no. offspring per female per brood = vortex default value
- Inbreeding coefficient = vortex default value
- Initial founder population = 100 (based on maximum number of Eastern Pygmy-possums that could inhabit the site.

The PVA modelling revealed the following:

- If the Eastern Pygmy-possums on the Subject Site form an 'isolated population' and are not connected to Dundundra Falls, they are destined for extinction as a result of a combination of natural stochastic effects and inbreeding depression within 30 – 100 years. Extinction would take place regardless of any future development of the property.
- If the Eastern Pygmy-possums on the Subject site form part of a large population encompassing Dundundra Falls Reserve and Ku-ring-gai Chase National Park (the more likely scenario), it is expected that the population would remain viable into the future because individuals will continue to supplement the population at the Subject Site.

Any future impacts from the proposed hospital development on a connected Eastern Pygmy-possum population that encompasses the Subject Site, Dundundra Falls and Ku-ring-gai Chase National Park would be negligible for reasons explained in depth in this report and throughout the SIS.

Likewise, any future impacts from the proposed hospital on a non-connected / isolated population of Eastern Pygmy-possum would be non-significant, since the population is already facing extinction within 10-100 years from the effects of stochasticity and inbreeding depression.

The above findings further resolve the this 'outstanding matter of contention' as well as the following 'outstanding matter of contention':

3. The feasibility of the effectiveness of proposed mitigation measures including rope bridges over Larool Road, revegetation within the road verge/carriageway and revegetation within already vegetated areas on site

The proponent values the biodiversity of the subject site, including the resident Eastern pygmy-possums and are still committed to protecting their habitat. The proponent will implement all feasible management actions proposed in the BMP and SIS to maximise the chance of survival of the Eastern pygmy-possums on the Subject Site.

The current rate of bushland degradation on the Subject Site caused by weed infestation and *Banksia ericifolia* senescence (caused by lack of fire / vegetation debris removal) (Bradstock and Myerscough 1981) will cause rapid, inevitable extinction of the Eastern Pygmy-possum from the Subject Property without adequate intervention. The most comprehensive, financial resource-intensive management plan ever produced for the Eastern Pygmy-possums and their habitat on this site has been proposed by the Proponent. The only way this plan can be enacted is by approving the Hospital DA. Without DA approval there is no incentive, method or funding available for anyone to manage and enhance habitat for the Eastern Pygmy-possum on the Subject Site therefore the extirpation of Eastern Pygmy-possum from the Subject Site will remain certain.

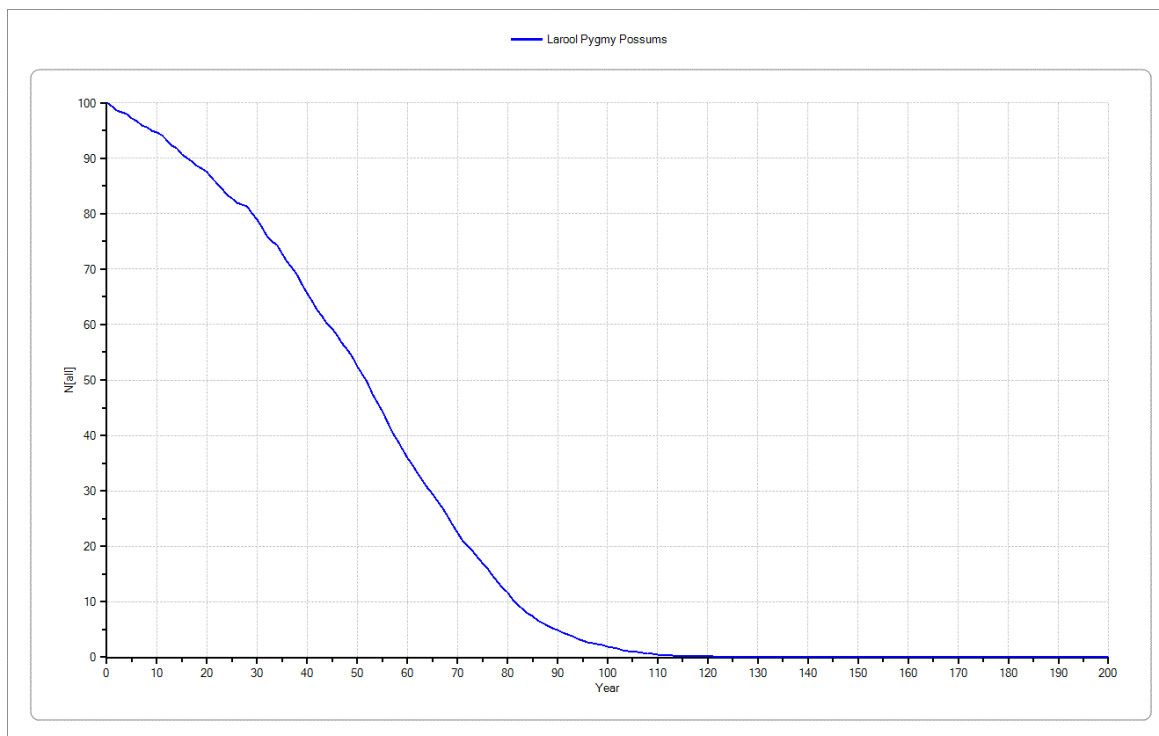


Figure 2. Population Viability Analysis (PVA) of the 4a Larool Road, Eastern Pygmy-possum population assuming a closed/isolated population with a founder population of 100 individuals (assuming territory size of 0.04 ha)

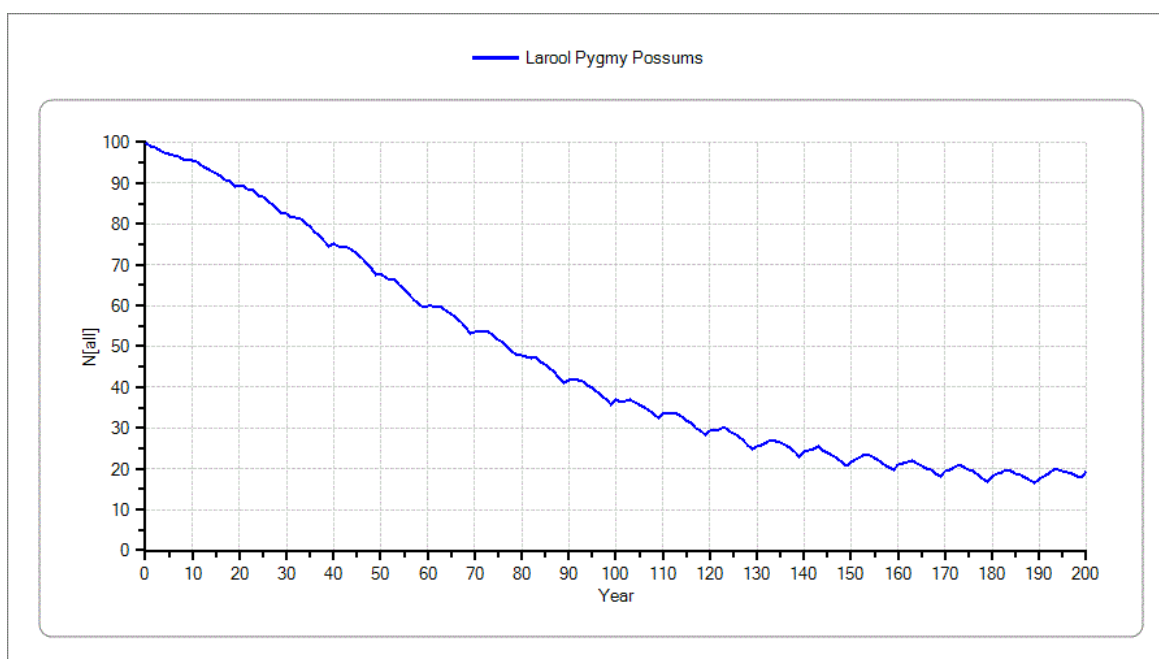


Figure 3. Population Viability Analysis (PVA) of the 4a Larool Road, Eastern Pygmy-possum population assuming a connected population with movement of 1 male and 1 female from Dundundra Falls – Ku-ring-gai Chase into 4a Larool Road every 10 years.

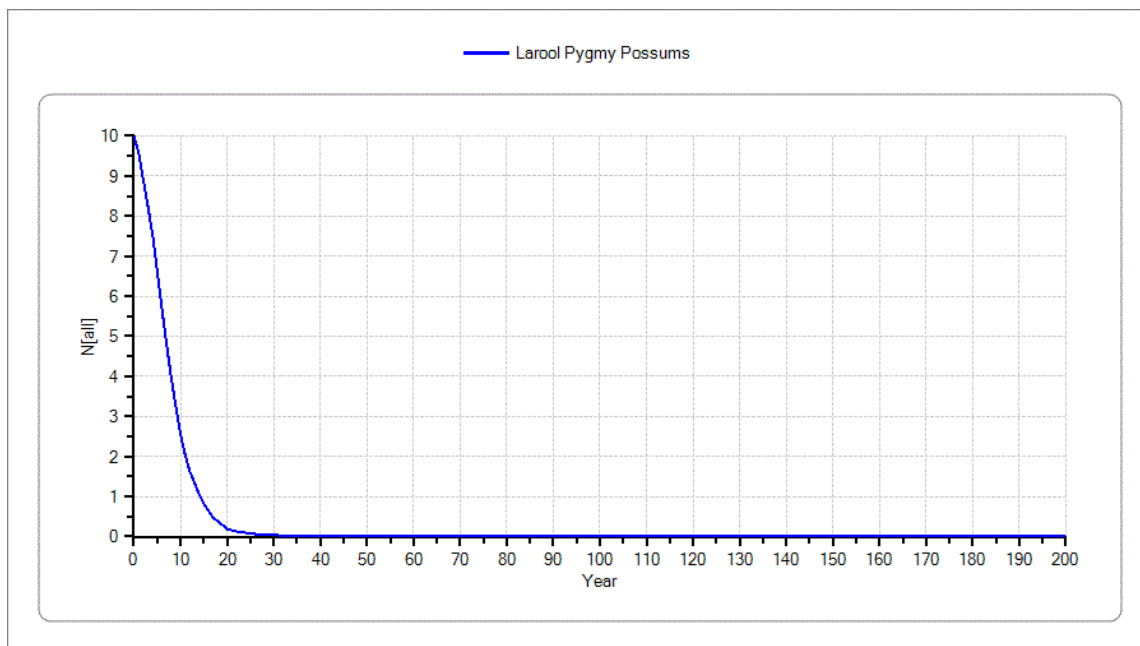


Figure 4. Population Viability Analysis (PVA) of the 4a Larool Road, Eastern Pygmy-possum population assuming a closed/isolated population with a founder population of 10 individuals (assuming territory size of 0.4 ha)

- 1. A lack of clarity around compensatory options described in the SIS including either a Conservation Agreement OR Biodiversity Stewardship Site established over the residual 0.95ha of vegetation on site (note, subsequent clarification has been provided by the applicant outside of the SIS)**

Narla Response:

The proponent is confused as to why the NECC Biodiversity Officer has left this item in their report as an 'outstanding matter of contention', when the matter had already been resolved.

Before NECC Biodiversity published their referral response report, they were provided with a letter signed by the CEO of Wyvern Health Pty Ltd committing to the implementation of a Biodiversity Stewardship Agreement Pursuant Division 2 of the *Biodiversity Conservation Act 2016*. Council acknowledge receipt of this letter.

Conclusion

The claim that NECC Biodiversity still raise this as an 'outstanding matter of contention' is false and cannot be used as reasoning to refuse the DA.

Narla Environmental Response to “RE: Ecological review of Species Impact Statement for DA2017/0385” by Keystone Ecological (dated 11th March 2018)

Narla would like to address the issues of contention raised by Keystone Ecological (Keystone) in their peer review of the SIS dated 11th March 2018.

It is important to note that many of the issues raised by Keystone in the review of the SIS (Narla 2017b), were not raised in their review of the Flora and Fauna Assessment (Narla 2017b), likewise many of these issues have not been previously highlighted as 'matters of contention' by NECC.

Care must be taken when reading Keystone's review as many of Keystone's claims of 'inadequate information provided by the proponent' have been well-documented and addressed in the SIS (Narla 2017a), Flora and Fauna Assessment (Narla 2017b) and BMP (Narla 2017c).

In response to the apparent issues of contention that Keystone has listed in their peer-review of the SIS:

1. Keystone Statement:

“a Species Impact Statement (SIS) is called for because, in the opinion of the determining authority, the proposal is likely to have a significant adverse impact on matters of import, and / or there is not enough information to have sufficient certainty regarding the likelihood of significant adverse impact.”

Narla Response:

Our SIS and the body of accumulating expert opinion on the matter show that the proposed development is not going to cause a significant adverse impact to any viable local population of any threatened species or local occurrence of ecological community that occurs on the subject site. This is explained in detail in the following pages of this response document.

2. Keystone Statement:

“The SIS process provides an opportunity to address the perceived problems with an application, specifically by the collection of additional data to deal with the uncertainty, and / or provide a solution that removes the offending impacts or sufficiently ameliorates those impacts. In my experience, the latter issues are usually and most easily achieved by exploration of a different (usually smaller) footprint.”

Narla Response:

The SIS process does not provide a solution to 'ameliorate impacts' through 'exploration of a different (usually smaller) footprint' since reducing a building footprint is considered a 'significant alteration or design change' that would render the DA non-compliant on planning grounds. Furthermore, when OEH provide their 'Chief Executive Requirements' (CERs) they specifically request that no design changes are made between the time of submitting the Flora and Fauna Assessment and the SIS. If design changes were proposed during preparation of an SIS, it would defeat the purpose of preparing that SIS since the design change itself would render that DA non-compliant on planning grounds.

The SIS explains in detail (see page 117-118 of the SIS) the process involved in designing the Hospital and the efforts involved in minimising the disturbance footprint while maintaining the essential space to allow for the necessary hospital facilities (units, wards etc) and function in a commercially viable manner. In the early design stage, the proponent acknowledged expert advice that locating the building predominantly in the cleared portion of the subject property was the most optimal site for development, since it had the lowest ecological impact.

Following the pre-DA meeting held between the proponent, council planners and biodiversity staff at Council Chambers the original proposed development footprint was further reduced in area to encompass only the eastern corner of the subject property. Ideally, the proponent would have desired to raise the hospital vertical (e.g. add additional stories) to reduce the overall footprint and further reduce associated vegetation clearing (which was already low), however council planning restrictions relating to building height and design did not permit this

compromise. Any further reductions in building footprint were considered to have too significant an impact on the hospital's commercial viability. The proponent continued to explore all avenues to reduce the ecological footprint. The final design assessed in the SIS is the product of hundreds of person hours and many hundreds of thousands of dollars' worth of design and consultation with expert advisors to minimise ecological footprint while maintaining a viable hospital that meets council structural design requirements.

Prior to purchase of the property, the subject site had been exposed to extensive historical clearing and intensive weed infestation, including one of the most significant *NSW Biosecurity Act 2016* listed priority weed Pampas Grass (*Cortaderia selloana*) infestations in the Northern Beaches Local Government Area. The hospital building and associated landscaping will remove this weed infestation. It is an aim of the proponent to eradicate this weed and all other priority weeds from the property through implementation the BMP (Narla 2017c). The implementation value of the BMP will form the largest resource injection the natural environment of this property has ever received.

For these reasons we are certain that the hospital footprint has been optimised as much as possible to reduce ecological impact to a level that ensures no significant effects/impacts to viable local populations of threatened species and local occurrences of EEC, while maintaining functional and economic viability.

3. Keystone statement:

While novel management actions are welcome, they cannot be relied upon in the Assessment of Significance for mitigation of impact.

Narla Response:

Narla are convinced that the proposed actions of hospital construction or operation will not lead to any adverse effect upon the local occurrence of Duffys Forest, Coastal Upland Swamp or a viable local population of the Eastern Pygmy-possum. This opinion is supported throughout the SIS and further discussed in detail in the following pages of this document. The 'Novel management actions' were a commitment by the proponent in order to mitigate any perceived impacts of the development upon these entities, even if such impacts are confirmed to cause no adverse impacts / increased likelihood of extinction (as is the case of this development). It is best practice to provide impact mitigation measures to lessen any impacts, regardless of whether those impacts are likely to have adverse effects that could lead to future extinction. It is highly unlikely that any activity conducted on the hospital site associated with construction or operation of the site would lead to any species or ecological communities' extinction.

4. Keystone Statement

In my opinion, the most valuable opportunity provided by the SIS process - to find a solution to the objectionable parts of a development - has been largely squandered for this proposal.

Narla Response

Narla believe this statement is misleading and untrue.

The production of an SIS usually allows proponents an opportunity to meet with Council after preparing an SIS to discuss the compensatory matters proposed. A Narla Ecologist had some brief telephone conversations with council in order to answer questions Council's Biodiversity Officer had regarding the SIS, which were later addressed in his report. No further opportunity was provided by council that enabled the proponent to 'find a solution to the objectionable parts of the development'. The Narla

The proponent expressed their willingness to pursue the 'compensatory measures' preferred by council, such as the agreeance to manage the Conservation Area as a 'Biodiversity Stewardship Site'. Council is well aware that the proponent is willing to explore alternative 'compensatory measures' if such are preferred by Council, however the opportunity was not provided prior the Natural Areas departments 'Recommendation for Refusal' or the March Planning Panel meeting.

5. Keystone Statement

In addition to the clearing for the Asset Protection Zone (APZ) for the school in the easement, there is direct impact across approximately 0.22 hectares of bushland for the hospital development. This includes clearing for the APZ, as well as for the construction of the access for a fire truck. This additional area includes many important ecological features, the impacts of which have not been acknowledged and therefore not assessed.

Narla Response:

It is noteworthy to mention that Keystone did not raise any issues with this access track during their review of the Flora and Fauna Assessment even though this matter was discussed in detail within that report. It seems unusual that Keystone has decided to just raise this question now when they had ample opportunity to raise it before.

The definition of 'clearing' is extremely broad and encompasses are many different kinds of vegetation management, including ploughing, mowing, slashing, thinning by hand through to broad felling with heavy machinery. The only tree removal that will occur during any APZ management will consist of dead or dying/unstable trees (as identified by the Arboriculturalist, Urban Arbor 2017) that do not provide threatened fauna habitat value (as identified by an Ecologist). All other canopy thinning will take place in the form of select branch removal to meet minimum canopy connectivity thresholds (canopy gaps between 2-5m) which most of the APZ areas already meet. Shrub thinning will focus on select, targeted removal of dead and senescent shrubs. Groundcover thinning will be undertaken through occasional trimming with hand-operated power tools (e.g. hand power slasher) and will be kept to a minimum. No machinery, tracked or wheeled machines will be used in any APZ for APZ management purposes. All of the important habitat features in each APZ will be retained (e.g. all large mature trees, hollow-bearing trees, hollow logs and Banksia ericifolia Eastern Pygmy-possum feed trees). APZ management will only be delivered by qualified Bush Regenerators experienced in management of APZ while maintaining conservation values. This APZ management will be guided by the comprehensive Biodiversity Management Plan (BMP) and all APZ will be monitored by an Ecologist who will report on the status and condition of each APZ each year to Council. This is all clearly outlined in the SIS (Narla 2017a) and (Narla 2017c).

A small track dedicated for NSW Rural Fire Service fire tanker access to the rear of the hospital is essential for bushfire mitigation. Access will be provided from Larool Road solely for emergency access by a fire tanker along a maintained bush track that is 4 m wide and approximately 225 m long with a turning bay (type D) at the end. This track is located entirely within the existing APZ easement declared under section 88b of the Conveyancing Act 1919 (s88b easement) that was declared by court ruling and registered on 04/02/2010 (Refer to an excerpt from this declaration on the following page). Access for fire tankers and emergency service vehicles is a permitted, and necessary land use in this 88b APZ easement according (see next page). This is covered in detail in page 154 of the SIS (Narla 2017a), Flora and Fauna Assessment (Narla 2017b) and the BMP (2017c).

This issue raised by Keystone reflects their lack of firsthand knowledge of the site and the documents they have reviewed. Once again Keystone has overlooked important information that was already provided in the SIS and FFA. Particularly the habitat map reproduced below (**Figure 6**) from Appendix D, page 193 of the SIS. This map clearly illustrates the track alignment and the nearest important habitat features. Narla produced this map using the surveyor-mapped track alignment, and field data collected by two Narla Ecologists who physically walked the proposed track alignment with GPS-enabled devices recording all habitat features (including suitable outcrop crevices for bats, of which they found none).

All habitat features removed to allow for the access track will be replaced through revegetation efforts. This was also clearly discussed in both the Flora and Fauna Assessment (Narla 2017b) and BMP (2017c) which Keystone failed to notice when they undertook both of their paid peer-reviews.

As an example of their commitment to protecting and enhancing the biodiversity of the Subject Site, the proponent has committed to replacing all habitat features lost from the proposed RFS tanker track through revegetation efforts undertaken elsewhere on the site (Carmichael Studios 2017), however it is important to note the proponent is not necessarily required to do this, since facilitating the establishment and maintenance of firebreaks and access by emergency services vehicles is a necessary requirement of managing the existing APZ as detailed in the 88b APZ easement gazettal posted on the following page of this report.

Full name and address of Proprietor of the Land

Gran-Dia Investments Pty Limited
90 Braeside Street, Wahroonga NSW 2076

1. Identity of Easement firstly referred to in the abovementioned plan

Easement for Asset Protection Zone 40.5 and 46.5 wide

SCHEDULE OF LOTS, ETC AFFECTED

Lot Burdened

Lot 2 DP 1145029

Lot Benefited

Lot 1 DP 1145029

PART 2

Terms of Easement for Asset Protection Zone firstly referred to in the abovementioned plan

1. Full and free right for every person who at any time is entitled to an estate or interest in the Lot Benefited or any part thereof ("grantee") and every person authorised by the grantee, from time to time and at all times to enter onto the Lot Burdened within the site of the Easement indicated on the plan ("Asset Protection Zone"), together with the right to carry out bushfire hazard reduction work in the Asset Protection Zone to manage or reduce the bushfire hazard to the improvements on the Lot Benefited and to do anything reasonable necessary for the purpose including but not limited to:
 - 1.1. the establishment or maintenance of fire breaks within the Asset Protection Zone;
 - 1.2. the controlled application of appropriate fire regimes or other means for the reductions or modification of available fuels in the Asset Protection Zone to mitigate against the spread of a bushfire;
 - 1.3. entering upon and obtaining access to the Asset Protection Zone at any time with surveyors, workmen, vehicles, materials, machinery or implements or any other necessary things or persons; and
 - 1.4. placing and leaving on or removing from the Asset Protection Zone, all necessary materials, machinery, implements and other things which work is being undertaken.
2. In exercising its rights, the grantee must:
 - 2.1. ensure that all work is done properly;
 - 2.2. cause as little inconvenience as practicable to the registered proprietor of the Lot Burdened and any occupier of the Lot Burdened;

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1 of 6 pages

WARRINGAH COUNCIL


Authorised Person

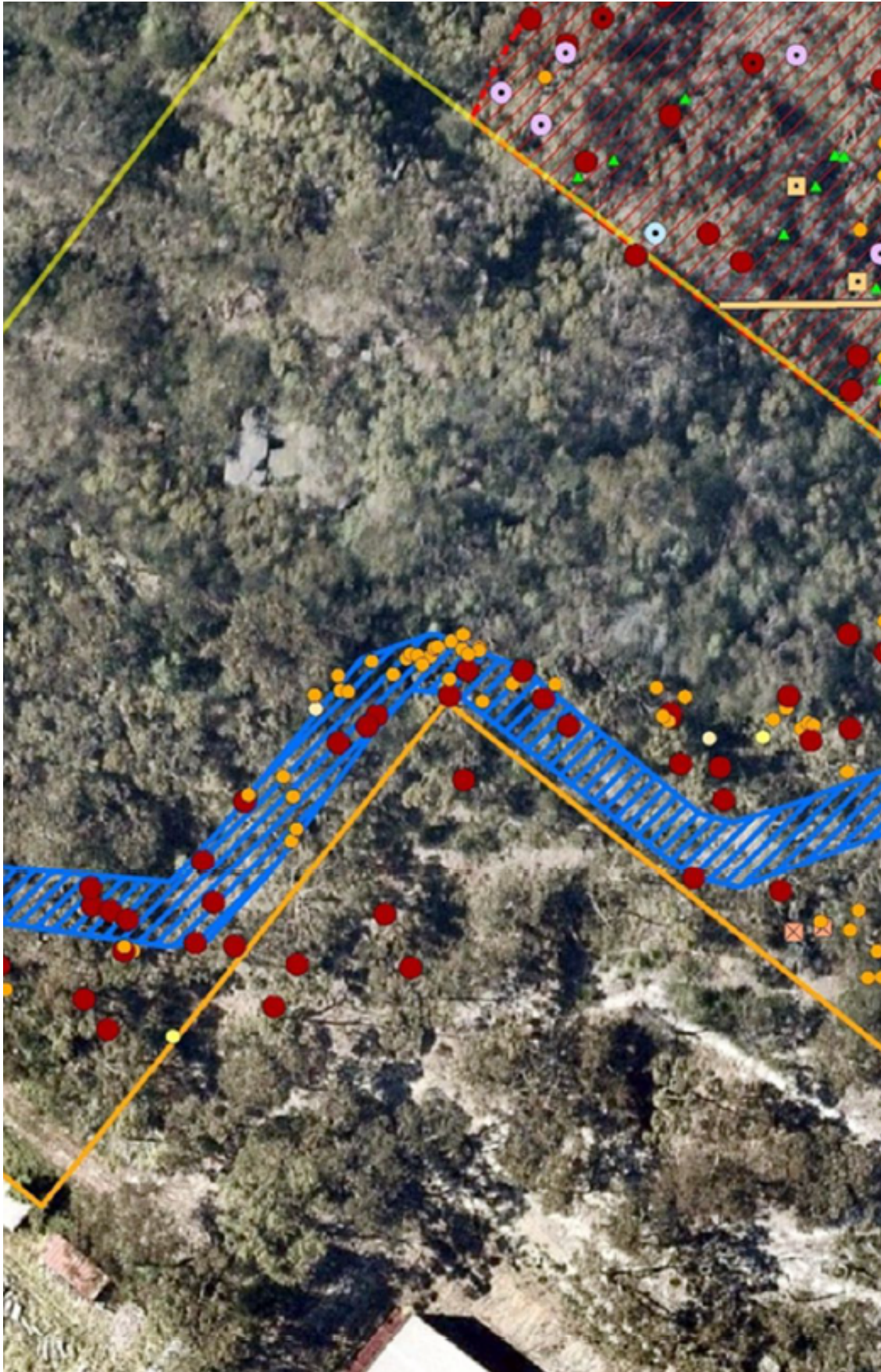


Figure 5. Access track mapped through the subject site showing proximal habitat features and avoidance of escarpment habitat

6. Keystone Statement

"There is also no acknowledgement or discussion regarding ow the fire access track is to be constructed, given that it is mooted to cross over the sandstone escarpment."



Figure 6. Keystones mark-up of a matter they misunderstood as being 'of contention'

Narla Response

It is discussed on page 8 of the SIS (Narla 2017a) and in the Flora and Fauna Assessment (Narla 2017b) that the proposed tanker track will be produced to the minimum necessary standards accepted by RFS. These specifications are further addressed in the Bushfire Assessment (Peterson 2017).

It is inconceivable to think that anyone would design a track that cuts in to steep sandstone escarpment containing deep crevices, when there are much less constrained (and less costly) areas to build a track along as demonstrated (Figure 5).

Coastal Upland Swamp EEC

1. Keystone Statement:

"The SIS has now better defined the local occurrence of the CUS, with investigations for the SIS uncovering many more patches of CUS in the vicinity of the site, much of which is in reserves.

Given the additional areas of CUS that comprise the local occurrence, and the proposed detailed ameliorative measures, in my opinion the direct and indirect impacts of the proposal to the CUS on site is unlikely to threaten the persistence of the local occurrence of CUS."

Narla Response

Narla welcome Keystone's agreement with the professional opinions of both Narla and the independent, industry referee, Ecologist Paul Burcher (Aquila Ecological Surveys) that the local occurrence of Coastal Upland Swamp in the Sydney Basin Bioregion (CUS) will not be significantly affected or threatened by the proposed development.

Despite the proponent knowing that their proposed development will cause no significant effect to the local occurrence of CUS, the proponent has a self-imposed commitment to protecting and enhancing the biodiversity of the subject site and has therefore provided extensive management resources and funding in attempt to protect the extent of CUS present on the Subject Site from weed infestation into the future as outlined in the Flora and Fauna Report, BMP, and SIS (Narla 2017a; 2017b and 2017c).

Since expert consensus reveals the local occurrence of CUS will not be significantly impacted by the proposed development, this issue is not a matter of contention and should not be pursued by NECC Biodiversity or Waterways as a reason to recommend refusal of the DA.

Duffys Forest Endangered Ecological Community

1. Keystone Statement:

The SIS persists with ignoring the additional area of this community to be cleared within the APZ within the easement. This should be addressed as potential impacts arising from the subject development.

Narla Response

In the SIS and in the Flora and Fauna Assessment, Narla (2017a; 2017b) clearly demonstrates that there will be no significant adverse impacts on a local occurrence upon Duffys Forest endangered ecological community (EEC) since.

The 88b easement APZ management works in all Duffys Forest EEC that extends into the APZ have been previously approved (as discussed in detail in previous sections of this report).

Regardless of previous approvals, Keystone overlooks the positive effects that APZ management will have upon native Duffys Forest EEC flora. The proposed APZ management actions will see qualified and experienced Bush Regenerators manage all bushland to eradicate all weeds and reduce the accumulation of unnaturally dense layers of fuels (leaf litter, bark, dead branches etc) that are currently causing increased fire hazard, in addition to smothering the ground layer and Duffy's Forest flora germinates. Much of the fuel load can be reduced by selective thinning of common, dense, non-habitat shrubs such as *Kunzea ambigua*, *Leptospermum spp*, and *Persoonia linearis* among other common species. The removal of dense overstorey (by selective branch thinning to create canopy gaps 2-5m wide) and dead (non-habitat) ground biomass will lead to increase resource (e.g. light, rainfall intercept, growth space) availability and therefore contribute positively to abundance and diversity of woodland flora regeneration in the Duffys Forest EEC (Bradstock and O'Connell 1988; Tozer and Bradstock 2003).

Narla argue that the positive effects of strategic APZ management through implementation of the BMP will benefit Duffys Forest EEC, not impact it.

Grevillea caleyi

1. Keystone Statement:

There has been no further exploration of the management actions required for the persistence of this species on site, particularly the implementation of an appropriate fire regime.

Narla Response:

This is irrelevant. There is no need to explore management actions for *Grevillea caleyi* as the population on the subject site is located outside of all areas of construction and APZ management. Detailed management actions will be provided within the Biodiversity Stewardship Agreement which will be enacted once DA has been approved.

Eastern Pygmy Possum

1. Keystone Statement:

There has been no analysis shown of the habitat available within the likely home range of the individuals recorded on site, nor any discussion of the size of the local population.

Narla Response

Narla provide extensive discussion and maps showing the extent of habitat available for Eastern Pygmy-possum on the subject site (see page 95-97 of the SIS). Extensive fine-scale detail habitat mapping was also conducted, showing the precise locations of each potential feed tree and hollow-bearing tree in all proposed construction areas and APZ (see Appendix D of the SIS).

Assuming the population on the Subject Site is isolated, Narla conducted detailed population viability analysis (PVA) using Vortex 10.0. We modelled the population viability of four different founder populations of 100, 50, 20 and 10. All analyses reveal Eastern Pygmy-possum on the subject site will go extinct within 10-100 years owing to inbreeding depression and stochastic effects. This means that the local population would be unviable and therefore no effects could be considered 'significant' in accordance with the Assessment of Significance (7-part test).

If the population of Eastern Pygmy-possums on the Subject Site is connected with Dundundra Falls Reserve and Kur-ring-gai Chase National Park, then any impact of the hospital on this single population will be negligible as explained in the Assessments of Significance in both the Flora and Fauna Assessment and SIS.

2. Keystone Statement:

Again, the loss of habitat for this species within the additional APZ clearing has been ignored.

Narla Response:

The loss of habitat for this species within all of the APZ areas has been addressed and not ignored. The proponent is committed to replacing all feed trees lost with replacement feed trees through implementation of the Landscape Plan (Carmichael 2017).

Keystone overlooks the positive effects that APZ management will have upon Eastern Pygmy-possum habitat. In the absence of fire (or mechanical removal) of growth resource restrictions such as dense accumulative vegetative debris and dense canopy, complete senescence of *B. ericifolia* plants in a location occurs within 30 and 50 years (Bradstock and Myerscough 1981). The proposed APZ management actions are described in detail in both the BMP and SIS. These actions will be implemented by qualified and experienced Bush Regenerators who will manage all bushland on the subject site to protect and maintain *Banksia ericifolia*, eradicate noxious/priority weeds and reduce the accumulation of unnaturally dense organic fuels (i.e. leaf litter, bark, twigs and dead branches) that are currently smothering the soil seed bank and prevention effective *Banksia ericifolia* germination across the

Subject Site. A detailed study in Sydney sandstone woodland and heath recorded >60 viable seed and germinates per 1m of soil surface (Bradstock and Myerscough 1981). This natural seedling density is being prevented on the Subject Site through smothering and resource depletion by debris build up from lack of fire. APZ works will release these resource depletion pressures and allow better germination of the seed bank.

Much of the fuel load can be reduced by selective removal of dense leaf litter, dead shrubs and trimming of senescent tree branches. Dense swathes of common, non-habitat shrubs such as *Kunzea ambigua*, *Leptospermum* spp, male (non-fruiting) *Allocasuarina littoralis* and *Persoonia linearis* among other common species will be selectively thinned to reduce fire fuel loads. This will provide access to sunlight and growing space for mature and germinating *Banksia ericifolia* (Bradstock and O'Connell 1988; Tozer and Bradstock 2003) which is essential for Eastern Pygmy-possum survival. This issue is described in detail in the SIS (page 110-111). The APZ will not damage but rather invigorate the bushland through release of build-up of dead vegetative debris and senescence of the shrub layer. Refer to the extensive detail of this process on page 142-144 of the SIS and page 21-23 in the BMP.

A detailed diagram of the proposed APZ efforts was presented in both the SIS and the BMP. This diagram shows how the APZ will be managed in a manner that allows protection and enhancement of Eastern Pygmy-possum habitat (**Figure 7**). Neither NECC nor Keystone have ever acknowledged this diagram or the multitude of positive ecological benefits that management of APZ on the subject site will bring.

3. Keystone Statement

“The conclusion in the SIS regarding the absence of adverse significant impact is predicated on the link to the reserve (i) being used by the EPP and (ii) remaining intact. In fact, this link is shown in Figure 19 of the SIS (page 112 as “protected”), but it is comprised of vegetation beneath power lines within a road reserve, and trees on private land. No protections for this link are in place or can be expected to ensue.”

Narla Response:

We have addressed the issue of the 'security' of the Larool roadside vegetation link and its irrelevance to the significance of any effects/impacts upon Eastern Pygmy-possum caused by this DA.

The PVA reveals that if the Eastern Pygmy-possum population on the Subject Site is isolated at present, it will likely go extinct within 10-100 years from inbreeding depression and stochastic effects. If the link to the reserve (vegetation along Larool Road) is ever broken in future (i.e. by maintenance of the powerline easement or adjoining landholders exercising 10/50- clearing rights), then the Eastern Pygmy-possum population on the Subject Site will become isolated and will likely go extinct within 10-100 years from inbreeding depression and stochastic effects. Both of these scenarios show that extinction will take place independently of any DA on the Subject Site, and therefore have nothing to do with the current DA. This matter is resolved and is not currently, nor has it ever been a valid reason to refuse this DA.

4. Keystone Statement

“Other than the provision of replacement hollow habitat, the proposed offsets for the losses of EPP habitat are not feasible. The proposed planting of 1180 to 3120 *Banksia ericifolia* trees as shown in the landscape plan will allow only 0.5 square metres per tree. This is insufficient for the growth of this species. They will not mature and provide good foraging habitat for at least 8 years, which is longer than the probably life cycle of EPP in nature. Additionally, this proposed planting conflicts with the requirements of the APZ, as it will create a significant fire risk immediately adjacent to the hospital building.”

Narla Response:

The Keystone opinions expressed are factually inaccurate and unsupported the published, peer-reviewed, scientific literature.

Banksia ericifolia is a self-thinning species that is known to fall dense monocultures and will continue to grow and flower when growing in high density populations in woodland and heathland environments in the Sydney region (Myerscough, Whelan and Bradstock 2000). A study on *Banksia ericifolia* density in Sydney sandstone heathland

and woodland recorded >60 viable seed and germinant per 1m² patch of soil surface (Bradstock and Myerscough 1981).

Banksia ericifolia usually flowers after 4-6 years from germination (Zammit and Westoby 1987; Bradstock and O'Connell 1988) and not 8 years as Keystone has assumed. Since the majority of *Banksia ericifolia* present on the subject site will remain on the site unhindered by the proposal, including within the Conservation Area and all APZ areas, there will remain a constant supply of flower each season for foraging by Eastern Pygmy-possum.

This *Banksia* plants Narla recorded Eastern Pygmy-possum foraging in during the SIS. The planting of mature, nursery-reared *Banksia ericifolia* stock will hasten the flowering process of stock planted on the Subject Site (McLean 2001).

To replace the 147 *Banksia ericifolia* that will be removed for the proposed development, including the 80 *Banksia ericifolia* removed to allow for the proposed hospital building construction footprint along and the 67 *Banksia ericifolia* that could be removed to facilitate the proposed RFS tanker track, the Landscape Plan (Carmichael 2017) details the planting of between 1,180 to 3,120 *Banksia ericifolia* plants to be will be installed in a 'clumping' manner that meets the requirements of an Inner Protection Area APZ in accordance with the requirements listed by Peterson Bushfire (2017). This will provide a net gain in Eastern Pygmy-possum foraging resources across the subject site.

5. Keystone Statement

"The EPP are likely to be able to easily cross Larool Road, so the necessity for elaborate crossing structures is questioned. Also, there is no evidence that this species would use such crossings."

Narla Response:

Interesting that Keystone and Council both now agree that the Eastern Pygmy-possum is likely able to cross the road, when both parties previously disagreed with Narla that they likely could and would. This an example of the lack of confidence in their knowledge of the subject matter.

The proponent elected to install these 'elaborate' crossing structures. Another reflection of the commitment this proponent has the protecting and enhancing the biodiversity of the Subject Site.

6. Keystone Statement

"The proposed contribution of \$75,000 to the conservation management of the nearby reserve is laudable, but its value as an appropriate offset for the proposed loss of EPP habitat and threat to a local population is unexplored. This is unfortunate, as there are assessment tools available (e.g. BioBanking, Biodiversity Offset Assessment Method) to determine the adequacy of such an offer."

Narla Response:

The proposed contribution is a laudable, philanthropic effort and a very fine example of the type of support and positive engagement with the local community that the proponent is willing to engage in if their DA is approved. There are very few cases where a development proponent has self-imposed such a substantial donation to a local conservation group or action without being forced to by a regulatory authority.



Figure 7. Detailed diagram using a 360 degree photo taken at the subject site, that illustrates how APZ areas will be managed of fine fuels, while retaining and enhancing Duffys Forest EEC and Eastern Pygmy-possum habitat values.

Glossy Black-Cockatoo

7. Keystone Statement:

The proposed plantings of Allocasuarina trees at a 3:1 ratio to replace lost forage are problematic in that (i) such plantings will create a fire hazard, and (ii) there is no guarantee that it will result in enough female trees.

Narla Response:

The maximum number of female (fruiting) *Allocasuarina* plants removed by the proposal is negligible when compared to the extent that will remain in the local occurrence, both on the subject site and in the adjoining Dundundra Falls Reserve and Ku-ring-gai Chase National Park. This is discussed in detail in the Assessments of Significance in both the SIS and Flora and Fauna Assessment. Nonetheless, owing to the proponent's commitment to maintaining and enhancing the biodiversity on the subject site, they have self-imposed a plant to replace all female) (fruiting) *Allocasuarina* plants removed from the construction footprint with up to three replacement trees which will be planted as part of the landscaping efforts. Where plantings are made in APZ areas, they will be planted in clumps, as required for APZ compliance.

Rosenberg's Goanna and Microbats

1. Keystone Statement:

The potential impacts on important escarpment habitat has been ignored.

Narla Response:

There will be no impacts to any escarpment habitat. This is explained clearly throughout both the Flora and Fauna Assessment and SIS. APZ works will not be conducted on escarpment, and construction does not coincide with any escarpment habitat or any other habitat considered important for Rosenberg's Goanna or cave-dwelling microbats. It does not seem as though Keystone has read either document.

Conclusion

2. Keystone Statement:

Overall, the SIS has failed to address the complete set of direct and indirect impacts for many threatened entities on site and has not explored alternative footprints.

Narla Response:

The SIS has not failed to address the complete set of direct and indirect impacts for many threatened entities on site. Our detailed response proves the contrary.

The final footprint is the result of hundreds of hours, and many hundreds of thousands of dollars of expert consultation and advice. It is completely unrealistic to explore alternative footprints after submission of DA, least of all at SIS stage. The very purpose of an SIS is to assess the impacts of a DA so to change footprints after DA submission defeats the purpose of submitting a DA or conducting an SIS.

Our responses to all of the 'matters of contention' outlined by Keystone clearly show that we the SIS and accompanying documentation addresses everything required and more. Keystone's peer-review is an appalling example of a paid peer critique. Amongst extensive it is riddled with false allegations, and unfounded, biased personal opinions.

Other than Keystone's agreement with the obvious fact that the local occurrence of CUS will not be significantly impacted by the proposal, their review is defunct and should not be relied upon as an effective argument against approval of the DA.

As experts in the assessment of ecological impacts in accordance with state and commonwealth legislation, Narla stand-by our assessment of the proposed development and recommend approval of the DA on the grounds that it will not induce any significant effect or impact upon a threatened species, population or ecological community such that one could be placed at risk of extinction.

The overall result of this development and its accompanying environmental protection and restoration efforts will improve the broader habitat and biodiversity values of the Subject Site into the future. In the absence of a DA, the Subject Site will become increasingly degraded by weed infestation and senescence caused by an unnatural build-up of dead vegetative material across the site.

Narla are convinced of the positive ecological / biodiversity outcomes that will ensue and we support this DA on these grounds.



Kurtis J. Lindsay *BSc (Hons)*

Principal Ecologist

Narla Environmental Pty Ltd

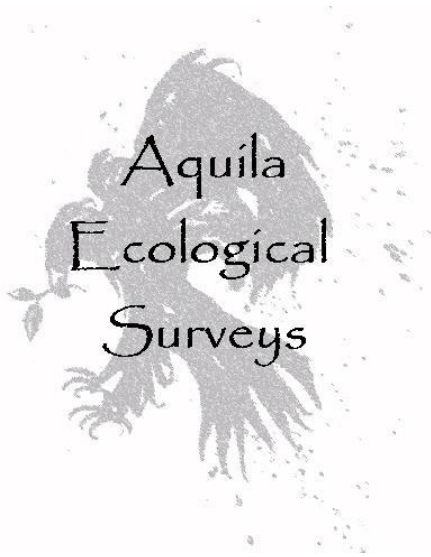
17th March 2018

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Appendix 4

Aquila Ecological Surveys review of outstanding issues



**Response to Northern Beaches Council Natural Environment and Climate Change –
Biodiversity & Waterway Referral Response, 02/03/2018**

Prepared for the North Sydney Planning Panel meeting, Wednesday 21st March 2018

Paul Burcher Aquila Ecological Surveys

Paul has a degree in Applied Science (Applied Ecology) and has operated as an independent environmental consultant since 1993. He has undertaken numerous fauna and flora surveys and legislative assessments for government authorities and private clients. Many of these were in the sandstone bushland of northern Sydney, which Paul is particularly familiar with from living and studying locally. Paul has a sound knowledge of the habitat requirements of the Eastern Pygmy-possum having established and monitored numerous nest box sites in of Hornsby Shire Council-managed reserves during 2012-2016. Paul is a member of the Ecological Consultants Association of NSW and ascribes to its Code of Business Practice, Professional Conduct and Ethics.

Introduction

In 2017 Narla Environmental (2017a) prepared a Flora and Fauna Assessment accompanied by a Biodiversity Management Plan (Narla Environmental 2017b) to accompany a development application (DA) submitted to Northern Beaches Council by Wyvern Health for a private hospital at 4A Larool Road, Terrey Hills. The overall conclusion of the flora and fauna assessment was that with implementation of the Biodiversity Management Plan, the proposed development would not have a significant effect on threatened species, populations and communities, or their habitats. Council's Biodiversity section recommended refusal of the development application due to perceived unacceptable residual impacts

on threatened species and endangered ecological communities. This was also the position taken by Council's appointed independent ecological consultant, Keystone Ecology, in its review (Ashby 2017).

In response Narla Environmental (2017c) prepared a species impact statement (SIS), the purpose of which was to further address and ameliorate impacts on NSW *Threatened Species Conservation Act* (TSC Act) listed species and communities such that Council would be satisfied that there would not be a significant effect upon them as a result of the proposal proceeding. Council's Biodiversity Section has again recommended refusal of the application due to a variety of concerns including impacts on the vulnerable Eastern Pygmy Possum and the Endangered Ecological Communities Coastal Upland Swamp, the latter of which is also listed on the Commonwealth *Environment Protection and Biodiversity Conservation Act*. Keystone Ecological (Ashby 2018) has also carried out a review of the SIS and concluded that "the proposal remains unsatisfactory in terms of potential impacts on biodiversity."

AES was requested by Wyvern Health to address aspects of the most recent of Council's referral and Ms Ashby's comments in relation to the Eastern Pygmy-possum and Coastal Upland Swamp.

Discussion

Council's Biodiversity Section and Ms Ashby are of the opinion that the SIS does not demonstrate that the Eastern Pygmy-possums inhabiting the site are part of a population located in nearby larger areas including Dundundra Falls Reserve (Crown Land) and Ku-ring-gai Chase National Park. Should the site population be isolated, it would be more prone to extinction than if it were part of a larger, interconnected population. To decisively demonstrate a linkage would require extensive and prolonged trapping or installation of surveillance cameras and/or genetic analysis of individuals within the site, the reserve, the national park and a control site.

To address the question of the viability of the population, Narla has subsequently undertaken a population viability analysis (PVA) on the Eastern Pygmy-possum population. PVA is a quantitative analysis designed to determine the probability of extinction of a population based on a variety of environmental and biological factors. .

In its selection of input used for the PVA software to analyse, Narla demonstrated a conservative approach. For instance, in one model it was assumed that the territory of each individual is on average 0.04ha and that all 4ha of habitat available was used by the species, resulting in a site population of 100 individuals. When it was assumed that the site population was 'closed' (i.e. isolated from the nearby reserves), the results indicated that the 'population' would be extinct within 100 years of its isolation. A population of 100 individuals is much larger than other estimates for home range size in similar habitat elsewhere would have generated e.g. in Royal National Park, Ruegger (2011) calculated home ranges for Eastern Pygmy-possum females as $0.55 \pm 0.15\text{ha}$ and males $1.3 \pm 0.52\text{ha}$. An assumption of 50 individuals, which in my opinion is still too high, indicated extinction within 70 years and a population of

10 less than 20 years. When models were run assuming that immigration from elsewhere occurred (as Narla and AES have proposed), the population generally declined then stabilised.

So if the results of the PVA are accepted two scenarios for the species are indicated:

- the individuals on site are part of a larger population; or
- they constitute an isolated population that is not viable.

The Biodiversity Section contends that even should individuals cross Larool Road and use the habitat corridor between the subject site and Dundundra Falls Reserve, this corridor is likely to become unsuitable due to weed invasion and vegetation modification as a result of statutory clearing of the power easement and the potential for bushfire hazard reduction on private property. Again, these processes, which are beyond the control of the proponent, would result in isolation, which according to the PVA models, renders the site population unviable.

If they are part of a larger population inhabiting the extensive areas of protected habitat within the nearby reserve and National Park, then the scale of the impact is not significant, there being around 11ha of habitat in the reserve (Figure 1) and many more hectares within the National Park that were not mapped. Apart from being reserved those habitat areas are superior to that of the site's in terms of having a range of fire histories and less disturbance and weed invasion.

Figure 1. Nearby Eastern Pygmy-possum habitat identified by AES on behalf of Narla



Furthermore, the mitigation measures proposed by Narla in the SIS would sufficiently offset the loss of habitat as a result of the proposed development proceeding. Council's Biodiversity Section points out that one of these measures, the installation of rope bridges over Larool Road, may not be feasible due to power line clearance requirements. Ms Ashby states that this measure cannot be factored into the assessment of significance as its efficacy is unproven. However, this proposal is only a minor one in a suite of measures framed to reduce of impacts to a non-significant level. Rather, the implementation of the Bushland Management Plan as well as weed management and planting of *Banksia ericifolia* along Larool Road are key mitigative measures. If the site population is not viable then all mitigative measures are futile.

There is a deal of contention in relation to the water management of the site's Coastal Upland Swamp with Council's independent engineering review finding that the proposed development would significantly alter the Coastal Upland Swamp's hydrological regime. The technical aspects of this matter are beyond the author's qualifications. Nevertheless, as posited previously by AES in its response to the Keystone Ecological peer review (Ashby 2017), the subject patch of Coastal Upland Swamp is unlikely to be viable in the long-term whether the development proceeds or not. This is due to its small size, large edge to volume ratio and the potential for further weed invasion. It is noted Ms Ashby now

concur that the proposed development is 'unlikely to threaten the persistence of the local occurrence of this endangered ecological community.'

Ms Ashby considers that the best way to have mitigated ecological impacts such that "offending" impacts are avoided would be to reduce the building footprint. In section 5.6 of the SIS Narla has comprehensively discussed the process by which the proposal's footprint has been reduced as much as possible in light of biodiversity concerns. Short of Council reducing the setback from Myoora Road, a further reduction in impacts is not possible.

Conclusion

Given the information provided by Narla in the species impact statement and the subsequent population viability analysis, it is considered that the likely ecological impacts of the proposal have either been reduced to a non-significant level by the proposed ameliorative measure or are inconsequential to the viability of the Eastern Pygmy-possum and the Coastal Upland Swamp endangered ecological community.

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Narla Environmental (2017c) *Species Impact Statement for the proposed private hospital at Lot 2/1145029, Terrey Hills NSW 2084*. Report prepared for Wyvern Health Pty Ltd December 2017.

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Appendix 5

Martens & Associates response to Northern Beaches Council referral

19 March, 2017

RESPONSE TO NORTHERN BEACHES COUNCIL NATURAL ENVIRONEMNT AND CLIMATE CHANGE – BIODIVERSITY AND WATERWAY REFERRAL RESPONSE DA2017/0385 (PROPOSED HOSPITAL AT 4A LAROO ROAD, TERREY HILLS, NSW)

Martens and Associates have prepared this response to the Northern Beaches Council Natural Environment and Climate Change (NECC) Referral Response in relation to DA2017/0385 for a private hospital at 4a Larool Rd, Terrey Hills. Our response deals specifically with the undated NECC Waterway Referral Response (pages 5 and 6) (the **NECC review**), which we understand has been undertaken by a third party (unknown to us at this stage).

In respect of the NECC review, we understand that this provides commentary on stormwater management principles outlined by Martens & Associates in the June 2017 report. We note that the NECC review has however not had the benefit of the more recent hydrogeological management plan provided by Martens and Associates in January 2018, which was amended following the first Sydney North Planning Panel (SNPP) meeting. Notwithstanding that the NECC review has been completed without all available information, we provide the following response to specific matters.

Table 1: Martens response to NECC review comments.

Item	NECC Review Comment	Martens Response
1	<i>Resupply with surface will not mimic natural conditions in terms of volumes and recharge rates</i>	<p>We disagree. Our experience is that a resupply with surface water has been approved in other areas (such as for the management of flows to Blue Gum High Forest in the Ku-ring-gai Council area), and can be integrated with the local groundwater regime.</p> <p>Further, we note that there is no clear detail in Council's DCP or water management policy as to what the definition of 'mimic' is. Council have noted a coefficient of variation of 10% in their response, however this is the first time Martens and Associates has been made aware of this requirement. Had Council requested this in previous referral responses, it would have provided Martens sufficient time to assess such a requirement.</p>
2	<i>Modelling undertaken does not quantify the change in water balance of the existing swamp (i.e. as a result of the proposed development and recharge system)</i>	<p>We note that a request for water balance modelling has not been previously requested for this proposal, notwithstanding that Council has had access to the stormwater management concept proposal for many months. A refusal on this ground is unreasonable because with sufficient notice, a water balance model can be prepared, and if required, should be the subject of a properly worded condition of consent.</p>

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Irrigation
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Head Office

Suite 201, Level 2, 20 George Street
Hornsby NSW 2077, Australia
Ph 02 9476 9999 Fax 02 9476 8767

> mail@martens.com.au

www.martens.com.au

MARTENS & ASSOCIATES P/L
ABN 85 070 240 890 ACN 070 240 890

3	<i>The proposed total OSD storage volume of 245m³ (153m³/ha) is too low is insufficient to ensure peak flows discharged from the proposed development would be maintained at pre development levels for all storm events and durations</i>	The stormwater management report provides OSD in accordance with Council's OSD Technical Specification (being the 5, 20 and 100 year ARI, all durations). Council have requested that the site be assessed against a different specification, being all storms and all durations. Again, had this been requested in the previous 2 referral responses, then Martens would have had sufficient time to assess and provide an engineering solution to this requirement. A refusal on these grounds would be unfair and unreasonable. Clearly there is capacity to provide adequate OSD, and this should be made a condition of consent and the subject of refined detailed design rather than a reason for refusal.
4	<i>Inadequate stormwater quality treatment measures are proposed which will lead to detrimental downstream water quality impacts</i>	We strongly disagree. Adequate stormwater quality treatment has been provided to ensure that there will be no detrimental downstream impacts. We note that there is no detail behind this comment, and given the time it has taken Council to respond, a refusal on this ground is unreasonable. We consider that a properly worded consent condition should suffice, including specification of appropriate performance and a requirement for an engineer to certify the design prior to construction.
5	<i>The NorBe water quality target is not achieved</i>	We strongly disagree. Our report shows that the NorBe (neutral or beneficial) criteria are met. We note that no details have been provided as to why it is asserted that our assessment does not meet the target, which makes responding to the merit of this criticism impossible. This places the proponent in an unfair and unreasonable position. We consider that the NorBe test can simply be included as part of a properly worded consent condition.
6	<i>The ANZECC water quality targets are not achieved</i>	This is not a proper reason for refusal. We note that the stormwater quality objectives based on Table 3 in Council's Water Management Policy suggests <u>either</u> ANZECC or other widely accepted targets are appropriate (such as NorBE – which was what was used as objectives). The guideline objective is not to comply with ANZECC and NorBe, it is one of the other.
7	<i>The proposed development will lead to a substantial increase in stormwater flow volumes discharged from the site</i>	We note that it would be highly unusual to require that stormwater volumes, rather than peak flow rates, are to remain unchanged as part of a development consent. If this were the case, nearly all urban developments would not be capable of achieving compliance. We note that we have designed the concept stormwater management system in accordance with the objectives of Council's Technical Specification as well as Water Management Policy, and note that 'volume of stormwater' is not mentioned in the objectives. To require such a condition on the development is unreasonable and irrelevant. The better question is whether any change in water balance would result in a material impact on the receiving environment. In respect of this proposal, our strong view is that, because of the proposed stormwater system design which is design responsive to the local groundwater system, there will not be any material impact.
8	<i>The proposed development will significantly alter the hydrological regime of the identified EEC Coastal Upland Swamp (i.e. surface flows volume increases & storm frequency increases).</i>	We strongly disagree. The concept stormwater design, which is design responsive to the local groundwater system and the current hydrological regime, will ensure that there will not be any material impact on the identified EEC. Further, we note that hydrology of the identified EEC has already been significantly altered by past land clearing, earthworks and drainage works. Our view is that through the proposed concept stormwater management strategy, there is an opportunity to ensure the long-term survival and health of the EEC.
9	<i>The proposed stormwater management measures do not lead to an outcome that mimics natural conditions.</i>	Please see our response above in respect of item 1.

More generally we note that the comments received in the NECC review are not consistent with Council's previous assessments, but rather, contain a number of new matters that the proponent has been provided insufficient time to provide a proper response to. However, we observe that at page 6 of the NECC review, the following is commented: 'it is considered that a workable water management solution can be implemented' with some changes. These changes are as follows:

1. *Increased proposed OSD storage to ensure more frequent storm events are limited to pre-development peak flows (i.e. closer to a rate of 250-300m³/ha).*
2. *Undertake a water balance of the swamp under both pre and post development conditions using the total upstream catchment.*
3. *Consider use of measures to intercept groundwater upslope of the development and convey this to the swamp.*
4. *Consider the use of rainwater storage and reuse onsite.*
5. *Introduce a groundwater barrier downslope of the site to maintain more moisture within the swamp area (i.e. to reverse the effect of the downslope boundary fence cut works).*
6. *Revise all modelling to not only demonstrate minimal quantity/quality related impacts but also model the swamps water balance (pre & post development) to ensure this remains similar to pre development conditions (i.e. Cv within 10% and the proportion of groundwater/surface water supply is maintained).*

We have reviewed these comments and are comfortable that the current stormwater concept design can accommodate these factors without any change in the layout of the development or material change to the concept stormwater design. Our strong view is that the NECC review design suggestions / improvements should be included in a series of properly worded consent conditions. Our review of the draft consent conditions is that this has been done, something which we suggest is acceptable and would prevent further unnecessary delay in relation the this matter.

If you have any queries, please do not hesitate to contact our offices.

For and on behalf of

MARTENS & ASSOCIATES PTY LTD



JEFF FULTON

Senior Engineer / Project Manager

Appendix 6

Carmichael Studios response NBC Draft Conditions of Consent and peer review

Northern Beaches Council
DA2017/0385
19.03.2018

Attention: To whom it may concern

**DEVELOPMENT APPLICATION No. DA2017/0385_ CONDITIONS OF CONSENT +
KEYSTONE ECOLOGICAL REVIEW: LOT 02 DP 1145029. 4A LAROL ROAD, TERREY HILLS**

We are writing, in response to Northern Beaches Council 'Development Consent Operational Conditions' [DCOC] and Keystone 'Ecological Review Of Species Impact Statement [ERSIS] for the proposed DA application DA2017/0385, Lot 02 DP 1145029, 4A Larool Road, Terrey Hills.

CARMICHAEL STUDIOS have prepared and submitted to Northern Beaches Council the landscape architectural drawings for the above mentioned DA submission.

We note in response to the following items:

_ DCOC. 19. Landscaping, page 12

In relation to the above item we confirm that CARMICHAEL STUDIOS has not proposed the use of any Grevillea hybrids for this development. Our detailed planting strategies, as indicated on drawings SK06A + SK06B Landscape Planting Strategy, all planting palettes external to the building propose species found in the existing plant communities found naturally occurring on the site. These planting strategies have been carefully developed in close collaboration with Flora and Fauna consultants, Narla Environmental.

_ ERSIS. Eastern Pygmy-Possum + Banksia Ericifolia, page 04.

The proposed group planting of Banksia ericifolia is indicated on our drawings SK06A and SK06B in zones identified as 'Eastern Pygmy-Possum Habitat Planting'. These zones form what Narla Environmental refer to as 'extensive revegetation and enhancement of Eastern Pygmy-Possum feed plants'. These zones form a combined total area of 1560m² and achieve a minimum planting of 1160 new Banksia ericifolia plants and as many as 3120 Banksia ericifolia plants. This number of proposed plants is significantly higher than the 80 to 116 plants to be removed as part of the hospital construction. This habitat planting strategy has been developed in collaboration with Narla Environmental. Please refer to Narla Environmental's report for further detail in relation to this point. In addition, has also been developed in conjunction with Peterson Bushfire consultants. Please refer to Peterson Bushfire consultants report in relation to the minimum structural planting requirements allowable in the APZ zone within which part of the proposed 'Eastern Pygmy-Possum Habitat Planting' is to occur.

Keystone claims the density is too great and that it conflicts with the APZ and is a significant fire risk.

_ ERSIS. Fire Truck Access, page 02 + 03.

In relation to the above item we confirm that CARMICHAEL STUDIOS indicated on drawing SK00 Landscape Fire Access the proposed RFS tanker fire access trail and turn around area. This proposed tanker access trail design was developed in co ordination with architects Bureau SRH, Flora and Fauna consultants Narla Environmental, bushfire consultants Peterson Bushfire and the NSW RFS. We note that the proposed design seeks the following key objectives:

- The proposed tanker access trail design gives careful consideration in relation to RFS trail widths and turning requirements as well as RFS defensible space requirements and minimum building set backs. We understand that preliminary approval has been given from the RFS.
- The proposed tanker access trail design and layout has been carefully considered and seeks to make minimum impact to any existing trees in the 'Coastal Sandstone Heath-Malee' community, 'Duffys Forest' community and 'Syd Nth Exposed Sandstone Woodland' community.
- The proposed tanker access trail design seeks to connect to the existing site vehicle access trail connecting to Larool Road to minimise required construction works impact while still meeting RFS requirements.
- The proposed tanker access trail design attempts to make minimum interface with the identified existing rock escarpment adjacent the German School site boundary. The proposed design seeks to work with existing levels but would require a level of 'cut' at this boundary pinch point. With appropriate co ordination and consultation with RFS and flora and fauna, traffic and civil consultants we would seek

MOB _ 61 [0] 412 175439

EMAIL _ rupert@carmichaelstudios.com.au

WEB _ www.carmichaelstudios.com.au

ABN _ 80985380866

to minimise any impacts.

We hope the above clarifications meet with your satisfaction. If required we are more than happy to discuss any refinement deemed necessary.

Should you require further information please feel free to contact myself.

Regards,

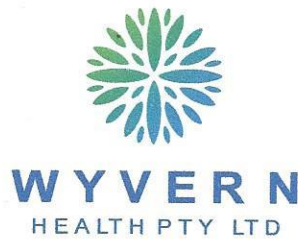


CARMICHAEL STUDIOS

Rupert Carmichael BLArch BAppSc AILA
Director

Appendix 7

Wyvern Health Stewardship agreement letter to Northern Beaches Council 21.02.18



Attention: Lashta Hidari and Brendan Smith

Northern Beaches Council

PO Box 1336

Dee Why NSW 2099

February 21, 2018

Dear Lashta & Brendan:

RE: DA2017/0385 – PRIVATE HOSPITAL – MYOORA ROAD TERREY HILLS

We write to confirm matters of detail in relation to the arrangement of biodiversity commitments of Wyvern Health, relevant to the above application. We reference the telephone conversation between Brendan Smith (Council) and our ecologist Kurtis Lindsay (Narla) on February 20th, 2018.

We have considered the matters raised in the conversation and confirm the following commitments and amendments to the SIS as submitted to Council:

- That the Duffys Forest Conservation Area identified in the SIS be converted to a "Biodiversity Stewardship Site" pursuant Part 5 Division 2 of the Biodiversity Conservation Act 2016, as shown in green hashing on the attached plan. This Biodiversity Stewardship Agreement would only be entered into if DA Approval is granted;
- That the commitment to a one-off payment at Occupation Certificate Stage to the Dundundra Reserve Trust is now amended to comprise two separate payments of 50% at Construction Certificate Stage and 50% at Occupation Certificate; and
- Confirm that the works of revegetation and crossing structure in the Larool Road road reserve are to be funded by Wyvern Health (the proponent) as part of the construction of the hospital.

We trust that this written correspondence will provide Council the comfort required and that a condition of consent would require the entry into a Biodiversity Stewardship Agreement prior to the issue of the Construction Certificate.

Sincerely,

Ian D. Campbell

CEO, Wyvern Health Pty Ltd



Legend

- Subject Property
- Proposed Biodiversity Stewardship Site
- Construction Footprint
- OPA APZ
- Section 88b APZ Easement

Vegetation

- Coastal Upland Damp Heath Swamp (EEC)
- Coastal Upland Damp Heath Swamp (EEC) (weed infested)
- Historically Cleared / Noxious Pampas Grass - Arum Lily - Ginger Lily Infestation
- Coastal Sandstone Heath-Mallee
- Coastal Sandstone Heath-Mallee (weed infested)

- Sydney Ironstone Bloodwood-Silvertop Ash Forest (EEC)
- Sydney North Exposed Sandstone Woodland
- Sydney North Exposed Sandstone Woodland (weed infested / part cleared)
- Noxious Woody Weed Infestation

Threatened Species 21.4.2017

Threatened Species

- Eastern Pygmy Possum - Vulnerable TSC Act
- ✱ Grevillea caleyi - Critically Endangered TSC Act & Endangered EPBC Act

0 10 20 40 60 80 Metres



Date: 20/02/2018

Coordinate System: GDA 1994 MGA Zone 56

Imagery: © Nearmap



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Appendix 8
Northern Beaches Council Draft Conditions of Consent

CONDITIONS OF APPROVAL

Application Number:	DA2017/0385
Land to be developed (Address):	Lot 2 DP 1145029 2 / 1145029 Myoora Road TERREY HILLS NSW 2084
Proposed Development:	Construction of a Private Hospital with associated car parking signage and landscaping

DEVELOPMENT CONSENT OPERATIONAL CONDITIONS

1. Approved Plans and Supporting Documentation

The development must be carried out in compliance (except as amended by any other condition of consent) with the following:

a) Approved Plans

Architectural Plans - Endorsed with Council's stamp		
Drawing No.	Dated	Prepared By
Site Plan - DA100 - Revision 02	28 April 2017	Bureau SRH Architecture
Basement Floor Plan - DA200 - Revision 03	28 April, 2017	Bureau SRH Architecture
Lower Ground Floor Plan - DA210 - Revision 03	28 April 2017	Bureau SRH Architecture
Ground Floor Plan - DA211 - Revision 03	28 April 2017	Bureau SRH Architecture
Level 01 Floor Plan - DA212 - Revision 03	28 April, 2017	Bureau SRH Architecture
Level 02 Floor Plan - DA213 - Revision 03	28 April, 2017	Bureau SRH Architecture
Roof Plan - DA214 - Revision 02	28 April, 2017	Bureau SRH Architecture
Elevations Sheet 01 - DA310 - Revision 03	28 April, 2017	Bureau SRH Architecture
Elevations Sheet 02 - DA311 - Revision 02	28 April, 2017	Bureau SRH Architecture
Sections - DA320 - Revision 03	28 April, 2017	Bureau SRH Architecture
Signage Details - DA340 - Revision 01	28 April, 2017	Bureau SRH Architecture

Reports / Documentation – All recommendations and requirements contained within:

Report No. / Page No. / Section No.	Dated	Prepared By
Accessibility Assessment Report BCA 2016	21 April 2017	Sydney Plan Services
Noise Impact Assessment - Revision 1	20 April 2017	Acoustic Logic
Arboricultural Impact Assessment Report	27 April 2017	Urban Arbor
Building Code Of Australia Assessment	August 2017	City Plan Services
Biodiversity Management Plan	May 2017	Narla Environmental Pty Ltd
Bushfire Assessment	13 April 2017	Peterson Bushfire expert consulting services
Cultural Heritage Assessment	April 2017	Narla Environmental Pty Ltd
Fire Engineering Capability Statement for DA Submission	21 April 2017	Olsson Fire & Risk Consulting Engineers
Flora and Fauna Assessment	August 2017	Narla Environmental Pty Ltd
Geotechnical Assessment	August 2017	Martens Consulting Engineers
Hydrogeological Assessment	April 2017	Martens Consulting Engineers
NCC Section J - Design Intent Statement	28 April 2017	ADP Consulting Engineering
Roof Stormwater Report	26 April 2017	ADP Consulting Engineering
Development Application Infrastructure Report	11 April 2017	ADP Consulting Engineering
Service Infrastructure Review & Due Diligence	11 April 2017	ADP Consulting Engineering
Wyvern Private Hospital Operational Management Plan	4 August 2017	QH Australia
Preliminary Site Investigation	April 2017	Martens Consulting Engineers
Stormwater Management Report	April 2017	Martens Consulting Engineers
Traffic and Parking Impact Assessment of New Private Hospital	27 April 2017	Mc Laren Traffic Engineering & Road Safety Consultants
Waterways Impact Statement	August 2017	Narla Environmental Pty Ltd

b) Any plans and/or documentation submitted to satisfy the Conditions of this consent.

c) The development is to be undertaken generally in accordance with the following:

Landscape Plans		
Drawing No.	Dated	Prepared By
SK 01 - Revision_G	August, 2017	Carmichael Studios
SK 02 - Revision_M	August, 2017	Carmichael Studios
SK 03 - Revision_J	August, 2017	Carmichael Studios
SK 04 - Revision_H	August, 2017	Carmichael Studios
SK 05 - Revision_H	August, 2017	Carmichael Studios
SK 06 - Revision_F	August, 2017	Carmichael Studios
SK 06B - Revision_B	August, 2017	Carmichael Studios
SK 07A - Revision_C	August, 2017	Carmichael Studios
SK 07B- Revision_C	August, 2017	Carmichael Studios
SK 07C - Revision_C	August, 2017	Carmichael Studios

Waste Management Plan		
Drawing No.	Dated	Prepared By
New Private Hospital Ongoing Waste Management	March 2017	Daniels Heath

In the event of any inconsistency between conditions of this consent and the drawings/documents referred to above, the conditions of this consent will prevail.

Reason: To ensure the work is carried out in accordance with the determination of Council and approved plans. (DACPLB01)

2. Compliance with Other Department, Authority or Service Requirements

The development must be carried out in compliance with all recommendations and requirements, excluding general advice, within the following:

Other Department, Authority or Service	EDMS Reference	Dated
Ausgrid	Response Ausgrid Referral	11 May 2017
NSW Rural Fire Service	Referral - RFS - 2/1145029 Myoora Road Terrey Hills	12 September 2017

(NOTE: For a copy of the above-referenced document/s, please see Application Tracking on Council's website www.northernbeaches.nsw.gov.au)

Reason: To ensure the work is carried out in accordance with the determination and the statutory requirements of other Department, Authority or Body's. (DACPLB02)

3. No Approval for any Signage above the parapet / roof line

No approval is granted under this Development Consent for the erection of any advertising or business identification signage located above the roof/parapet line. All signage above the roof/parapet shall be deleted.

Reason: Compliance with Warringah Local Environment Plan. (DACPLB07)

4. Prescribed Conditions

- (a) All building works must be carried out in accordance with the requirements of the Building Code of Australia (BCA).
- (b) BASIX affected development must comply with the schedule of BASIX commitments specified within the submitted BASIX Certificate (demonstrated compliance upon plans/specifications is required prior to the issue of the Construction Certificate);
- (c) A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:
 - (i) showing the name, address and telephone number of the Principal Certifying Authority for the work, and
 - (ii) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
 - (iii) stating that unauthorised entry to the work site is prohibited.

Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

- (d) Residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the Principal Certifying Authority for the development to which the work relates (not being the Council) has given the Council written notice of the following information:
 - (i) in the case of work for which a principal contractor is required to be appointed:
 - A. the name and licence number of the principal contractor, and
 - B. the name of the insurer by which the work is insured under Part 6 of that Act,
 - (ii) in the case of work to be done by an owner-builder:
 - A. the name of the owner-builder, and
 - B. if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

If arrangements for doing the residential building work are changed while the work is in progress so that the information notified under becomes out of date, further work must not be carried out unless the Principal Certifying Authority for the development to which the work relates (not being the Council) has given the Council written notice of the updated information.

- (e) Development that involves an excavation that extends below the level of the base of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the person's own expense:
 - (i) protect and support the adjoining premises from possible damage from the excavation, and
 - (ii) where necessary, underpin the adjoining premises to prevent any such damage.
 - (iii) must, at least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished.

- (iv) the owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this clause, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

In this clause, allotment of land includes a public road and any other public place.

Reason: Legislative Requirement (DACPLB09)

5. General Requirements

- (a) Unless authorised by Council:
Building construction and delivery of material hours are restricted to:
- 7.00 am to 5.00 pm inclusive Monday to Friday,
 - 8.00 am to 1.00 pm inclusive on Saturday,
 - No work on Sundays and Public Holidays.

Demolition and excavation works are restricted to:

- 8.00 am to 5.00 pm Monday to Friday only.

(Excavation work includes the use of any excavation machinery and the use of jackhammers, rock breakers, excavators, loaders and the like, regardless of whether the activities disturb or alter the natural state of the existing ground stratum or are breaking up/removing materials from the site).

- (b) At all times after the submission the Notice of Commencement to Council, a copy of the Development Consent and Construction Certificate is to remain onsite at all times until the issue of a final Occupation Certificate. The consent shall be available for perusal of any Authorised Officer.
- (c) Where demolition works have been completed and new construction works have not commenced within 4 weeks of the completion of the demolition works that area affected by the demolition works shall be fully stabilised and the site must be maintained in a safe and clean state until such time as new construction works commence.
- (d) Onsite toilet facilities (being either connected to the sewer or an accredited sewer management facility) for workers are to be provided for construction sites at a rate of 1 per 20 persons.
- (e) Prior to the release of the Construction Certificate, payment of the Long Service Levy is required. This payment can be made at Council or to the Long Services Payments Corporation. Payment is not required where the value of the works is less than \$25,000. The Long Service Levy is calculated on 0.35% of the building and construction work. The levy rate and level in which it applies is subject to legislative change. The applicable fee at the time of payment of the Long Service Levy will apply.
- (f) The applicant shall bear the cost of all works associated with the development that occurs on Council's property.
- (g) No building, demolition, excavation or material of any nature and no hoist, plant and machinery (crane, concrete pump or lift) shall be placed on Council's footpaths, roadways, parks or grass verges without Council Approval.
- (h) Demolition materials and builders' wastes are to be removed to approved waste/recycling centres.
- (i) No trees or native shrubs or understorey vegetation on public property (footpaths,

roads, reserves, etc.) or on the land to be developed shall be removed or damaged during construction unless specifically approved in this consent including for the erection of any fences, hoardings or other temporary works.

- (j) Prior to the commencement of any development onsite for:
- i) Building/s that are to be erected
 - ii) Building/s that are situated in the immediate vicinity of a public place and is dangerous to persons or property on or in the public place
 - iii) Building/s that are to be demolished
 - iv) For any work/s that is to be carried out
 - v) For any work/s that is to be demolished

The person responsible for the development site is to erect or install on or around the development area such temporary structures or appliances (wholly within the development site) as are necessary to protect persons or property and to prevent unauthorised access to the site in order for the land or premises to be maintained in a safe or healthy condition. Upon completion of the development, such temporary structures or appliances are to be removed within 7 days.

- (k) Requirements for new swimming pools/spas or existing swimming pools/spas affected by building works.
- (1) Child resistant fencing is to be provided to any swimming pool or lockable cover to any spa containing water and is to be consistent with the following;

Relevant legislative requirements and relevant Australian Standards (including but not limited) to:

- (i) Swimming Pools Act 1992
 - (ii) Swimming Pools Amendment Act 2009
 - (iii) Swimming Pools Regulation 2008
 - (iv) Australian Standard AS1926 Swimming Pool Safety
 - (v) Australian Standard AS1926.1 Part 1: Safety barriers for swimming pools
 - (vi) Australian Standard AS1926.2 Part 2: Location of safety barriers for swimming pools.
- (2) A 'KEEP WATCH' pool safety and aquatic based emergency sign, issued by Royal Life Saving is to be displayed in a prominent position within the pool/spa area.
- (3) Filter backwash waters shall be conveyed to the Sydney Water sewerage system in sewered areas or managed on-site in unsewered areas in a manner that does not cause pollution, erosion or run off, is separate from the irrigation area for any wastewater system and is separate from any onsite stormwater management system.
- (4) Swimming pools and spas must be registered with the Division of Local Government.

Reason: To ensure that works do not interfere with reasonable amenity expectations of residents and the community. (DACPLB10)

6. Allocation of Parking Spaces

A total of 136 parking spaces shall be provided within the site, with three (3) disabled parking spaces to be in accordance to AS2890.6:2009.

Reason: To ensure correct allocation of parking within the site. (DACTRBOC2)

FEES / CHARGES / CONTRIBUTIONS

7. **Policy Controls**

Northern Beaches Council Section 94A Development Contribution Plan

The proposal is subject to the application of Council's Section 94A Development Contributions Plan.

The following monetary contributions are applicable:

Northern Beaches Council Section 94 Development Contributions Plan		
Contribution based on a total development cost of \$ 22,043,000.00		
Contributions	Levy Rate	Payable
Total Section 94A Levy	0.95%	\$ 209,408.50
Section 94A Planning and Administration	0.05%	\$ 11,021.50
Total	1%	\$ 220,430.00

The amount will be adjusted at the time of payment according to the quarterly CPI (Sydney - All Groups Index). Please ensure that you provide details of this Consent when paying contributions so that they can be easily recalculated.

This fee must be paid prior to the issue of the Construction Certificate. Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To provide for contributions in accordance with Northern Beaches Council's Development Contributions Plan.

8. **Security Bond**

A bond (determined from cost of works) of \$10,000 and an inspection fee in accordance with Council's Fees and Charges paid as security to ensure the rectification of any damage that may occur to the Council infrastructure contained within the road reserve adjoining the site as a result of construction or the transportation of materials and equipment to and from the development site.

An inspection fee in accordance with Council adopted fees and charges (at the time of payment) is payable for each kerb inspection as determined by Council (minimum (1) one inspection).

All bonds and fees shall be deposited with Council prior to Construction Certificate or demolition work commencing, details demonstrating payment are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

To process the inspection fee and bond payment a Bond Lodgement Form must be completed with the payments (a copy of the form is attached to this consent and alternatively

a copy is located on Council's website at www.warringah.nsw.gov.au/your-council/forms).

Reason: To ensure adequate protection of Council's infrastructure.

9. Works Bonds

(a) Construction, Excavation and Associated Works Bond (Crossing/Kerb)

A Bond of \$55,000 as security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter and any footpath works required as part of this consent.

(b) Construction, Excavation and Associated Works Bond (Pollution)

A Bond of \$10,000 as security to ensure that there is no transmission of material, soil etc off the site and onto the public road and/or drainage systems.

(c) Construction, Excavation and Associated Works Bond (Failure to Remove Waste)

A bond of \$10,000 as security against damage to Council's road(s) fronting the site caused by the transport and disposal of materials and equipment to and from the site.

(d) Construction, Excavation and Associated Works Bond (Maintenance for civil works)

The developer/applicant must lodge with Council a Maintenance Bond of \$5,500 for the construction of driveways and footpath. The Maintenance Bond will only be refunded on completion of the Maintenance Period, if work has been completed in accordance with the approved plans to the satisfaction of Council.

(Note: This bond may be refunded and replaced by the Maintenance Bond upon submission to Council of the final Compliance Certificate or Subdivision Certificate.)

An inspection fee in accordance with Council adopted fees and charges (at the time of payment) is payable for each kerb inspection as determined by Council (minimum (1) one inspection)

All bonds and fees shall be deposited with Council prior to Construction Certificate or demolition work commencing, details demonstrating payment are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

To process the inspection fee and bond payment a Bond Lodgement Form must be completed with the payments (a copy of the form is attached to this consent and alternatively a copy is located on Council's website at www.warringah.nsw.gov.au/your-council/forms).

Reason: To ensure adequate protection of Council's infrastructure. (DACENZ01)

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

10. On-site Stormwater Detention Compliance Certification

Drainage plans detailing the provision of On-site Stormwater Detention in accordance with Warringah Council's "On-site Stormwater Detention Technical Specification" and the concept drawing by Martens and Associates, project no. P1605687 drawing number PS02 - A000 issue C, A050 issue B, E100 issue C, E200 issue B dated 26/6/2017.

The On-site Stormwater Detention system is to be designed and constructed such that the post developed runoff does not exceed the 'state of nature' (0% fraction impervious) pre-developed runoff for all storms up to and including the 1 in 100 year ARI storm event.

Stormwater runoff from the development is to be collected and piped to Council's stormwater drainage pipeline within the public roadway in accordance with Council's requirements.

A Construction Certificate pursuant to Section 109C of the Environmental Planning and Assessment Act 1979 must be issued by a C3 and C15 Accredited Certifier, ensuring that the stormwater drainage design complies with all requirements of this condition.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for the disposal of stormwater and stormwater management arising from the development. (DACENC03)

11. Submission of Engineering Plans for Civil Works in the Public Road Reserve

Engineering plans are to be submitted to Council for approval under the provisions of Sections 138 and 139 of the Roads Act 1993. The submission is to include four (4) copies of Civil Engineering plans for the design and construction of four (two(2) x 6 metre wide and two (2) x 3 metre wide) vehicle crossings and 1.5 metre wide concrete footpath and associated layback works which are to be generally in accordance with the Development Application and Council's specification for engineering works – AUS-SPEC #1 and Council's Minor Works Specification. Vehicle crossings are to be constructed in accordance with Council's standard 'Normal' driveway profile.

The Fee Associated with the assessment and approval of the plans is to be in accordance with Council's Fees and Charges.

The developer/applicant must lodge with Council a \$55,000 security bond against any failure to construct the driveways and footpath to Council requirements.

The Maintenance Bond of \$5,500 must be lodged with Council upon completion of the above works. The maintenance bond will only be refunded on completion of the Maintenance Period, if work has been completed in accordance with the approved plans and to the satisfaction of Council.

All costs related to the re-location of any underground utility services, electric light poles, power poles, etc in the course of undertaking the civil works are to be borne by the applicant/developer.

All bonds and fees shall be deposited with Council prior to Construction Certificate or demolition work commencing, details demonstrating payment are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Details demonstrating compliance are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: Ensure engineering works are constructed in accordance with relevant standards. (DACENC08)

12. Vehicle Driveway Gradients

Driveway gradients within the private property are not to exceed a gradient of 1 in 4 (25%) with a transition gradient of 1 in 10 (10%) for 1.5 metres prior to a level parking facility. Access levels across the road reserve are to comply with the allocated vehicle profile detailed in Council's Minor Works Policy.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure suitable vehicular access to private property. (DACENC13)

13. **Stormwater Quality System**

The Stormwater Quality System must be amended to ensure annual TSS, TN, TP and GP loads do not increase compared to a “natural conditions” pre development scenario. The treatment system must incorporate a rainwater capture/reuse system. MUSIC modelling must be completed to demonstrate compliance with the objectives of this condition.

The Stormwater and Coastal Upland Swamp Recharge Systems must be designed to complement each other to ensure any changes to the natural hydrology and water quality of the Coastal Upland Swamp Endangered Ecological Community are avoided.

The detailed designs must be prepared by suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Engineers Register (NER) and submitted to the Council for approval prior to issue of any Construction Certificate.

Reason: Protection of the receiving environment

14. **Coastal Upland Swamp Recharge System**

A Coastal Upland Swamp Recharge System must be prepared based on the data and recommendations as provided in the Hydrogeological Assessment prepared by Martens Consulting Engineers dated August 2017 and Species Impact Statement prepared by Narla Environmental dated December 2017 and as per any requirement of this condition.

The Coastal Upland Swamp Recharge System shall be designed to ensure existing upstream groundwater and surface is intercepted and directed to the Coastal Upland Swamp. The recharge system must mimic the pre-development hydrological regime and be designed based on the outputs of the Water Balance Model.

A groundwater barrier is to be implemented downslope of the existing Coastal Upland Swamp to replicate site conditions prior to the excavation undertaken along the downstream boundary of the site. This barrier is to be incorporated into the design of the proposed bio-retention swale to be constructed along the south east corner of the site.

All building basement subsoil systems are to be designed to ensure site groundwater levels are not lowered in the vicinity of the Coastal Upland Swamp or capture groundwater flows generated upslope of the site that would otherwise drain to the swamp.

The Coastal Upland Swamp Recharge System designs must be prepared by suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Engineers Register (NER) and approved by the appointed ecologist. The designs and model are to be submitted to the Council for approval prior to issue of the Construction certificate.

Reason: Protection of the receiving environment

15. **Amendment to the On Site Detention System Design**

The design of the On Site Detention (OSD) System shall be amended to comply with the following:

a) Post development flows are to be reduced back to predevelopment levels for all storm

events (min. 1yr ARI to 100yr ARI) and durations (min. 5 minutes to 6hrs). The minimum rate of detention is to be 250m³/ha of developable area.

b) Detailed modelling of the proposed OSD system is to be completed using the outlet/basin configuration that is proposed to be utilised (ie not a theoretical system or contrived equivalent). The modelling is to demonstrate compliance with a). The modelling is to compare pre and post development flows for the site itself as well as all upstream external catchments.

The designs and model must be prepared by suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Engineers Register (NER). The designs and model are to be submitted to the Council for approval prior to issue of any Construction certificate.

Reason: Protection of the Downstream Environment and Coastal Upland Swamp EEC

16. **Water Balance Model**

A detailed water balance model is to be developed for the pre and post development catchments draining to the existing Coastal Upland Swamp (i.e. for the site itself and all upstream external catchments). The model is to predict both surface and groundwater flows, frequency and volume. The modelling is to demonstrate maintenance of the pre development conditions (i.e. within +/- 10%) and shall be incorporated in the Coastal Swamp Recharge System.

The model must be prepared by suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Engineers Register (NER). The model shall be submitted to the Council for approval prior to issue of any Construction certificate.

Reason: Protection of the Downstream Environment and Coastal Upland Swamp EEC

17. **Temporary Dewatering**

Discharge of construction stage dewatering from the site must not occur until the above water quality parameters are met.

Parameter	Criterion	Method
Oil and grease	None visible	Visual inspection
pH	6.5- 8.5	Probe/meter
Total Suspended Solids (TSS)	<50mg/L	Meter/grab sample as NTU

Note: The correlation between NTU and TSS must be established by a NATA accredited laboratory prior to the commencement of dewatering activities.

All records of discharges from the site and monitoring results are to be documented and kept on site. Copies of all records shall be provided to the appropriate regulatory authority, including Council, upon request.

Water must be discharged to the nearest stormwater pit in accordance with Council's Auspec1 Design Manual and must not spread over any road, footpath and the like. Discharge to the kerb and gutter will not be accepted.

Reason: Protection of the receiving environment

18. **Site Contamination**

During site preliminary works if areas of the site are found to be contaminated then a contamination action plan is to be prepared and submitted to the Certifier

All stockpiles of potentially contaminated soil must be stored in a secure area on the site (no greater than 48 hours) so as not to cause pollution or public health risk until disposed of at a waste facility.

All contaminated soil removed from the site must be disposed of at a waste facility that can lawfully receive that waste and must be done in accordance with all relevant Acts, Regulations and Guidelines. Copies of all test results and disposal dockets must be retained for at least 3 years and be made available to authorised Council officers on request.

Note: The following Acts and Guidelines applied at the time of determination:

- i) Protection of the Environment Operations Act 1997; and
- ii) Environment Protection Authority's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (1999).

Reason: To protect the Environment and the public and site workers (DACHPCPC6)

19. **Landscaping**

No *Grevillea* hybrids are to be used in the landscaping for this development due to risk of hybridization with local *Grevillea caleyi*.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure compliance with the requirements of the Threatened Species Conservation Act 1995 (DACNEC02)

20. **Voluntary Conservation Agreement**

In accordance with the Species Impact Statement (SIS) (Narla Environmental 2018) a voluntary conservation agreement is to be implemented under the Biodiversity Conservation Act 2016. The Voluntary Conservation Agreement is to apply to the retained Duffys Forest Ecological Community located outside of Asset Protection Zones as identified in Figure 28 of the SIS.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To compensate for the loss for the loss of threatened species habitat associated with the development (DACNEC04)

21. **Bushland Covenant**

Retained bushland is to be protected, conserved, rehabilitated and managed through the use of a Section 88B (Conveyancing Act 1919) Instrument in which Northern Beaches Council shall be named as the sole authority to release or modify the restriction.

The instrument is to be written and registered on the title so that the owners are bound to manage and protect the area in perpetuity according to the Biodiversity Management Plan (Narla Environmental - August 2017 - Version 3 Final) and Species Impact Statement (Narla Environmental - December 2018) prepared for the development. This instrument is to be approved by Councils Bushland & Biodiversity section prior to lodgment with the NSW Department of Lands.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Management and protection of bushland. (DACNEC05)

22. **Project Ecologist**

A Project Ecologist is to be employed for the duration of the approved works to ensure all bushland protection measures are carried out according to the conditions of consent.

The Project Ecologist will provide certification that requirements identified in the Biodiversity Management Plan (Narla Environmental - August 2017, Final Version 3.2) and Species Impact Statement (Narla Environmental - December 2017) are carried out. The Project Ecologist will ensure that all conditions relating to the biodiversity management of the property are fully implemented. The Project Ecologist is to be a vegetation management specialist and must have relevant industry accreditation including:

- Accreditation in the Application of the Biodiversity Assessment Method 2017, OR
- Practicing Member to the NSW Ecological Consultants Association

Reason: To ensure bushland management. (DACNEC07)

23. **Soil and Water Management Plan**

A Soil and Water Management Plan (SWMP) shall be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Engineers Register (NER) and implemented onsite prior to commencement. The SWMP must meet the requirements outlined in the Landcom publication Managing Urban Stormwater: Soils and Construction - Volume 1, 4th Edition (2004) and Council's Water Management Policy.

The SWMP must include the following as a minimum:-

- Site boundaries and contours;
- Vehicle access points, proposed roads and other impervious areas (e.g. parking areas and site facilities)
- Location of all drains, pits, downpipes and waterways on and nearby the site;
- Planned stages of excavation, site disturbance and building;
- Stormwater management and discharge points;
- Dewatering management activities and discharge points. Reference must be made to the dewatering requirements as provided in this consent.
- Location of environmentally sensitive receivers such as the Coastal Upland Swamp EEC.
- Integration with onsite detention/infiltration;
- Sediment control basin locations and volume (if proposed);
- Proposed erosion and sediment controls and their locations;
- Location of washdown and stockpile areas including covering materials and methods;
- Vegetation management including removal and revegetation;

- A schedule and programme of the sequence of the sediment and erosion control works or devices to be installed and maintained.
- Inspection and maintenance program;
- North point and scale.

All Site drainage and sediment and erosion control works and measures as described in the SWMP, and any other pollution controls, as required by these conditions, shall be implemented prior to commencement of any other works at the Site.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To promote the long-term sustainability of ecosystem functions (DACNEC11)

24. Utilities and Services

Utility and service lines are not to be located within riparian zones, unless they:

- a) Do not require access tracks for maintenance or other purposes; and
- b) Do not restrict existing vegetation or rehabilitation.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Environmental Protection, Monitoring and Enhancement (DACNEC16)

25. Implementation of Biodiversity Management Plan

All requirements in the Biodiversity Management Plan (Narla Environmental 2017) are to be implemented prior, during and post construction.

Details demonstrating pre-construction compliance are to be certified by the project ecologist and submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Biodiversity/Vegetation Conservation and Management.

26. Compliance with Standards

The development is required to be carried out in accordance with all relevant Australian Standards.

Details demonstrating compliance with the relevant Australian Standard are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure the development is constructed in accordance with appropriate standards. (DACPLC02)

27. External Finishes to Roof

The external finish to the roof shall have a medium to dark range in order to minimise solar reflections to neighbouring properties. Light colours such as off white, cream, silver or light grey colours are not permitted.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure that excessive glare or reflectivity nuisance does not occur as a result of the development. (DACPLC03)

28. Construction Traffic Management Program

A Construction Management Program shall be submitted to the Certifying Authority prior to the issue of a Construction Certificate. This to be submitted through an 'Application to Implement a Traffic Management Plan' The program shall detail:

- (a) The proposed method of access to and egress from the site for construction vehicles, including access routes through the Council area and the location and type of temporary vehicular crossing for the purpose of minimising traffic congestion and noise in the area, with no access across public parks or reserves being allowed;
- (b) The proposed phases of construction works on the site, and the expected duration of each construction phase;
- (c) The proposed order in which works on the site will be undertaken, and the method statements on how various stages of construction will be undertaken;
- (d) The proposed manner in which adjoining property owners will be kept advised of the timeframes for completion of each phase of development/construction process;
- (e) The proposed method of loading and unloading excavation and construction machinery, excavation and building materials, formwork and the erection of any part of the structure within the site. Wherever possible mobile cranes should be located wholly within the site;
- (f) The proposed areas within the site to be used for the storage of excavated materials, construction materials and waste containers during the construction period;
- (g) The proposed method/device to remove loose material from all vehicles and/or machinery before entering the road reserve, any run-off from the washing down of vehicles shall be directed to the sediment control system within the site;
- (h) The proposed method of support to any excavation adjacent to adjoining properties, or the road reserve. The proposed method of support is to be designed and certified by an appropriately qualified and practising Structural Engineer, or equivalent;
- (i) Proposed protection for Council and adjoining properties;
- (j) The location and operation of any on-site crane;

Reason: To ensure appropriate measures have been considered for site access, storage and the operation of the site during all phases of the construction process in a manner that respects adjoining owner's property rights and protects amenity in the locality, without unreasonable inconvenience to the community. (DACTRCPC1)

29. Pedestrian sight distance at property boundary

A pedestrian sight triangle of 2.0 metres by 2.5m metres, in accordance with AS2890.1:2004 is to be provided at the vehicular access to the property and where internal circulation roadways intersect with footpaths or other pedestrian access areas. This requirement is to be reflected on the Construction Certificate plans and any supporting documentation for the endorsement of the Principal Certifying Authority prior to the release of the Construction Certificate.

Reason: To maintain pedestrian safety. (DACTRCPC2)

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

30. Public Liability Insurance - Works on Public Land

Any person or contractor undertaking works on public land must take out Public Risk Insurance with a minimum cover of \$20 million in relation to the occupation of, and approved

works within Council's road reserve or public land, as approved in this consent. The Policy is to note, and provide protection for Northern Beaches Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public land.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works on public land. (DACEND01)

31. **Tree protection**

- (a) Existing trees which must be retained
 - i) All trees not indicated for removal in the Arboricultural Impact Assessment Report dated 27 April 2017 prepared by Urban Arbor, unless exempt under relevant planning instruments or legislation
 - ii) Trees located on adjoining land
- (b) Tree protection
 - i) No tree roots greater than 50mm diameter are to be cut from protected trees unless authorised by the Project Arborist on site.
 - ii) All structures are to bridge tree roots greater than 50mm diameter unless directed otherwise by the Project Arborist on site.
 - iii) All tree protection to be in accordance with the recommendations of the Arboricultural Impact Assessment Report dated 27 April 2017 prepared by Urban Arbor and AS4970-2009 Protection of trees on development sites, with particular reference to Section 4 Tree Protection Measures.
 - iv) All tree pruning within the subject site is to be in accordance with WDCP2011 Clause E1 Private Property Tree Management and AS 4373 Pruning of amenity trees
 - v) All tree protection measures, including fencing, are to be in place prior to commencement of works.

Reason: To ensure compliance with the requirement to retain and protect significant planting on the site. (DACLAC01)

32. **Project Arborist**

- i) A Project Arborist with minimum qualification equivalent to AQF Level 5 is to be appointed prior to commencement of works.
- ii) The Project Arborist is to oversee all tree protection measures, removals and works adjacent to protected trees as outlined in the Arboricultural Impact Assessment Report dated 27 April 2017 prepared by Urban Arbor.
- iii) The Project Arborist is to familiarize themselves with and ensure compliance as relevant with, any other environmental requirements regarding trees conditioned under this consent.

Reason: Environmental protection (DACLADPC1)

33. **Delineation of the Asset Protection Zones and Retained Vegetation**

Prior to the commencement of any onsite building works or commencement of vegetation clearance/modification, the extent of the Asset Protection Zone must be fenced. The fence shall conform to the specification for bush protection fencing consisting of 1150mm high galvanised hinge joint fencing (8/115/30) (Stocktite or similar) fixed to fence with 3x strands 3.15mm galvanised fencing wire. Posts are to be capped, 50mm round galvanised pipe at 3m centres. End posts are to be stayed with galvanised pipe stay every 15m. Inline stays are

to be fixed to 50mm post. Posts are to be concreted into the ground. This fence is to be constructed prior to any construction works.

The alignment of the fence should avoid significant habitat features including large rock outcrops and cliffs.

Any proposed alternative fence designs and alignment must be agreed by Council in writing.

Details demonstrating compliance is to be submitted to the Principal Certifying Authority

Reason: Protection of Retained Bushland (DACNED02)

34. **Installation and Maintenance of Sediment and Erosion Control**

Sediment and erosion controls must be installed in accordance with Landcom's 'Managing Urban Stormwater: Soils and Construction' (2004).

Techniques used for erosion and sediment control on site are to be adequately maintained and monitored at all times, particularly after periods of rain, and shall remain in proper operation until all development activities have been completed and the site is sufficiently stabilised with vegetation.

Reason: To protect the surrounding environment from the effects of sedimentation and erosion from the site (DACNED06)

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

35. **Vehicle Crossings**

The provision of four vehicle crossings in accordance with Warringah Council Drawing No A4-3330/1 Normal and specifications. An Authorised Vehicle Crossing Contractor shall construct the vehicle crossing and associated works within the road reserve in plain concrete. All redundant laybacks and crossings are to be restored to footpath/grass.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To facilitate suitable vehicular access to private property. (DACENE05)

36. **Civil Works Supervision**

All civil works approved in the Construction Certificate are to be supervised by an appropriately qualified and practising Civil Engineer.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To ensure compliance of civil works with Council's specification for engineering works. (DACENE06)

37. **Footpath Construction**

The applicant shall construct a 1.5 metre wide concrete footpath for the full width of the Myoora Road frontage. The works shall be in accordance with the following:

- (a) All footpath works are to be constructed in accordance with Council's minor works policy
- (b) Council is to inspect the formwork prior to pouring of concrete to ensure the works are in accordance with Council's specification for footpath.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To ensure compliance of footpath works with Council's specification for engineering works. (DACENE07)

38. **Layback Construction**

Four laybacks are to be constructed in accordance with Warringah Council Drawing No A4-2276 and specifications.

Reason: To ensure suitable vehicular access to private property. (DACENE08)

39. **Maintenance of Road Reserve**

The public footways and roadways adjacent to the site shall be maintained in a safe condition at all times during the course of the work.

Reason: Public Safety. (DACENE09)

40. **Waste Management During Development**

The reuse, recycling or disposal of waste during works must be done generally in accordance with the Waste Management Plan for this development.

Details demonstrating compliance must be submitted to the Principal Certifying Authority.

Reason: To ensure demolition and construction waste is recycled or reused and to limit landfill.

41. **Trees Condition**

During the construction period the applicant is responsible for ensuring all protected trees are maintained in a healthy and vigorous condition. This is to be done by ensuring that all identified tree protection measures are adhered to. In this regard all protected plants on this site shall not exhibit:

- (a) A general decline in health and vigour.
- (b) Damaged, crushed or dying roots due to poor pruning techniques.
- (c) More than 10% loss or dieback of roots, branches and foliage.
- (d) Mechanical damage or bruising of bark and timber of roots, trunk and branches.
- (e) Yellowing of foliage or a thinning of the canopy untypical of its species.
- (f) An increase in the amount of deadwood not associated with normal growth.
- (g) An increase in kino or gum exudation.
- (h) Inappropriate increases in epicormic growth that may indicate that the plants are in a stressed condition.
- (i) Branch drop, torn branches and stripped bark not associated with natural climatic conditions.

Any mitigating measures and recommendations required by the Arborist are to be implemented.

The owner of the adjoining allotment of land is not liable for the cost of work carried out for the purpose of this clause.

Reason: Protection of Trees. (DACLA03)

42. **Protection of rock and sites of significance**

- a) All rock outcrops outside of the area of approved works are to be preserved and

protected at all times during demolition excavation and construction works.

b) Should any Aboriginal sites be uncovered during the carrying out of works, those works are to cease and Council, the NSW Office of Environment and Heritage (OEH) and the Metropolitan Local Aboriginal Land Council are to be contacted.

Reason: Preservation of significant environmental features (DACLAEOG1)

43. **Works Environment Protection Plan and Environment Protection Induction**

A Works Environment Protection Plan (WEPP) is to be prepared and must be kept in the site office. All construction staff must be inducted by the Project Ecologist with an induction record being maintained and available onsite at all times.

Personnel conducting the site induction will be able to:-

- (a) Be familiar with the names and contact details of relevant people and authorities in the event of any environmental or site management emergency that may arise.
- (b) Be familiar with the presence of environmentally significant areas within and surrounding the site.
- (c) Be familiar with the location of trees with hollows and the importance of tree hollows to a variety of wildlife species and the protection and significance of tree hollows.
- (d) Be familiar and aware of the presence of weed locations, spoil mounds and the potential of weed infections and weed seed propagules accidentally being introduced to the site.
- (e) Identify threatened species of fauna that may venture into the subject site.
- (f) Identify threatened species of fauna that may be cryptic such as the Eastern Pygmy Possum, Red-crowned Toad and Heath Monitor, etc.
- (g) Be familiar with animal welfare issues and procedures should human-wildlife interactions take place during the construction phase.
- (h) Have an understanding of flora and fauna management issues.
- (i) A certificate demonstrating compliance must be prepared by the Project Ecologist and submitted to the Certifying Authority prior to the issue of the Occupation Certificate.

Reason: Protection of Bushland. (DACNEE03)

44. **Installation and Maintenance of Sediment Control**

Measures used for erosion and sediment control on building sites are to be adequately maintained at all times and must be installed in accordance with Council's Specifications for Erosion and Sediment Control. All measures shall remain in proper operation until all development activities have been completed and the site fully stabilised.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To protect the environment from the effects of sedimentation and erosion from development sites.

45. **On-street Work Zone**

The applicant shall lodge an application for a work zone for the frontage of the site to Council for consideration and approval. The provision of a work zone will require approval from Warringah Traffic Committee. Application forms for work zones are available on Council's website or at the Customer Service section at Council's administration building. Applications shall be lodged at least 4 weeks prior to work commencing.

Reason: To ensure works vehicles do not impact on parking, traffic flows and pedestrian thoroughfares. (DACTREDW1)

OCCUPATION CERTIFICATE

46. **Authorisation of Legal Documentation Required for On-site Stormwater Detention**

The original completed request forms (Department of Lands standard forms 13PC and/or 13RPA) must be submitted to Council, with a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan), hydraulic engineers certification and Compliance Certificate issued by an Accredited Certifier in Civil Works.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To create encumbrances on the land. (DACENF01)

47. **Registration of Encumbrances for On-site Stormwater Detention**

A copy of the certificate of title demonstrating the creation of the positive covenant and restriction for on-site storm water detention as to user is to be submitted.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To identify encumbrances on land. (DACENF02)

48. **Restriction as to User for On-site Stormwater Detention**

A restriction as to user shall be created on the title over the on-site stormwater detention system, restricting any alteration to the levels and/or any construction on the land. The terms of such restriction are to be prepared to Council's standard requirements, (available from Warringah Council), at the applicant's expense and endorsed by Council prior to lodgement with the Department of Lands. Warringah Council shall be nominated as the party to release, vary or modify such restriction.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure modification to the on-site stormwater detention structure is not carried without Council's approval. (DACENF04)

49. **Stormwater Disposal**

The stormwater drainage works shall be certified as compliant with all relevant Australian Standards and Codes by a suitably qualified person.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Note: The following Standards and Codes applied at the time of determination:

(a) Australian/New Zealand Standard **AS/NZS 3500.3** - 2003 - Plumbing and drainage - Stormwater drainage

(b) Australian/New Zealand Standard **AS/NZS 3500.3** - 2003/Amdt 1 - 2006 - Plumbing and drainage - Stormwater drainage

(c) National Plumbing and Drainage Code.

Reason: To ensure appropriate provision for the disposal of stormwater arising from the development. (DACENF05)

50. **On-Site Stormwater Detention Compliance Certification**

Upon completion of the on-site stormwater detention (OSD) system, certification from a consulting engineer and a “work as executed” (WAE) drawing certified by a registered surveyor and overdrawn in red on a copy of the approved OSD system plans are to be provided to Council. Additionally a Compliance Certificate is to be issued by an Accredited Certifier in Civil Works registered with the Institute of Engineers Australia, stating that the works are in accordance with the approved plans.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure stormwater disposal is constructed to Council’s satisfaction.
(DACENF10)

51. **Positive Covenant for On-site Stormwater Detention**

A positive covenant shall be created on the title of the land requiring the proprietor of the land to maintain the on-site stormwater detention structure in accordance with the standard requirements of Council. The terms of the positive covenant are to be prepared to Council’s standard requirements, (available from Warringah Council), at the applicant’s expense and endorsed by Warringah Council’s delegate prior to lodgement with the Department of Lands. Warringah Council shall be nominated as the party to release, vary or modify such covenant.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure ongoing maintenance of the on-site stormwater detention system.
(DACENF12)

52. **Creation of Positive Covenant and Restriction as a User**

Where any conditions of this Consent require the creation of a positive covenant and/or restriction as a user, the original completed request forms, (Department of Lands standard forms 13PC and/or 13RPA), shall be submitted to Warringah Council for authorisation.

A certified copy of the documents shall be provided to Warringah Council after final approval and registration has been affected by the “Department of Lands”.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of a Interim / Final Occupation Certificate.

Reason: To identify encumbrances on land. (DACENF14)

53. **Positive Covenant for Stormwater Quality Devices**

A positive covenant shall be created on the title of the land requiring the proprietor of the land to maintain the stormwater quality devices. The terms of the positive covenant are to be prepared to Council’s standard requirements, (available from Council), at the applicant’s expense and endorsed by the Northern Beaches Council’s delegate prior to lodgement with the Department of Lands.

The Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim/final Occupation Certificate.

Reason:

Reason: To ensure ongoing maintenance of the stormwater quality system

54. **Stormwater Quality Operation and Maintenance Plan**

An Operation and Maintenance Plan is to be prepared to ensure proposed stormwater quality measures remain effective.

The Plan must contain the following:

- a) Inspection and maintenance schedule of all stormwater quality treatment devices
- b) Record keeping and reporting requirements
- c) Funding arrangements for the maintenance of all stormwater quality treatment devices
- d) Waste management and disposal
- e) Traffic control measures (if required)
- f) Relevant contact information
- g) Renewal and replacement requirements of all stormwater quality treatment devices
- h) Work Health and Safety requirements

Details demonstrating compliance shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate.

Reason: Protection of the receiving environment

55. **Works as Executed Drawings**

Works as Executed Drawings for all stormwater quality devices must be prepared in accordance with Council's Guideline for Preparing Works as Executed Data for Council Stormwater Assets.

The drawings shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate.

Reason: Protection of the receiving environment

56. **Certification of Water Management Systems**

A certificate from a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Engineers Register (NER) stating that the following systems have been installed in accordance with the Construction Certification Plans.

- Onsite Detention System;
- Coastal Upland Swamp Recharge System; and
- Stormwater Quality System

The certificate shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate.

Reason: Protection of the Downstream Environment and Coastal Upland Swamp EEC

57. **Mechanical Ventilation certification**

Prior to the issuing of any interim/final occupation certificate, certification is to be provided from the installer of the mechanical ventilation system that the design, construction and installation of the mechanical ventilation system is compliant with the requirements of AS1668 The use of mechanical ventilation.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To ensure that the mechanical ventilation system complies with the design requirements. (DACHPFPOC4)

58. **Required Planting**

- i) Planting is to undertaken in accordance with the approved Landscape Plans.
- ii) Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To maintain environmental amenity. (DACLAF01)

59. **Positive Covenant for Stormwater Quality System**

A positive covenant shall be created on the title of the land requiring the proprietor of the land to maintain the stormwater quality system in accordance with the standard requirements of Council, the manufacturer and as required by the Stormwater Quality Operation and Maintenance Plan.

The terms of the positive covenant are to be prepared to Council's standard requirements, (available from Council), at the applicant's expense and endorsed by the Northern Beaches Council's delegate prior to lodgement with the Department of Lands. The Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure ongoing maintenance of the on-site stormwater detention system (DACNEFPOC1)

60. **Registration of Encumbrances for Stormwater Quality System**

A copy of the certificate of title demonstrating the creation of the positive covenant and restriction for stormwater quality system as to user is to be submitted.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: Reason: To identify encumbrances on land (DACNEFPOC2)

61. **Restriction as to User for Stormwater Quality System**

A restriction as to user shall be created on the title over the stormwater quality system, restricting any alteration to system. The terms of such restriction are to be prepared to Council's standard requirements, (available from Northern Beaches Council), at the applicant's expense and endorsed by Council prior to lodgement with the Department of Lands. Northern Beaches Council shall be nominated as the party to release, vary or modify such restriction.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure modification to the on-site stormwater detention structure is not carried without Council's approval (DACNEFPOC3)

62. **Installation of Rainwater Tanks**

Rainwater tanks shall comply with the following:

1. Be fitted with a first-flush device that causes initial rainwater run-off to bypass the tank and must drain to a landscaped area. The first flush device will not be permitted to connect to the stormwater system
2. Have a sign affixed to the tank stating the contents is rainwater
3. Be constructed or installed in a manner that prevents mosquitoes breeding, such as the use of mesh to protect inlets and overflows
4. Have its overflow connected to an existing stormwater drainage system that does not discharge to an adjoining property, or cause a nuisance to adjoining owners
5. Pumping equipment must be housed in a soundproof enclosure
6. Where the rainwater tank is interconnected to a reticulated water supply, it must be installed in accordance with Plumbing Code of Australia, particularly backflow/cross connection prevention requirements.

A certificate from a licenced plumber shall be submitted to the Principal Certifying Authority prior to the release of the Occupation Certificate.

Reason: To conserve potable water (DACNEFPOC4)

63. **Removal of All Temporary Structures/Material and Construction Rubbish**

Once construction has been completed all silt and sediment fences, silt, rubbish, building debris, straw bales and temporary fences are to be removed from the site.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure bushland management. (DACPLF01)

64. **Garbage and Recycling Facilities**

All internal walls of the storage area shall be rendered to a smooth surface, coved at the floor/wall intersection, graded and appropriately drained to the sewer with a tap in close proximity to facilitate cleaning.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To prevent pollution of the environment and to protect the amenity of the area. (DACPLF03)

65. **Sydney Water**

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation.

Application must be made through an authorised Water Servicing Co-ordinator. Please refer to the Building Developing and Plumbing section of the web site

www.sydneywater.com.au <<http://www.sydneywater.com.au>> then refer to "Water Servicing Coordinator" under "Developing Your Land" or telephone 13 20 92 for assistance.

Following application a "Notice of Requirements" will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Co-ordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure compliance with the statutory requirements of Sydney Water.
(DACPLF08)

66. **Speed humps at internal roadway and at property boundary**

Speed humps in accordance to Australian Standards AS2890.1:2004 is to be provided inside of the property boundary to control vehicle speeds. Speed humps shall be installed every 50m within the internal roadway to maintain positive vehicle speeds. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure safety at property boundary and carpark. (DACTRFPOC1)

67. **On-Street Parking**

The applicant is to apply in writing to Council for a No Stopping zone 4m on each side of the two-way driveway servicing building 01, and the single existing driveway from the main entrance of the hospital and the two-way driveway servicing building 02. This will be subject to approval from the Northern Beaches Local Traffic Committee, with all signposting work undertaken at no cost to Council. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim/final Occupation Certificate.

Reason: To ensure correct and safe allocation of on-street parking. (DACTRFPOC2)

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

68. **Maintenance period for civil works under the provisions of the Roads Act 1993 and Environmental Planning and Assessment Act 1979**

A Maintenance Period of six (6) months shall apply to the driveway and footpath construction works located in, on or over a public road as approved under the provisions of Section 139 of the Roads Act 1993 and Section 80A of the Environmental Planning and Assessment Act 1979, after it has been completed and approved in writing by the appropriate Roads Authority. In that period the applicant shall be liable for any part of the work which fails to perform in the manner outlined in Roads Authority's specifications, or as would be reasonably be expected under the design conditions.

Reason: To ensure works are appropriately constructed and repaired where defective.
(DACENG01)

69. **Maintenance of Stormwater Quality System**

The stormwater quality system must be maintained at all times in accordance with the Stormwater Quality Operation and Maintenance Plan, manufacturers specifications and as necessary to achieve the required stormwater quality targets for the development.

Reason: Protection of the receiving environment

70. **Noise pollution**

The ventilation systems shall not create *offensive noise* under the Protection of the Environment Operations Act 1997. The council may require the owner or occupier of the premises to engage the services of a suitably qualified professional to undertake an acoustic assessment of the system/s in the event concerns regarding the emission of 'offensive noise' are raised and/or justified by Council.

Reason: To protect the acoustic amenity of neighbouring properties and the public (DACHPGOG6)

71. **Landscape maintenance**

- i) Trees shrubs and groundcovers required to be planted under this consent are to be mulched, watered and fertilized as required at the time of planting.
- ii) If any tree, shrub or groundcover required to be planted under this consent fails, they are to be replaced with similar species to maintain the landscape theme and be generally in accordance with the approved Landscape Plan.

Reason: To maintain local environmental amenity

72. **Fertiliser**

No fertilisers are to be spread on any portion of any Lot at any time.

Reason: To ensure bushland and riparian zone management (DACNEG01)

73. **Exotic Plant Species/Weeds**

All exotic plant species, noxious and environmental weeds are to be managed continuously and are not to be imported to the site. Further information is available on Warringah Council's website.

Only certified weed free and contaminant free mulch is to be used on the site, as they may contain weed seeds and viable vegetative matter and other contaminants, which may impact adversely on the vegetation, soil, water quality or ecology of the site.

Reason: To ensure bushland and riparian management (DACNEG05)

74. **Certification of ongoing work**

A Bush Regeneration contract is to be entered into to ensure that works required by the Biodiversity Management Plan (Narla, 2017) to occur post Occupation Certificate are adequately completed. The bush regeneration company is to certify that such a contract has been entered into.

Reason: Bushland management.

75. **Biodiversity Monitoring and Reporting**

The project ecologist must undertake all monitoring and reporting in accordance with the Biodiversity Management Plan (Narla, August 2017, Version 3.2). Copies of annual reporting are to be provided to Council.

Reason: Ongoing Biodiversity Management

76. **Visitors Sign**

A sign, legible from the street, shall be permanently displayed to indicate that visitor parking is available on the site and the visitor car parking spaces shall be clearly marked as such.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority

prior to the issue of any interim / final Occupation Certificate.

Reason: To ensure that visitors are aware that parking is available on site and to identify those spaces to visitors. (DACPLG04)

77. **No Illumination**

No consent is given or implied for any form of illumination or floodlighting to any sign or building or other external areas other than that approved.

Reason: To ensure appropriate forms of illumination that are consistent with Council's controls, and do not interfere with amenity of nearby properties. (DACPLG13)

78. **Commercial Waste Collection (DACPLG18)**

Waste and recyclable material, generated by this premises, must not be collected between the hours of 10pm and 6am on any day.

Reason: To protect the acoustic amenity of surrounding properties.(DACPLG18)

79. **Loading and Unloading**

All loading and unloading of vehicles and the delivery of goods must be carried out wholly within the site.

Reason: To ensure that deliveries can occur safely within the site and does not adversely affect traffic or pedestrian safety and amenity. (DACPLG20)

80. **Deliveries**

No deliveries, loading or unloading associated with the premises are to take place between the hours of <INSERT> and <INSERT> on any day.

Reason: To protect ensure the acoustic amenity of surrounding properties. (DACPLG21)

81. **Commercial Waste and Recycling Storage**

Commercial waste and recycling material/storage bins must be stored in a separate area to the residential waste and recycling material/storage bins.

Reason: To ensure that commercial waste and residential waste is not mixed and is properly managed. (DACPLG25)