Sydney North Planning Panel

SNPP No	2016SNH002
DA Number	LDA 2016/0552
Local Government Area	City of Ryde
Proposed Development	Construction of a part 1, part 2 Biological Sciences Building to be used as a research facility. The proposal includes earthworks, tree removal, landscaping and infrastructure works.
Street Address	Macquarie University 192 Balaclava Rd Macquarie Park
Applicant	Macquarie University
Number of Submissions	One (1) petition containing 25 signatures and five (5) individual letters.
Regional Development Criteria (Schedule 4A of the Act)	Crown development with a CIV over $5 million
List of All Relevant s79C(1)(a) Matters	• Environmental Planning and Assessment Act, 1979 • State Environmental Planning Policy (State and Regional Development) 2011 • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy No 33 – Hazardous & Offensive Development. • RLEP 2014 • City of Ryde Development Control Plan 2014.
List all documents submitted with this report for the panel's consideration	Attachment 1: Conditions of consent Attachment 2: Peer Review by Actinotus Consultancy Services – Environmental (ACS Environmental P/L) of the Flora and Fauna Review. Attachment 3: Phase 1 & Phase 2 Environmental Site Assessment Reports.
Recommendation	Approval
Report by	Sandra McCarry Senior Town Planner
Report date	April 2017

Summary of s79C matters	
Have all recommendations in relation to relevant s79C matters been summarised in the Executive Summary of the assessment report?	Yes
Legislative clauses requiring consent authority satisfaction	
Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report?	Yes – Phase I & II Environmental Site Assessment Report by Geo-Logix has been submitted.

Clause 4.6 Exceptions to development standards	N/A
If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?	
Special Infrastructure Contributions	No
Does the DA require Special Infrastructure Contributions conditions (S94EF)?	
Conditions	Yes - applicant has agreed to the conditions except for Condition 1(a) – retention of Trees 43 & 49. Applicant content that these trees are of low significant and will impact on the development. The submitted Arborist Report identified these trees as capable of being retained. It was acknowledged that there will some levels of encroachment into the tree protection zone (approx. 13%) however with appropriate protection these trees can be retained. Given the number of trees to be removed and according to the Arborist Report these tree are capable of being retained, Council do not support the deletion of Condition 1(a).
Have draft conditions been provided to the applicant for comment?	

Assessment Report and Recommendation

1. EXECUTIVE SUMMARY

This application seeks approval for the construction of a new Biological Sciences Building to provide additional research facilities for Macquarie University. The proposal comprises the following:

- Site preparation works including earthworks and tree removal.
- Construction and use of a predominantly single storey building for the purposes of a research facility ancillary to the existing educational establishment of Macquarie University.
- Landscaping including planting, paving, extension of the service yard driveway and associated works.

The application was placed on public notification from 30 November 2016 until 21 December 2016. During this time, Council received one (1) petition containing 25 signatures and five (5) individual submissions. The submissions raised concerns in relation to loss of trees and the environmental impact. The issues raised in the submissions are discussed in Section 12 of the report.

Clause 7 of SEPP 55 states that Council must not consent to carrying out of any development unless it has considered if the land is contaminated and if so whether it is suitable or can be suitable (after remediation) for the proposed use. The site (around the vicinity of the proposed building) has been the subject of a Phase I & II Environmental Site Assessment Report by Geo -Logix with regard to site contamination. The Phase I report concluded that there is a potential for shallow soil contamination and further investigation will be required. A Phase II investigation to assess the presence or otherwise of contamination to land was conducted. The report concluded that the site is suitable for the proposed use – Biological Science Building.
After consideration of the development against section 79C of the Environmental Planning and Assessment Act 1979 and the relevant statutory and policy provisions, the proposal is considered suitable for the site and is in the public interest. Assessment of the application against the relevant planning framework and consideration of various design matters by Council's technical departments has not identified any fundamental issues of concern.

Consequently this report concludes that this development proposal is sound in terms of design, function and relationship to surrounding site. This report recommends that consent be granted to this application in accordance with conditions provided in **Attachment 1.**

2. APPLICATION DETAILS

Applicant: Macquarie University
Owner: Macquarie University
Estimated value of works: $14,124,027

Disclosures: No disclosures with respect to the Local Government and Planning Legislation Amendment (Political Donations) Act 2008 have been made by any persons.

3. SITE DESCRIPTION & CONTEXT

The site is legally described as Lot 191 in DP1157041 and is part of Macquarie University. To the north of the main University campus is the M2 Motorway with the Lane Cove River and National Park beyond. Areas to the south and west of the campus are largely residential. The Macquarie Centre shopping centre is located immediately east of the campus across Herring Road, with the majority of the Macquarie Park corridor further to the east.

The location where the proposed building will be sited is in the north-western portion of the University campus, located off Culloden Road between the internal Gymnasium Road and Talavera Road, as shown in Figures 1 & 2 below.

Figure 1: Aerial view with the location of the proposed building outlined in red.

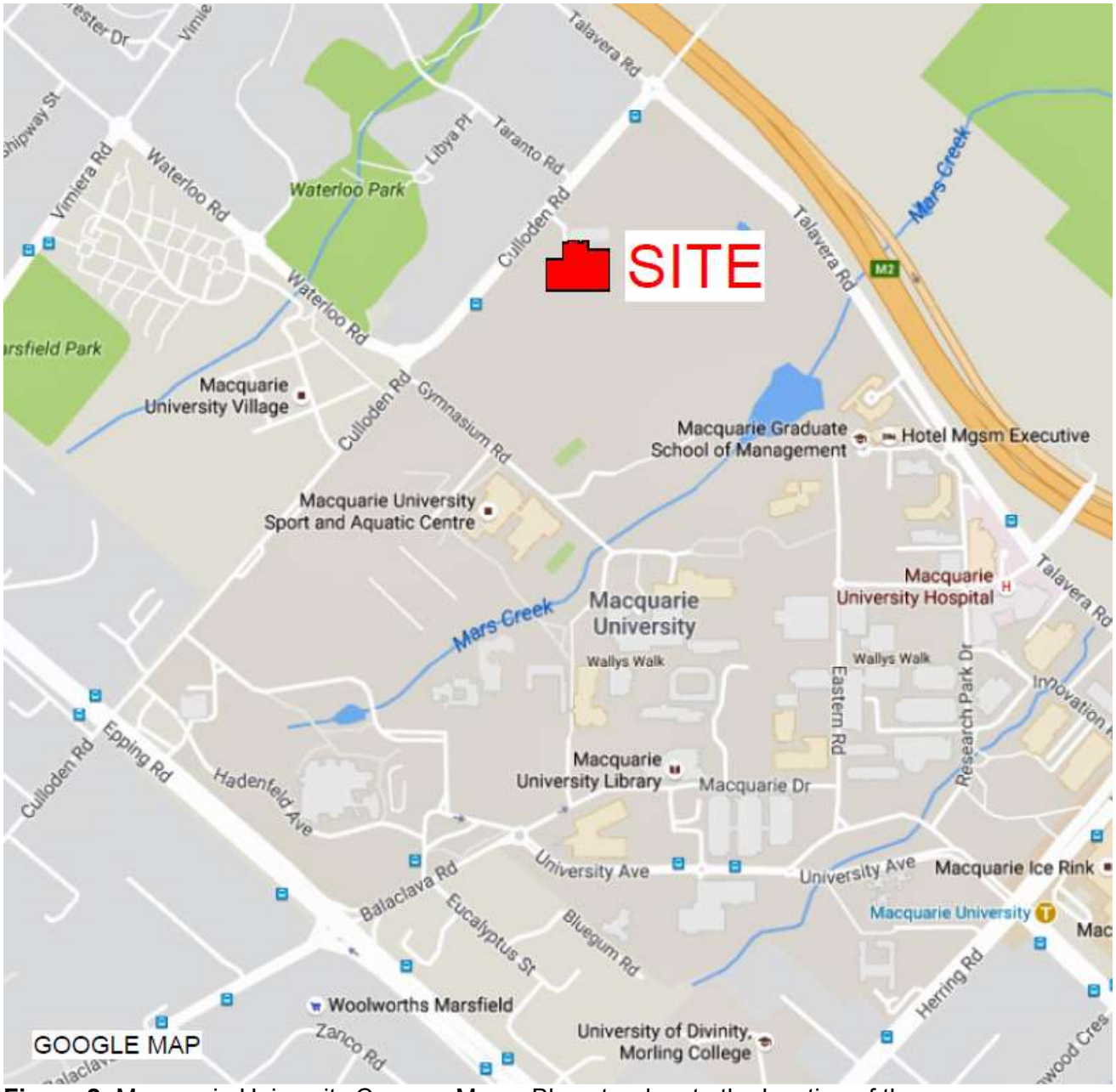

Figure 2: Macquarie University Campus Map – Blue star denote the location of the proposed building in relation to the rest of the campus.

Figure 3 below illustrates the surrounding development. To the north will be the existing Building W19F (Brain Behaviour and Evolution Building), which the proposed building will be connected to. Running north-east adjacent is a stand of vegetation, which connects to Mars Creek to the south-east. Due south is another stand of vegetation, which separates the site from an at-grade University car park approximately 100m from the site.

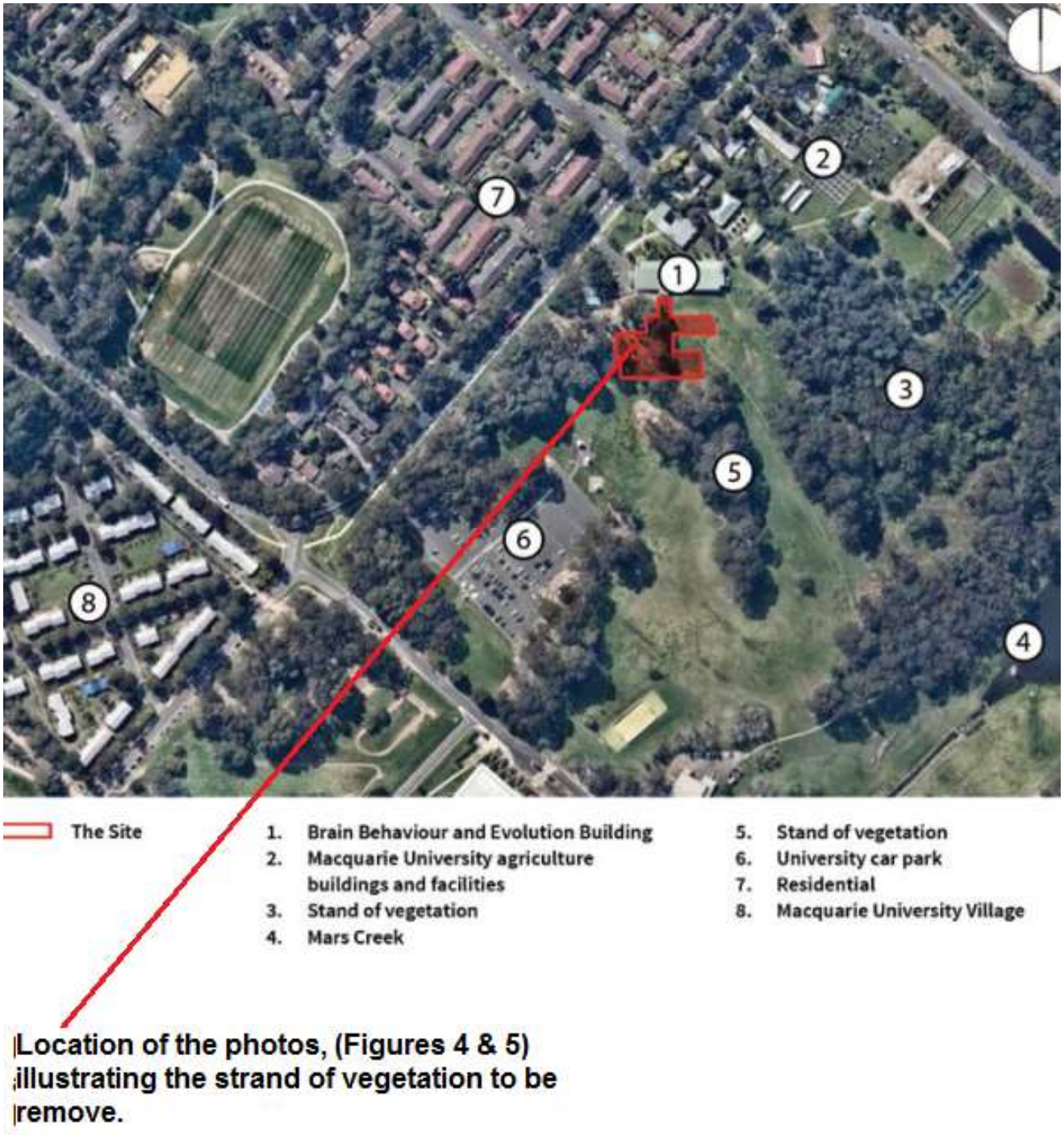

Figure 3: Surrounding features – proposed building outlined in red.

Figures 4 & 5 above and below show existing vegetation to be removed – south of the existing Science Building.

4. PROPOSAL

It is proposed to construct a new Biological Sciences Building to provide additional research facilities for Macquarie University. The proposal comprises the following:

- Site preparation works including earthworks and tree removal.
- Construction and use of a predominantly single storey building for the purposes of a research facility ancillary to the existing educational establishment of Macquarie University.
- Landscaping including planting, paving, extension of the existing service yard driveway and associated works.

Figure 6: Perspective of proposed building looking east.

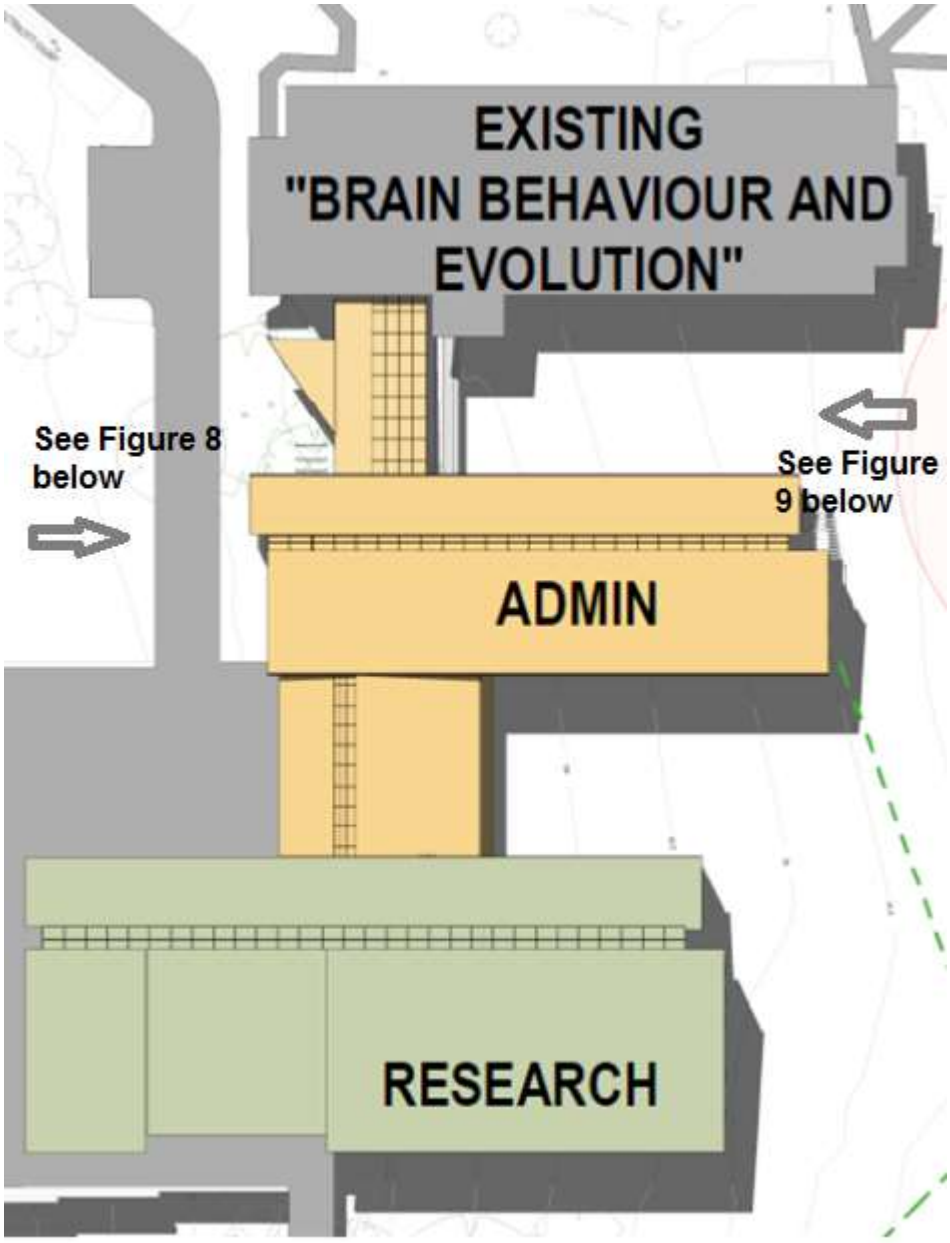

Figure 7: Proposed layout of the building.

Figures 8, 9 & 10 are provided below illustrating the area/location of the proposed building in relation to the existing building.

Figure 8: Location of where the proposed building will be located, adjacent to the existing science building.

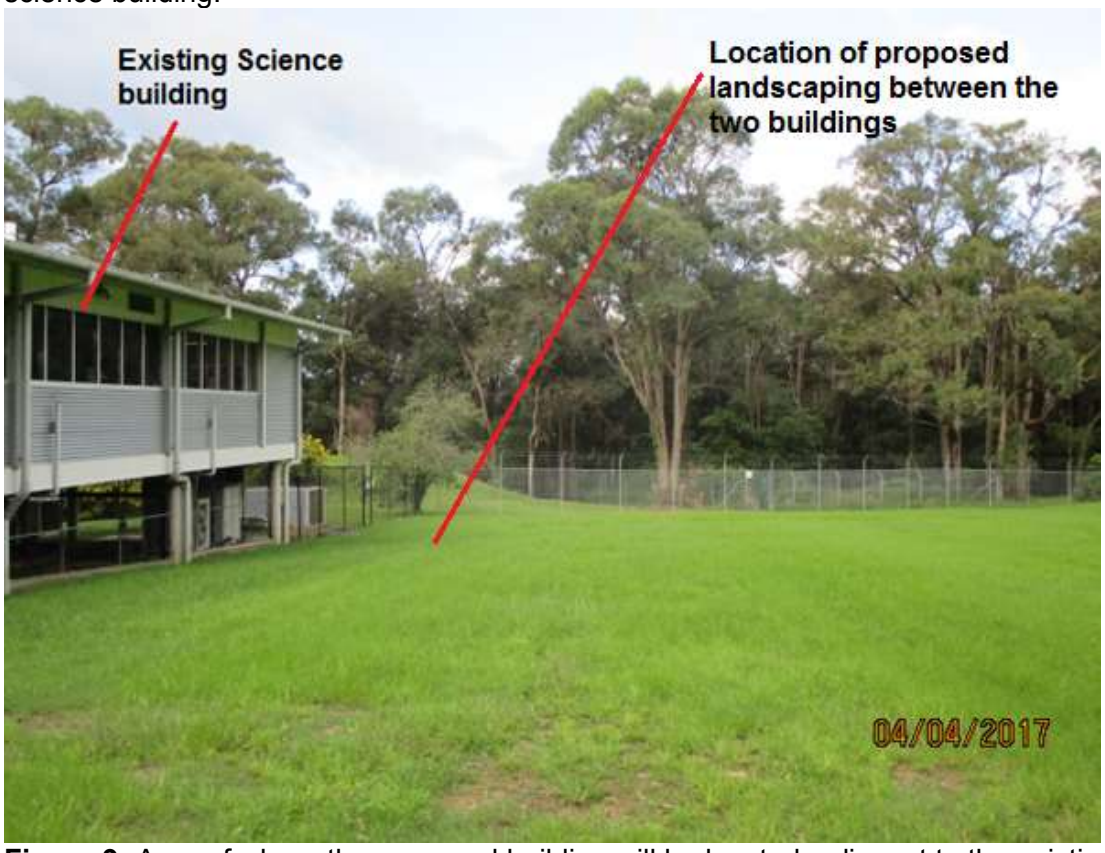

Figure 9: Area of where the proposed building will be located, adjacent to the existing science building

Figure 10: Photomontage of proposed building as viewed from Culloden Road.

The building is predominantly single-storey with a total GFA of 3,035m^2.

There are two components to the building, an administration wing and a research wing. Due to the slope of the site, the building also incorporates an undercroft area in the north-east corner. The proposed building is accessed via a main entry from the existing internal road and will be linked to the existing Building W19F via a covered pedestrian walkway.

The administration wing at ground floor will accommodate offices, meeting rooms and staff amenities. The research wing will contain laboratories storage for dangerous goods, equipment and research specimens. The western façade of the building will connect to the existing internal road accessed from Culloden Road. This service yard will allow for loading and unloading through an entry point on the northern façade of the research wing. The undercroft space, located in the eastern part of the administration wing, will contain the plant and storage with some plant equipment located at roof level.

The new building will generate 15 additional staff on the campus.

5. **BACKGROUND**

Concept Plan Application No. MP06-0016

On 13 August 2009, the Minister approved a Concept Plan for Macquarie University. The approved concept plan sets the planning regime and development framework for the campus over the next 25 to 40 years. The plan included:

- The provision of an additional 400,000m^2 of commercial GFA and associated parking outside of the Academic Core.
- The provision of an additional 61,200m^2 of academic GFA within the Academic Core.
- The provision of an additional 3450 beds within the University Housing Precincts for university purposes only.
- Infrastructure upgrading and improvements to the road network as required
- Rationalisation of university car parking locations.

The Concept Plan identifies different Precincts within the University. The area of the proposed works within Macquarie University is part of Precinct B according to the Macquarie University Concept Plan 2009 and is currently comprised of vegetation surrounding the existing Brain Behaviour and Evolution Building (Building W19F) and Mars Creek.

Precinct B – University Housing

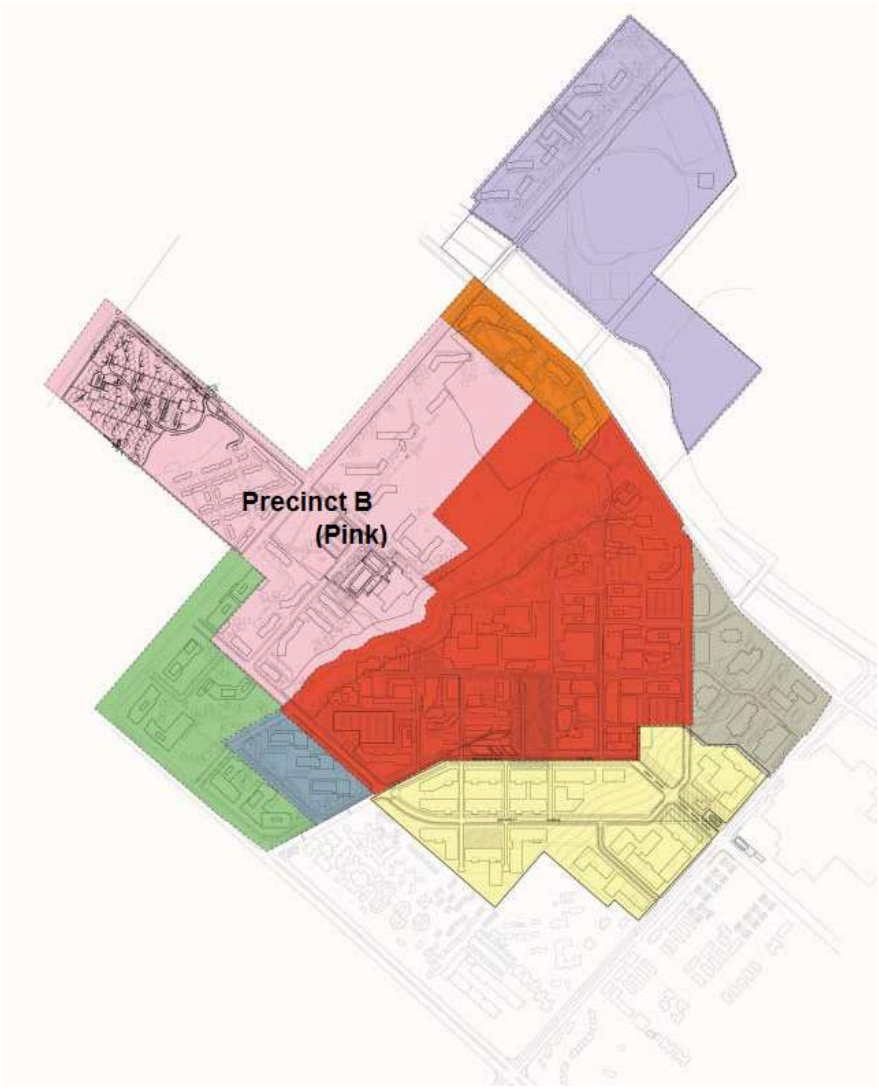

Figure 11: Macquarie University Campus is divided into precincts. Precinct B is where the proposed development will be located.

Objectives

The objectives for the University Housing Precinct are:

- *To accommodate up to 5,000 student accommodation beds on Campus by 2031 (ie an increase in 3,450 beds from the existing number of 1,550);*
- *To protect areas of significant woodlands;*
- *To accommodate Seniors Living housing in appropriate locations;*
- *To utilise the land for university related functions; and*
- *To enhance pedestrian and cycle access between Culloden Road and the Academic Core.*

Whilst the predominant intent is to provide student accommodation, the proposal is consistent with the Concept Plan as one of the objectives for Precinct B is "utilise the land for university related functions'. The proposed Biological Sciences Building will be used for learning and teaching spaces for postgraduate students and research staff, which is a University related function.

The proposed Biological Science Building will not prevent the delivery of student accommodation within the Precinct. Precinct B includes a significant amount of land to the east of Culloden Road on the main Campus of land to the west of Culloden Road, which currently accommodates student housing and could be further developed to provide additional student accommodation within this established student accommodation area.

Whilst the development will require the removal of trees, none of these trees have been identified as significant, nor the area classified as significant woodland with replacement trees proposed to maintain the landscape character of the area.

The development will also provide a linked pedestrian pathway from the building to the existing car park area which connects to a road leading to the academic core. Provision of bicycle racks have been conditioned to be provided and an accessible WC & shower is proposed. This will provide pedestrian and promote cycle access from the building to other areas of the Campus. Accordingly the proposal is considered to be consistent with the objectives for Precinct B.

Design Guidelines

The design guidelines for future development within the University Housing Precinct are:

- *Strengthen the activity axis along Gymnasium Road to provide a more distinguished entrance and avenue link to the Academic Core;*
- *Retain significant native woodland areas in this precinct;*
- *Protect and enhance the Mars Creek riparian corridor;*
- *Incorporate a new green space leading down to Mars Creek. This space is to address a new north-south road, the Gymnasium, and respond to views of the creek and Academic Core;*
- *New buildings should be screened with similar tree species so that they blend with the backdrop when viewed across from the Academic Core. The existing parkland character should remain as the primary focus of this view;*
- *New buildings up to five storeys in height and setback 6m from Culloden Road;*

- *New buildings are to demonstrate a high level of architectural design quality and energy efficiency;*
- *Car parking to be provided in line with relevant Council requirements; and*
- *Adopt Crime Prevention though Environmental Design (CPTED) Principles for new development.*

Where applicable, the proposed development is consistent with the above. The building is part one/part two storey and setback more than 6m from Culloden Road and is of a high architectural design. Tree planting of 2:1 are proposed to replace the trees proposed to be removed. The existing and new trees will be located around the southern and western side of the building with the landscaping designed to ensure it is complementary to the parkland character of the area with the building blending in with the landscaping.

The proposed development includes construction of an access path to the existing N3 car park, which is linked to the primary route of travel along Gymnasium Road between the building and other areas of Campus. As shown in Figure 6 below, users of the building will likely use this route to access facilities located elsewhere on the Campus. This is the current arrangement for staff and students using the existing university facilities on this part of the Campus and is consistent with the objectives of the University Travel Plan, which seeks to encourage walking. This also support bicycle uses, as this connect up with the internal off street cycleway within Macquarie University. Note: **Condition 6** has been imposed requiring the provision of bicycle parking adjacent to the building.

In addition, users of the building benefit from the University shuttle bus, which stops outside the existing Brain Behaviour and Evolution Building on Culloden Road and completes a loop around the University. The shuttle bus is one of the key actions to support intra-Campus mobility and will provide users of the proposed Biological Sciences Building with enhanced access around the Campus. In particular, there is a stop outside the Central Courtyard, where University staff and students have access to a range of shops, the University wellness centre and other facilities. The University shuttle bus route is shown in Figure 7 below.

The applicant has advised, that based on existing behaviour of staff and students using the existing Brain Behaviour and Evolution Building, the proposed building is readily accessible by foot for any University staff or students who may use public transport, cycle or an alternative form of transport to access the Campus.

Figure 12: Path of travel to the central courtyard area of the University.

The relevant conditions and statement of commitments in the Concept Plan are discussed below:

Schedule 2	
B1 Car Parking (2) The maximum car parking across the Campus is 10,800 spaces and is distributed for each precinct as follows: (a) Precinct A, G and H (total) – 4,095 spaces (b) -1000 spaces,(c) Precinct D-705 spaces Precinct E & F (total) – 5000 space. (4) The existing at-grade and above ground car parking areas within the site	No additional car parking is proposed as part of this development application. The proposed facility will not result in any additional students however there would be 15 additional staff on the campus. Council's DCP – Car Parking requires car parking to be provided: Educational Establishment (other than schools) – 1 space/2 employees and

shall be consolidated into four car parks around the perimeter of the Academic Core (Precincts A and B).	1 space/5 students. Based on 15 new employees – 8 car spaces are required for this building. However the decision not to provide additional parking to service the proposed building is consistent with the University's position on sustainable transport. The applicant has advised that the University has exceeded its target 40% non-car mode share, with non-car driver mode share accounting for 67% of all trips in late 2014. The building is accessible by foot by University staff or students who use public transport. Given that one of the objective of Macquarie Park Corridor is to reduce reliance on private vehicle ownership and that an existing car park is located south of the proposal, the proposal is considered satisfactory.
B4 Design Excellence and Urban Design Guidelines (1) The Design Excellence Strategy and Urban Design Guidelines to be prepared (as referred to on page 5 of the Statement of Commitments) are to have regard to the Macquarie park Corridor DCP. (2) The Design Excellence Strategy and Urban Design Guidelines are to be prepared in consultation with Council and include provision for the accommodation of car parking in the basement of new buildings, including details in relation to the achievement of activated frontages, and details related to the provision of bicycle paths and associated facilities. (5) The Design Excellence Strategy and Urban Design Guidelines are to be submitted for approval by the Department of Planning prior to the or with the first application for new building works within each precinct.	Campus-wide Design Excellence Strategy and Urban Design Guidelines have been separately prepared by Cox Master Planners (Cox Richardson Architects and Planners) and have been submitted to the Department of Planning and Environment, in accordance with Condition B4(5). The Guidelines designate Precinct B for the purpose of University Housing and seek to retain native woodland as well as protect the existing riparian corridors. The Guidelines support new buildings between four and six storeys in height. The proposed building is part one/part two storey and does not provide for any additional car parking. The building is setback from Culloden Road so does not present itself with opportunity for activation. Given the nature of the building, and its relationship with the existing research building, the proposed location is considered satisfactory and activation of frontage is not required in this instance. **Condition 6** has been imposed requiring provision of bicycle parking and end of trip facilities such as a shower has been provided in the proposed building.
C1 Staging of Development	

(1)The proponent shall demonstrate with each application for building works that the proposed development represents the orderly and coordinated development such that:(a) It may be serviced by existing infrastructure, by infrastructure approved by this concept plan or is capable of being serviced; and (b) access for vehicles and pedestrian is available and can be made available.	Each development is required to be serviced by infrastructure and access for vehicles and pedestrians is to be made available. The development will be serviced by existing infrastructure and access will be available for vehicles and pedestrians.
C3 Landscaping (1) The Landscape Management Plan referred to on Page 4 of the Statement of Commitments is to be integrated with the Design Excellence Strategy and Urban Design Guidelines referred to in B4 of this approval and is to demonstrate. (a) Maintenance of the bush land setting of the site. (b) Achievement of the landscape principles articulated in the Statement of Commitments, and is shown in Figure 26 to the Environmental Assessment Report. (2) The Landscape Management Plan is to be prepared for each precinct, and submitted for approval prior to or with the first application for new building works with each precinct	A Landscape Management Plan has been prepared by Context Landscape Architect for the entire University campus, including Precinct B, as part of the Campus-wide Design Excellence Strategy and Urban Design Guidelines which have been submitted to the Department of Planning and Environment for endorsement. A copy of the preliminary Landscape Management Plan has been provided and the new landscape elements have been designed with consideration to the Landscape Management Plan. Council's Landscape Architect has advised that the revised landscaping plans are satisfactory.
C4 Riparian Zone, Flooding and Storm water (1) The Stormwater Management Plan and other various planes referred to on page 6 of the Statement of Commitments are to be: (a) Integrated with the Vegetation Management Plan and Threatened Species Plan referred to on page 4 of the revised Statement of Commitments. (b) Revised in accordance with any modifications undertaken as part of this approval. (2) The Stormwater Management Plan is to be submitted for approval with each application for new building works, as relevant.	A Stormwater Management Plan has been prepared by TTW as part of the Campus-wide Design Excellence Strategy and Urban Design Guidelines. The Stormwater Management Plan integrates with the Vegetation Management Plan and Threatened Species Management Plan. The proposed Biological Science Building is located to ensure that it does not impact on flooding or riparian zones of the Campus. Council's Senior Co-ordinator Engineering Services has raised no objections to the application.
C5 Bushfire Protection (1) A Bushfire Management Plan is to be	A Bushfire Management Plan, Assessment Report and Structural

prepared in accordance with the requirements of 'Planning for Bushfire Protection 2006 (NSW Rural Fire Service), particularly in relation to Precinct B. The Bush Management Plan has to be prepared to the satisfaction of the NSW Rural Fire Service and submitted with each application for building works, as relevant. (2) Uses constituting 'Special Fire Protection Purposes' as defined in 'Planning for Bushfire Protection 2006'are to be undertaken in consultation with the NSW Rural Fire Service.	Statement have been prepared for the development. The Assessment Report finds that the proposed development is not a Special Fire Protection Purpose and that the building will be capable of meeting the requirements outlined in Planning for Bushfire Protection 2006. The proposal was referred to NSW Rural Fire Service who has recommended conditions to be imposed on any approval. See **Conditions 10 to 15.** The applicant Bushfire consultant – Advanced Bushfire Performance Solutions has reviewed the conditions recommended by NSW Rural Fire Service and has advised that none of the RFS recommendation are incompatible with the proposed development.
C6 Flora and Fauna (1) The Vegetation Management Plans, The Threatened Species Plan, and the Weed Management Plan referred to on page 4 of the Statement of Commitments shall detail and responsibility for each action, and shall include ongoing measures. (2) A copy of the Plans shall be submitted with each application for building works. (3) All future development is to be undertaken in accordance with the 'Guidelines for Development Adjoining Department of Environment and Conservation Land' by DECC dated August 2006.	A Vegetation Management Plan, Threatened Species Plan and Weed Management Plan have been submitted to the Department of Planning & Environment for endorsement as part of the Campus-wide Urban Design Guidelines. No threatened species or endangered ecological communities have been identified on or within the vicinity of the site however a site-specific ecological assessment has discovered one tree that is part of an ecological community. This is discussed in further detail in the assessment report. All tree removal has been determined in accordance with the recommendations of the Arborist and Ecologist reports and the development will not impact on the Mars Creek riparian corridor.
C7 Environmentally Sustainable Development (1) The requirements in respect of environmentally sustainable development as set out at page 1 of the Statement of Commitments is to be submitted for approval with each new application for building work on the site,	A Sustainability Statement that assesses the building against requirements for ESD has been submitted and finds that the proposed development is capable of achieving the required performance measures. The report states that the development has integrated energy efficient design through:

as relevant.	– Good practice solar orientation & building massing – Mixed mode passive ventilation strategies – Increased insulation over minimum requirements – Superior light controls and efficient luminaires. – Material efficiency – low carbon material and – Retention and enhancement of biological values through landscape design - replanting trees
C8 Environmental Management and Contamination (1) The hazardous material audit, and a targeted Phase 2 intrusive contamination assessment referred to on page 2 of the Statement of Commitments is to be prepared be submitted (sic) for approval with each application for building works based on an assessment on a precinct by precinct basis.	A Phase 1 and Phase 2 Site Investigation have been carried out for the site. The assessment finds that the site is suitable for the proposed use.
C9 Heritage/Archaeology (1) The Aboriginal Archaeology Strategy referred to on page 5 of the Statement of Commitments is to be prepared in liaison with the Metropolitan Local Aboriginal Land Council, and is to be submitted for approval prior to or with the first application for new building works within each precinct.	A Due Diligence Aboriginal Heritage Assessment has been prepared for the entire Campus by Mary Dallas Consulting Archaeologists. The study found no evidence of past Aboriginal use within the subject lands, however did identify areas of potential archaeological sensitivity. The areas identified as possibly retaining archaeological potential are those comprising relatively undisturbed land surfaces on the shale and sandstone formations. These areas generally coincide with areas that will be retained for other environmental values (significant remnant vegetation) and are well separated from the proposed development. Council's Heritage Advisor has raised no objections to the DA or the submitted report.
C10 Access, Traffic, Transport and Parking. (1).University Travel Plan (UTP) referred to at page 1 of the Statement of Commitments is to be prepared in liaison	Whilst this application is not within the academic core, a University Travel Plan was prepared for the first academic building.

with Council and the RTA, and approved by the Department of Planning, prior to or with the first submission of the first application for building works for academic/education uses with the Academic Core.	This development application will not affect the number of students attending the University nor will it affect the car parking on the site.
C13 Construction Staging (1) A Staging Plan including details of proposed bulk earth works must be submitted for approval with the first application for new building works within each precinct. (3) A Construction Management Plan, an Erosion and Sedimentation Plan, and a report detailing the existing geological conditions of each development site (within the relevant precinct), and any potential geological impacts of development consistent with the Concept Plan must be submitted with any application for the development of the particular precinct or site and is to be integrated with any Vegetation Management Plan and Threatened Species Management Plan referred to on page 3 and 4 of the revised Statement of Commitments; and integrated with the Staging Plan referred to in C1 of this approval.	An Indicative Development Staging Plan has been prepared by Cox Master Planners (Cox Richardson Architects and Planners) as part of the Campus-wide Urban Design Guidelines, which identifies projects that will likely occur on the Campus in the short to medium term. A Construction Management Plan and Erosion and Sedimentation Plan have been submitted and Council's Senior Co-ordinator Development Engineering Services has raised no objection to the application.

APPLICABLE PLANNING CONTROLS

The following planning policies and controls are of relevance to the development:

- Environmental Planning and Assessment Act, 1979
- State Environmental Planning Policy (State and Regional Development) 2011
- State Environmental Planning Policy No. 55 – Remediation of Land
- State Environmental Planning Policy (Major Developments) 2005
- State Environmental Planning Policy No. 64 – Advertising and Signage
- City of Ryde Development Control Plan 2014.

PLANNING ASSESSMENT

7.1 Environmental Planning and Assessment Act, 1979

Section 5A of the Environmental Planning and Assessment Act 1979

Clause 5A of the EPA Act states:

5A Significant effect on threatened species, populations or ecological communities, or their habitats

(1) For the purposes of this Act and, in particular, in the administration of sections 78A, 79B, 79C, 111 and 112, the following must be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats:
(a) each of the factors listed in subsection (2),
(b) any assessment guidelines.

(2) The following factors must be taken into account in making a determination under this section:
(a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

(b) in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

(c) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,

(d) in relation to the habitat of a threatened species, population or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality,

(e) whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),

(f) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

(g) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The development application was submitted with an Arboricultural Impact Assessment prepared by Arboreport and a Flora and Fauna Investigation Report (Ecological Assessment) by Lesryk Environmental P/L which included a 7 Part Test.

There is a total of 62 trees present within the development site and it is proposed to removed 44 of these trees, one of which, according to the Flora and Fauna Report is a remnant Turpentine Ironbark which is deemed to be part of a Critically Engendered Ecological Community listed under the *Threatened Species Conservation Act 1995* (NSW) and the *Environment Protection Biodiversity Conservation Act 1999* (Commonwealth). See Figure 13 below.

Figure 13: The Turpentine Ironbark tree.

The Ecological report states that *the likely impacts of the proposal on the Turpentine-Ironbark Forest community was assessed in relation to the Section 5A of the NSW Environmental Planning and Assessment Act 1979, as amended by the NSW Threatened Species Conservation Act 1995t. It was found that the proposal is unlikely to significantly affect Sydney Turpentine-Ironbark Forest, or its habitat. Therefore, the preparation of a Species Impact Statement was not required.* Council engaged Actinotus Consultancy Services – Environmental (ACS Environmental P/L) do a peer review on the submitted Ecological Report and the 7 Part test. The Peer Review Report (**Attachment 2**) provided the following conclusion:

ACS Environmental has reviewed the Ecological Assessment report by Lesryk Environmental for the development of Macquarie University site. In conclusion:

1. *The ecological assessment undertaken and reported by Lesryk Environmental is considered to be of a high standard and addresses the aspects of the ecological values of the study area.*

2. *Method statements included in the report are considered appropriate to the survey, with standard protocols having been followed and addressed in the survey and assessment procedure.*

3. *However ACS does not consider it likely that the single individual tree of Turpentine is a remnant of a former Sydney Turpentine-Ironbark Forest. Earlier mapping of the study area by DEC (2002) and OEH (2013) are both anomalous as determined from ground truthing (Context and LesryK Environmental Pty Ltd 2015) (ACS Environmental 2017), the vegetation clearly being the result of landscaping by the University. As well, aerial images of the site in 1943 show the area to be well developed for agriculture with no indication of any remnant individual trees of Turpentine at the location.*

   As such the 7-part assessment undertaken by Lesryk Environmental is considered to have been unnecessarily precautious.

4. *The documentation of the threatened elements of flora and fauna recorded on site as well as the tabulation of potential threatened species of flora and fauna pertaining to the site is of a high standard and the conclusions of the ecological assessment are considered satisfactory.*

5. *In summation ACS agrees with Lesryk that there will be no effective loss of STIF EEC as a result of the proposed development. However should Council accept the recommendation by Lesryk that replacement saplings of Turpentine be planted as part of a landscape plan, it is recommended that seed be collected from trees within Macquarie University and propagated to ensure such trees maintain a local provenance.*

Comment

The submitted reports prepared by the applicant's consulting ecologist have been reviewed by an independent Ecologist - ACS Environmental and Council's Consultant Landscape Architect. Both are satisfied with the Flora and Fauna Assessment, and that the report has appropriately reviewed the proposed development impact under the Environmental Protection & Biodiversity Conservation Act 1999. The report states that the proposed development would not have an adverse impact on any threatened species of state or national conservation significance. The removal of the Turpentine tree would not have a significant impact on the habitat and the applicant has advised that in order to mitigate the impact of tree removal replacement trees will be provided at a ratio of 2:1 for each tree removed. In addition, to offset the loss of the Turpentine from the site, **Condition 16** has been imposed requiring at least three individuals of this species to be included within the landscaped areas and seed is be collected from trees within Macquarie University and propagated to ensure such trees maintain a local provenance., as required by the recommendations contained in the Flora and Fauna report.

The applicant was also requested to investigate alternative locations for the proposed building. The applicant has investigated different options and has advised:

The proposed Biological Science Building has been carefully located to ensure that environmental impacts are minimised. Due to existing environmental constraints in relation to bushfire prone land and a stand of significant Sydney Turpentine-Ironbark Forest and Coastal Shale Sandstone Forest to the north of the site as well as flooding impacts around Mars Creek to the south and east of the site, the proposed building has been located to minimise potential significant adverse environmental impacts.

The proposed building has also been carefully located to benefit from a relationship with the existing Brain Behaviour and Evolution Building (Building W19F). This building accommodates academic facilities for the Department of Biological Sciences and the co-location of these buildings will improve functionality and efficiency for staff and students.

It is considered that the proposed building has been appropriately located to balance the need to mitigate significant environmental impacts as well as allow the operations of the Department of Biological Sciences to continue in an efficient and functional way. It is also noted that there is a Concept Plan in place for the redevelopment of the Macquarie University campus which establishes the parameters for the strategic development of Macquarie University and that the proposal has been carried out in accordance with the Concept Plan.

Comments

Given that the applicant has considered other possible locations and has deemed these options not feasible, together with the fact that the Ecological Reports support the removal of the trees and concluded that the proposal will not have any adverse impact to any threatened species, the proposed location is considered acceptable.

Furthermore the mitigation measures recommended in the Ecologist Report has been implemented in the revised Landscape Plan submitted to Council on 17 March 2017. As such, the proposed tree removal does not represent a constraint from an ecological perspective that would warrant refusal of this application.

7.2 State Environmental Planning Policy (State and Regional Development) 2011

A Crown Development is classified as Regional Development if it has a capital investment value of $5 million or more. The proposed development has a capital investment value of $14,124,027 as such is to be determined by the Greater Sydney Commission - Sydney North Planning Panel.

7.3 State Environmental Planning Policy No. 55 – Remediation of Land

The requirements of State Planning Policy No. 55 – Remediation of Land apply to the subject site. In accordance with Clause 7 of SEPP 55, Council must consider if the land is contaminated, if it is contaminated, is it suitable for the proposed use and if it is not suitable, can it be remediated to a standard such that it will be made suitable for the proposed use.

The applicant has submitted a Phase 1 & 2 Contamination Assessment Report. The Phase I report stated there is a potential for shallow soil contamination and further investigation is required. A Phase II investigation to assess the presence or otherwise of contamination to land was conducted and it was concluded:

PAH was detected at elevated concentrations in fill at sample location TP11. The results of delineation sampling completed in the near vicinity indicate the PAH detection was a one-off isolated occurrence. The PAH in fill is not considered significant and does not warrant remediation.

No other COPC were detected at concentration greater than assessment criteria. Geo-Logix considers the site suitable for the proposed Macquarie University – Biological Science Building.

Accordingly, the site suitable for the proposed use.

Council's Environmental Health Officer has reviewed the proposal and supporting documentations and has raised no objections to the proposed works.

7.4 **State Environmental Planning Policy No 33 – Hazardous & Offensive Development.**

It is noted in the SEE that there will be some storage of "dangerous goods". Accordingly, consideration should be made as to whether the proposed facility is considered a hazardous or potentially hazardous industry pursuant to State Environmental Planning Policy 33 (SEPP 33).

A summary of the class of DGs and the quantities to be stored at the Biological Science Building is provided in the table below:

Class	***Total Quantity (Kg or L)***
Flammable gases	0.5
Non-flammable, non toxic gases	37
Flammable liquids	2.5
	43.3
	1.335
Flammable solids	1.015
Oxidizing substances	0.5
	0.9
Toxic substances	0.35
	2.102
Corrosives	15.135
	7.25
Miscellaneous	8
Total	**119.887**

Table 1 Type and quantity of dangerous goods stored.

A Dangerous Goods Assessment has been prepared by Arup. In the report, Arup states that it has reviewed the SEPP 33 guidelines and finds the maximum quantities of Dangerous Goods intended to be stored at the proposed Biological Science Building at Macquarie University to be below the threshold quantities and hence the development is not considered potentially hazardous or offensive. Therefore SEPP 33 requirements do not apply.

Council's Environmental Health Officer's concurs that the quantity of chemicals stored are below the thresholds and that the proposed development is not a Potentially Hazardous Industry as described by SEPP 33. **Condition 4** has been imposed to ensure that the storage of chemicals/dangerous goods are in accordance with the requirements of the Work Health and Safety Regulations2011 and the recommendations contained in the Arup report dated 17 February 2017.

7.5 Ryde Local Environmental Plan 2014

The following is an assessment of the proposed development against the applicable provisions from the Ryde Local Environmental Plan 2014.

Clause 2.3 Zone Objectives and Land Use Table

The land is zoned B4 Mixed Use under Ryde LEP 2014.

The consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone. The objectives for the B4 Mixed Use are as follows:

- To provide a mixture of compatible uses.
- To integrate suitable business, office, residential, retail and other development in accessible location so as to maximise public transport patronage and encourage walking and cycling.
- To ensure employment and educational activities within the Macquarie University campus are integrated with other businesses and activities.
- To promote strong links between Macquarie University and research institutions and businesses within the Macquarie Park corridor.

The development complies with the above objectives. It will provide an educational facility for research within Macquarie University and will provide a link with other research institutions and business within the area.

Clauses 4.3 & 4.4 - Height of Buildings & Floor Space Ratio

No height or FSR controls applicable to the site. Accordingly height or FSR is not a consideration.

Clause 5.9 Preservation of trees or vegetation.

(1) The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.

A development control plan may prescribe the trees or other vegetation to which this clause applies by reference to species, size, location or other manner.

62 trees are located with the development site, 44 of which are to be removed. An Arboricultural Impact Assessment prepared by Arboreport has been submitted with the proposal. The report states that *the removal of these trees is acceptable based on impacts on the tree protection zone or the poor condition of these existing trees. 25 trees will be removed as result of the development having unavoidable impacts on the tree protection zone, whilst 19 will be removed as they are in poor health.*

Council requested the applicant to review the number of trees to be removed and whether it is possible to retain some of the trees that are outside of the building works however the amended plans/information still proposes the removal of the same number of trees as originally proposed. However, replacement planting has been provided at a ratio of 2:1 and with locally endemic plants of local provenance, in accordance with the relevant recommendations.

Note: T43 & T49 is noted in the recommendations of the Arboricultural Impact Assessment to be retained and protected but is noted for removal on the Landscaping Plan. Council's Consultant Landscape Architect has reviewed this inconsistency and considers that the trees should be retained and protected as per the recommendations of the report. As such, **Condition 1(a)** has been imposed requiring the retention and protection of these two trees.

<u>Clause 5.10 Heritage conservation,</u>

Clause 5.10 (1) states the objective of the clause as follows:
(1) Objectives The objectives of this clause are as follows:
- *(a) to conserve the environmental heritage of Ryde,*
- *(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,*
- *(c) to conserve archaeological sites,*
- *(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.*

The development was referred to Council's Heritage Advisor who made the following comments:

Consideration of the heritage impacts:

No Heritage Impact Statement has been submitted as part of the Development Application, however a Due Diligence Aboriginal Assessment has been submitted, which was prepared by Mary Dallas Consulting Archaeologists in 2012. The report identifies areas of Indigenous archaeological potential within

the site and it is noted that the proposed works are located outside of the sensitive areas.

Almost the entire site of the Macquarie University campus is identified as a listed item of heritage significance. This is because the majority of the campus comprises only one allotment which includes the heritage-listed building, though the significance of the site relates to the ruins of the stone building, which is located towards the northwestern corner.

The ruins themselves are situated amongst open fields with various university buildings sitting within close visual proximity, forming a part of the visual backdrop and setting.

The proposal involves the erection of new building, which ultimately, is an annex to an existing building which lies to the north of the ruins site.

In this manner, the new buildings will be partially visible from the location of the ruins site, however will be softened and screened externally by the remnant bushland vegetation which is scatted across the site between the two spaces.

I am satisfied that the proposed development, despite that it involves the removal of trees, would have little impact to the visual setting of the heritage listed ruins within the Macquarie University campus and would certainly have no material impact on heritage fabric.

Accordingly, no objection is raised to the proposed development on heritage grounds.

Condition 5 has been imposed in the event that Aboriginal cultural heritage or historical cultural fabric or deposits are encountered/discovered where they are not expected, works to cease immediately and Council and the Heritage Division of the Office of Environment and Heritage (OEH) to be notified of the discovery.

7.6 Any proposed instrument (Draft LEP, Planning Proposal).

None applicable.

7.7 City of Ryde Development Control Plan 2014

Part 4.5 – Macquarie Park Corridor

This part of the DCP provides a framework to guide future developments in the Macquarie Park Corridor. The document specifies built form controls for all development within the Corridor and sets in place urban design guidelines to achieve the vision for Macquarie Park. The Macquarie Park Corridor vision is:

"Macquarie Park will mature into a premium location for globally competitive businesses with strong links to the university and research institutions and an enhanced sense of identity.

The Corridor will be characterised by a high-quality, well designed, safe and liveable environment that reflects the natural setting, with three accessible and vibrant railway station areas providing focal points.

Residential and business areas will be better integrated and an improved lifestyle will be forged for all those who live, work and study in the area."

The development is consistent with this vision.

The built form controls are consistent with the conditions and statement of commitments in the approved Concept Plan.

No additional matters are raised in this part of the DCP.

Part 7.2 – Waste Minimisation and Management

A concept Waste Management Plan has been submitted with the development application. The information generally satisfies the requirements of this part of the DCP.

Part 8.1 – Construction Activities

The main construction issues relevant to this proposal will be managing water quality by preventing soil erosion, construction noise, dust and the like.

These matters have been addressed by way of appropriate conditions of consent.

Part 9.2 – Access for People with Disabilities

The DCP requires that the building must comply with all applicable provisions of the BCA. The applicant has provided an Accessibility Compliance Statement by McKenzie Group which identifies that the development will be able to meet the Deemed to Satisfy Provisions of the BCA. This report has identified recommendations that will need to be addressed in the detailed design

Subject to addressing the actions identified, McKenzie Group Consulting confirm that the project documentation provides appropriate accessibility to comply with the BCA & Disability (Access to Premises – Buildings) Standards 2010 and the spirit and intent of the DDA.

A condition of consent will be imposed to ensure compliance with this report. See **Condition 8**.

Section 94 Development Contributions Plan 2007 (Amendment 2010)

Council and Macquarie University have entered into a Voluntary Planning Agreement to provide development contributions in accordance with the conditions of the Concept Plan. Under the VPA, Section 94 and 94A of the EP & A Act are

excluded. Macquarie University is required to make development contributions in respect to each approved building. The amount of the contribution is determined based on a rate for the development being a particular category.

The development category is Category 3 (Academic uses research including non-commercial research) which does not generate the need for any development contributions.

6. LIKELY IMPACTS OF THE DEVELOPMENT

Many of the issues associated with the development application have already been addressed in the report and the proposal is considered satisfactory.

7. SUITABILITY OF THE SITE FOR THE DEVELOPMENT

The site is considered suitable for the proposed development. This conclusion has been reached given that the site already contains university buildings and the changes are intended to enhance the university.

8. THE PUBLIC INTEREST

The development is considered to be in the public interest as it is consistent with the approved Concept Plan and will enhance the facilities at Macquarie University.

9. REFERRALS

Senior Co-ordinator Development Engineering Services: 24 March 2017: No objections subject to appropriate conditions of consent. **Conditions 31 to 34, 54 to 66.**

Environmental Health Officer: 21 March 2017: Council's Environmental Health Officer has reviewed the development and has raised no objections subject to appropriate conditions of consent. **Conditions 4, 67 to 81.**

Consultant Landscape Architect: 21 March 2017: Amended plans were submitted 17 March 2017 in response to issued identified by Council in the preliminary assessment. Council's Landscape Architect has advised:

Tree removal proposed on the subject site has been supported given those to be removed are either of poor health and condition or are unable to be retained due to unavoidable encroachment. Whilst it is noted the removal of these trees will have an impact to the landscape character of the site, it is noted that these are all likely to be planted specimens and as such are capable of being suitably replaced. It is noted that the flora and fauna assessments and associated peer reviews have concluded that the development can proceed in its current form without any adverse impact on any threatened species of state or national conservation significance. A number of conditions have been recommended with regards to compensatory planting as well as tree protection.

The amended plans and information submitted still propose the removal of the same number of trees as originally proposed. Whilst this is supported for the most part, it is considered that Tree 43 and 49 should be retained and protected as per the recommendations of the Arboricultural Impact Assessment submitted. As such, a condition has been recommended to be imposed relating to the retention and protection of these two trees.

Concerns originally raised in relation to replacement and compensatory planting not fulfilling the recommendations of the Ecological Assessment have been suitably addressed. Replacement planting has been provided in accordance with the relevant recommendations with trees being replaced at a ratio of 2:1 with locally endemic plants of local provenance.

Revised landscape plans have suitably addressed concerns relating to the lack of information relating to locations, number and densities of proposed species. The revised plans now show the number, location and species type to be planted in each landscaped zone on site.

Based on the revised Landscape Plans submitted, the number of replacement plantings has been increased to eighty-eight (88), seeing a compensation ratio of 2:1. This is to include locally endemic species of local provenance to ensure a high genetic quality is maintained. As such, the replacement planting now is considered to be satisfactory and meet the recommendations of the Ecological Assessment and Peer Review.

Condition 1(a) has been imposed requiring retention of Tree 43 & 49 and Landscaping **Conditions 1(a), 16 to 30 & 35.**

Environment: 7 February 2017: Council's Senior Co-Ordinator Environment and the Natural Areas Co-ordinator have reviewed the proposal and the documentations submitted and have advised:

- *The stand of trees at the proposed development site is not considered to be remnant vegetation. Twelve of the tree species do not naturally occur in the local area, including the one endangered species noted at the site, Eucalyptus scoparia. One Turpentine, Syncarpia glomulifera, is noted in the report prepared by Lesryk Environmental and the Arboricultural Impact Assessment. Lesryk's Vegetation Management Plan 2015 indicates that remnant STIFexists to east of the site.*
- *Initial thoughts were to consider those of community, regarding the exact proposed location of the building. With all elements considered we acknowledge the preferred location being of closer proximity to the existing block given the nature of work to be performed and aligned with the existing building and in assessing the evidence supporting (and not supporting) species existing on the site.*
- *Many trees in question are in poor health (20) and none appear to have any hollows suitable for mammals or birds to utilise.*

- *University undertaking active environmental works including restoration and rehabilitation around the surrounding creekline that should be further strengthened given the removal of these to assist in offsetting and value adding to the site with these removed and the duration needed for the new trees to establish. This should be reiterated to the University.*
- *Council supports the 1 for 1 replacement planting as recommended in the Statement of Environmental Effects and would encourage the University to demonstrate due diligence and support for ecological corridor connection.. The Landscape plan needs to reflect the like for like replacement plantings and specify the numbers of each species to be planted. Eucalyptus summer red (5m mature height) would not be considered suitable replacement for the canopy trees (~20m in height) that are being removed. The Macquarie University site is large and provides opportunity for fauna connection from outside the grounds to the National park and other local corridor spaces. The request would be for small trees for encouraging a greater opportunity for survival.*
- *Locally indigenous species to be replaced to provide strong habitat value and connection.*

Comment:
Council requested amended landscape plans to address the above and revised Landscape Plans were submitted on 17 March 2017. Council's Consultant Landscape Architect has advised that the revised landscape plans have addressed the above concerns.

Heritage Officer: 30 November 2016. Council's Heritage Officer has reviewed the proposal and has advised that the proposed building will have little impact to the visual setting of the heritage listed ruins within the university and raises no objections to the proposal, subject to **Condition 5**. See full discussion under Section 7.5 of the report.

Traffic Engineer: 9 January 2017: Council's Traffic Engineer has advised that *the proposed new biological science building will be occupied by existing postgraduate students who will be relocated to the new building from elsewhere in the University. The proposed building will only result in 15 additional staff on the campus. No additional parking spaces are proposed as part of the development.*

The additional staff are expected to generate about 10 vehicle trips per hour, which is considered negligible on the road network. No change is proposed to the existing vehicular access for the Macquarie University. From a Traffic perspective there are no objections for the approval of this application, subject to conditions. See Conditions **58, 59 & 60.**

NSW Rural Fire Services: 16 January 2017: The proposal was referred to NSW Rural Fire Services and who raised no objections to the proposal subject to conditions. The recommendations and conditions were sent to the applicant to ensure that the proposal can comply with the requirement and to incorporate these requirements into the amended landscaping plans. See **Conditions 10 to 15.**

10. PUBLIC NOTIFICATION AND SUBMISSIONS

The proposed development was notified and advertised in accordance with Development Control Plan 2014 – Part 2.1, Notification of Development Applications. The period of exhibition extended from 25 November 2016 to 21 December 2016. During this time, Council received 5 individual letters and one petition containing 25 signatures. The concerns raised in the submissions are discussed below:

- *Environmental Impact on Flora*

This development requires the removal of 44 out of 66 mature trees, 2 of which a Turpentine Ironbark spp and a Wallangarra White Gum are "endangered species. No species Impact Statement was deemed necessary. I find it remarkable and very disappointing that there appears to be no hesitation in removing this magnificent copes of trees which includes endangered species without even an Impact Statement.

Comment

An Arboricultural Impact Assessment by Arboreport (Vegetation Management Consultants) and an Ecological Assessment Report – Flora and Fauna Investigation Report by Lesryk Environmental P/L (qualified ecologists) was submitted with the application.

The Flora and Fauna Report made the following conclusion:

An ecological survey and assessment of a portion of the Macquarie University campus that is proposed to be developed to permit the construction of a biological science building and research facility has been undertaken. The area identified for development was noted to be predominantly cleared, regularly maintained and supporting a mixture of planted, predominantly non-local, native and exotic trees.

One of the native trees present is a Turpentine (Syncarpia glomulifera). The final determination of Sydney Turpentine-Ironbark Forest as a critically endangered ecological community on the NSW Threatened Species Conservation Act 1995 includes remnant trees. Accordingly, the remnant Turpentine on the site is deemed to be part of the critically endangered ecological community. The likely impacts of the proposal on the Sydney Turpentine-Ironbark Forest community was assessed in relation to the Section 5A of the NSW Environmental Planning and Assessment Act 1979, as amended by the NSW Threatened Species Conservation Act 1995t. It was found that the proposal is unlikely to significantly affect Sydney Turpentine-Ironbark Forest, or its habitat. Therefore, the preparation of a Species Impact Statement is not required.

An independent peer review of the above document was reviewed by ACS Environmental P/L (qualified ecologists) who concluded that the finding of the above report was sound but did not agree that the single individual tree of Turpentine is a remnant of a former Sydney Turpentine-Ironbark Forest and that the

7-part assessment undertaken by Lesryk Environmental to have been unnecessarily precautious.

Accordingly both reports by qualified ecologists agreed that the proposal will not have any significant impact on the Sydney Turpentine Ironbark forest or its habitat and support the proposed development and that the preparation of a Species Impact Statement is not required.

- *Environmental Impact on Fauna/Insect life.*

These trees are home to many birds and possums, lizards and other fauna as well as many insects. …. I believe that every possible method of maintaining the natural habitable should be explored before destroying more. I do not believe that this has been the case here.

Comment

The Flora and Fauna Report advised that during the course of field investigation targeted surveys of some species or their habitats were undertaken and the following comments were made:

It is acknowledged that some of the species listed in Appendix 2 may fly over or use the study area on occasions (e.g. Grey-headed Flying Fox [Pteropus poliocephalus]). Whilst this is the case, none of these animals would be considered to solely rely upon the resources provided by the subject site, such that the proposal would have any appreciable impact on the local populations of these species, or their habitats. As with the threatened fauna species considered unlikely to occur, it is considered unnecessary that any further assessments on the likely impacts of the proposal on these animals be conducted.

The subject site is highly modified and disturbed. No specialised habitat types, such as those potentially occupied by species such as the EPBC Act listed Dural Land Snail (Pommerhelix duralensis), are present.

Of those animals recorded, none are listed, or currently being considered for listing, on the Schedules to the EPBC (Environmental Protection and Biodiversity Conservation Act 1999) or TSC (Threatened Species Conservation Act) Acts.

All of the native species recorded during the field survey are protected, as defined by the NPW Act, but considered to be common to abundant throughout the surrounding region. Within the surrounding region, these species have been recorded in association with a range of urban and woodland habitats. The species recorded would not be solely reliant upon the subject site's disturbed environment and isolated trees, such that the removal or further modification of this area would threaten the occurrence of these animals.

A number of the fauna species listed in Appendix 2 may fly over or forage within the site on occasion (e.g. the microchiropterans and Grey-headed Flying-fox). However, the subject site only represents a very small portion of potential habitat for these animals, areas of better habitat occurring beyond the limits of the area investigated. No habitat resources crucial to the life-cycle requirements of such

species (e.g. large intact stands of woodland) are present on site. As such, the proposal is not likely to have a direct or indirect impact on any of these species. Therefore, it is considered that further assessment of impacts under the relevant legislation is not necessary.

Accordingly the proposal is not considered to adversely impact on the habitat of any endangered species and replacement trees will be provided (ratio of 2:1) and will include native canopy trees as well as native small trees which will provide habitat for local fauna.

- *Climate change adaptation*

Macquarie University has led teaching about the impacts of climate change yet is failing to follow best practice in its own planning for climate change with it's development proposal. In the interests of climate change adaptation, trees should be preserved to mitigate the urban heat island effect, to provide cool shaded areas to improve amenity for student and staff and to preserve habitat and wildlife corridor.

Comment

In accordance with Macquarie University's Sustainable Development Policy, the proposed project has incorporated a number of measures to ensure that sustainability targets are met. A Sustainability Statement has been submitted with the application and **Condition 9** has been imposed requiring the development to adopt the initiatives listed in the report. This includes a commitment to replanting trees for every tree removed, as well as the incorporation of design elements to improve energy efficiency throughout the building.

It is considered that the proposed Biological Science Building will provide a modern and energy efficient facility to support the ongoing research

- *Parking and traffic congestion*

Parking on Culloden Road in the proposed development area is already a problem due mostly to university staff and student vehicles. Traffic congestion in this northern part of Culloden Road is already an issue…..The number of cars parked along Culloden Road has massively increased over the last 5 years as the university has grown.

Comment

The proposed Biological Sciences Building is a postgraduate research facility that will be used by postgraduate students at the University and an additional 15 University staff. It is not anticipated that the facility will significantly alter activity around the University. The increase of additional 15 staff is not considered to have such a significant increase in traffic or parking on Culloden Road as to warrant refusal of the proposal. In addition, the proposed development includes construction of an access path to the existing N3 car park, which links to the primary route of travel along Gymnasium Road between the building and other areas of Campus. Users of the building, who will be existing postgraduate students as well as only 15 additional staff, will likely use this route to access facilities located elsewhere on the

Campus. It is noted that this is the current arrangement for staff and students using the existing university facilities on this part of the Campus and is consistent with the objectives of the University Travel Plan, which seeks to encourage walking. It should also be noted that there is a University shuttle bus, which stops outside the existing Brain Behaviour and Evolution Building on Culloden Road and completes a loop around the University.

- *Impacts on residents*

Impact on local residents through the additional traffic and parking referred to above, degradation of scenic values and loss of pedestrian access to open and the local duck ponds, a valuable resource for public recreation. The external positioning of a mechanical plant will cause operation noise which may impact on resident's peaceful environment.

Comment

See comments above with regard to additional traffic and parking. The subject site is an education establishment with the zoning allowing for the proposed use. The site is not zoned as public open space/recreation area but B4 Mixed Use which permits "education purposes" with Council's consent.

An Acoustic report prepared by Acoustic Logic has been submitted with the application. The report states:

The site is not significantly impacted by pre-existing noise. The nearest noise source to the site is Culloden Road, which carries low to medium traffic noise levels. With the exception of one specialised space within the development (a laboratory used for sound measurements), there will be no significant areas where building shell upgrades are required to ensure that pre-existing noise conditions do not impact the use of the site.

The primary operational noise which will be generated by the site will be as a result of external mechanical plant (proposed to be located both on the roof, and in a lower ground floor under croft space/plant room).

As with any other development, noise from the operation of this equipment should comply with the EPA Industrial Noise Policy. Provided the recommendations are adopted, the operation of the site will not have an unacceptable acoustic impact on nearby development and can therefore be supported from an acoustic viewpoint.

The site is not anticipated to have any significant impact on nearby development as a result of noise generated during operation:

Council's Environmental Health Officer has reviewed the Acoustic Report and has advised that subject to compliance with the report and standard noise conditions no objections are raised to the proposal. **Condition 7** has been imposed requiring compliance with the recommendations contained in the Acoustic Report together with noise conditions – **Conditions 77 & 78.**

- *Proposed solutions – alternative building sites/area where it is more practical and would have minimal impact on the environment, parking, traffic and residents.*

Comment
The proponent has reviewed the suggestions made with regard to the alternative locations and has advised: *The proposed Biological Science Building has been carefully located to ensure that environmental impacts are minimised. Due to existing environmental constraints in relation to bushfire prone land and a stand of significant Sydney Turpentine-Ironbark Forest and Coastal Shale Sandstone Forest to the north of the site as well as flooding impacts around Mars Creek to the south and east of the site, the proposed building has been located to minimise potential significant adverse environmental impacts.*

The proposed building has also been carefully located to benefit from a relationship with the existing Brain Behaviour and Evolution Building (Building W19F). This building accommodates academic facilities for the Department of Biological Sciences and the co-location of these buildings will improve functionality and efficiency for staff and students.

It is considered that the proposed building has been appropriately located to balance the need to mitigate significant environmental impacts as well as allow the operations of the Department of Biological Sciences to continue in an efficient and functional way. The expert reports accompanying the application and supported by Council's technical officers have deemed the environmental impacts from the proposed building to be acceptable, as such the proposal can be supported.

CONCLUSION

This report considers an application for a new Biological Science Building adjacent to the existing Brain Behaviour and Evolution Building. The new building will provide improved research and learning facilities with the development supporting the on-going operations of the university and will provide an enhanced experience for staff and students.

The development application is consistent with the land use zoning and the objectives and design criteria contained Macquarie University Campus Concept Plan. As the development is a Crown development, the applicant has agreed to the attached conditions of consent.

It is recommended that the application be approved subject to conditions.

11. RECOMMENDATION

Pursuant to Section 80 of the Environmental Planning and Assessment Act, 1979 the following is recommended:

A. That the Sydney North Planning Panel grant consent to development application LDA2016/552 for the construction of a new Biological Science

Building at Macquarie University at 192 Balaclava Road, Macquarie Park subject to the Conditions of Consent in Attachment 1 of this report.

Report prepared by:

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Senior Town Planner

Report approved by:

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Senior Co-ordinator - Major Development

Vince Galletto
Acting Manager Assessment

Liz Coad
Acting Director - City Planning and Development