

Review of Environmental Factors

Richmond Agricultural Centre

Document version: Rev G
Date: 4/07/2025

Acknowledgement of Country

The NSW Department of Education acknowledges the Dharug and Darkinjung people as the traditional custodians of the land on which the Richmond Agricultural Centre is proposed.

We pay our respects to their Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of Australia.

The NSW Department of Education is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

The NSW Department of Education recognises that by acknowledging our past, we are laying the groundwork for a future that embraces all Australians; a future based on mutual respect and shared responsibility.



Declaration

This Review of Environmental Factors (REF) has been prepared by EPM Projects on behalf of the NSW Department of Education (department) and assesses the potential environmental impacts which could arise from the Richmond Agricultural Centre at Part Lot 2 DP 1051798, 2 College Street Richmond NSW 2753

This REF has been prepared in accordance with the *Guidelines for Division 5.1 Assessments* and any relevant addendum (the Guidelines), and the relevant provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP).

This REF provides a true and fair review of the activity in relation to its likely impact on the environment and the information it contains is neither false nor misleading. It addresses to the fullest extent possible all the factors listed in Section 3 of the Guidelines, the EP&A Regulation and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In preparing the REF I have declared any possible conflict of interests (real, potential or perceived) and I do not consider I have any personal interests that would affect my professional judgement.

Author	Isaac Clayton	Stephen Earp
Qualification	M. Urban and Regional Planning MPIA	B. Planning (Hons) Registered Planner Plus (EIA)
Position	Associate Planner	Head of Planning
Signature		
Date	2 July 2025	4 July 2025

Document Control

Document version: Rev G

Date: 4/07/2025

Version history

Version	Date	Description	Prepared by	Approved by
1	23/05/2025	Draft	Isaac Clayton	
2	05/06/2025	Draft 2	Isaac Clayton	
3	11/06/2025	Rev A	Isaac Clayton	
4	11/06/2025	Rev B	Isaac Clayton	
5	12/06/2025	Rev C	Isaac Clayton	
6	17/06/2025	Rev D	Isaac Clayton	
7	25/06/2025	Rev E	Isaac Clayton	
8	26/06/2025	Rev F	Isaac Clayton	
9	04/07/2025	Rev G	Isaac Clayton	Stephen Earp

Table of Contents

1.	Introduction.....	16
1.1	Project Background	17
2.	The Site.....	19
2.1	Site Locality	21
2.2	Proposed Activity	26
2.3	Related activities.....	40
3.	Proposal Need and Alternatives	41
3.1	Proposal Need	41
3.2	Alternatives	41
4.	Statutory and Strategic Framework.....	43
4.1	Permissibility and Planning Approval Pathway.....	43
4.2	Preconditions to Approval Pathway.....	45
4.3	Environmental Protection and Biodiversity Conservation Act 1999	47
4.4	Other Approvals and Legislation	47
4.5	Strategic Plans	49
5.	Consultation.....	53
5.1	Early Stakeholder Engagement	53
5.2	Statutory Consultation.....	54
6.	Environmental Impact Assessment.....	56
6.1	Traffic, Access and Parking	56
6.2	Noise and Vibration	61
6.3	Contamination and Hazardous Materials	64
6.4	Hydrology and Water Quality	65
6.5	Flooding.....	66
6.6	Aboriginal Heritage	69
6.7	Ecology.....	70
6.8	Social Impact.....	71
6.9	Other issues	74
6.10	Cumulative Impact.....	76
6.11	Consideration of Environmental Factors	76
7.	Justification and Conclusion	84

Tables

Table 1: Summary of the activity.....	27
Table 2: T&I SEPP Schedule 8 Design Quality Principles	30
Table 3: Design Response to Government Architect NSW Design Guide for Schools.....	31
Table 4: Proposed Tree Removal	35
Table 5: Proposed Service Arrangements.....	39

Table 6: Assessment of Options and Alternatives	41
Table 7: Description of Proposed Activities under the TI SEPP	43
Table 8: Compliance with pre-conditions to the 'development without consent pathway'	46
Table 9: EPBC Act Checklist.....	47
Table 10: Consideration of other approvals and legislation	47
Table 11: Consideration of applicable Strategic Plans	49
Table 12: Summary of Early Stakeholder Engagement.....	53
Table 13: Riverine Flood Levels.....	68
Table 14: Social Impact.....	71
Table 15: Environmental Factors considered	77

Figures

Figure 1 Render of the Proposed Activity (source NBRS Architecture)	13
Figure 2 Aerial Image of HCoE from Vines Drive (Source: NBRS Architecture SSD-15001460) ...	18
Figure 3 HCoE and RAC locations within WSU (Source: NBRS Architecture SSD-15001460).....	19
Figure 4 Land Zoning Map (source Hawkesbury Local Environmental Plan 2012 map viewer)	20
Figure 5 Aerial image of the site, outlined dashed red (source Nearmap, 15 march 2025).....	20
Figure 6 Locality Plan (source: NSW ePlanning Planning Portal).....	21
Figure 7: Aerial image of the lease area (source: Nearmap January 2025).....	22
Figure 8: Local Catchment 1% AEP Flood Hazard (Source: Northrop 2025).....	23
Figure 9 Heritage items in the vicinity of RAC (source: ePlanning Spatial Viewer)	24
Figure 10 Bushfire Prone Land mapping (source: Bushfire Planning Australia).....	24
Figure 11 Terrestrial Biodiversity Mapping (source; Narla Environmental)	25
Figure 12: Proposed Site Plan (Source NBRS Architecture)	28
Figure 13: Overall Ground Floor Plan (Source NBRS Architecture)	29
Figure 14: 3D Axonometric Diagram (Source NBRS Architecture).....	29
Figure 15: Proposed Aboriginal Enterprise COLA (source NBRS Architecture).....	33
Figure 16: Landscape Framework Plan (source NBRS).....	35
Figure 17: Soil and Erosion Control Plan (source: Northrop).....	37
Figure 18: Cut and Fill Plan (source: Northrop).....	38
Figure 19: Proposed Substation location and HV cabling (Source JHA).....	40
Figure 20: Existing Road, active and public transport network constrains and opportunities (source Metafora)	57
Figure 21: LoS locations for SIDRA Modelling (Source Nearmap 15 March 2025).....	59
Figure 22: Pedestrian access and vehicle swept path analysis (source: Metafora)	60
Figure 23: Reciever and monitoring locations (source: PWNA).....	61
Figure 24: Measured ambient nosie levels (source: PWNA)	62
Figure 25 NMLs for residences in proximity to the RAC (source PWNA).....	63
Figure 26: Sample Locations for Boreholes and Test Pits.....	64
Figure 27: Bathtub effect at Windor and Richmond (source: Northrop)	67
Figure 28: Section of the RAC and ground floor FFL (source: NBRS Aritcture).....	68

Appendices

Document name	Prepared by	Reference	Version	Date
Appendix 1 – Mitigation Measures	EPM	A1 MM	1	04/06/25
Appendix 2 – Architectural Plans	NBRS	A2 Architecture	5	16/04/25
Appendix 3 – Landscape Plans	NBRS	A3 Landscape	3	1/05/25
Appendix 4 – Civil Plans	Northrop	A4 Civil	5	28/04/25
Appendix 5 – Architectural Design Statement	NBRS	A5 Design Statement	4.0	17/06/25
Appendix 6 – Designing With Country Report	NBRS	A6 DWC	4.0	27/05/25
Appendix 7 – Visual Impact Assessment	NBRS	A7 VIA		27/05/25
Appendix 8 – Aboriginal Due Diligence Assessment	Apex Archaeology	A8 Due Diligence		27/05/25
Appendix 9 – Social Impact Assessment	Sarah George Consulting	A9 SIA		27/05/25
Appendix 10 – Flora and Fauna Assessment	Narla Environmental	A10 FFA	2.0	27/05/25
Appendix 11 – Arboricultural Impact Assessment	Sturt Noble Arboriculture	A11 AIA	E	25/05/25
Appendix 12 – Geotechnical Investigation and Design Advice	PSM	A12 Geotech	2	23/04/25
Appendix 13 – Bushfire Risk Assessment	Bushfire Planning Australia	A14 Bushfire	4	26/05/25
Appendix 14 – Flood Impact Assessment	Northrop	A15 FIA	B	12/05/25
Appendix 15 – Flood Emergency Evacuation Plan	Northrop	A16 FERP	A	27/05/25
Appendix 16 – Transport Impact Assessment	Metafora	A17 TIA	2	27/05/25
Appendix 17 – School Transport Plan	Metafora	A18 STP	3	27/05/25
Appendix 18 – Acoustic Assessment	Pulse White Noise Acoustics	A19 Acoustic	3	04/07/25
Appendix 19 – Concept Civil Report	Northrop	A20 Civil Report	2	26/05/25
Appendix 20 – ESD Report	Northrop	A21 ESD	7	26/05/25
Appendix 21 – Services Report	JHA Services	A22 Services	P4	27/05/25
Appendix 22 – Construction Waste Management Plan	Elephants Foot	A23 Cons Waste	E	26/05/25
Appendix 23 – Operational Waste Management Plan	Elephants Foot	A24 Ops Waste	F	26/05/25

Document name	Prepared by	Reference	Version	Date
Appendix 24 – Aviation Impact Assessment	AviPro	A25 Aviation	1.2	26/05/25
Appendix 25 – Structural Design Statement	Northrop	A26 Struct Design		15/05/25

Abbreviations

Abbreviation	Description
Ag/STEM	Agricultural Science Technology Engineering Maths
AEP	Annal Exceedance Probability
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
BC Act 2016	<i>Biodiversity Conservation Act 2016</i>
BC Regulation	Biodiversity Conservation Regulation 2017
BAL	Bushfire Attack Level
BAM	Biodiversity Assessment Method
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
CA	Certifying Authority
CM Act	<i>Coastal Management Act 2016</i>
CEMP	Construction Environmental Management Plan
CWC	Connecting with Country
The department	NSW Department of Education
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPC	Department of Premier and Cabinet
DPHI	Department of Planning, Housing and Infrastructure
Design Guide	<i>Design Guide for Schools</i> published by the Government Architect in May 2018
DPWC	Development Permitted Without Consent
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection License

Abbreviation	Description
ESD	Ecologically Sustainable Development
FM Act	<i>Fisheries Management Act 1994</i>
GBCA	Green Building Council of Australia
Ha	Hectares
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MNES	Matters of National Environmental Significance
NCC	National Construction Code
NorBE	Neutral or Beneficial Effect on Water Quality Assessment Guideline (2022)
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPW Regulation	National Parks and Wildlife Regulation 2009
NPWS	National Parks and Wildlife Service (part of EES)
NSW RFS	NSW Rural Fire Service
NT Act (Cth)	<i>Commonwealth Native Title Act 1993</i>
OEH	(Former) Office of Environment and Heritage
PCEMP	Preliminary Construction Environmental Management Plan
PMF	Probable maximum Flood
Planning Systems SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Proponent	NSW Department of Education
RAAF	Royal Australian Air Force
RAC	Richmond Agricultural Centre
REF	Review of Environmental Factors
RF Act	<i>Rural Fires Act 1997</i>
Resilience and Hazards SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021
Roads Act	<i>Roads Act 1993</i>
SCPP DoE	<i>Stakeholder and community participation plan</i> , published by the NSW Department of Education October 2024
SCPP DPHI	<i>Stakeholder and community participation for new health services facilities and schools</i> published by the Department of Planning, Housing and Infrastructure October 2024
SDRP	School Design Review Panel
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
TEC	Threatened Ecological Community
TI SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
WM Act	<i>Water Management Act 2000</i>

Abbreviation	Description
WSU	Western Sydney University

Executive Summary

This Review of Environmental Factors (REF) has been prepared by EPM Projects (EPM) for the NSW Department of Education (the department). The department is proposing the construction and operation of an agricultural centre at the existing Western Sydney University (WSU) campus at 2 College Drive, Richmond. The construction and operation of the agricultural centre is, pursuant to Section 5.1(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), an activity.

This REF has considered the activity and its environmental impacts in accordance with the provisions of Part 5 of the EP&A Act and the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), and other relevant statutory requirements. In accordance with Section 5.5 of the EP&A Act, this REF has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the Project. In particular, the REF has considered the factors set out in Section 171 of the EP&A Regulation, and:

- The Department of Planning's Guidelines for Division 5.1 assessments (June 2022); and
- The Department of Planning, Housing and Infrastructure's Guidelines for Division 5.1 assessments Consideration of environmental factors for health services facilities and schools (Addendum 2024)

The Site

The site of the proposed activity is located in the northwest corner of the WSU Hawkesbury Campus, at the corner of College Street and Londonderry Drive and is within the Hawkesbury City Council local government area (LGA) and Deerubbin local Aboriginal Land Council (LALC). The site has an address of 2 College Street, Richmond and is legally described as (part) Lot 2 DP 1051798. It is approximately 1 km southeast of the Richmond town centre, 900m south of Richmond East train station and 1.3 km southwest of the Richmond Royal Australian Air Force (RAAF) Base. The site is located on a crown reserve and is land reserved for a public purpose.

The site is surrounded by land that has historically been utilised to provide tertiary education which has traditionally provided an agricultural curriculum, supported by agricultural land uses within the broader campus grounds. The suburb of Hobartville is located opposite the site, to the north and northwest, and the Richmond High School campus is approximately 700m west of the site.

Environmental constraints identified at the site by the *Hawkesbury Local Environmental Plan* (2012) (HLEP) confirm that the site contains significant vegetation along its eastern and western boundaries. The HLEP also identifies that the site is affected by Acid Sulfate Soils (Class 5) and is within the Flood Planning Area. The site is affected by regional and local flooding in a 1 in 100 AEP, 1 in 200 AEP and PMF flood events. Aside from flood events, the site is generally free from substantial environmental constraints with the activity mostly avoiding extant tree plantings which are located along the site's boundary

The Section 10.7 Planning certificate confirms that land within Lot 2 DP1051798 contains items of environmental heritage listed on Schedule 5 of the HLEP as well as areas of mapped bushfire prone land and areas that have significant biodiversity values. These areas are not in proximity to the site of the proposed activity and investigations associated with the REF documentation has confirmed the site has a low potential to contain any items of Aboriginal Cultural heritage significance.

Proposal

The proposal relates to the activities associated with the construction and operation of the Richmond Agricultural Centre at the site (RAC). The RAC will provide a specialist agricultural curriculum, comprising agricultural, science, technology and maths (Ag/STEM) subjects at a purpose built facility within the WSU Hawkesbury in support of the existing school. The new Ag/STEM facilities will accommodate 325 students and 25 staff and will comprise a single-storey buildings that have been sited and design to withstand localised and regional flooding events. The RAC will be supported by ancillary services and infrastructure upgrades including a new electrical substation, sewer pump station, water booster, dual carriage vehicle access and pedestrian path.

The proposed substation will be supported by high voltage upgrade works to the surrounding network. These works do not form part of the proposed activity and will be delivered via a separate approval pathway under chapter 2 of the T&I SEPP. As works to the electricity network are required to be completed prior to the commencement of school operations, mitigation measures have been provided to ensure these works are completed prior to the occupation of the school. A detailed description of the site is provided in **Section 2**.

Project Need and Justification

If the project was not to proceed, there would be no adequate secondary school infrastructure in the state that could accommodate a specialist Ag/STEM curriculum. Learning spaces that are not Fit For Purpose (FFP) do not allow the delivery of best-practice pedagogies and affect the ability of educational establishments to provide improved educational outcomes. Without the project's FFP learning spaces, the NSW Government may not be able to deliver specialised courses for the NSW curriculum, thereby limiting students' options and future opportunities.

As a Statewide resource, the Centre will deliver innovative agricultural and STEM programs that will focus on developing agile learners with the academic, research, entrepreneurial and practical skills necessary for ensuring food security, wellbeing and stewardship of nation's people, environment and resources in the future.

Planning Pathway

The proposal involves the development of an existing government school by the Department of Education (the department) (a public authority) on land that is located in a prescribed zone. Accordingly, pursuant to Sections 3.37 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP), the proposed works associated with the RAC are classified as development permitted without consent (DPWC).

Therefore, the proposal is considered an 'activity' for the purposes of Part 5.1 of the EP&A Act and is subject to an environmental assessment pursuant to Section 171 of the EP&A Regs. For the purposes of this proposal, the department is the proponent and the determining authority and the required environmental assessment is in the form of a Review of Environmental Factors (REF). The REF has been prepared in the accordance with the *Guidelines for Division 5.1 Assessments* (DPE, June 2022) and the *Guidelines for Division 5.1 assessments - consideration of environmental factors for hospital and school activities Addendum* (DPHI, October 2024).

Permissibility

The site is on land that is zoned SP1 Special Activities by the *Hawkesbury Local Environmental Plan 2012* (HLEP). The land use table provided in the HLEP outlines that development for the purpose shown on the Land Zoning Map of the relevant land as well as any development that is ordinarily

incidental or ancillary to development for that purpose is permitted with development consent. The Land Zoning Map identifies that the SP1 Zone is for the purpose of Education Agriculture and as a result the proposal is permitted with development consent by the HLEP.

The proposed activity is permissible as an existing school pursuant to Section 3.37(1)(a) of the T&I SEPP as the activity includes the construction and operation of:

- An administration building
- A permanent classroom
- A carpark
- A canteen
- A hall with associated covered outdoor learning (COLA)
- Minor alterations and additions

Consequently, the proposal is an activity that is subject to assessment under Part 5 of the EP&A Act provided that the activity is not likely to significantly affect the environment.



Figure 1 Render of the Proposed Activity (source: NBR Architecture)

Consultation

Consultation will be undertaken in accordance with statutory requirements under the T&I SEPP and having regard to the *Stakeholder and community participation plan for new health services facilities and schools* (Department of Planning Housing and Infrastructure (DPHI), October 2024) (SCPP DPHI) and the *Stakeholder and Community participation plan for new schools and major school upgrade projects undertaken under Division 5.1 of the EP&A Act 1979* (Department of Education, October 2024) (SCPP DoE).

Comments received will be carefully considered and responded to. In addition, non-statutory consultation has been undertaken with a range of community and government stakeholders throughout the design process.

Environmental Impacts

An environmental assessment has been undertaken to consider whether the activity is likely to significantly affect the environment. The assessment has also included assessment of whether:

- There are likely to be impacts to matters of national significance under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- A species impact statement would be required under the *Biodiversity Conservation Act 2016* (BC Act)

This REF has found that the key potential environmental impacts associated with the activity include:

- **Flood**

The site of the proposed activity is subject to regional flooding from the Hawkesbury Nepean River Catchment and local flooding from the Richmond catchment. Hydraulic modelling has been undertaken to provide a comparison of the existing and post development scenarios. The modelling identifies the impact the proposed activity has on the existing flood behaviour on-site, in adjacent properties and downstream areas. The assessment of this modelling concludes that the completion of the proposed activity on the site is not expected to create a significant adverse impact to the existing flood behaviour on the subject site, on land surrounding the subject site and to downstream areas. A Flood Emergency Response Plan (FERP) has been prepared and provides policies and procedures for evacuation, school closure and emergency response which, when enacted during the RAC's operational phase, would appropriately manage flood risk for staff and students.

- **Bushfire**

The proposed school buildings are not located on land designated as bush fire prone, by the certified Bush Fire Prone Land Map published by the RFS. While isolated areas of unmanaged vegetation exist within 140 metres of the development footprint, the site itself and the location of all proposed buildings are outside of any mapped Vegetation Category 1, 2, 3 or Buffer. Appropriate measures are included in the Centre's design to ensure compliance with Planning for Bushfire Protection (PFBP).

- **Biodiversity**

The proposal will impact 5.53ha of Exotic-dominated Grassland, 0.03ha of Cumberland Shale Plains Woodland, and <0.01ha of Planted Non-locally Occurring Native Vegetation (a total of approximately 5.57ha of vegetation, of which approximately 0.04ha comprises native vegetation). Impacts to potential fauna habitat will be kept to a minimum and largely comprise the removal of low-quality, exotic-dominated foraging habitat. Impacts to vegetation mapped as Cumberland Shale Plains Woodland are expected to be minimal as no trees are proposed to be removed from this location (vegetation removal will be restricted to the largely exotic-dominated ground layer). As a result, the activity is not likely to significantly affect any identified threatened species.

Other environmental impacts include Aboriginal heritage, waste, social impact and visual impact.

Mitigation measures have been identified for the activity, to ensure it is constructed and operated in a manner that does not adversely affect the amenity of the locality or the environment. Those mitigation measures can be found in **Appendix 1**.

Justification and Conclusion

Based on the environmental assessment undertaken as part of this REF, it has been determined that the proposal will not result in any significant or long-term detrimental or negative environmental impacts. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

The environmental impacts of the proposal are not likely to be significant. Therefore, it is not necessary for an Environmental Impact Statement (EIS) to be prepared and approval to be sought for the proposal from the Minister for Planning and Public Spaces under Part 5.1 of the EP&A Act. The proposed activity will not have any effect on Matters of National Environmental Significance and approval of the activity under the Commonwealth EPBC Act is not required.

On this basis, it is recommended that the department determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified in this REF.

1. Introduction

The NSW Department of Education (the department) proposes to construct a centre, the Richmond Agricultural Centre (RAC), with a specialist agricultural curriculum at the site (the activity) within the Western Sydney University Campus located at 2 College Street, Richmond (Part Lot 2 DP 1051798) (the site).

As part of the NSW Government's plan to rebuild public education, the 2024-25 Budget is delivering record education funding, including \$3.6 billion for new and upgraded schools in Western Sydney. This targeted investment will ensure growing communities are afforded access to a world class public education. The RAC facility will provide specialist agricultural curriculum at a purpose built secondary school at the Sydney metropolitan region's peri-urban fringe. The proposal will provide integral social infrastructure in an emerging urban environment experiencing significant population growth. The proposed activity is the direct result of the NSW Government's commitment to deliver public education in Western Sydney.

This Review of Environmental Factors (REF) has been prepared by EPM Projects on behalf of the department to determine the environmental impacts of the RAC at the site within the existing WSU Hawkesbury Campus. For the purposes of these works, the department is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed activity for an existing school can be carried out pursuant to Section 3.37 *Existing or approved government schools—development permitted without consent* of the T&I SEPP, as it is for the purpose of the construction and operation of:

- An administration building
- A permanent classroom
- A carpark
- A canteen
- A hall with associated covered outdoor learning (COLA)
- Minor alterations and additions
- Construction and operation of buildings associated with the operation of the school.

The purpose of this REF is to describe the proposal, examine and take into account all matters affecting or likely to affect the environment and to detail the mitigation measures which will be implemented to manage impacts.

The potential environmental impacts have been assessed in the accordance with the *Guidelines for Division 5.1 Assessments* (DPE, June 2022), *Guidelines for Division 5.1 assessments - consideration of environmental factors for hospital and school activities Addendum* (DPHI, October 2024), EP&A Act, the *Environmental Planning and Assessment Regulation 2021*, and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The assessment contained within the REF has been prepared having regard to:

- Whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an Environmental Impact Statement (EIS) to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act; and
- The potential for the proposal to significantly impact *Matters of National Environmental Significance* (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the

commonwealth minister for the Environment on whether assessment and approval is required under the EPBC Act.

1.1 Project Background

On 10 December 2019, the then Minister for Education and Early Childhood Learning, the Hon. Sarah Mitchell announced a new project which included an educational model across three sites; HAHS in Glenfield, Richmond High School (RHS) and a new Centre of Excellence (CoE) co-located at the WSU Hawkesbury campus.

The new model of agricultural education was intended benefit students across the State. The goal of the agricultural curriculum model was to provide students and staff with purpose-built places to study agriculture in order to:

- ensure students across NSW are supported in their academic pursuits and develop advancements in science; and
- technology to safeguard the future of the agricultural industry in NSW.

The announcement outlined a vision to:

- Strengthen agricultural education opportunities
- Create broader educational pathways with Western Sydney University and TAFE
- Develop partnerships with other government agencies and industry
- Support teacher education in the areas of agriculture and STEM.

Prior to this announcement, a pilot program was conducted to establish the demand for agriculture and STEM educational programs. The operation of the pilot program was undertaken without a permanent campus and, due to enrolment demand for the curriculum, the need for a physical campus that provided opportunities for students from other schools across the State was identified.

To establish a permanent campus for the specialist curriculum, a State significant development application was submitted to the former Department of Planning Industry and Environment in mid-2021 (Application No. SSD-15001460). The application sought approval for the Hawkesbury Centre of Excellence (HCoE) and comprised a new educational facility within the Western Sydney University (Hawkesbury Campus).

The HCoE included new agricultural/STEM (Ag/STEM) teaching facilities with general learning and administration spaces that were intended to be utilised by rural, regional and metropolitan school students. The HCoE was designed to accommodate up to 325 students and up to 25 employees consisting of farm assistants, administration staff and teachers and up to five itinerant staff members. The HCoE also proposed to include short-term on-site accommodation facilities for up to 62 visiting students and teaching professionals from regional and rural NSW. It was envisioned that staff and students from regional areas would attend the site for short courses, in-service teacher training and /or conferences related to Ag/STEM education.



Figure 2 Aerial Image of HCoE from Vines Drive (source: NBR Architecture SSD-15001460)

SSD-15001460 was notified from 18 August 2021 to 14 September 2021 and on 14 March 2022, the application was approved by the Minister for Planning. Construction works for HCoE commenced 28 March 2022.

Following commencement of construction, a perched water table was discovered and unexpected finds protocols were initiated. Further investigation of the ground water as a result of these protocols identified the presence of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) and Category 2 remediation of the site was undertaken. Due to the presence of PFAS the HCoE site was abandoned with and the existing temporary school within the WSU campus continuing to provide the Ag/STEM curriculum of the HCoE.

The site of the HCoE development was at an alternative location within the WSU Campus south of the new RAC as indicated in **Figure 3** and on 11 April 2025 the department, pursuant to Section 67(1) of the EP&A Regs, provided written notice to the delegate of the Minister for Planning and Public Spaces to surrender SSD-15001460.

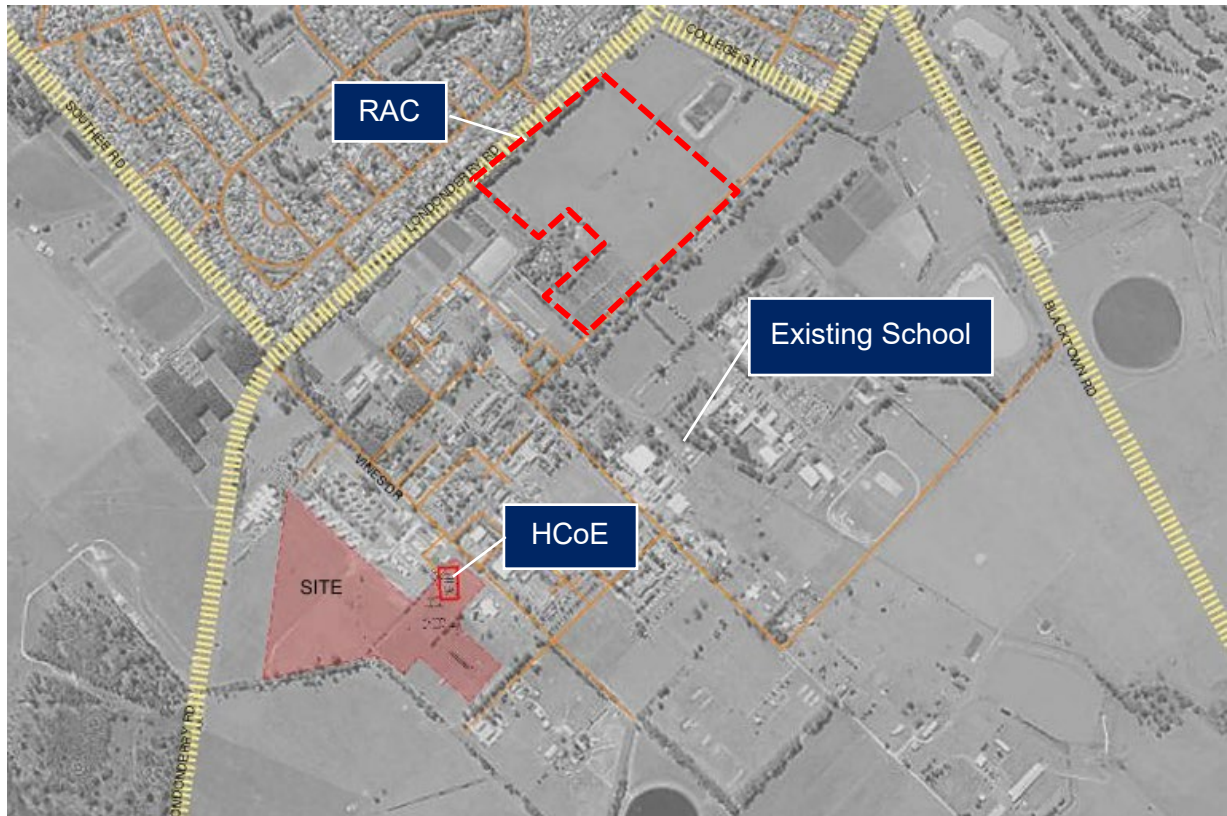


Figure 3 HCoE and RAC locations within WSU (Source: NBR Architecture SSD-15001460)

2. The Site

The site is located at 2 College Drive, Richmond and is shown in **Figure 4** and **Figure 5**. The site is legally described as within (part) Lot 2 DP1051798. The site has an area of 14.3ha and is bound (approximately) as follows:

- 485m along the eastern boundary to College Street
- 375m along the northern boundary to the WSU campus
- 373m along the western boundary to Londonderry Road
- 690m along the irregular southern boundary to the WSU campus

The site is zoned SP1 Special Activities by the HLEP and the Land Zoning map identifies that the zone is for the purpose of Education Agriculture. West of the site, the Londonderry Road corridor is zoned SP2 Classified Road and the land to the west of the SP2 zone is R3 Medium Density Residential with some pockets of RE1 Public Recreation zoned land. The R3 zoning continues north of the site, while land to the west and south is part of Lot 2 DP1051798 and is zoned SP1 Special Activities.



Figure 4 Land Zoning Map (source Hawkesbury Local Environmental Plan 2012 map viewer)



Figure 5 Aerial image of the site, outlined dashed red (source Nearmap, 15 March 2025)

2.1 Site Locality

The site is positioned in the northwest corner of the Western Sydney University (WSU) Hawkesbury Campus, at the corner of College Street and Londonderry Road and is within the Hawkesbury City Council local government area (LGA) and Deerubbin local Aboriginal Land Council (LALC). It is approximately 1 km southeast of the Richmond town centre, 900m south of Richmond East train station and 1.3 km southwest of the Richmond RAAF Base. The Dharug and Darkinjung People are the custodians and traditional owners of the land on which the site is located.

The WSU campus is located approximately 16 kilometers (km) northeast of the Penrith central business district (CBD) and 850m southeast of the Richmond town centre. A map of the locality is provided in **Figure 6**.

Surrounding the site, the locality primarily comprises residential land uses to the north and west and agricultural educational with tertiary buildings to the south and east. The site's position within the broader Hawkesbury- Nepean region provides limited opportunity for active transport and pedestrian access is limited with a single footpath on the western side of College Drive. This footpath connects the site to the wider WSU campus and Richmond East train station to the north. A bus stop is located north of the site on Bourke Street and is serviced by the 677 bus route.

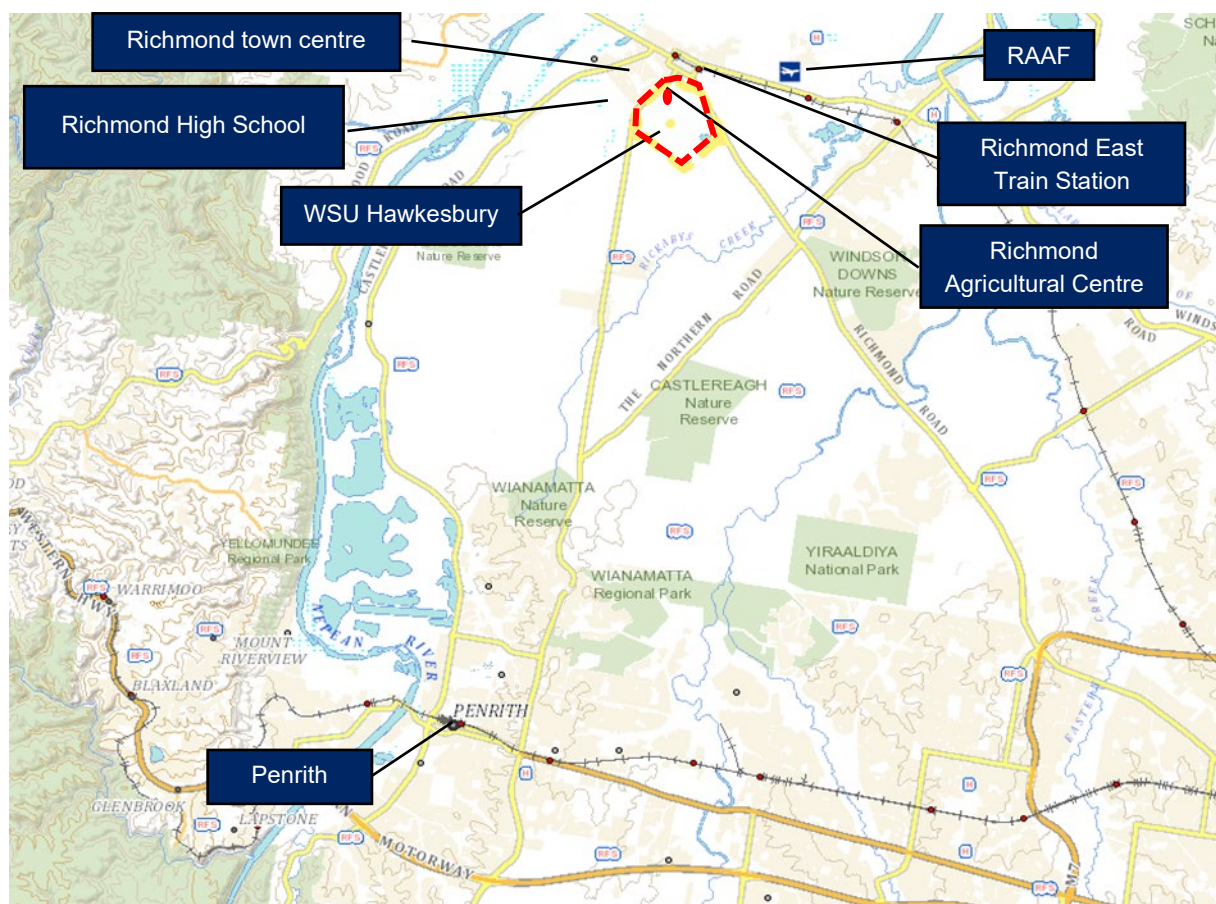


Figure 6 Locality Plan (source: NSW ePlanning Planning Portal)

2.1.1 Site Description

The site comprises approximately 14.3ha of land leased from WSU by the department. The portion of the WSU proposed to accommodate the RAC is not currently utilised by the university and has

historically been vacant land, utilised for grazing purposes by WSU. The main buildings of the WSU Hawkesbury Campus are located southwest of the proposed lease area. The site has a frontage onto an internal carriageway (College Drive).

On its western boundary, the site's lease area is bound by the alignment of Londonderry Road while the northern and southern boundaries are bound by agricultural plots used as part of the WSU campus. The site predominantly comprises open grassland, with planted native and exotic vegetation located along the western perimeter and eastern internal carriageway.

Across the RAC's lease area, topography is relatively flat with a slight fall from the southwest (RL 19.05) to the northeast (RL 17.39). Mature trees are intermittently located along the alignment of College Drive, between the eastern boundary fence and internal carriageway, and individual mature trees are positioned sporadically within the lease area. Along the western boundary a dense agglomeration of mature trees, primarily consisting of native sheoaks, runs parallel to Londonderry Road along the WSU boundary fence.

To the south and east of the site development primarily comprises the main campus facilities of WSU, with agricultural areas of the WSU campus located north and northeast of the site. Beyond the WSU campus, to the west and north of the site, development primarily consists of established residential development associated with the suburb of Hobartville. Richmond High School and the Richmond town centre are located northwest of the site beyond Hobartville. Agricultural land uses and the Richmond RAAF base are located on the urban fringe north of Richmond East train station which is northeast of the RAC site.



Figure 7 Aerial image of the lease area (source: Nearmap January 2025)

2.1.2 Site Constraints and Opportunities

Consideration of site constraints has been undertaken through a review of the Section 10.7 (2) & (5) Planning Certificates (dated 14 February 2025), mapping under relevant Environmental Planning Instruments (EPIs), and a review of specialist consultant reports and other desktop assessments. Key site constraints include:

Flood

The land on which the site is located is subject to flood related development controls and experiences flooding up to and including the PMF event. The site is affected by regional (mainstream) flooding from the riverine catchment and is also affected by localised (overland) flooding. Flood levels from regional flooding have been obtained from the Hawkesbury-Nepean River Flood Study and are summarised in **Table 13**.

Local catchment flooding is experienced at the site in events including and rarer than the 20% AEP but the site is only affected by both riverine and local catchment flooding in events rarer than the 1% AEP. In these events, inundation by flood waters originates from the northeast edge of the site. Flood hazard from the local catchment 1% AEP is shown in **Figure 8**.

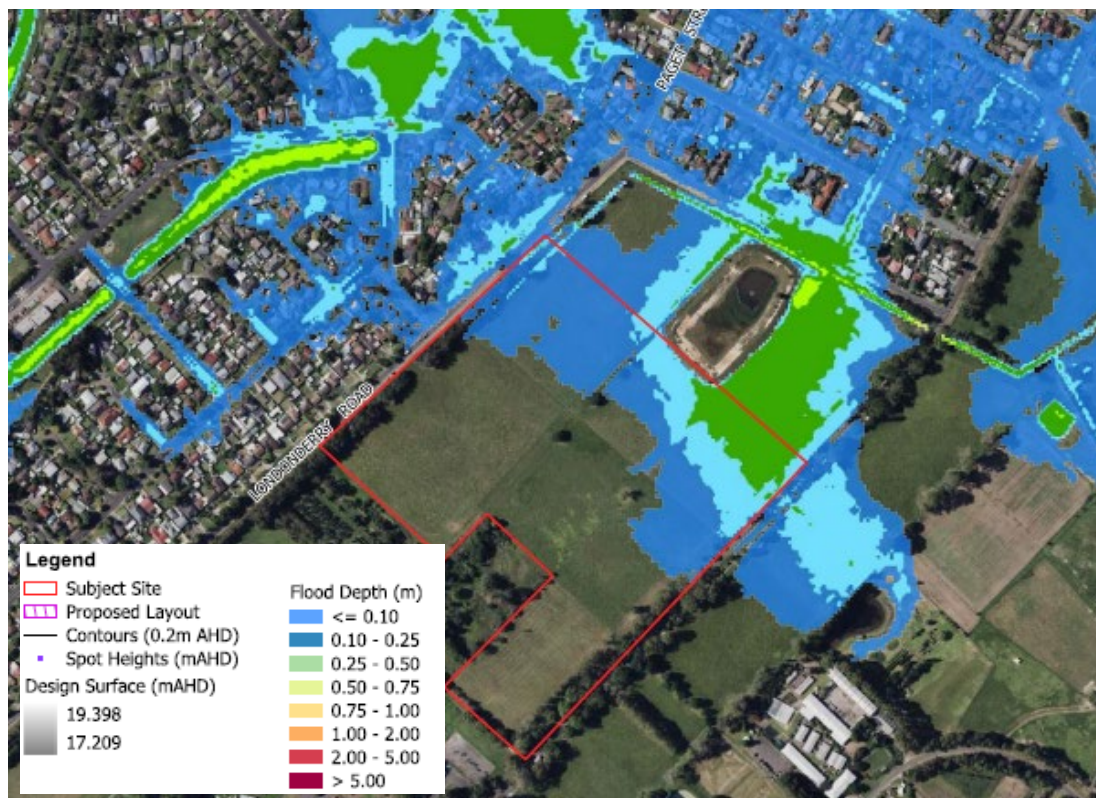


Figure 8: Local Catchment 1% AEP Flood Hazard (source: Northrop 2025)

Heritage

Areas of Lot 2 DP 1051798 contain heritage items. The land on which these heritage items are located does not comprise part of the site. The site's location is more than 200m away from the nearest local heritage item located on Lot 2 DP 1051798 and is not within the visual catchment of heritage items north of the site.



Figure 9 Heritage items in the vicinity of RAC (source: ePlanning Spatial Viewer)

Bushfire

Land within Lot 2 DP 1051798 comprises bushfire prone land. The site is not located within any area of the WSU campus designated as bushfire prone land. As shown in **Figure 10**, the location of all proposed buildings associated with the RAC are outside of any mapped Vegetation Category 1, 2, 3 or Buffer Zone land designations.



Figure 10 Bushfire Prone Land mapping (source: Bushfire Planning Australia)

Terrestrial Biodiversity

Part of the site is mapped as containing significant vegetation by the *Hawkesbury Local Environmental Plan 2012*. **Figure 11** highlights that the mapped areas of terrestrial biodiversity are located along the eastern and western boundaries of the lease area. Biodiversity impacts are discussed further in **Section 6.7**.



Figure 11 Terrestrial Biodiversity Mapping (source: ePlanning Spatial Viewer)

Consideration has also been given to opportunities identified in project development, including:

- Topography – The site's topography is relatively flat which has reduced reliance on bulk earthworks for site establishment and provides an opportunity to slow water discharge off site using WSUD detention principles.
- Soil conditions - Geotechnical testing has identified the site a having low to moderate saline soil.
- Contamination – No potential sources of contamination were identified, and land remediation is not required.
- Tree retention – Due to the central location of built form within the site, the activity will only result in the removal of one (1) tree.
- Access – Pedestrian and vehicle access is facilitated by an existing footpath and carriageway network within the WSU campus and will enable direct path of travel from external transport and parking locations.

2.2 Proposed Activity

The proposed activity involves the construction of the Richmond Agricultural Centre (RAC) which is being provided within the WSU Campus for the purpose of providing new purpose built facilities that will deliver a specialist agricultural curriculum. The centre will accommodate staff and students of the existing RAC facility which is sited in a temporary location within the WSU Hawkesbury campus west of the site. The new facilities will provide enrolment for Ag/STEM selective and specialty streams and will include 2,864m² gross floor area (GFA) of new buildings which includes the following:

- The removal of one (1) mature tree and existing agricultural fencing as well as civil drainage and site establishment works
- Construction of a general learning hub with 985m² GFA comprising:
 - Ten (10) general learning spaces (GLS)
 - Multipurpose and practical activity spaces
 - Staff and student WC facilities
- Construction of a science hub with 754m² GFA comprising:
 - Canteen, office and store areas
 - Seven (7) specialist learning areas (SLA)
 - Staff and student WC facilities
 - Circulation and plant room
- Construction of a multipurpose hall with 489m² GFA comprising:
 - A main hall with circulation and store areas
- Construction of an administration and staff hub building providing 429m² GFA for administrative and student support services
- Construction of specialist learning farming facilities buildings and outdoor learning areas to include:
 - Agricultural plots
 - Aboriginal enterprise
 - Agricultural shed and greenhouse
 - Animal plots with associated stock yard, animal shelters, troughs and stock lane
 - Gravel access road with wash bay
- Construction of a new parking area (including accessible spaces) driveway and kiss and drop facilities
- Landscaping including 88 new trees, entry forecourt, village green and kitchen garden
- Ancillary services and infrastructure upgrades including new substation and HV Works, sewer pump station, water booster, dual carriage vehicle access and pedestrian paths
Wayfinding and school identification signage

Table 1 provides a summary of key aspects of the activity.

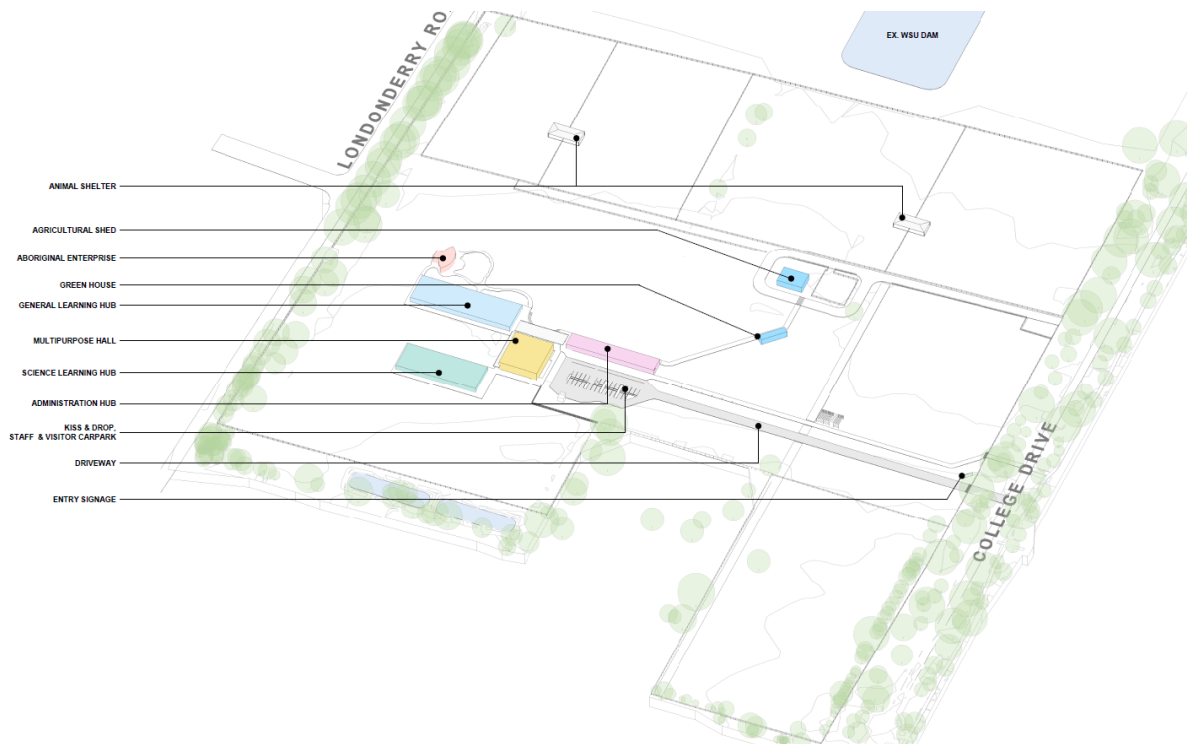
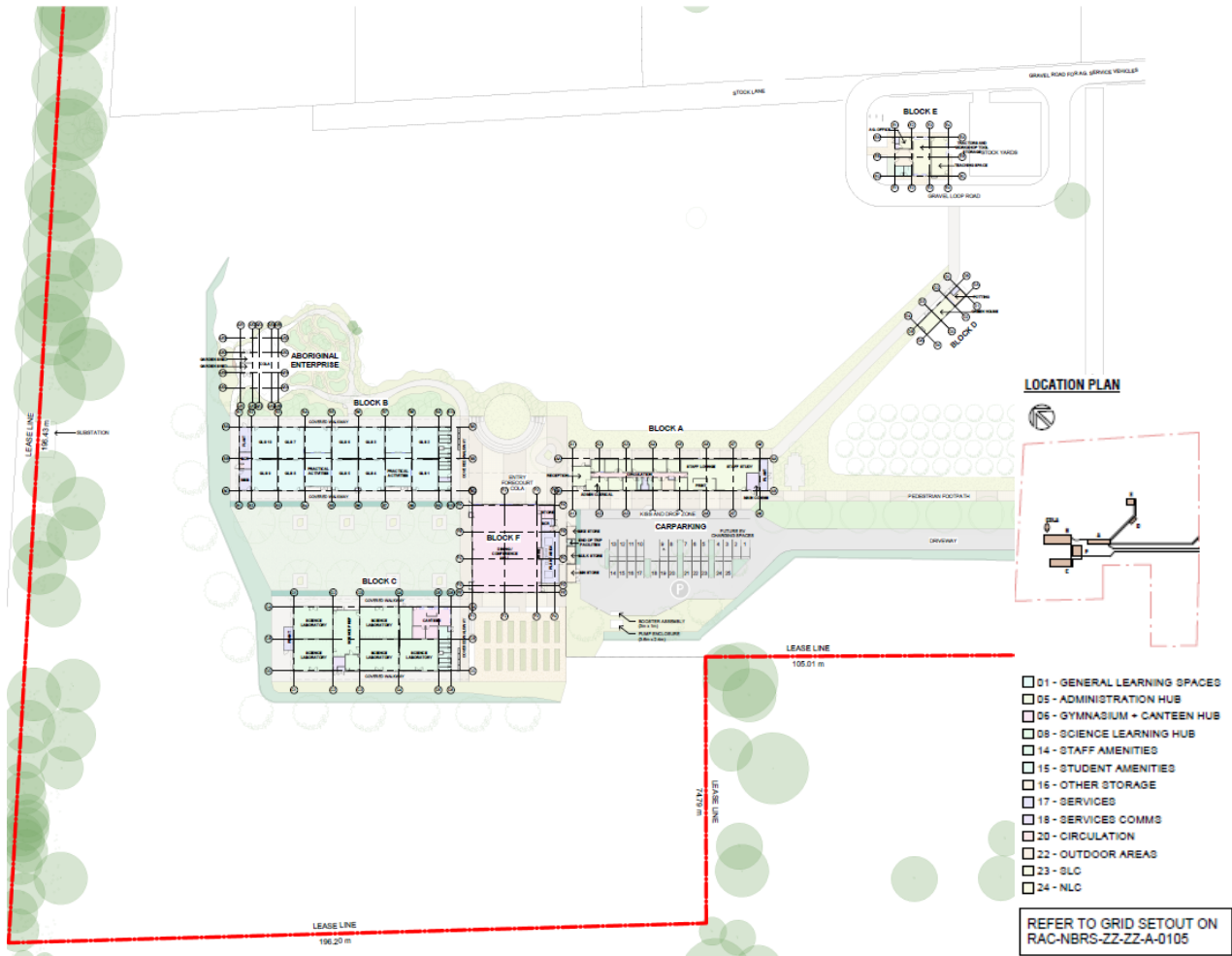
Table 1: Summary of the activity

Project Element	Description
Site Area	14.25ha
Project Name	Richmond Agricultural Centre
Project Summary	Construction of specialist Ag/STEM facilities comprising: <ul style="list-style-type: none"> • general and specialist learning areas • Staff facilities • Staff and student amenities • Hall • Covered outdoor learning area • Canteen • Bike store and end of trip facilities • Carparking & kiss and drop • Vehicle and pedestrian access • Ancillary buildings • Landscaping • Services upgrades
Use	Educational establishment
Student and Staff Numbers	325 students, 25 staff
Car Parking and Bicycle Spaces	25 car parking spaces with one (1) bike storage locker for staff and a dedicated bicycle and scooter are provided for students
Height	Single storey built form with a maximum height of 6.7 metres above ground level.
Play Space	Outdoor facilities in the campus comprise various passive recreation areas with opportunities for play areas provided by the 'village green' and the open space north and south of the campus buildings.
Canopy Cover	Overall canopy cover will increase across the site and via the planting of 88 replacement native trees within the lease area.
Off Site Works	Works (subject to a separate approval) that will connect the proposed substation to Endeavour Energy infrastructure are proposed but do not form part of the REF.

The key features of the proposed activity are shown below in **Figure 12** to **Figure 14**.



Figure 12 Proposed Site Plan (Source NBRIS Architecture)



2.2.1 Design development

The RAC's design process commenced with a thorough site analysis which was used to inform an Ag/STEM facility that is unique to the site. Design cues taken from the brief for an EFSG 'atypical' extra small high school for 325 students which references the SINSW standard hub layout and pattern book. This 'atypical' layout allowed the orientation of buildings to reinforce the connection with the existing WSU Campus and provided optimal orientation for environmental design principals (ESD).

The proposed buildings draw on precedents from the history and character of new and old agricultural architecture at the WSU campus. The 'pavilions in the landscape' design has sought to capture the idyllic Australian farm vernacular and takes in design concepts from the cultivation of crops, the weaving of materials and the broader environment's materially and texture.

Drawing from environmental precedents, a warm colour palette has been selected for the facades, reflecting the natural colours in the Australian landscape. The building form is all single storey with a single roof pitch which in effect creates the 'pavilions within the landscape' concept. These 'pavilions' have minimal visual impact and are consistent with the scale of built form north and west of the site. The building facades of the EFSG 'atypical' design do not follow the SINSW pattern book but will follow a standard CFC panel sizes which reduces waste and provides ample glazing for learning areas, maximising opportunities for passive heating and cooling.

2.2.2 T&I SEPP – Schedule 8 Design Quality Principles

Table 2 below has been extracted from the Design Report by NBRS Architecture (**Appendix 5**) and describes how the built form responds to the design quality principles provided by Schedule 8 of the TI SEPP and the Design principles provided by Government Architect NSW Design Guide for Schools.

Table 2: T&I SEPP Schedule 8 Design Quality Principles

Schedule 8 Principles	Design Response
Principle 1: <ul style="list-style-type: none"> Responsive to context 	<i>The architectural design responds to the site's context, including its landscape and built environment, by drawing inspiration from local and historic context for example, the weaving patterns within agricultural plots, colour and texture inspired from the native trees, basket weaving and fish traps from the traditional owners of the area. These items influenced the building's siting, façade patterns, materiality, and colour palette. The landscape design also draws inspiration from the natural setting, seeking to celebrate cultural identity and support the school's functions whilst fostering connections to local flora and fauna.</i>
Principle 2: <ul style="list-style-type: none"> Sustainable, efficient and resilient 	<i>The project is aiming for an equivalent 5 star green star rating. Integrating rainwater collection and reuse, solar panels, low VOC materials and consideration to carbon admissions with material and furniture selection.</i>
Principle 3: <ul style="list-style-type: none"> Accessible and inclusive 	<i>The school has been designed to be single storey with minimal change in level between the built environment and landscape. The design incorporates best practice principles for accessibility and inclusivity creating a welcoming and inclusive environment, ensuring equal access and clear navigation through all building and agricultural areas.</i>

Schedule 8 Principles	Design Response
Principle 4: <ul style="list-style-type: none"> Healthy and safe 	<p>The design prioritises health, safety, and security for the health and well-being of staff and students. The school has been designed to mitigate neighbouring properties from noise impacts using building placement and acoustic strategies. The design incorporates Crime Prevention Through Environmental Design (CPTED) principles. The design of open spaces ensures clear sightlines for supervision, controlled access points, inclusive design, and environmental integration in response to bushfire requirements. Within the site, weather-protected walkways facilitate efficient and safe movement between buildings. Bicycle parking and end-of-trip facilities are provided to promote green travel.</p>
Principle 5: <ul style="list-style-type: none"> Functional and comfortable 	<p>The school provides a range of spaces to support various activities and group sizes, such as active recreation, passive play spaces, social interaction, learning and teaching spaces, play and landscaped areas. The building arrangement creates a protected village green, entry forecourt and tiered seating with a designated aboriginal enterprise with bushtucker garden beds for learning about the traditional owners.</p>
Principle 6: <ul style="list-style-type: none"> Flexible and adaptable 	<p>The design was developed to allow for future flexibility for changes in pedagogy or demographics. It is based on the SINSW standardized hub design, which is adaptable to changing teaching practices. The design incorporates structural grids and construction techniques that allow for future adaptation.</p>
Principle 7: <ul style="list-style-type: none"> Visual appeal 	<p>The school buildings and landscape setting are designed to be aesthetically pleasing, with good proportions and a balanced composition. The single storey buildings act like pavilions in the landscape and keep within the existing scale and context of the WSU site. The school buildings form an identifiable façade, providing a distinct presence in the WSU campus. The materials and colour palette were developed to celebrate the natural environment to reduce stress, glare, and overstimulation in staff and students occupying the buildings. The landscape design is an integral part of the visual appeal, drawing inspiration from the natural setting of the region, celebrating cultural identity, and supporting educational functions. The design uses native and endemic plant species to strengthen connections to the local flora and fauna, while supporting biodiversity and ecological resilience. The use permeable paving in the landscape provides robust and long lasting materials that complement the building materials.</p>

2.2.3 NSW Government Architect – Design Guide for Schools

The practical application of the design quality principles in schools is outlined in Schedule 8 of the T&I SEPP and is supported by the NSW Government Architect's Design Guide for Schools (the Design Guide). The Design Guide provides direction which ensures all government schools are well-designed and champion excellent design outcomes to create schools that are safe, inclusive, and adaptable to future needs.

Table 3: Design Response to Government Architect NSW Design Guide for Schools

Project Element	Description
Principle 1: <ul style="list-style-type: none"> Context, built form 	<p>The architectural design responds to the site's context, including its landscape and built environment, by drawing inspiration from local and</p>

Project Element	Description
and landscape	<i>historic context for example, the weaving patterns within agricultural plots, colour and texture inspired from the native trees, basket weaving and fish traps from the traditional owners of the area. These items influenced the building's siting, façade patterns, materiality, and colour palette. The landscape design also draws inspiration from the natural setting, seeking to celebrate cultural identity and support the school's functions whilst fostering connections to local flora and fauna.</i>
Principle 2: <ul style="list-style-type: none"> Sustainable, efficient and durable 	<i>The project is aiming for an equivalent 5 star green star rating. Integrating rainwater collection and reuse, solar panels, low VOC materials and consideration to carbon admissions with material and furniture selection.</i>
Principle 3: <ul style="list-style-type: none"> Accessible and inclusive 	<i>The school has been designed to be single storey with minimal change in level between the built environment and landscape. The design incorporates best practice principles for accessibility and inclusivity creating a welcoming and inclusive environment, ensuring equal access and clear navigation through all building and agricultural areas. A wayfinding sign / signage package has been developed with WSU to ensure way find through the school and greater WSU campus.</i>
Principle 4: <ul style="list-style-type: none"> Health and Safety 	<i>The design has been developed to prioritise health, safety, and security for the health and well-being of staff and students. The school has been designed to mitigate neighbouring properties from noise impacts using building placement and acoustic strategies. The design incorporates Crime Prevention Through Environmental Design (CPTED) principles. The design of open spaces ensures clear sightlines for supervision, controlled access points, inclusive design, and environmental integration in response to bushfire requirements. Within the site, weather-protected walkways facilitate efficient and safe movement between buildings. Bicycle parking and end-of-trip facilities are provided to promote green travel.</i>
Principle 5: <ul style="list-style-type: none"> Amenity 	<i>The school has been design with input from user groups, technical stakeholders, and informed by best practice and specialist advice to achieve highest standards in educational environments.</i>
Principle 6: <ul style="list-style-type: none"> whole of life, flexible and adaptive 	<i>The design has been developed with knowledge of best practices for educational facilities, to allow for flexibility into the future for changes in pedagogy, or demographics for the local area. The design is based on the SINSW standardised hub layout, which was developed in response to teaching and learning practice across NSW schools.</i>
Principle 7: <ul style="list-style-type: none"> Aesthetics 	<i>The design of the buildings and landscape setting have considered proportions, composition, materials palette and context.</i>

2.2.4 School Design Review Panel

One School Design Review Panel (SDRP) meeting was attended in relation to the activity on 26 February 2025. The proposal has considered all feedback and where feasible, incorporated changes into the proposal. Refer to **Appendix 5** for a detailed response to each matter raised by the SDRP.

2.2.5 Connecting with Country

A Designing with Country Report has been prepared by NBRIS (**Appendix 6**) on behalf of the Department of Education and engagement with RAC & Aboriginal Representatives has influenced

spaces and elements within the architectural & landscape design. The Indigenous culture and heritage are integrated into the design with cues taken from narratives of local Dharug and Darkinjung land use. The key design outcomes integrate:

- Acknowledgement of country (Entry forecourt)
- Artwork on an external façade (Block F North Elevation)
- Aboriginal enterprise & garden
- Naming of buildings and rooms

Outside of built form, the landscape design incorporates native planting and offers foraging/bush tucker opportunities with materiality, art installations and educational moments associated with the language and stories of the Dharug people embedded into the landscape design approach. The RAC's Indigenous Enterprise area is shaped by this consultation process and provides space for ceremonies and other activities that incorporate natural surface types.



Figure 15: Proposed Aboriginal Enterprise COLA (source NBR Architecture)

2.2.6 Sustainability and Climate Change

To ensure that the project is designed to incorporate ESD principles, the proposal will incorporate measures that minimise consumption of water, energy and reduce ecological impacts. The proposal has been designed to be compliant with the Educational Facilities Standards and Guidelines and Section J of the National Construction Code. Built form will target 5 Star Green Star Design & As-Built and operational measure including the implementation of a Green Travel Plan and providing capacity for EV charger have been included in the proposal. The centre has been designed to enable the following:

- the minimisation of waste associated with demolition and construction through choice and reuse of building materials
- a reduction in peak demand for electricity, including through the use of energy efficient technology
- a reduction in the reliance on artificial lighting and mechanical heating and cooling through passive design

- the generation and storage of renewable energy
- minimise the use of on-site fossil fuels
- the metering and monitoring of energy consumption
- the minimisation of the consumption of potable water

The proposed measures in the Ecologically Sustainable Development (ESD) report, and the Net Zero Statement, reflect a comprehensive approach to environmental responsibility, addressing key principles that align with regulatory standards.

The project initially assessed the current climate hazards relevant to the site. Based on climatic conditions and building characteristics, the exposure and vulnerability to floods, hail, bushfire, and extreme winds (or cyclones) were identified and appropriate design responses were utilised.

2.2.7 Landscaping

The landscape design approach for the RAC, responds to the unique needs of the school community and the Ag/STEM curriculum. Catering for students of all ages and tapping into intellectual, sensory and physical needs of students, the landscape design creates a place that helps to provide the basis for a safe, nurturing, fun and a maintainable school environment.

The school landscape will incorporate, where possible, the existing mature native tree plantings and the retention of these large trees will provide interest and learning opportunities. They will connect the school site to the adjoining open space network and will shade new buildings and play areas. The trees will provide an instant garden setting for the school and overall, the proposed landscape design:

- Will utilise soft and hard landscape elements to define specific external use areas
- Provide tree shading over carparking areas
- Facilitate active and passive play areas with sensory learning and modulated places located on the ground plane
- Use trees, shade structures and shelters to protect key gathering and play areas

2.2.8 Tree Removal

As described in **Table 4** and shown in **Figure 16** one (1) tree (*casuarina glauca* (swamp sheoak)) is required to be removed as part of the activity. This tree is identified as having high landscape significance (Tree #243) and is required to be removed as it is within the development footprint of the proposed entry driveway. As part of the RAC's landscape design 88 additional trees will be planted as follows:

- 16 x Eucalyptus tereticornis, 200L pot size
- 22 x Eucalyptus moluccana, 200L pot size
- 9 x Angophora floribunda, 100L pot size
- 7 x Melaleuca stypheloides, 100L pot size
- 34 x Eucalyptus spp. 75L pot size

Total new trees = 88

Table 4: Proposed Tree Removal

Tree #	Species	Landscape Significance	Reason for removal
243	<i>Casuarina glauca</i> (swamp sheoak)	High	Located in development footprint



Figure 16: Landscape Framework Plan (source NBRIS)

2.2.9 Vegetation Removal

The proposed development will impact 5.53ha of Exotic-dominated Grassland, 0.03ha of Cumberland Shale Plains Woodland, and <0.01ha of Planted Non-locally Occurring Native Vegetation (a total of approximately 5.57ha of vegetation, of which 0.04ha comprises native vegetation). The remainder of the site area will undergo ongoing vegetation management as component of the RAC's Ag/STEM curriculum.

2.2.10 Traffic and Transport

The proposed activity will relocate the existing temporary school with the WSU Campus and as a result would not increase the number of staff and students from the current levels. Due to this, the anticipated impacts generated by traffic will be consistent with existing conditions, would not adversely impact the surrounding road network and will provide additional parking facilities to complement the existing parking provision within WSU. The transport assessment (**Appendix 16**) confirms no significant adverse impacts on the regional transport network and has incorporated suitable mitigation measure which respond directly to survey result taken from the existing staff and student population.

The development will provide the following transport related infrastructure on-site:

- 24 scooter parking spaces for students
- 24 bicycle parking spaces for students
- 2 bicycle parking spaces for staff
- 1 locker and 1 shower / change room as an End of Trip Facility
- 6 pick-up & drop-off spaces
- 1 loading area
- 25 car parking spaces for staff (including 1 accessible space and 4 capable of use for EV charging)
- Raised pedestrian crossing across College Drive

Pedestrian and vehicular access will leverage existing road and footpath infrastructure within the WSU campus and will provide a primary vehicle and pedestrian entry at the southern end of the lease area, with a secondary access provided to service the northern agriculture and livestock plots.

2.2.11 Construction

Proposed facilities will be constructed in a single development stage. After the school has been constructed and handed over to SINSW, the students and staff from the temporary school will be relocated into the new facilities. Construction hours will be as follows:

- 7:00am to 6:00pm, Monday to Friday
- 8:00am to 1:00pm, Saturday
- No work without prior approval on Sundays and Public Holidays

2.2.12 Demolition

No demolition of structures is proposed as part of the works associated with the activity. The site comprises agriculture plots and demolition works will be limited to the removal existing internal and boundary fencing.

2.2.13 Earthworks

Civil earthworks as component of the activity's sediment and soil erosion control plan will be undertaken during the construction phase of the proposal and will include:

- Temporary stockpile
- Temporary sediment basin with swale to provide a total capacity of 273m³

To mitigate off site sedimentation, the temporary stockpile will be covered when not in use and will be provided with a sediment fence on the downstream side of the stockpile. All existing and proposed kerb inlet pits will be protected during construction and the temporary sediment basin will be maintained as a type 'F' basin in accordance with the requirements of the Landcom 'blue book'. The eastern, downstream boundary of the site will be protected by a sediment fence.

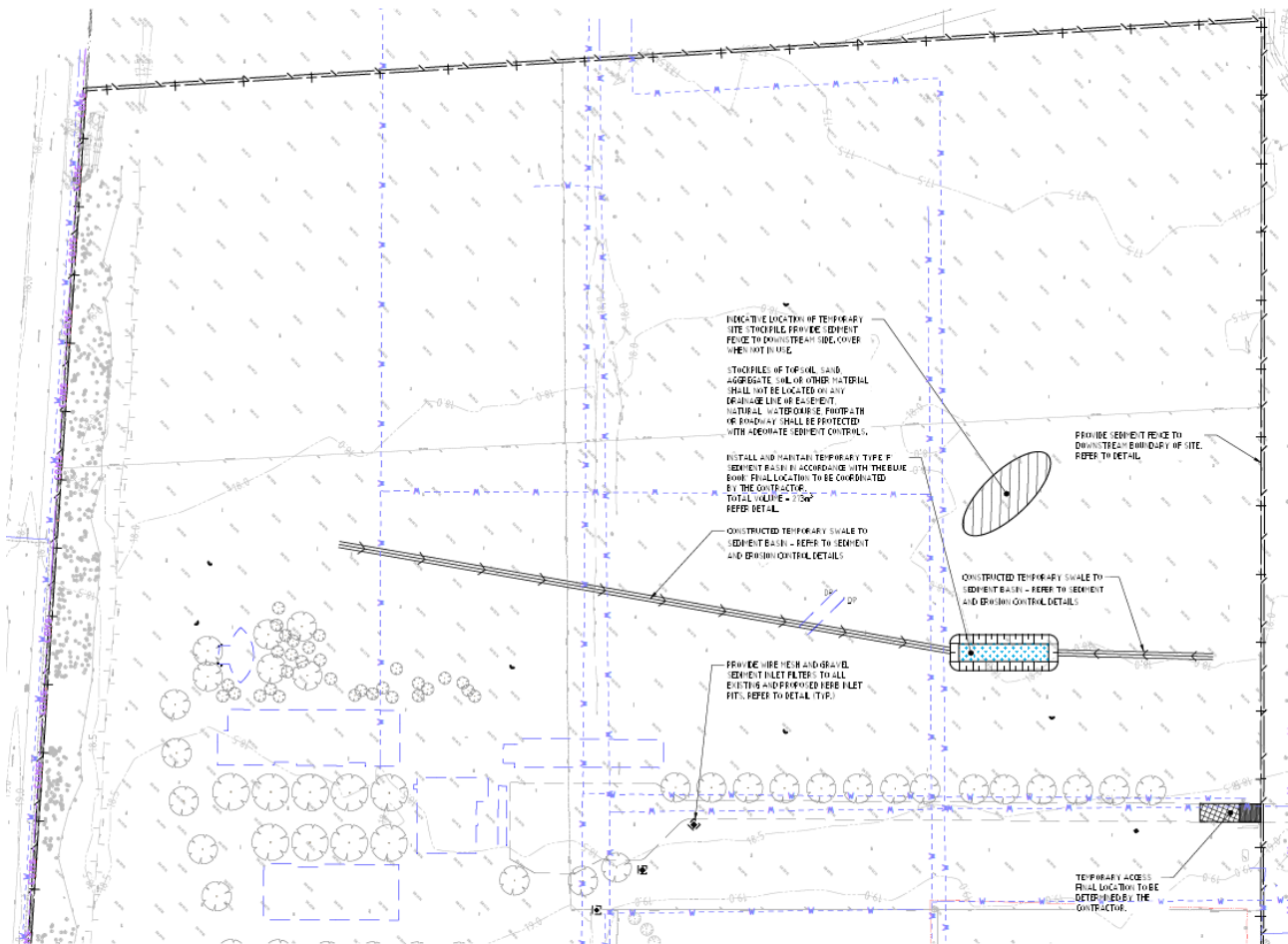


Figure 17: Soil and Erosion Control Plan (source: Northrop)

To assist with drainage and overland flow cut and fill will also be undertaken as follows:

- Cut: 2923.5m³
- Fill: 11,219.5m³
- Balance: 8296.2m³

As shown in **Figure 18**, the proposed fill locations align with the siting of the RAC's built components and have been designed to ensure water won't pool in the RAC's agricultural and outdoor learning areas. The balance provided by the proposed cut and fill has been designed in conjunction with the proposed activity's stormwater management plan and will facilitate drainage to swales and overland flow to a storm water culvert northeast of the site.

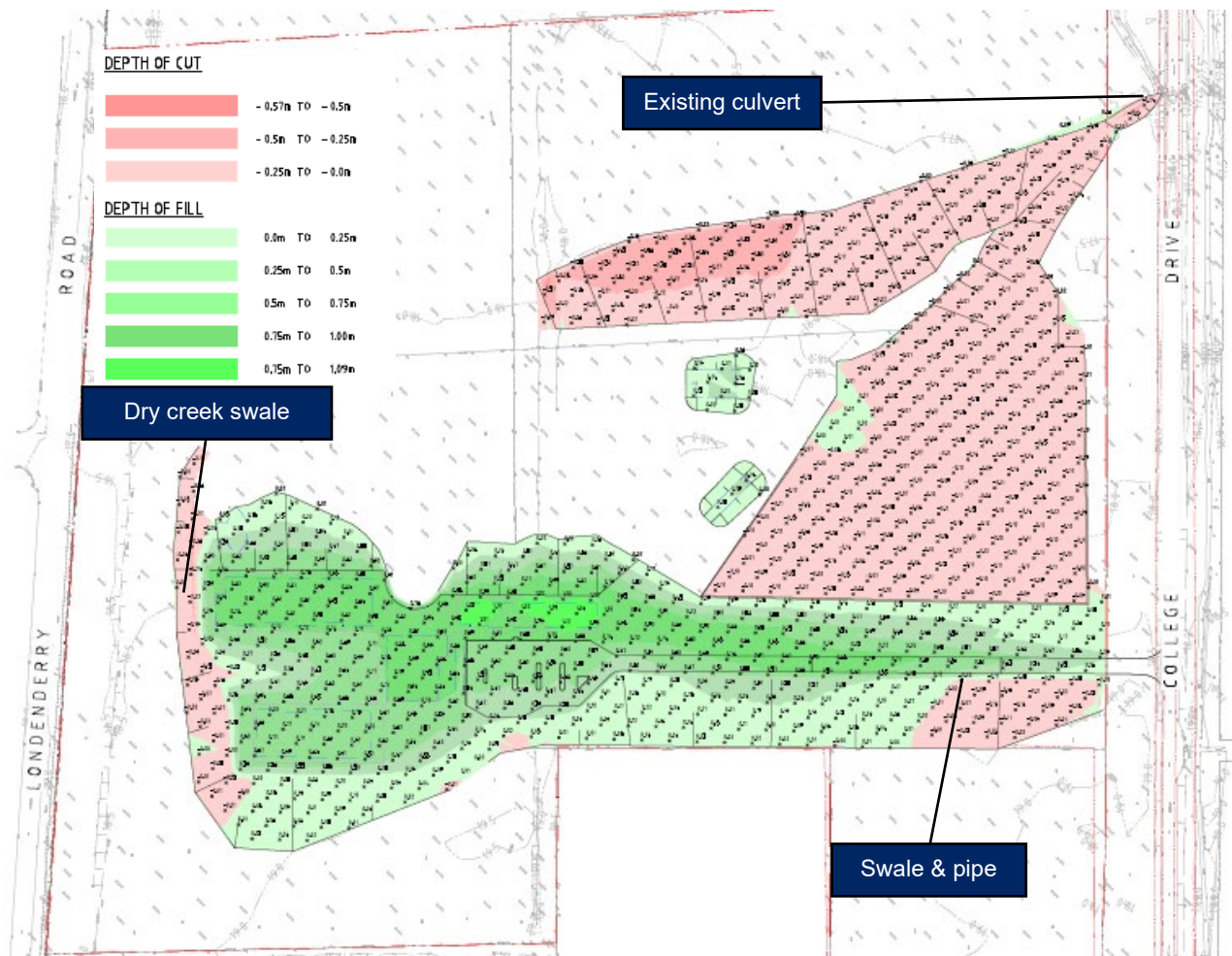


Figure 18: Cut and Fill Plan (source: Northrop)

2.2.14 Contamination and Remediation

An intrusive soil and groundwater field program that included the advancement of 60 test pits to assess soils at the site and the sampling of nine existing ground water monitoring wells was undertaken as part of the site's PSI/DSI. Soil and groundwater samples were collected and analysed for contaminants of potential concern based on the regional and environmental setting of the site as well as the site's historic land use. Based on the result of the above testing regime, the site is considered suitable for the proposed development and no land remediation is required to make the site suitable for the proposed use.

2.2.15 Utilities and Services

The site of the proposed activity is undeveloped agricultural land and there is no existing authority infrastructure (Power or Communications). The Services Report prepared by JHA (**Appendix 21**) confirms the nearest observed power and communications infrastructure is located northwest of the development site on Londonderry Road and consists of aerial low voltage and high voltage (11kV and 33kV) Endeavour Energy Authority Infrastructure, and underground Telstra assets.

As there is existing Telstra communications infrastructure on Londonderry Road it is understood that SINSW's IT Directorate would communicate with Telstra to provide service to the site, prior to school

operations commencing. The new building works will provide incoming lead-in pits, as well as a pathway to the Campus distributor prior to handover.

It is expected that there will be a low-to-medium amount of excavation and conduit-laying work internal to the site. This would involve excavation, laying of underground infrastructure and hauling of private cabling. A summary of the proposed services and utilities works is provided in **Table 5**.

Table 5: Proposed Service Arrangements

Services	Connection arrangement
High Voltage electrical	New High Voltage cabling will be installed underground from the new substation location to the existing Endeavour Energy high voltage network on Londonderry Rd.
ICT Comms	A private underground pit and pipe network is proposed to be constructed to provide the school with a backbone pathway for connection from the building distributors to the main comms room.
Hydraulic	Provide new connection to existing 200mm Cast Iron Cement Lined (CICL) water main, designed to ensure sufficient flow and pressure, with compliance to Sydney Water requirements and AS 2419.1 for fire hydrant installations.
Sewer	Due to the site's topography, gravity-based sewer drainage is not achievable. To address this multiple sewer pump-out units be installed throughout the site and will transfer wastewater to a new boundary trap with discharge into the existing 150mm PVC sewer main.
Natural gas	Natural gas supply will be facilitated via a connection to an existing 32mm nylon gas main operating at 210 kPa Jemena asset located in Londonderry Road.

2.2.16 Waste Management

Construction Waste Management

During the construction phase, the activity will aim to achieve the waste reduction targets set by NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2014-2021. Waste generated during the construction phase will be managed by the principal contractor and sub-contractors, with materials being reused and recycled wherever possible. Where neither reuse nor recycling are possible, waste will be disposed of as general waste at a licensed landfill site.

Operational Waste Management

A private waste collection contractor will be engaged to service the RAC's waste and recycling bins per an agreed schedule. The collections will be in accordance with the Department of Education's contracts with a private waste collection service. Waste streams generated by operational use will be managed in accordance with the NSW Department of Education Educational Facilities Standards and Guidelines Requirement DG02 (2.7.2).

2.2.17 Operation

Once operational, staff and students from the existing HCoE site within the WSU campus will be relocated to the permanent RAC site. The RAC will include 25 full time equivalent (FTE) staff and will accommodate a maximum of 325 students during regular school hours.

2.3 Related activities

2.3.1 High Voltage Cabling

To accommodate the new school, Endeavour Energy infrastructure will be required to install new high voltage (HV) cabling and a new substation to provide power to the site, prior to handover. As detailed in **Figure 19** below, the substation would be located within the lease area of the RAC and would require external lead in works to connect to the existing infrastructure. The installation of the cabling and associated infrastructure from the proposed external lead in works, to the proposed location of the substation within the RAC, are subject to a separate approval process enabled by Chapter 2 Section 2.44 of the T&I SEPP.

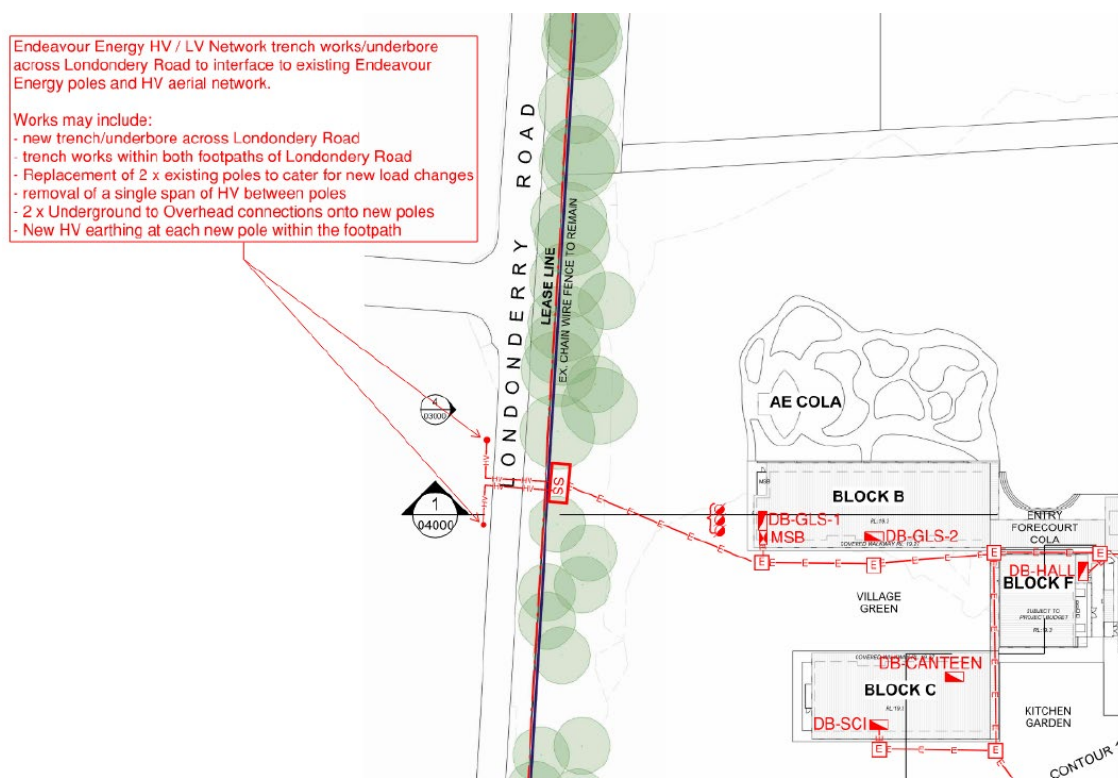


Figure 19 Proposed Substation location and HV cabling (Source JHA)

3. Proposal Need and Alternatives

3.1 Proposal Need

Future focused Ag/STEM teaching spaces with next-generation equipment are not readily available across NSW, particularly for regional students and the RAC is proposed at the site to meet this identified demand to provide world class, contemporary Ag/STEM education. The purpose of the RAC will be to foster industry engagement, create broader educational pathways with WSU and support teacher education in agriculture. The RAC will be accessible to all students and teaching professionals across the State and will support government policy and investment in agriculture and the agribusiness precinct in Western Sydney and beyond. Educational and industry partnerships which commenced in 2018 have already been established and the existing Ag/STEM immersion programs at the exiting temporary school leverage WSU and other partner facilities in the existing campus.

However, the RAC facilities at the temporary location do not adequately accommodate the required pedagogy and do not meet the service needs of a world class, contemporary Ag/STEM education facility for selective and specialty student streams.

3.2 Alternatives

The proposed activity has been developed following a consideration of options and alternatives to address the need identified above. As described in **Section 1.1**, the RAC's location and Ag/STEM curriculum has undergone extensive feasibility testing which has discounted several alternative site locations. A summary of the options considered is provided in **Table 6**.

Table 6: Assessment of Options and Alternatives

Option	Discussion	Preferred Option
Option 1: The Proposed Activity	This is the preferred option. This option provides appropriate facilities for all students and teaching professionals across the State.	Option 1 is preferred as provides suitable facilities to support the proposed Ag/STEM curriculum
Option 2: SSD-15001460	The initial location for the RAC was previously approved via SSD-15001460 HCoE. However, due to the discovery of PFAS contamination during construction the location was deemed unsuitable.	Option 2 is not preferred as the original location of the HCoE is significantly contaminated.
Option 3: alternative design	An option to raise the school above the 1 in 500 year flood level buildings was discussed with SDRP Raising the buildings was also cost prohibitive and raised concerns regarding the suitability of buildings for the proposed Ag/STEM curriculum	Option 3 is not the preferred option as raising the buildings disconnected the indoor learning spaces from the outdoors learning area which adversely affect key learning facilities for the Ag/STEM curriculum. The resulting undercroft was not a desired approach by the school and did not suit their operational requirements The landowner's (WSU) did not support

Option	Discussion	Preferred Option
		the raised building design due to the wider visual impact on the campus and the impact of the raised built form on the visual catchment of heritage items with the campus.
Option 4: Do Nothing	If the project was not to proceed, there would be a statewide shortfall of specialist Ag/STEM school infrastructure.	Option 4 is not preferred as it does not address the identified need for a secondary school campus that provides a world class agricultural facility with a specialist agricultural curriculum.

4. Statutory and Strategic Framework

The proposed activity as described in **Section 2.2** is required to be assessed “to the fullest extent possible” against the applicable statutory framework pursuant to Part 5 of the EP&A Act, and must take into account the environmental factors set out in section 171 of the EP&A Regulation and Table 1 of the Division 5.1 Guidelines as well as Table A1 of the Guidelines Addendum October 2024.

4.1 Permissibility and Planning Approval Pathway

Section 4.1 of the EP&A Act states that if an EPI provides that development may be carried out without the need for development consent, a person may carry the development out, in accordance with the EPI, on land to which the provision applies. However, the environmental assessment of the development is required under Part 5 of the Act. An activity approved by Part 5 of the Act must not include:

- Any act, matter or thing for which development consent under Part 4 is required or has been obtained
- Any act matter or thing that is prohibited under an environmental planning instrument
- Exempt development
- Development carried out in compliance with a development control order
- Development specified by Section 169 of the Regulations

The T&I SEPP is an EPI that aims to facilitate the effective delivery of infrastructure and educational establishments across the state and provides that various developments for the purposes of a government school are permitted without consent. The proposed activity is development permitted without consent as outlined at **Table 7** and is therefore considered to be an activity for the purpose of Part 5 of the Act.

Table 7: Description of Proposed Activities under the TI SEPP

Division and Section within TI SEPP	Description of Works
3.37 Existing or approved government schools—development permitted without consent	
(1) Development for any of the following purposes may be carried out by or on behalf of a public authority without development consent on land within the boundaries of an existing or approved government school—	
(a) construction, operation or maintenance of any of the following— <i>(i) a library or an administration building,</i> <i>(ii) a portable classroom, including a modular or prefabricated classroom,</i> <i>(iii) a permanent classroom,</i> <i>(iv) a kiosk or shop selling school-related goods to students and staff, such as books, stationery or school uniforms,</i> <i>(v) a cafeteria or canteen carried out in accordance with AS 4674—2004Design, construction and fit-out of food premises,</i> <i>(vi) a car park,</i> <i>(vii) a building to be used for the</i>	<p>In accordance with 3.37(1) the proposed activity comprises development for the purposes of an existing government school. Pursuant to Section 3.37(a) the activity includes the construction of:</p> <ul style="list-style-type: none"> ○ An administration building ○ Permanent Classrooms ○ A canteen ○ A Carpark ○ A hall with associated covered outdoor learning areas <p>The proposal is being carried out on behalf of a public authority.</p>

Division and Section within TI SEPP	Description of Works
<i>purposes of a relevant preschool,</i> <i>(viii) a hall with an associated covered outdoor learning area or kiosk,</i> <i>(ix) a sporting field or any type of court used for sports that uses synthetic turf,</i>	
(b) minor alterations or additions	Not relevant, the activity relates to the construction and operation of new school buildings and will not alter any existing structures
(c) restoration, replacement or repair of damaged buildings or structures	Not relevant, the activity relates to the construction and operation of new school buildings and will not involve the restoration, replacement or repair of damaged buildings or structures
(d) security measures, including fencing, lighting and security cameras	The proposed activity will include the installation of fencing and as component of the new school facilities lighting will be installed.
(e) demolition of structures or buildings (unless a State heritage item or local heritage item)	The proposed activity includes the demolition of Class 10b structures (fencing). These structures are not part of a State or local heritage item
(f) if the land is in a prescribed zone— construction, operation or maintenance of a building associated with the operation of the school.	The site is located on land zoned SP1 Special Activities. The SP1 zone is a prescribed zone for the purpose of Chapter 3 of the T&I SEPP. In accordance with 3.37(f) the activity includes the construction of: <ul style="list-style-type: none"> ○ Animal shelters ○ COLAs ○ A greenhouse ○ A shed ○ An Administration building ○ A multipurpose hall ○ A classroom building ○ A science building
(2) A building resulting from development carried out under subsection (1)(a) or (f) must not have a height of more than the greater of— (a) the maximum height permitted for a building under an environmental planning instrument applying to the land on which the development is proposed to be carried out, or (b) 4 storeys.	The proposed activity involves the construction of single storey building(s) with a maximum height of 6.7 metres. No height of buildings development standard applies to the site and the proposal does not exceed the four storey or the height limit permitted by the SEPP.
(4) Nothing in this section authorises the carrying out of development in contravention of any existing condition of the development consent currently operating (other than a complying development certificate) that applies to any part of the school, relating to hours of operation, noise, vehicular movement, traffic generation, loading, waste management or landscaping	Not relevant, no development consent currently operates for the existing school site.
(5) A reference in this section to development for a purpose referred to in subsection (1)(a), (b) or (c) includes a reference to development for the purpose of construction works in connection with the purpose referred to in	Section 3.3(3) of the T&I SEPP defines construction work as the following activities: <ul style="list-style-type: none"> ○ accessways, ○ temporary construction yards,

Division and Section within TI SEPP	Description of Works
subsection (1)(a), (b) or (c).	<ul style="list-style-type: none"> ○ temporary lay-down areas for materials or equipment, ○ temporary structures, ○ conduct of investigations, ○ (clearing of vegetation (including any necessary cutting, pruning or removal of trees) and associated rectification and landscaping, ○ demolition, ○ relocation or removal of infrastructure, ○ extraction of extractive materials at the construction site solely for the purpose of the construction.
<p>(5A) A public authority, or a person acting on behalf of a public authority, must not carry out development under this section unless the authority or person has considered the following—</p> <ul style="list-style-type: none"> (a) the design quality of the development, evaluated in accordance with the design quality principles set out in Schedule 8, (b) the design principles set out in the design guide. 	<p>As provided by Section 2.2.2 and Section 2.2.3 the RAC has been designed in accordance with the design quality principles set out in Schedule 8 and the NSW Government Architect's Design Guide for Schools. Consistency with the applicable principles is further detailed in Appendix 5</p>

Activities permissible without consent require environmental impact assessment in accordance with Division 5.1 of the EP&A Act and are assessed and determined by a public authority, referred to as the determining authority. The department is the proponent and determining authority for the proposed works.

Additionally, section 5.7 of the EP&A Act states that an activity that is likely to significantly affect the environment must be subject of an Environmental Impact Statement rather than an REF. The effects of the activity on the environment are considered in **Section 6** and have been assessed as a less than significant impact and can therefore proceed under an REF assessment.

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) and the *Guidelines for Division 5.1 assessments Consideration of environmental factors for health services facilities and schools Addendum* (DPHI, October 2024) provide a list of environmental factors that must be taken into account for an environmental assessment of the activity under Division 5.1 of the EP&A Act. These factors are considered in detail at Section 6.

4.2 Preconditions to Approval Pathway

Under the TI SEPP, there are several requirements which must be complied with in order for development to be undertaken as development without consent. Compliance with the relevant sections and requirements of the TI SEPP are outlined below in **Table 9**.

Table 8: Compliance with pre-conditions to the 'development without consent pathway'

Section of TI SEPP	Comment	Complies
3.8 Consultation with councils – development with impacts on council-related infrastructure or services	<p>The proposed activity comprises the construction and operation of a new facilities at an existing school within the existing WSU campus. The proposed activity is not likely to generate traffic that will adversely impact on the existing road network. Traffic impacts are further detailed in Appendix 16.</p> <p>The proposed activity is not likely to have a substantial impact on the capacity of any part of a sewerage or water supply system owned by Council.</p> <p>The activity doesn't include the installation of a temporary structure on, or the enclosing of, a public place that is under Council's control. The activity doesn't involve excavation of a road or footpath for which Council is the roads authority.</p> <p>Therefore, consultation with Council is not required pursuant to this section.</p>	Yes
3.9 Consultation with councils—development with impacts on local heritage	The proposed activity would not be undertaken on a local heritage item or in the vicinity of a local heritage item and would therefore not have any impacts on any local heritage item.	N/A
3.10 Notification of councils and State Emergency Service—development on flood liable land	The proposed activity is located on flood liable land and comprises the construction of new buildings. Therefore, notification of Council and State Emergency Service (SES) is required pursuant to this section (refer to Sections 5 of the REF).	Capable of complying, subject to exhibition of this REF prior to determination and provision of written notification to Council and the SES.
3.11 Consideration of Planning for Bush Fire Protection	The site is not located on bushfire prone land.	Yes
3.12 Consultation with public authorities other than councils	<p>The site is not located adjacent to land reserved under the <i>National Parks and Wildlife Act 1974</i> (NPW Act) or a rail corridor. The site is not located within the dark sky region and is not located within a mine subsidence district.</p> <p>The site has access to a road and will result in 50 or more students being accommodated. Therefore, written notification to TfNSW is required</p>	Capable of complying, subject to exhibition of this REF prior to determination and provision of written notification to TfNSW
3.38 Notification of carrying out of certain development under section 3.37	The proposed activity is being undertaken pursuant to section 3.37(1)(a) of the T&I SEPP. Therefore, written notice is required to be given to Council and adjoining landowners, with consideration given to any responses received during the 21 day notice period, prior to works commencing.	Capable of complying, subject to exhibition of this REF prior to determination and provision of written notification to Council.

4.3 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the EPBC Act do not affect the proposal as it is not development that takes place on or affects Commonwealth land or waters. Further, it is not development carried out by a Commonwealth agency or development on Commonwealth land, nor does the proposed development affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 9.

Table 9: EPBC Act Checklist

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

4.4 Other Approvals and Legislation

Table 10 identifies any additional approvals that may be required for the proposed activity.

Table 10: Consideration of other approvals and legislation

Legislation	Relevant?	Approval Required?	Applicability
State Legislation			
<i>National Parks and Wildlife Act 1974</i>	No	No	An Aboriginal Due Diligence Assessment Report has been prepared by Apex Archaeology (Appendix 8). This report is supported by a site visit and confirms no previously registered archaeological sites were located within the study area. No newly identified archaeological material was identified during the survey and the report confirms that the proposed works are considered unlikely to impact on Aboriginal cultural heritage and an Aboriginal Heritage Impact Permit (AHIP), is not required. Activities associated with the proposal would not affect a NSW National Park.
<i>Rural Fires Act 1997</i>	Yes	No	The proposed activity would not occur on land that is identified on the Bush Fire Prone Land Map. Accordingly, a Bush Fire Safety Authority under section 100b of the <i>Rural Fires Act 1997</i> (the RF Act), is not required. Nevertheless, under section 63 of the RF Act public authorities

Legislation	Relevant?	Approval Required?	Applicability
			must take all practicable steps to prevent the occurrence and spread of bush fires on or from land vested in or under its control or management. Accordingly, due to the site's proximity to unmanaged vegetation, built form has been designed to BAL 19.
<i>Water Management Act 2000</i>	Yes	No	Geotechnical investigations associated with the proposed activity encountered groundwater at depths between 6.8 to 9.6 metres below existing ground level across the site. Structural elements associated with the proposed activity are therefore unlikely to encounter groundwater. However, should any groundwater be encountered during construction works then a water supply works approval will be required under WM Act. Council is the relevant water supply authority for the site under the WM Act. Therefore, an application for a certificate of compliance under section 305 of the WM Act approval would be required in this circumstance.
<i>Biodiversity Conservation Act 2016</i>	Yes	No	The site of the proposed activity has a low likelihood to provide habitat for threatened fauna. No threatened flora species were found to occur within the site. The impact summary provided in the Flora and Fauna assessment by Narla Environmental (Appendix 10) confirms impacts to TEC's would be minimal with impacts to the Cumberland Shale Plains Woodland restricted to the under storey on this community, which is dominated by exotic species.
<i>Fisheries Management Act 1994</i>	No	No	Activities associated with the proposal would not result in permanent obstructions to water tidal patterns or flows. No impacts or harm marine vegetation would occur.
<i>Contaminated Lands Management Act 1997</i>	Yes	No	The site is not listed on the register of contaminated sites and a detailed site investigation has been undertaken which confirms the site is considered suitable for the proposed development and remediation is not required.
<i>Protection of the Environment Operations Act 1997</i>	Yes	No	The proposed activity would not result in significant air, noise, water or waste pollution. The proposal does not trigger any requirement for an environment protection licence
<i>Roads Act 1993</i>	No	No	No works to a public road, or pumping of water onto a public road or connection of a road to a classified road will be required as part of the proposal. No activities associate with the proposal require approval under Section 138 of the Act.
<i>Local Government Act 1993</i>	Yes	No	No water or sewer supply head works that require contribution payment, per Section 64 of the Act are proposed and no other works requiring approval under the Local Government Act required.
<i>Mine Subsidence Compensation Act 1961</i>	No	No	Is the proposal is not located in a mine subsidence district.
<i>Environmental Planning and Assessment Regulation 2021 (Section</i>	Yes	No	The proposed activity is located within the Hawkesbury-Nepean Catchment. Consideration of the impacts of the proposed activity on water quality are provided in Table 15

Legislation	Relevant?	Approval Required?	Applicability
171A			
State Legislation – State Environmental Planning Policies			
<i>State Environmental Planning Policy (Planning Systems) 2021</i>	Yes	No	Although the Planning Systems SEPP allows new educational establishments to be classified as State Significant Development (SSD) if the EDC exceeds \$20 million, the proposed activity is being carried out under Section 3.37 of the TI SEPP as development permitted without consent
<i>State Environmental Planning Policy (Sustainable Buildings) 2022</i>	Yes	No	The provisions of Chapter 3 of the Sustainable Buildings SEPP apply to non-residential development which includes new schools with an EDC greater than \$5 million. However, this SEPP does not apply to development under Part 5 of the EP&A Act. Notwithstanding, the provisions of the SEPP has been considered as part of the environmental impact assessment for the project. This REF is accompanied by a Net Zero Statement and ESD Report which outline the strategies to resolve operational and construction emissions as well as committing to Net Zero operational emissions by 2050.
<i>State Environmental Planning Policy (Industry and Employment) 2021</i>	Yes	No	The proposed signage is consistent with the objectives of section 3.1(1)(a) of the Industry and Employment SEPP as they are compatible with the proposed activity. The proposed wayfinding signage provides effective communication, are integrated into the proposed building design and will be of a high-quality design and finish. The proposed signs are also consistent with the assessment criteria specified in Schedule 5
<i>State Environmental Planning Policy (Biodiversity and Conservation)</i>	Yes	No	The proposed activity would be undertaken on land within the Hawkesbury Nepean Catchment which pursuant to Chapter 6 Part 6.2 is a Regulated Catchment. As discussed further in Section 6.11 of this REF the proposal ensures: <ul style="list-style-type: none"> • A neutral effect on water entering a natural waterbody • The impact on water flow in a natural waterbody will be minimised.

4.5 Strategic Plans

Table 11 considers strategic plans that are relevant to the proposed activity.

Table 11: Consideration of applicable Strategic Plans

Strategic Plan	Assessment
<i>Greater Sydney Region Plan – A Metropolis of Three Cities</i>	The Greater Sydney Region Plan (Region Plan) provides the overarching strategic plan for growth and change in Sydney. It is a 20-year plan with a 40-year vision that seeks to transform Greater Sydney into a metropolis of three cities - the Western Parkland City, Central River City and Eastern Harbour City. It identifies key challenges facing Sydney including increasing the population to eight million by 2056, 817,000 new jobs and a requirement of 725,000 new homes by 2036.

Strategic Plan	Assessment
	<p>The Region Plan includes the following matters of relevance to the proposed activity:</p> <ul style="list-style-type: none"> • Objective 1: Infrastructure supports the three cities. <p>Schools are essential local infrastructure. The proposal will deliver a vital piece of educational infrastructure that will provide specialist agricultural curriculum for students through the region.</p> <ul style="list-style-type: none"> • Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact <p>The proposed school will provide educational services which accommodate the educational needs of the growing student population. The new school will provide contemporary facilities to meet future educational standards and increased employment opportunities within the metropolitan region.</p> <ul style="list-style-type: none"> • Objective 6: Services and infrastructure meet communities' changing needs. <p>Schools are essential local infrastructure, and the department estimates that an extra 270,000 students will need to be accommodated in government and non-government schools in Greater Sydney by 2036. The proposal provides a permanent school in an area experiencing significant service demand from population growth in the metropolitan region.</p>
<p><i>Western City District Plan</i></p>	<p>The Western City District Plan (District Plan) is a 20-year plan to manage growth in the context of economic, social and environmental matters to implement the objectives of the Greater Sydney Region Plan. The purpose of the District Plan is to inform local strategic planning statements and local environmental plans, guiding the planning and support for growth and change across the district.</p> <p>The District Plan contains strategic directions, planning priorities and actions that seek to implement the objectives and strategies within the Region Plan at the district-level. The Structure Plan identifies the key centres, economic and employment locations, land release and urban renewal areas and existing and future transport infrastructure to deliver growth aspirations.</p> <p>The project will support the priorities and objectives of the District Plan by providing for improved and new infrastructure within the Western Sydney District, to support the social needs of the rapidly growing population.</p> <p>In particular, it satisfies the following:</p> <ul style="list-style-type: none"> • Planning Priority W1: Planning for a city supported by infrastructure. • Planning Priority W3: Providing services and social infrastructure to meet people's changing needs. • Planning Priority W4: Fostering healthy, creative, culturally rich and socially connected communities. <p>The District Plan identifies the following points that are relevant to the site and project:</p> <ul style="list-style-type: none"> • Schools are essential local infrastructure. The NSW DoE estimates that an extra 77,978 students will need to be accommodated within the district in both government and non-government schools in the district by 2036. • The project will assist in providing essential educational infrastructure which will support the expected growth of the Western City District. In accordance with the above Planning Priorities, the development of the site for the purposes of an

Strategic Plan	Assessment
	<p>educational establishment is consistent with the District Plan</p> <p>In accordance with the above Planning Priorities, the development of the site for the purposes of an educational establishment is consistent with the District Plan.</p>
<p><i>Hawkesbury Local Strategic Planning Statement 2040</i></p>	<p>The Hawkesbury Local Strategic Planning Statement (LSPS) plans for the Hawkesbury Community's economic, social and environmental land use needs over the coming years up to 2040 and identifies the WSU campus playing as significant role in the overall productivity of the LGA.</p> <p>In conjunction with the Western Sydney City Deal the LSPS recognises opportunities for the Hawkesbury LGA to leverage its unique heritage to grow opportunities in the defence, equine, agriculture, education and tourism sectors.</p> <p>Based on NSW State Government projections the population of the Hawkesbury is projected to increase from 67,083 (estimated 2018 population) to 77,048 by 2036. This increase in population is expected to place significant pressure on existing infrastructure, including community health and educational facilities.</p> <p>The project will support the following priorities of the LSPS:</p> <ul style="list-style-type: none"> • Planning Priority 1 – Ensure infrastructure aligns with current needs and future growth • Planning Priority 2 – Form partnerships with stakeholders and agencies • Planning Priority 7 – Promote and support all sectors of industry and businesses in the Hawkesbury to meet current and future demands and trends • Planning Priority 9 – Encourage the economic self-determination of the Aboriginal community through their land holdings and culture
<p><i>Design Guide for Schools (Government Architect NSW)</i></p>	<p>The Design Guide for Schools (Government Architect NSW) outlines seven design principles to be used when designing new schools. A high-level response to these is outlined below, and in further detail in the Architectural and Landscape Design Report prepared by NBRIS (Appendix 5).</p> <p>1. Context, built form and landscape</p> <ul style="list-style-type: none"> • <i>The architectural design responds to the site's context, including its landscape and built environment, by drawing inspiration from local and historic context for example, the weaving patterns within agricultural plots, colour and texture inspired from the native trees, basket weaving and fish traps from the traditional owners of the area. These items influenced the building's siting, façade patterns, materiality, and colour palette. The landscape design also draws inspiration from the natural setting, seeking to celebrate cultural identity and support the school's functions whilst fostering connections to local flora and fauna</i> <p>2. Sustainable, efficient and durable</p> <ul style="list-style-type: none"> • <i>The project is aiming for an equivalent 5 star green star rating. Integrating rainwater collection and reuse, solar panels, low VOC materials and consideration to carbon admissions with material and furniture selection.</i> <p>3. Accessible and inclusive</p> <ul style="list-style-type: none"> • <i>The school has been designed to be single storey with minimal change in level between the built environment and landscape.</i>

Strategic Plan	Assessment
	<p><i>The design incorporates best practice principles for accessibility and inclusivity creating a welcoming and inclusive environment, ensuring equal access and clear navigation through all building and agricultural areas. A wayfinding sign / signage package has been developed with WSU to ensure way find through the school and greater WSU campus.</i></p> <p>4. Health and safety</p> <ul style="list-style-type: none"> <i>The design has been developed to prioritise health, safety, and security for the health and well-being of staff and students. The school has been designed to mitigate neighbouring properties from noise impacts using building placement and acoustic strategies. The design incorporates Crime Prevention Through Environmental Design (CPTED) principles. The design of open spaces ensures clear sightlines for supervision, controlled access points, inclusive design, and environmental integration in response to bushfire requirements. Within the site, weather-protected walkways facilitate efficient and safe movement between buildings. Bicycle parking and end-of-trip facilities are provided to promote green travel.</i> <p>5. Amenity</p> <ul style="list-style-type: none"> <i>The school has been designed with input from user groups, technical stakeholders, and informed by best practice and specialist advice to achieve highest standards in educational environments.</i> <p>6. Whole of life, flexible and adaptive</p> <ul style="list-style-type: none"> <i>The design has been developed with knowledge of best practices for educational facilities, to allow for flexibility into the future for changes in pedagogy, or demographics for the local area. The design is based on the SINSW standardised hub layout, which was developed in response to teaching and learning practice across NSW schools.</i> <p>7. Aesthetics</p> <ul style="list-style-type: none"> <i>The design of the buildings and landscape setting have considered proportions, composition, materials palette and context. Further description of the aesthetic design selections and palette is provided in the design section following.</i>

5. Consultation

5.1 Early Stakeholder Engagement

Table 12 provides a summary of early stakeholder (non-statutory) consultation undertaken to inform project development and preparation of the REF.

Table 12: Summary of Early Stakeholder Engagement

Stakeholder	Engagement	Project Response
Aboriginal stakeholders	<p>Engagement with Aboriginal stakeholders initially commenced in 2017 and between 2020 and 2022 consultation with the Registered Aboriginal Parties were consulted in relation to the WCoE project</p> <p>In September 2024 when the project relocated to the new location within the Western Sydney University Hawkesbury Campus, consultation recommenced with the Aboriginal Representatives.</p> <ul style="list-style-type: none"> On the 09th of December 2024 the RAC team undertook the first connecting with country workshop with Jasmine Seymour (Dharug Custodian Aboriginal Corporation) On the 7th of February 2025, the RAC team attended the second connection with country workshop which included a walking on country lead by Chris Tobin. <p>Details of consultation are outlined in the CWC report (Appendix 8)</p>	<p>Following the connection with country workshops and review of the Place Framework for the WSU Hawkesbury Campus the design team incorporated the following themes into the RAC's design:</p> <ul style="list-style-type: none"> Colours of Country Colour tones and texture from the natural and living environment Native fauna and flora Food sources, habitats and places for community to live Pattens of Country The broader cultural landscape of the river and mountains. <p>These themes were incorporated into the RAC's external materiality, roof forms and approach to landscaped areas.</p>
Council	Hawkesbury City Council stakeholders were engaged through the Transport Working Group (TWG) process involving TfNSW and SINSW project team Stakeholders. A preapplication meeting was held with Council on 28 January 2025	<ul style="list-style-type: none"> Further investigation into active transport infrastructure as an operational requirement has been provided as a mitigation measure
SES	24 September 2024 a meeting was held with SINSW project team stakeholders and the NSW SES.	<ul style="list-style-type: none"> Following the meeting, recommendations regarding best practice principles for flood emergency response were issued to the project team. Details of the consultation outcomes are provided in the FIR (Appendix 14) and FERP (Appendix 15)
NSW Reconstructi on Authority	On 30 September 2024, a meeting was held with SINSW project team stakeholders and the NSW RA.	<p>Following the meeting advice regarding:</p> <ul style="list-style-type: none"> the planned hierarchy of responses to be incorporated into the Flood Emergency Response Plan; and Building location and mitigation/adaption measures <p>were issued to the project team. Details of the consultation outcomes are provided in the</p>

Stakeholder	Engagement	Project Response
		FIR (Appendix 14) and FERP (Appendix 15)
Community	<p>General communications were issued in relation to the HCoE and RAC as follows:</p> <ul style="list-style-type: none"> • August 2021 – Project update • January 2022 – Community notification • March 2022 – Project update • December 2022 – Project update • April 2023 – Project update • August 2023 – Works notification • August 2023 – Community update • December 2023 – Works notification • September 2024 – Project update • April 2025 – Project update and community information session <p>Engagement specific to the proposed activity were undertaken with community stakeholders as follows:</p> <ul style="list-style-type: none"> • 26 November 2024- presentation to Parent and Citizens meeting • 9 April 2025 – Community information session • 2 April 2025 – 14 April 2025 Community feedback survey <p>Details of this engagement are provided in the SIA (Appendix 9)</p>	<p>Following community consultation, the following measures were incorporated into the proposal:</p> <ul style="list-style-type: none"> • Options for sport included in hall operations • Expanded bicycle facilities • Requirements to investigate active and public transport options once the RAC is operational
TfNSW	<p>Consultation with TfNSW was undertaken via SINSW's Transport Working Group on the following dates:</p> <ul style="list-style-type: none"> • 15 November 2024 • 11 December 2025 • 8 January 2025 • 5 February 2025 • 5 March 2025 <p>Details of this consultation are included in the TIA (Appendix 16)</p>	<p>Outcomes of the TWG have informed the RAC's School Travel Plan (STP) and the proposed Travel Access Guide (TAG).</p>

5.2 Statutory Consultation

Consultation will be undertaken with in accordance with statutory requirements under the TI SEPP and having regard to the SCPP DPHI. This includes:

- sending notices to adjoining neighbours, owners and occupiers inviting comments within 21 days
- sending notices to the local council and relevant state and commonwealth government agencies and service providers inviting comments within 21 days
- placing an advertisement in the local newspaper

- making the REF publicly available on the Planning Portal throughout the consultation period.

Comments received will be carefully considered and responded to prior to determination of the activity.

6. Environmental Impact Assessment

6.1 Traffic, Access and Parking

A detailed Transport and Traffic Assessment (TAIA) has been prepared by Metafora (**Appendix 16**) and provides an assessment of the traffic projected to be generated by the RAC. The assessment includes a review of the existing parking and vehicle access, road hierarchy, private vehicle and public transport use and the capacity of the surrounding road network. Data for the assessment has been derived from a mode share survey of the existing school, stakeholder engagement facilitated by the activity's transport working group (TWG) and through scenario modelling of the performance of key intersections affected by the RAC.

Existing Conditions

A summary of the existing transport conditions relevant to the proposed activity and assessed in **Appendix 16** is summarised below:

- The site has a road frontage to Londonderry Road on its western boundary and College Drive (private internal road) on its eastern boundary. The WSU campus fronts College Street on the northern boundary.
- There currently no direct access to the site, however the WSU campus can be accessed via College Drive, off College Street, Vines Drive off Londonderry Road and Campus Drive off Blacktown Road (see **Figure 20**).
- Within 1200m (15 minute walk radius) of the site the pedestrian network is underdeveloped and residential streets to the west of the site predominately do not have footpaths on either side of the carriageways.
- The area to the north of the site (towards Richmond East train station) has a more developed pedestrian network. Most main roads have footpaths on both sides of the carriageway and signalised pedestrian crossings.
- The cycling infrastructure surroundings of the site is underdeveloped and there is limited cycling infrastructure provided within the 3600m (approx. a 15-minute cycle) from the site.
- Public transport in the vicinity of the site is limited, and school bus services do not appear to use the Bourke Street bus stop, north of the site
- There is a reasonable level of public transport connectivity for student who are able to access the T1 or T5 line services

Based on a review of the above considerations the TAIA identified that students from the suburbs southeast of the site have no bus connection but can use the train and walk from Richmond East train station. The pedestrian network from the station to the school provides good connection but the distance may not be suitable for all students and alternative arrangements may be required students who are unable to walk the 1.2km from the station to the school.

The TAIA also identified that several bus routes operated within the region but did not service the site and therefore recommended that further investigation into bus connectivity be undertaken as part of the RAC's operations. This requirement is included in the activity's mitigation measures (**Appendix 1**)

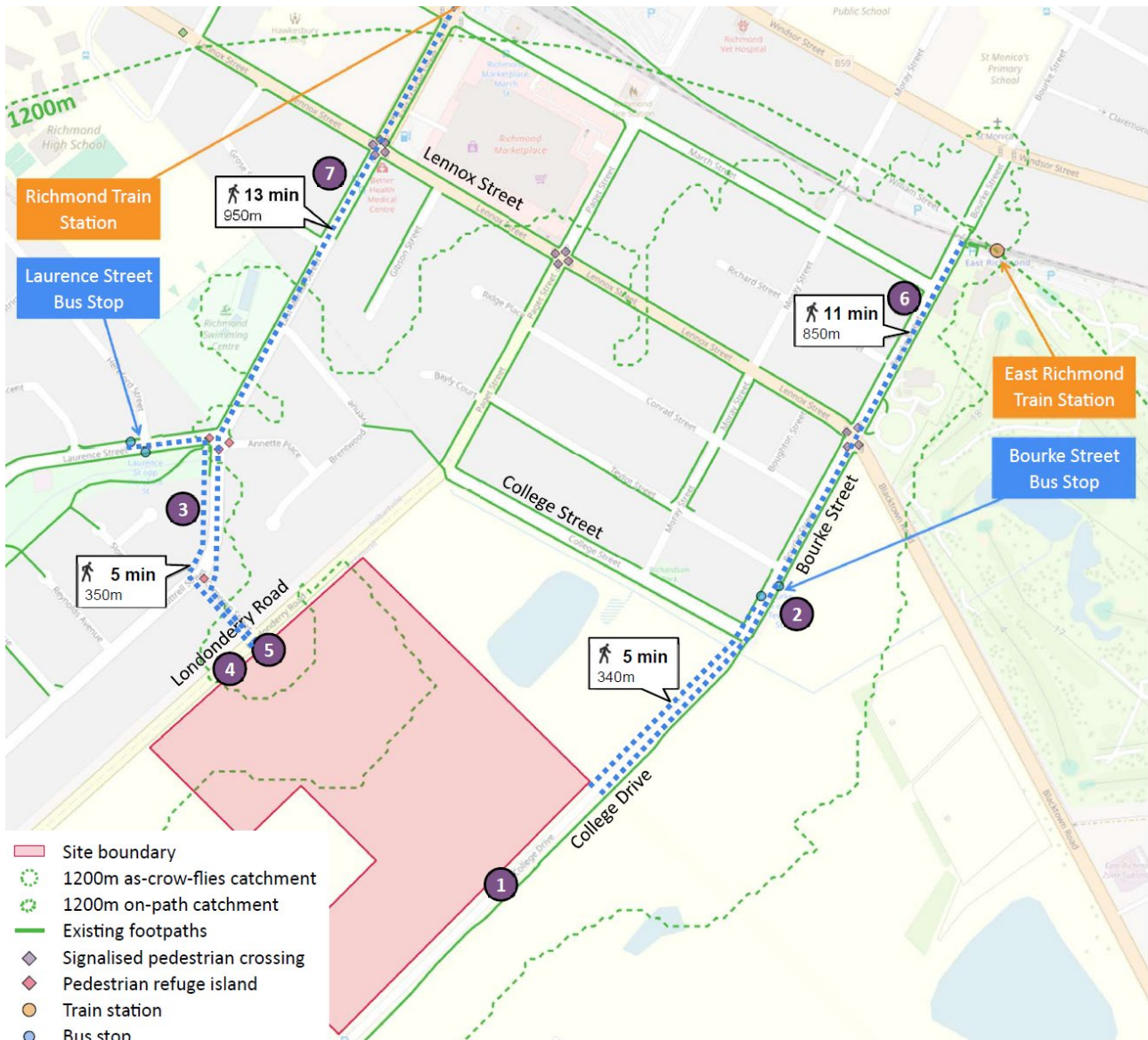


Figure 20 Existing road, active and public transport network constraints and opportunities (source: Metafora)

6.1.1 Traffic Impact Assessment

The TAIA has identified the following key intersection for the RAC's operation:

- Paget Street / College Street / Londonderry Road (priority controlled)
- College Street / College Drive / Bourke Street (priority controlled)
- Lennox Street / Bourke Street / Blacktown Road (signalised)

As shown in **Figure 21**, these intersections located north of the site are the intersections closest to the primary College Drive vehicle access point and provide connection the regional road network. The impacts from vehicle movements at these intersections has been derived from a travel mode analysis which includes:

- the result of a travel mode share survey of the existing staff and student population
- intersection surveys undertaken at am and pm peaks during school and university term periods

To assess the potential impact of the proposed development on the surrounding road network during peak times, the number of estimated car movements for the RAC has been calculated from the travel mode analysis based on the existing mode share and has assumed:

- The student-per-car ratio is based on the target of 60% of students that travel by car doing so in a car-pool arrangement
- Staff who travel by car do so at a one (1) staff member per car ratio.

Based on these assumptions, the assessment identifies that the RAC will generate 82 vehicle movements in the AM and PM peak periods. This assessment is taken to be a conservative estimate of vehicle movements and does not make any deductions to account for staff and student movements occurring outside of peak periods.

To model the existing and future baseline traffic scenario and the future traffic scenario (inclusive of the RAC) SIDRA modelling has been undertaken. The modelling identified the level of service (LoS) for intersections shown in **Figure 21** up to the 10 year future development scenario and confirmed that traffic from school operations would not adversely affect intersection performance. SIDRA modelling identified:

- No change in the LoS at the College Drive/College Street/Bourke Street intersection (LoS A – Good operation) in the AM and PM peaks
- No change in the LoS at the College Street/Paget Street/Londonderry Road Intersection (LoS A – Good operation)
- No change in the LoS Bourke Street/Lennox Street/Blacktown Road intersection in the AM and PM peaks (LoS B – Good with acceptable delay/spare capacity) in the initial 2 years post development
- Reduction in LoS for the Bourke Street/Lennox Street/Blacktown Road intersection in the PM peak in the 10 years post development with:
 - PM peak moving from B (good with acceptable delays & spare capacity) to D (operating near capacity)

For the results of the Bourke Street/Lennox Street/Blacktown Road SIDRA output in the development plus 10 year scenario, the reduction in LoS is attributed to background traffic growth and not the vehicle movements associated with school operations. In their assessment, Metafora also identify that the SIDRA output is based on the traffic light phasing under current conditions and confirm that the signalised intersection can be adjusted to improve east to west traffic flows. Metafora anticipate that east to west traffic flows will likely be improved by the Sydney Coordinated Adaptive Traffic System (SCATS) adjusting signal phasing to suit conditions, thereby improving intersection performance in the 10 year future development scenario when compared to the SIDRA modelling

Based on the above assessment, Metafora consider that the increase in traffic associated with the RAC will have a negligible impact on the surrounding network. However, as a mitigation measure a School Travel Plan (STP) has been provided and sets out achievable targets for mode shift away from private vehicle use. The targets are based on the existing infrastructure and student residential areas and have been developed in consultation with school community stakeholders TfNSW, WSU and Council.



Figure 21: LoS locations for SIDRA Modelling (Source Nearmap 15 March 2025)

6.1.2 Access

Vehicles

Access to the proposed site will be enabled by existing facilities within the WSU Campus. Vehicle access to the RAC will be provided via driveways that connect to College Drive, providing a primary entry to the RAC's carpark and kiss and drop facilities. In addition to providing carpark access, the primary entry has been designed to accommodate waste collection and emergency service vehicles with the hydrant booster and waste storage area both adjoining the main carpark.

A secondary service entry for agricultural purposes will be provided, enabling vehicle access to the stock yards and agricultural plots located north of the main campus buildings. Swept path analysis has been completed for all vehicle types and confirms that vehicle movements can be accommodated entirely within the site and confirms that all vehicles can enter and exit the site in a forward direction.

A mitigation measure has been included so that a construction traffic management plan will be prepared to inform the broader Construction Environmental Management Plan (CEMP). The CEMP will be prepared as a mitigation measure minimise traffic construction related impacts on the surrounding locality while the school is being built.

Pedestrians

Pedestrian access to the site will be provided north of the campus from Bourke Street to College Drive, via the existing footpath on the southern side of College Drive. Students, staff and visitors will be able to cross College Drive via the new (proposed) raised zebra crossing and will provide a suitable cross point and direct path of travel to the school buildings.

The external pedestrian linkages will be connected to an internal raised pedestrian footpath approximately 9.4 metres north of the main vehicle driveway. The separation distance of the pedestrian entry from the main vehicle entry provides a suitable safety buffer and the layout of pedestrian and vehicle access to the site is shown in **Figure 22**.

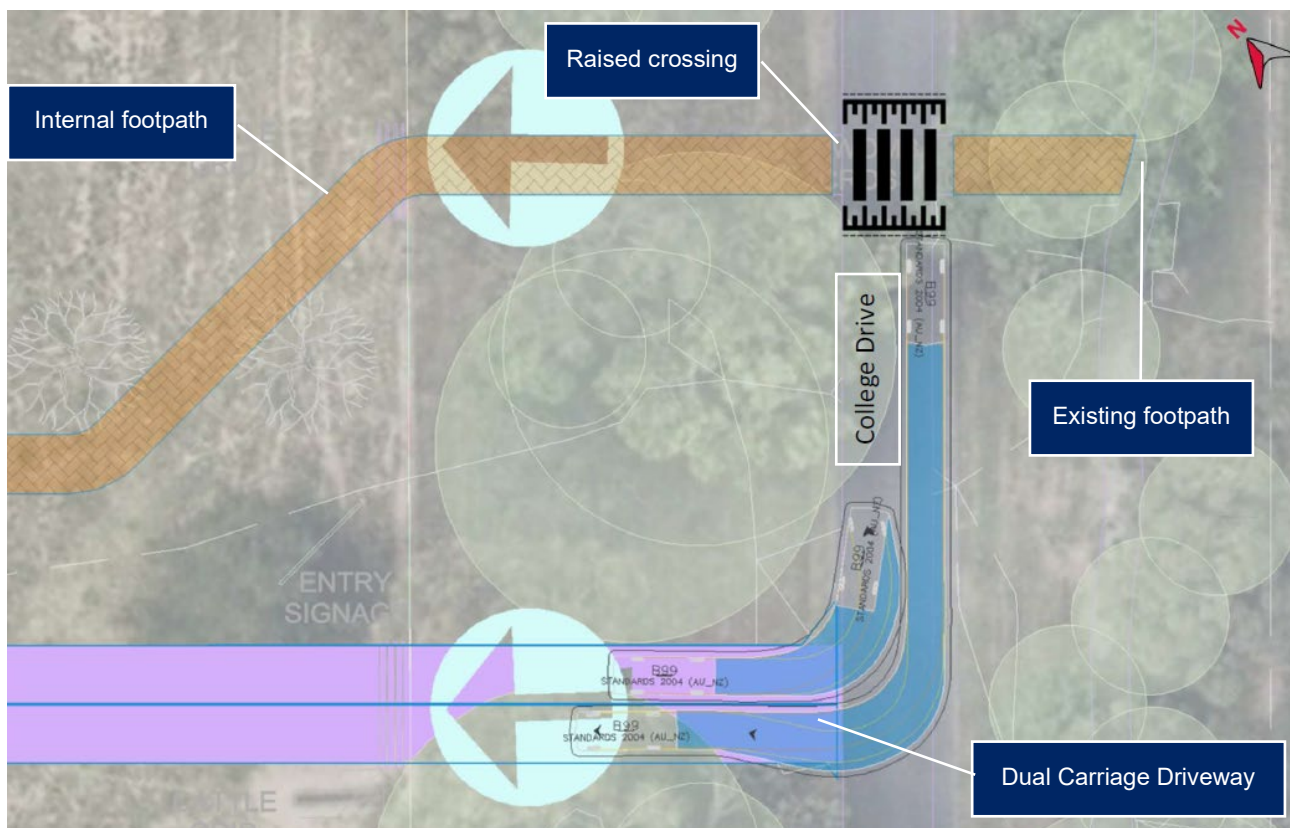


Figure 22: Pedestrian access and vehicle swept path analysis (source: Metafora)

6.1.3 Parking

Currently, the school utilises WSU parking spaces and the use of car parking spaces by the RAC is captured within the Access and Facilities Agreement between SINSW and WSU. The agreement outlines that specific car parks form part of '*Shared Facilities*', which "*are to be jointly used by the Licensor and the Licensee*". These carparks have a combined capacity of approximately 260 parking spaces.

Once operational, the RAC will provide 25 spaces for staff and the 260 spaces at the offsite parking locations will be available to accommodate overflow parking. The 25 parking spaces within the RAC will include accessible parking and capacity for EV charging per NCC requirements and in conjunction with the six (6) allocated kiss and drop spaces provide adequate facilities for existing and future demand.

To leverage the site's proximity to Richmond East train station and to encourage active transport use, bicycle and scooter parking with EOT facilities will be provided. The overall number of these spaces is based on travel demand survey of the existing temporary school and in conjunction with the School's travel plan (**Appendix 17**) would reduce reliance on private vehicle usage.

6.2 Noise and Vibration

6.2.1 Operational Noise

An Acoustic Assessment has been prepared by Pulse White Noise Australia (**Appendix 18**). The assessment provides appropriate assessment methodology, identifies the potential noise and vibration impacts of the proposed activity and provides mitigation measures and specifications to address the potential impacts to receivers in the vicinity. **Figure 23** shows the location of noise sensitive receivers in the vicinity and the location of the site:

- Receiver 1: Existing residential dwellings along the northern side of College Street
- Receiver 2: Existing residential dwellings located along the western side of Londonderry Road

To determine the existing acoustic environment, unattended noise monitoring was conducted from 2 September 2024 to 10 September 2024. The locations selected for the monitoring were west of the site adjacent to dwellings associated with receiver 2, north of the site adjacent to dwellings associated with Receiver 1 and along the eastern boundary of the RAC site. Buildings associated with WSU were identified as being in proximity to the site however, these buildings comprise ancillary maintenance buildings and are not noise sensitive receivers. Unattended noise monitoring locations are identified by the green circles in **Figure 23**.

Attended noise monitoring was conducted at the eastern and western site boundary and is identified by the orange circles in **Figure 23**.

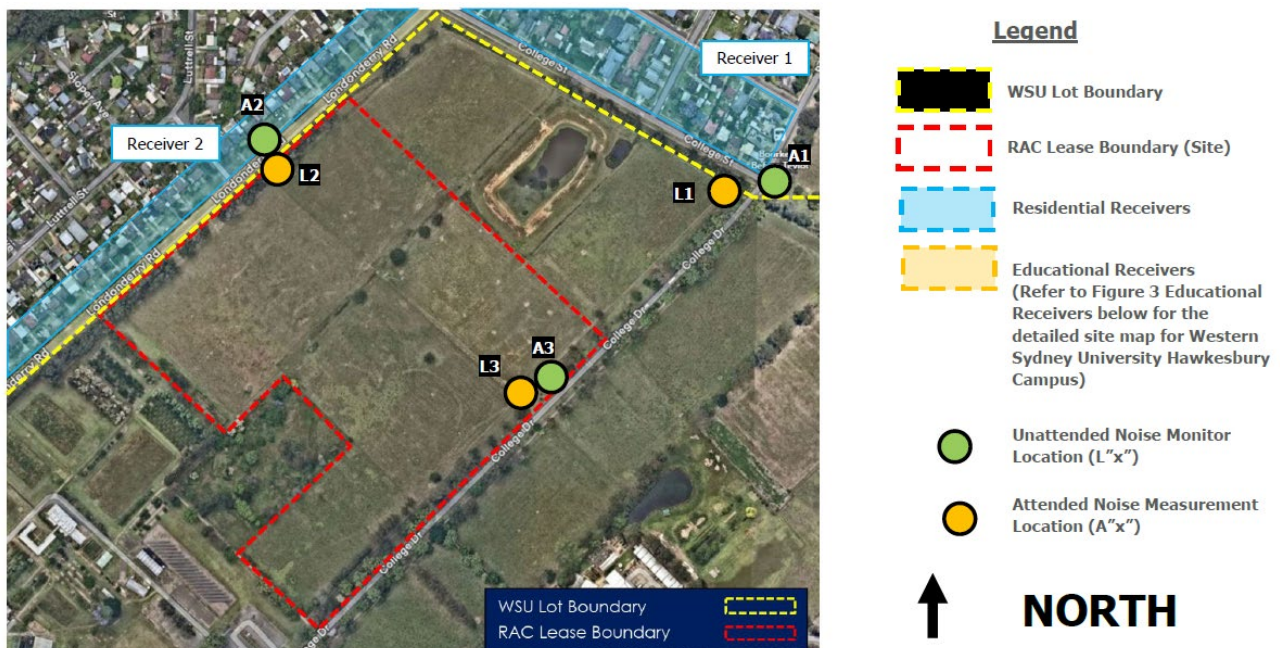


Figure 23 Receiver and monitoring locations (source: PWNA)

The rating background noise levels for the site and its immediate surrounds are presented in **Figure 24** and are derived in accordance with methodology outlined in the NSW EPA's *Noise Policy for Industry* (2017) (NPfI).

Measurement Location ⁴	Daytime ¹ 7:00 am to 6:00 pm		Evening ¹ 6:00 pm to 10:00 pm		Night-time ¹ 10:00 pm to 7:00 am	
	L _{A90} ² (dBA)	L _{Aeq} ³ (dBA)	L _{A90} ² (dBA)	L _{Aeq} ³ (dBA)	L _{A90} ² (dBA)	L _{Aeq} ³ (dBA)
Location 1 (L1) – College Street (see Figure 2)	38	57	39	50	29	46
Location 2 (L2) – Londonderry Drive (see Figure 2)	42	64	40	61	30	57
Location 3 (L3) – College Drive (see Figure 2)	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴

Note 1 For Monday to Saturday, Daytime 7:00 am – 6:00 pm; Evening 6:00 pm – 10:00 pm; Night-time 10:00 pm – 7:00 am. On Sundays and Public Holidays, Daytime 8:00 am – 6:00 pm; Evening 6:00 pm – 10:00 pm; Night-time 10:00 pm – 8:00 am.

Note 2 The LA90 noise level is representative of the "average minimum background sound level" (in the absence of the source under consideration), or simply the background level.

Note 3 The LAeq is the energy average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound.

Note 4 Due to an equipment malfunction ambient and background noise levels cannot be accurately determine at this location.

Figure 24 Measured ambient noise levels (source: PWNA)

External Noise Intrusion

External noise intrusion relates to the impacts of external noise such as plant, equipment and traffic on the internal amenity of the new buildings. Based on the requirements under the EFSG and Green Star Design & As Built v1.3 requirements, an internal noise target of 40dB has been established for the learning spaces, learning commons, and staff areas.

The Acoustic Assessment provides a detailed specification for how these internal noise levels can be achieved through façade treatments, appropriate glazing rating requirements as well as external wall and roof construction. It is considered that subject to the implementation of these recommendations the internal acoustic amenity of the RAC buildings will achieve internal noise targets. The acoustic assessment confirms no acoustic attenuation is required for the external play areas to achieve the noise exposure levels required by the NSW EPA Road Noise policy.

Operational Noise Emissions

Operational noise emissions relate to the noise emissions from the proposed activity. Operational noise emissions include:

- Noise from plant and services.
- School bells.
- Use of the school buildings during the day.
- Traffic generated by the school.

Maximum noise emissions criteria have been established with regard the background noise level and the requirements of the NPfI. The assessment by Pulse White Noise Australia confirms that the activities associated with school operations would, subject to the implementation of recommended mitigation measures, comply with relevant noise criteria.

6.2.2 Construction Noise

Relevant noise criteria for the activity's construction phase have been adopted from the NSW EPA's Interim Construction Noise Guideline (ICNG) 2009 and the NSW Road Noise Policy. From these policies, the Acoustic Assessment has provided noise management levels (NMLs) that determine acceptable level of noise impact during and outside of standard working hours. The NMLs are based on the measured background noise levels taken from the unattended noise monitoring and are summarised in **Figure 25** below.

Receiver Types		NML, dB LAeq(15minute)	
		<u>Standard Hours</u> Monday to Friday: 7:00am to 6:00pm Saturday: 8:00am to 1:00pm	<u>Outside Standard Hours</u> All hours not listed in the adjacent column.
Residences (Measured externally)	Receiver 1	NAFL: 48 (RBL (38) + 10dB) HNAL 75	RBL + 5dB
	Receiver 2	NAFL: 52 (RBL (42) + 10dB) HNAL 75	RBL + 5dB

Note 1 The LAeq is the energy average sound level. It is defined as the steady sound level that contains the same amount of acoustical energy as a given time-varying sound.

Figure 25 NMLs for residences in proximity to the RAC (source PWNA)

Based on the predicted dBA output from construction activities, works are predicted to have the potential to exceed the internal noise management level when working near a receiver. To mitigate impacts during the activity's construction phase, noise management procedures are proposed. The mitigation measures proposed allocate a higher degree of management to construction activities likely to exceed highly noise affected criteria and are included in the mitigation measures proposed as part of the activity's CEMP.

The implementation of the project specific noise mitigation controls as part of the CEMP will be required to meet AS 2436-2010 "Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites" a require the preparation of a site-specific Construction Noise and Vibration Management Sub-Plan (CNVMSP) once exact construction methodologies are known. Subject to the implementation of these measures, the activity's construction phase is unlikely to create significant or adverse impacts for adjoining residential receivers.

Based on the number of vehicles projected over the construction phase, it is concluded that noise impacts from construction traffic is unlikely to have an impact at the nearest affected properties. As a result, the Acoustic Assessment confirms no further assessment is required.

6.3 Contamination and Hazardous Materials

A Preliminary Site Investigation (PSI) / Detailed Site Investigation (DSI) of potential contamination has been prepared by JBS&G Australia and assess the potential for contamination to be present at the site. This report associated with this investigation has been prepared to confirm whether the site is suitable or can be made suitable for the proposed land use.

As part of the PSI/DSI, JBS&G undertook an intrusive soil and groundwater field program that included the advancement of 60 test pits to assess soils at the site and the sampling of nine existing groundwater monitoring wells. Soil and groundwater samples were collected and analysed for contaminants of potential concern. These were based on the regional and environmental setting of the site as well as the historic site land use. The investigation was undertaken with consideration to aspects of all relevant NSW and national Regulatory and Technical Guidelines.



Figure 26: Sample Locations for Boreholes and Test Pits

Based on the potential leachability of contaminants within fill material/surface soils and the historical use of the site, vertical migration of contamination from the fill materials/surface soils into the underlying natural soils may have occurred. As such, the natural site soils are considered to be a potentially contaminated medium by JBS&G.

In addition, the potential contaminants of concern (COPCs) identified by JBS&G as part of the site history review and site inspection were generally considered to be in solid form (e.g. asbestos), and liquid form (e.g. pesticides, recycled water for irrigation). JBS&G's report identifies the site is mostly

covered in vegetation (grasses, reeds, scattered trees) and considered that these characteristics significantly reduce the potential for windblown contaminants to migrate from the existing site.

Potential Exposure Pathways and Receptors were identified with respect to potential risks to current and/or future site users including:

- Current and future site users/landowners
- Excavation/construction/maintenance workers conducting activities at the site
- flora species to be established on the vegetated areas of the site
- Existing and/or future users/occupants of and/or workers at adjoining properties should contamination migrate from the site

The receptors were considered to be the most likely to potentially come into direct contact with soils and/or groundwater and/or inhalation of dusts/fibres containing COPCs. For the purpose of the DSI's assessment, receptor pathways have been defined as natural and/or man-made pathways that result in the preferential migration of COPC as either solid (sediments, dust, etc) or liquid (surface water).

Based on the DSI's investigation and sampling methodology the following was identified:

- Soil and groundwater were not subject to widespread contamination and do not pose a unacceptable risks to future onsite receptors
- Soil sampling indicates that metal concentrations were below the background metal concentrations within NEPC (2013) and do not exceed appropriate site soil criteria
- No impacts from chemical mixtures or aesthetic issues were observed
- There is a low potential for migration of contaminants across the site and there no evidence or potential for migration was observed.

Based on the findings of this assessment and subject to the limitations provided by the DSI, the following conclusions are made:

- There are no unacceptable contamination risks identified onsite;
- No gross or widespread contamination was reported as part of the investigation;
- There are no issues relating to background soil concentrations that require further consideration; and
- The results do not indicate the potential for migration of contaminants off the site that would pose a risk to offsite receptors.

On the basis of the above, the site is considered suitable for the proposed development. An Unexpected Finds Procedure should be developed to address any potential unexpected finds encountered during earthworks.

6.4 Hydrology and Water Quality

In relation to groundwater, the Geotechnical Investigation prepared by PSM found that groundwater was observed at depths at between 7.6 to 8.5 m below the existing ground surfaces levels) (**Appendix 12**). In the event that groundwater is encountered during the works, works are to cease immediately. If groundwater needs to be removed, an approval will be required under the *Water Management Act 2000* (refer to the mitigation measure in **Appendix 1**).

6.4.1 Stormwater

Northrop have prepared a Stormwater Management Report and Plans (**Appendix 19 and Appendix 4**) which identifies that the site does not currently benefit from any inground stormwater infrastructure and stormwater runoff is therefore characterised as uncontrolled sheet flow through the northern portion of the site. The report by Northrop is supported civil stormwater plans and details the site's proposed stormwater system, water sensitive urban design (WSUD) provisions, and erosion and sediment control measures. The report details that due to the site's flat topography stormwater runoff will be managed via swales and discharging to headwalls on the site, which then sheet flows through the RAC's agricultural plots. These works will be facilitated by balance of cut and fill (cut to a maximum depth of 0.37m and fill to a maximum height of 1.12m) and are incidental to the erection of buildings for the RAC.

Once RAC buildings are constructed rainwater tanks will capture roof water which will be made available for onsite irrigation toilet flushing. To reduce the discharge of suspended solids, nitrogen and gross pollutants offsite stormwater pit inserts are proposed for the internal driveway and carpark.

For the purpose of 171A of the EP&A Regulation the site is located in a regulated catchment and an assessment against relevant criteria is provided in **Table 15**. The assessment confirms that offsite water impact will be managed through the activity's operational and construction phases and demonstrates that the proposed activity would not adversely affect water quality and quantity, aquatic ecology, wetlands and other riverine ecosystems or public recreation areas.

6.5 Flooding

A Flood Impact Assessment (**Appendix 14**) and FERP (**Appendix 15**) have been prepared by Northrop. These reports are informed by the existing flood studies commissioned by Hawkesbury City Council including:

- Hawkesbury Nepean Floodplain Risk Management Study and Plan (Bewsher, 2012)
- The Hawkesbury-Nepean River Flood Study (Rhelm & CSS, 2024)

The review of these studies by Northrop has identified that flooding at Richmond and Windsor is influenced by a combination of the large storage area on the floodplain, and the constriction downstream through the confined gorge that enters the Lower Hawkesbury. These characteristics creates what is referred to as the 'bathtub' effect for flood waters affecting the site and is illustrated in **Figure 27** below.

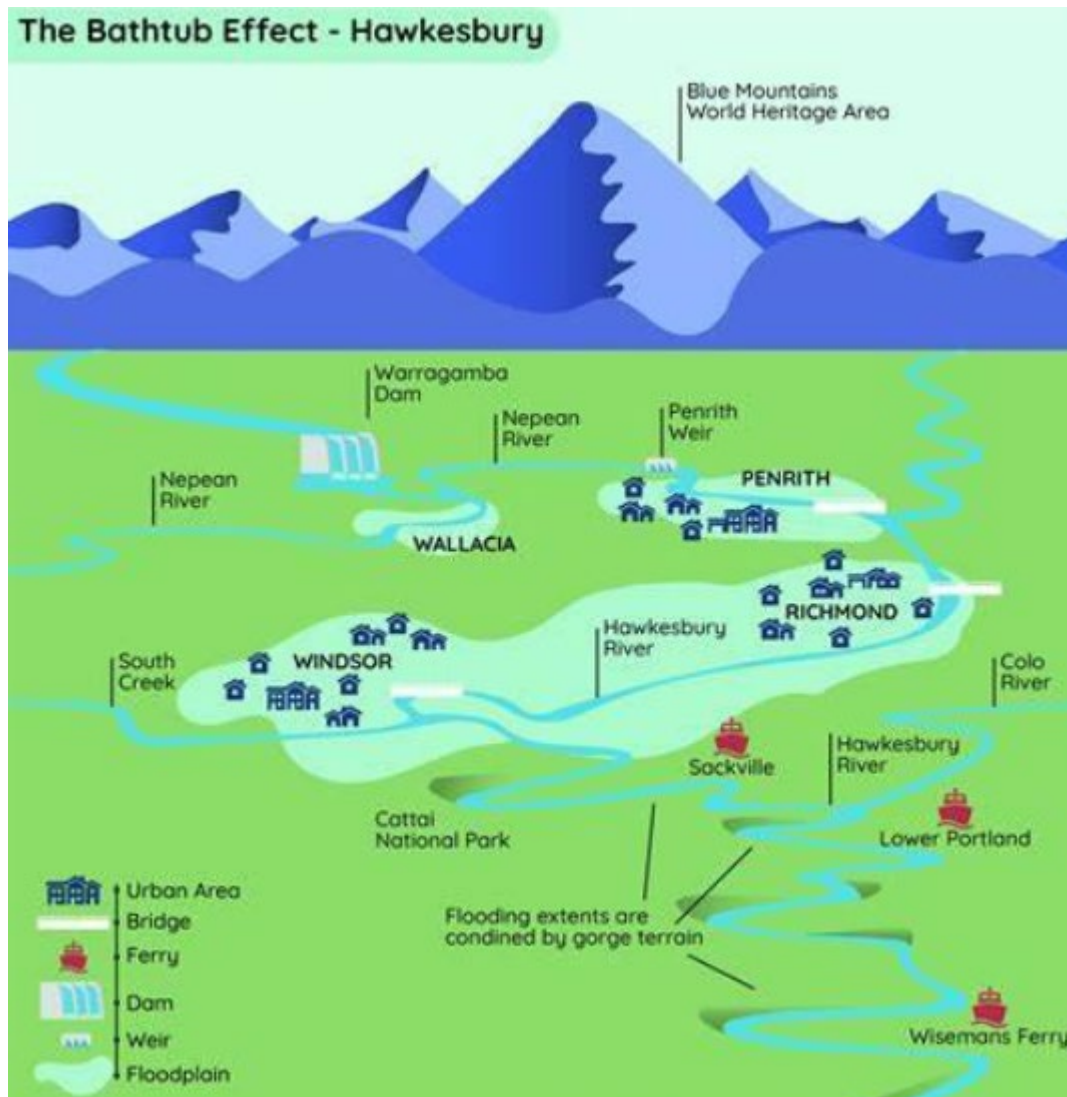


Figure 27 Bathtub effect at Windor and Richmond (source: Northrop)

In addition to the above flood studies, Northrop have also considered the Draft Hawkesbury Nepean Floodplain Risk Management Study and Plan (WMA Water 2025) and have utilised the parameters from the site survey to plot catchment delineation for hydraulic modelling and confirm terrain levels for the 'existing case' hydraulic model. From these baseline studies, the flood impact assessment considers flooding mechanisms as:

- Regional: Hawkesbury-Nepean Catchment
- Local: Richmond catchment

Northrop confirm that the site is prone to flooding in both the regional and local flooding mechanisms and identify that the RAC's habitable rooms have been designed to accommodate 500mm freeboard in a 1 in 200 flood event as recommended by the latest Draft Hawkesbury Nepean Floodplain Risk Management Study and Plan (WMA Water 2025).

Regional riverine flood levels, obtained from the Hawkesbury-Nepean River Flood Study, are summarised in **Table 13**. As shown in **Figure 28** the main campus buildings would have a finished floor level (FFL) 700mm above the 1 in 200 historic flood level.

Table 13: Riverine Flood Levels

Flood Event	Historic Flood Level (m AHD)
1%AEP	17.4
1 in 200 AEP	18.6
1 in 500 AEP	20.2
1 in 1000 AEP	21.4
1 in 2000 AEP	22.9
1 in 5000 AEP	24.4
PMF	30.6

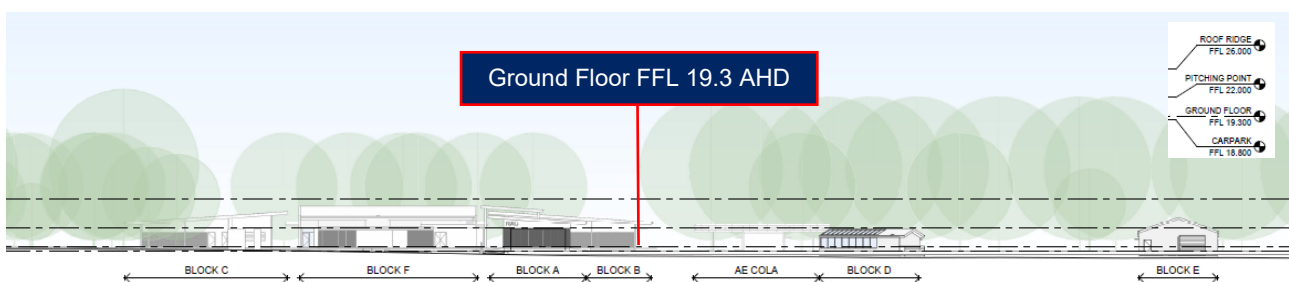


Figure 28: Section of the RAC and ground floor FFL (source: NBR Architecture)

Flood behaviour

In relation to the impacts of the proposed activity on existing flood behaviour, the Civil Report by Northrop demonstrates that the proposed site works will only generate minor modifications to the existing topography and are needed to ensure that water can drain from the RAC lease area. The proposed changes to surface design have been included in the flood depth calculation and off site hazard categorisation.

The modelling provided by Northrop confirms the proposed buildings are generally located outside the more frequent localised flood events. The locations of buildings and civil stormwater works would have minimal impact on flood behaviour and would not lead to increased flood risk.

Flood Resilience – Structure

In relation to the structural flood resilience, the RAC's habitable buildings have been designed to withstand forces associated with the Probable Maximum Flood (PMF) and all relevant provisions of National Construction Code (NCC) as well as relevant Australian Standards relating to the design of buildings subject to flooding. Northrop identify that flood water would pass through dominant building openings and would not affect structural integrity (**Appendix 25**).

Flood Resilience – Materials & Services

The proposed materials have been reviewed for their suitability and flood resilience. The following materials should not be used:

- Materials that are weakened when wet.
- Materials that are stable but porous and require drying out after a flood.
- Materials that are prone to absorption.
- Materials prone to fouling, rusting or rotting when exposed to water.

Materials selection has been undertaken in accordance with the NCC, relevant Australian Standards and guidelines in particular the Hawkesbury-Nepean Floodplain Management Steering Committee's Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas (2006) (the Building in Flood Prone Areas Guidance). The Guidance on Building in Flood Prone Areas provides detailed information on the vulnerability, absorbency and suitability of materials following prolonged immersion. Mitigation measures have been provided to ensure material selection meets standards and guidelines

Flood Emergency Response Plan

A Flood Emergency Response Plan (FERP) has been prepared by Northrop in accordance with Support for *Emergency Management Planning. Flood Risk Management Guideline EM01* (Department of Planning and Environment, 2023), Flood Risk Management Manual: The management of Flood Liable Land (Department of Planning and Environment, 2022). The FERP provides a step-by-step sequence of roles, responsibilities, functions, actions and management arrangements for the conduct of emergency operations. The FERP provides:

- description of existing flood behaviour
- description of flood emergency response preparation procedures, responsibilities, warning systems, flood evacuation strategies and methods
- description of flood emergency response plan.

Mitigation measures relating to flood resilience and emergency evacuation have been incorporated into **Appendix 1**.

6.6 Aboriginal Heritage

An Aboriginal Heritage Due Diligence report has been prepared by Apex Archaeology to identify the presence of any Aboriginal heritage values on the site, and if required measures to avoid, minimise, mitigate and/or manage impacts to Aboriginal heritage resulting from the activity (**Appendix 8**). This report has been produced in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (the Due Diligence Code of Practice) and identifies no areas of cultural heritage sensitivity were within the subject site and confirms no previously identified Aboriginal heritage sites been identified in proximity to the proposed school site.

Noting that the subject site has been altered over time through land clearance and agricultural activities associated with the WSU campus, the land is considered to be disturbed in accordance with the Due Diligence Code of Practice.

The due diligence report includes a desktop assessment and is supported by a visual pedestrian inspection of the study area, which was undertaken in November of 2024 by Leigh Bate, (Archaeologist with Apex Archaeology) and Lana Wedgewood (Dharug Custodian Aboriginal Corporation (DCAC)) and concludes no previously registered Aboriginal sites are located within the study area.

The study area was assessed as having no sub-surface archaeological potential and based on the results of the visual pedestrian inspection, no archaeological material was identified on the ground surface of the study area. Based identification of landform elements, a review of previous archaeological work undertaken within the wider Richmond region, and a visual inspection of the study area Aboriginal objects are not expected to be present within the subject site, it is recommended that an unexpected heritage finds procedure be implemented for the duration of the

activity. The requirements of CMM1 within the Mitigation Measures at **Appendix 1** include provisions to require the preparation of a Construction Environmental Management Plan (CEMP), inclusive of an unexpected finds protocol, and so this risk is adequately mitigated.

6.7 Ecology

A Flora and Fauna Assessment has been prepared by Narla Environmental and provides an assessment of the proposed activity against the provisions of the EPBC Act, BC Act and FM Act (**Appendix 10**). The Flora and Fauna Assessment concludes that:

the proposed development complies with the relevant provisions of the Environmental Planning and Assessment Act 1979, Biodiversity Conservation Act 2016 (BC Act), and Environment Protection and Biodiversity Conservation Act 1999. In accordance with Section 7.8 of the BC Act, the activity is not likely to significantly affect threatened species or ecological communities for the following reasons

- *The development will impact a total of approximately 5.57ha of vegetation, of which only 0.04ha comprises native vegetation (specifically, 0.03ha of Cumberland Shale Plains Woodland and <0.01ha of Planted Non-locally Occurring Native Vegetation)*
- *No trees will be removed from the Cumberland Shale Plains Woodland—vegetation clearance will be restricted to the exotic-dominated ground layer, minimising impacts on this community*
- *Impacts to potential fauna habitat are limited to low-quality, exotic-dominated grassland, which provides marginal foraging habitat for native species*
- *No threatened flora species or critical habitat for threatened fauna have been identified within the Subject Site*
- *The proposed mitigation measures will further reduce residual impacts, ensuring no significant effect on threatened species or ecological processes*

No threatened communities, flora or fauna species were recorded in the Subject Site or are considered to have a moderate to high likelihood of occurrence. The proposed activity is unlikely to cause a significant impact to any threatened communities, species or populations listed under the NSW BC Act or the EPBC Act.

Detailed mitigation measures have been proposed with regard to erosion control, dust control, chemical spills, tree and habitat protection measures, weed management and management of displaced fauna are required to be adopted in accordance with the mitigation measure identified at **Appendix 1**. It is considered that the proposed activity has been appropriately design and sited to avoid, minimise and mitigate impacts on existing vegetation, ecological communities and species habitat.

6.7.1 Tree Removal

Tree removal has been considered in the Arboricultural Impact Assessment (**Appendix 11**). The AIA Identifies the number and location of existing trees on site which may be impacted by the activity and has provided suitable recommendations for all retained trees based on:

- Hawkesbury City Council DCP 2002
- Australian Standard AS4970-2009 Protection of Trees on Development Sites

- Australian Standard AS4373-2007 Pruning of Amenity Trees
- Australian Standard AS2303-2015 Tree Stock for Landscape Use

The AIA identifies that the site contains 954 trees (950 native and 4 exotic species) and confirms that the majority of the trees on site would not be affected by works associated with the RAC. Due to this the assessment of impact in the AIA is confined to trees likely to be affected by the proposals built elements and services locations. The AIA concludes that services associated with the RAC would not encroach into the tree protection zone of any existing trees.

The assessment confirms that works associated with the carparks' access driveway will require the removal of one (1) tree. As identified previously in **Section 2.2.8** the tree proposed for removal has a high level of landscape significance but would be offset by the planting of 88 trees across the site.

For the remaining trees retained on site, the AIA recommends the preparation of a site-specific Tree Protection Plan (TPP) and mitigation measures to accommodate this requirement have been provide in **Appendix 1**.

6.8 Social Impact

A Social Impact Assessment (SIA) has been prepared by Sarah George Consulting (**Appendix 9**). The SIA considers the proposal in the context of impacts on access; impacts on privacy, overshadowing, peace and quiet and visual amenity; impacts on a sense of place; impacts on the way people get around; and impacts on wellbeing. The SIA considers feedback from the school and local community on the proposal. A summary of the SIA's assessment has been extracted in **Table 14**.

Table 14: Social Impact

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively	Discussion
Impacts on access – will there be an improvement to the quality of provision and a response to emerging and changing needs?	<ul style="list-style-type: none"> • The proposed RAC Campus will provide educational opportunities for students from Sydney, with a focus on this in Greater Western Sydney who are interested in studying Ag/STEM. • A temporary school has been operating within the WSU campus and the delays to the project have been the subject of enquiries and complaints to the School Infrastructure inbox and 1300 number. The projects delays have been the subject of media articles. 	<ul style="list-style-type: none"> • No enhancement measures identified. Positive benefits of the proposal in terms of access will only be realised if consent is granted for the proposal.
Impacts on privacy, overshadowing, peace and quiet, and visual amenity (views / vistas) - will there be significant change for neighbours and the local area during both construction and operation?	<ul style="list-style-type: none"> • The proposed Campus has been designed with buildings located centrally within the site, separated from the closest residential dwellings on Londonderry Road, to minimise any impacts on 	<ul style="list-style-type: none"> • Proposed school buildings separated from nearest residential dwellings by a large strip of open space, and existing trees along site boundary with Londonderry Road. No

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively	Discussion
	<p>residential properties on the north-western side of this road. As such, no impacts in terms of privacy or overshadowing are generated.</p> <ul style="list-style-type: none"> The proposed campus is unlikely to result in any significant changes to the peace and quiet of the area. The proposed campus will accommodate 325 students. Noise may be generated from students at school drop-off/pick-up times, at breaks, and when school finishes. In addition, noise may be generated by the school bell and PA system. An REF Acoustic Assessment prepared by Pulse White Noise Acoustics considers noise emissions from the school, and potential noise intrusions and recommends treatments to future building facades to ensure internal noise levels are within permissible limits. The proposed school buildings are to be set back from street frontages, as the site is currently undeveloped, the proposal will result in changes to the visual presentation of the site. It is not anticipated that these visual changes will result in any significant or detrimental impacts on visual amenity from outside of the campus, or from within the University. The majority of the subject site will remain undeveloped, retaining the existing visual character of much of the overall site. 	<p>impacts on privacy, overshadowing are generated.</p> <ul style="list-style-type: none"> The proposed school campus represents a positive in terms of visual amenity compared to the existing demountable buildings the school is occupying. The temporary school is located approximately 550m from the subject site and as such, is unlikely to be impacted by construction noise. Some construction noise may be heard by nearby neighbours, however given site separation, this is unlikely to be significant. Mitigation measures to minimise construction noise are identified in the REF Acoustic Assessment As detailed in the REF Acoustic Assessment accompanying to minimise impacts on the peace and quiet of the area and concludes that noise emissions from the PA system is capable of achieving noise emission goals, and that any noise associated with the use of school play areas at recess and lunch may exceed the formulated criteria but "all noise that emanates from the normal activities at a school is not offensive."
Impacts on sense of place - will there be effects on community cohesion or how people feel connected to the place and its character?	<ul style="list-style-type: none"> It is not anticipated that the proposed new campus will result in any negative effects on community cohesion or how people feel connected. The proposed campus is located within a Tertiary Education campus and as 	<ul style="list-style-type: none"> No enhancement measures identified. No mitigation measures required.

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively	Discussion
	<p>such is a complimentary use.</p> <ul style="list-style-type: none"> The proposal may result in benefits in terms of how students and staff feel connected to the place, and on community cohesion within the school community through the provision of a new, state of the art facility. The visual character of the site may change, but this change is not considered to be out of character with the existing University. 	
<p>Impacts on the way people get around – will there be changes associated with traffic or parking in the area?</p>	<ul style="list-style-type: none"> During construction, there is likely to be increased truck and vehicle movements on local roads. Construction vehicles will enter the site via Londonderry Road. As the site is located wholly within the university campus, it is anticipated that parking for worker vehicles can be accommodated on the site. On completion, the proposed campus will result in increased traffic associated with staff arriving to and leaving from the campus, and traffic increases at school drop-off and pick-up times. Some concern expressed during the community engagement process about impacts to traffic, particularly at drop-off/pick up times. The proposed campus provides parking for 25 vehicles for staff, students and visitors and it is not anticipated that the proposal will increase demand for parking on local streets. 	<ul style="list-style-type: none"> Temporary construction related traffic and parking impacts can be managed and mitigated through application of the Construction Transport Management Plan to minimise the impacts on local roads and to avoid movements during peak times. A Transport and Accessibility Impact Assessment prepared by Metafora accompanies the application. The site is accessible using public transport (train and bus) students will be encouraged to utilise public transportation to and from school. Wellbeing – will there be benefits for students and the community associated with better school facilities, sporting facilities and grounds, and active transport options? The proposed campus will provide a state-of-the-art campus for students and staff which will provide an enhanced learning environment for students.
<p>Impacts on wellbeing - will there be benefits for students and the community associated with better school facilities, sporting</p>	<ul style="list-style-type: none"> The proposed campus will provide a state-of-the-art campus for students and staff which will provide an 	<ul style="list-style-type: none"> No mitigation required

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively	Discussion
facilities and grounds, and active transport options?	<p>enhanced learning environment for students.</p> <ul style="list-style-type: none"> The large site provides significant areas for outside learning and application, providing increased opportunities for wellbeing and practical application of learning. The Traffic and Accessibility Impact Assessment notes that cycle paths in the area are limited and that many students live outside of a comfortable distance to cycle to school. It is noted that the school P&C are considering a dedicated school bus to facilitate student transport. 	
<p>Matters Raised during consultation:</p> <ul style="list-style-type: none"> Public transport and access Infrastructure and facilities. Building layout and design 	<ul style="list-style-type: none"> Support from the school community for strengthened public transport pathways and access to the school. Suggestion of pedestrian/cycle access from Londonderry Road. Need for the school to be inclusive and accessible. Need for multipurpose hall to include sports options. Need for the school to be built after long delays. Building layout and design suggestions are noted. Layout and design are in line with current DoE practices including limits to student numbers in some classes for WHS compliance. 	<ul style="list-style-type: none"> It is noted that the school P&C are considering a dedicated school bus to facilitate student transport. Pedestrian access to the school will be via College Drive only reducing pedestrian activity on Londonderry Road. Proposed school will be BCA complaint to ensure accessibility and inclusivity. Multipurpose Hall to include options for sport. Proposed school includes 48 bicycle parking spaces. The subject application progresses plans for the Centre after the noted delays.

6.9 Other issues

Issue	Consideration
Visual Amenity and Privacy	<p>A visual impact assessment has been completed by NBRIS (Appendix 7) which included four (4) viewpoints and considered the visual impact of the proposed activity on the broader rural setting and on the visual catchment of heritage items in the vicinity.</p> <p>Based on consideration of factors such as distance of the proposal from the viewpoints, the composition and dominant features in the view and the purpose of people being at the viewpoint, the sensitivity of all viewpoints ranged from low to</p>

Issue	Consideration
	<p>high. Based on consideration of factors such as amount and type of new fabric visible and its relationship to the existing view, the magnitude of change at all viewpoints was also ranged from negligible to moderate. Photomontages for the completed RAC show that the proposal is likely not to be visible from a number of viewpoints.</p>
Bushfire	<p>The proposed school buildings are not located on land designated as bush fire prone, as confirmed by the certified Bush Fire Prone Land Map published by the RFS and presented in Figure 10</p> <p>Isolated areas of unmanaged vegetation exist within 140 metres of the development footprint and a 42m APZ managed as an IPA is required within Appendix 4 of PBP 2019 and the RFS document Standards for asset protection zones. Due the RAC's proximity to unmanaged vegetation, built form will meet the relevant construction requirements provided by Section 3 and 6 of Australian Standard AS3959-201.</p>
Soils and Geology	<p>Geotechnical testing was undertaken at the site on 2 and 3 April 2025. The testing included nine (9) test pits supported by laboratory sampling and the design and material specification of the RAC have prepared in response to the site's subsurface conditions. The investigation has identified that soils are non-saline to moderately saline and non-aggressive.</p> <p>Across the site, cut and fill works will be required to redirect overland flow to existing discharge points. The cut will be to a maximum depth of 0.37m result in a balance of +8296.2m³ fill. Prior to and during construction, sediment and erosion control measures will be installed in accordance with Council requirements and "Managing Urban Stormwater Soil & Construction" 2004 (Blue Book) prepared by Landcom and will ensure construction site runoff is managed and treated prior to of site discharge.</p> <p>Sediment management will also include the creation of a 273m³ sediment basin which will be maintained throughout construction and will include overflow weirs that will accommodate overflow during rainfall events.</p>
Waste	<p>During construction, activities associated with the RAC's construction are unlikely to generate hazardous waste and non-hazardous waste will be managed in accordance with proposed construction waste management plan. Construction waste will, where possible, be reused on site and disposed of at a licenced facility when needed.</p> <p>Once operational, waste generated by the RAC will be managed in accordance with the school's waste management plan (Appendix 23)</p>
Air Quality	<p>Some dust is anticipated during the construction phase of the proposal. This however can be mitigated and managed through the use of measures such as wetting down work areas and stockpiles, stabilising exposed areas, preventing material tracking out onto public roadways, covering loads and all departing vehicles and working to weather conditions as appropriate. Suitable mitigation measures (Appendix 1) have been included and the proposal is otherwise not expected to give rise to any long term or adverse impacts on local or regional air quality.</p>
Aviation	<p>The RAC including its construction cranes, will not adversely impact aviation safety of RAAF Base Richmond or at any strategically important HLS. Approvals will not be required for the construction crane(s) to intrude into the RAAF Base Richmond OLS unless it/they are planned to be above approximately RL64. The construction crane(s) will only require aviation standard obstacle lighting if they go above RL64. The completed building will not be notifiable to Airservices Australia as a tall</p>

Issue	Consideration
	structure.

6.10 Cumulative Impact

Under the Division 5.1 Guidelines the following definition of ‘cumulative impact’ is provided:

Impacts that are a result of incremental, sustained and combined effects of human action and natural variations over time, both positive and negative, or by the compounding effects of a single project or multiple projects in an area, and by the accumulation of effects from past, current and relevant future projects.

Refer to definition for ‘relevant future projects’ to understand scope of projects to be included.

“Relevant future projects’ are defined under the Guidelines as:

- *other State significant development and State significant infrastructure projects*
- *projects classified as designated development and require an EIS*
- *projects that require assessment under Division 5.1 of the EP&A Act that are likely to significantly affect the environment and require an EIS*
- *projects that have been declared to be controlled actions under the EPBC Act*
- *any major greenfield and urban renewal developments that are scheduled for the area (e.g. new areas zoned for urban development).*

These types of projects are generally large in scale and could potentially contribute to or compound material impacts. They are also generally publicly notified and should therefore be known or reasonably foreseeable.

A review of the NSW Planning Portal, the Major Projects Website, the Sydney and Regional Planning Panels Development and Planning Register; Council DA tracker and Roads projects map has not identified any ‘relevant future projects’.

6.11 Consideration of Environmental Factors

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity. Section 171A of the EP&A Regulation sets out additional matters to take into account when considering the likely impact of an activity on the environment in a regulated catchment.

The assessment provided in the sections above has been prepared to provide a detailed consideration of the factors that must be taken into account for an assessment under Division 5.1 of the EP&A Act. These factors are summarised at Table 15 and where mitigation measures have been proposed in response to the factor, these have been identified.

Table 15: Environmental Factors considered

Environmental Factor	Consideration	Mitigation Measure Reference
Any environmental impact on a community?	<p>The proposed activity will not have a significant environmental impact on the community. However, traffic, noise and vibration, parking, air quality and visual impact may arise from the proposed activity. These impacts have been considered as part of this REF report, and where necessary mitigation measures have been included to minimise potential impact where they are unable to be avoided.</p> <p>Long-term, the proposed activity will have a beneficial impact for the community by replacing the existing temporary school with a modern and fit-for purpose Ag/STEM school facility that meets sustainability measures, can accommodate the forecast population growth, and has been designed to be resilient to impacts from flood, bushfire and climate change.</p>	CMM1 to CMM15 CMM17 CMM 18 CMM19
Any transformation of a locality?	<p>The proposal is for the construction of specialist agricultural facilities that will provide essential community infrastructure for students within the Western Sydney region.</p> <p>The proposed activity will have a positive transformational impact on the locality. Once operational, the educational establishment will provide a much-needed infrastructure for the community and provide equitable access to local students to a local school. The site will include a significant increase to the site's tree canopy, will eradicate invasive weed species and will provide improved stormwater management outcomes.</p>	ECMM2 OPMM2 OPMM5
Any environmental impact on the ecosystems of the locality?	<p>The proposed activity will not result in significant impacts on the ecosystem of the locality. The proposal is unlikely to affect any threatened species, populations or ecological communities. Mitigation measures have been identified to minimise any indirect or potential impacts arising from sediment, dust, groundwater and acid sulfate soils. The construction of buildings at the site would not cause significant or adverse off site impacts during flood events and would have a neutral impact on the wider Hawkesbury Nepean catchment.</p>	ECMM2 OPMM2 SWMM1 SWMM2 SWMM5

Environmental Factor	Consideration	Mitigation Measure Reference
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	<p>The proposal will not result in a reduction of the aesthetic, recreational, or scientific values of the locality. The new school facilities will be constructed on existing underutilised agricultural land and would not be located in the visual catchment of any identified significant view corridors and would not affect the significance of heritage items in the vicinity.</p> <p>The new school facilities and the associated landscaping have been designed in accordance with the NSW Government Architect's Design Guide for Schools, designing with Country framework and is consistent with the design quality principles provided by Schedule 8 of the T&I SEPP</p>	ECMM1 ECMM2 VAMM1
Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?	<p>The site is not located within a local or State heritage item nor is it located within a heritage conservation area. The proposed activity is unlikely to impact on any Aboriginal cultural significance and no items, objects or places were found on the site or within the immediate vicinity. Nevertheless, an Unexpected Finds Protocol will be prepared if any Aboriginal objects or relics are discovered during the construction phase.</p> <p>The proposed activity incorporates cultural narratives and design principles from the CWC process into the school environment. The proposed activity will leverage the existing social capital of the WSU's education precinct and will provide a future focused curriculum which response to an identified need for Ag/STEM education across the State.</p>	HMM1 HMM2 HMM3 HMM4
Any impact on the habitat of protected animals, within the meaning of the <i>Biodiversity Conservation Act 2016</i> ?	<p>The site has previously been used primarily for agricultural purposes and, with the exception of 0.03ha of Cumberland Shale Plains Woodland along the western boundary, is largely cleared agricultural land. The proposal would not encroach into the Cumberland Shale Plains Woodland therefore, it is unlikely the proposal will impact on the habitat of protected animals. However, landscape planting will utilise endemic, indigenous species to the area. The landscaping will include 88 additional tree plantings that would enhance habitat opportunities for local fauna.</p>	ECMM1 ECMM2 TMM1 TMM2
Any endangering of any species of animal, plant or other	Similar to the above, the proposed is unlikely to result in any impact on the	ECMM1

Environmental Factor	Consideration	Mitigation Measure Reference
form of life, whether living on land, in water or in the air?	habitat of endangered species of animals or plants as a result of the previous land clearing on the site.	ECMM2 TMM1 TMM2
Any long-term effects on the environment?	The overall activity will have a long-term positive effect on the local environment by providing a social infrastructure that has been designed to serve the community's current and future students and by increase the overall tree canopy at the site.	TMM1 TMM2
Any degradation of the quality of the environment?	The proposal will not degrade the environment. Stormwater infrastructure upgrades will reduce off site pollutant discharge and the landscape will be embellished with tree plantings. The inclusion of sediment and erosion control measures will mitigate offsite impacts during construction.	SWMM1 SWMM2 SWMM4 SWMM5
Any risk to the safety of the environment?	The proposal has been designed in accordance with the environmental constraints of the site with particular focus on mitigating flood and bushfire risks. A FERP has been prepared to ensure the safety of students and staff in the event of mainstream flooding.	CMM16 CMM17 OPFMM1
Any reduction in the range of beneficial uses of the environment?	The site is currently vacant and therefore will not reduce the range of beneficial uses of the environment. The site is located within an existing university campus and is compatible with the existing use of the land.	CMM1 to CMM15 CMM19 CMM 20
Any pollution of the environment?	Mitigation measures will be implemented during the construction phase to manage any pollution such as air, noise, vibration and water quality.	CMM1 to CMM15 CMM17 CMM 18 CMM19 SWMM1 SWMM2

Environmental Factor	Consideration	Mitigation Measure Reference
		SWMM4 SWMM5
Any environmental problems associated with the disposal of waste?	During construction, policies have been developed to ensure waste generated by construction activities won't cause any significant impacts. Policies have been provided for the disposal of contaminated waste and sediment. Waste generated by construction activities is proposed to be disposed of at licensed facilities and will be segregated in accordance with EPA waste classification guidelines	LCMM1 LCMM2 CMM20
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	During the construction phase, any materials will be sorted and identified for reuse on site or recycled. The site is proposed to be connected to council's recycled water reticulation supply to reduce reliance on potable water. Energy and water efficient fixtures and fittings are proposed throughout the activity, along with solar panels to reduce reliance on fossil fuels. It is unlikely that the proposal will result in any increased demands on resources.	CMM20
Any cumulative environmental effects with other existing or likely future activities?	The cumulative impacts are likely to be short-term during construction. The operation of the proposal will result in the relocation of staff and students and the closure of an existing temporary school. The sustainable development initiative incorporated in the proposal would lead to an overall reduction in resource usage and operational measures are proposed to reduce reliance on private vehicle usage	CMM1 to CMM15 CMM19 CMM 20
Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	N/A	
Applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act?	The proposal is generally consistent with the strategic objectives of the: <ul style="list-style-type: none"> Greater Sydney Region Plan – A Metropolis of Three Cities The Western District Plan Hawkesbury Local Strategic Planning Statement 2040 	OPMM1 OPMM2 OPMM3 OPMM4 OPMM5

Environmental Factor	Consideration	Mitigation Measure Reference
Other relevant environmental factors?	N/A	
171A Activities in catchments—the Act, s 5.10(a)	<p>The site is located within the Hawkesbury Nepean Catchment which for the purpose of Section 171A of the EP&A Regs is a 'regulated catchment'.</p> <p>When considering the impact of an activity carried out in a regulated catchment, a determining authority must take into account:</p> <ul style="list-style-type: none"> (a) the matters a consent authority must consider under State Environmental Planning Policy (Biodiversity and Conservation) 2021, sections 6.6(1), 6.7(1), 6.8(1) and 6.9(1), and (b) the matters of which a consent authority must be satisfied under <i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>, sections 6.6(2), 6.7(2), 6.8(2) and 6.9(2). <p>As specified by Section 171A(5) of the EPA& A Regs the requirements of this section are in addition to the requirements specified in Section 171.</p> <p>Accordingly, the additional environmental factors relevant to the proposed activity and outlined in <i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>, are discussed below</p>	<p>CMM1 to CMM15</p> <p>CMM19</p> <p>CMM 20</p> <p>SWMM1</p> <p>SWMM2</p> <p>SWMM4</p> <p>SWMM5</p>
<p>6.6 – Water quality and quantity assessment</p> <p>(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied the development ensures—</p> <ul style="list-style-type: none"> (a) the effect on the quality of water entering a natural waterbody will be as close as possible to neutral or beneficial, and (b) the impact on water flow in a natural waterbody will be minimised. 	<p>The site does not currently benefit from inground stormwater management infrastructure. The proposal will include a stormwater pit insert that will function to remove primary pollution from the internal driveway and carpark and will ensure a net beneficial effect on water quality discharged from the site.</p> <p>For primary pollutant removal from the internal driveway and carpark, stormwater pits are proposed with Oceanguard inserts and will alleviate Total Suspended Solids (TSS), Total Phosphorous (TP), Total Nitrogen (TN) and Gross Pollutants (GP) discharged.</p> <p>Prior to construction, sediment and erosion control measures will be installed in accordance with "Managing Urban Stormwater Soil & Construction" 2004 (Blue Book) and the volume of the temporary sediment basins have been designed based on available geotechnical information regarding soil types and through the use of the Soils and Construction Volume 1 Manual.</p>	<p>CMM1 to CMM15</p> <p>CMM19</p> <p>CMM 20</p> <p>SWMM1</p> <p>SWMM2</p> <p>SWMM4</p> <p>SWMM5</p>

Environmental Factor	Consideration	Mitigation Measure Reference
<p>6.7 – Aquatic ecology</p> <p>(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied of the following—</p> <p>(a) the direct, indirect or cumulative adverse impact on terrestrial, aquatic or migratory animals or vegetation will be kept to the minimum necessary for the carrying out of the development,</p> <p>(b) the development will not have a direct, indirect or cumulative adverse impact on aquatic reserves,</p> <p>(c) if a controlled activity approval under the Water Management Act 2000 or a permit under the Fisheries Management Act 1994 is required in relation to the clearing of riparian vegetation—the approval or permit has been obtained,</p> <p>(d) the erosion of land abutting a natural waterbody or the sedimentation of a natural waterbody will be minimised,</p> <p>(e) the adverse impact on wetlands that are not in the coastal wetlands and littoral rainforests area will be minimised.</p>	<p>Indirect adverse impact on terrestrial, aquatic or migratory animals or vegetation will be kept to the minimum necessary for the carrying out of the development. The activity does not require a controlled activity approval under the <i>Water Management Act 2000</i> or permit under the <i>Fisheries Management Act 1994</i> a sediment and erosion control measures installed during the construction phase of the activity would mitigate any potential downstream impacts from sediment discharge.</p>	<p>CMM1 to CMM15</p> <p>CMM17</p> <p>CMM 18</p> <p>CMM19</p> <p>SWMM1</p> <p>SWMM2</p> <p>SWMM4</p> <p>SWMM5</p>
<p>6.8 Flooding</p> <p>(2) Development consent must not be granted to development on flood liable land in a regulated catchment unless the consent authority is satisfied the development will not—</p> <p>(a) if there is a flood, result in a release of pollutants that may have an adverse impact on the water quality of a natural waterbody, or</p> <p>(b) have an adverse impact on the natural recession of floodwaters into wetlands and other riverine ecosystems.</p>	<p>Although located in a regulated catchment, the site is not part of a riverine or wetland ecosystem. The site is affected by localised and riverine flooding during the 1 in 100 flood events and stormwater pits on site are proposed to capture pollutants. The proposal does not abut or drain directly into any natural waterbodies or wetlands and as a result the recession of flood waters off the site would not affect wetlands associated with the Nepean Hawkesbury catchment.</p>	<p>CMM1 to CMM15</p> <p>CMM17</p> <p>CMM 18</p> <p>CMM19</p> <p>SWMM1</p> <p>SWMM2</p> <p>SWMM4</p> <p>SWMM5</p>

Environmental Factor	Consideration	Mitigation Measure Reference
<p>6.9 Recreation and public spaces</p> <p>(2) Development consent must not be granted to development on land in a regulated catchment unless the consent authority is satisfied of the following—</p> <p>(a) the development will maintain or improve public access to and from natural waterbodies for recreational purposes, including fishing, swimming and boating, without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation,</p> <p>(b) new or existing points of public access between natural waterbodies and the site of the development will be stable and safe,</p> <p>(c) if land forming part of the foreshore of a natural waterbody will be made available for public access as a result of the development but is not in public ownership—public access to and use of the land will be safeguarded.</p>	<p>The proposal would not affect public access to and from natural waterbodies for recreational purposes, including fishing, swimming and boating, without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation,</p>	<p>CMM1 to CMM15</p> <p>CMM17</p> <p>CMM 18</p> <p>CMM19</p> <p>SWMM1</p> <p>SWMM2</p> <p>SWMM4</p> <p>SWMM5</p>

7. Justification and Conclusion

The proposed Richmond Agricultural Centre at 2 College Street, Richmond is subject to assessment under Division 5.1 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing need within the community;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

The activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement and/or a BDAR to be prepared. The environmental impacts of the proposal are not likely to be significant.

Therefore, it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act. On this basis, it is recommended that the department determine the proposed activity in accordance with Division 5.1 of the EP&A Act subject to the implementation of mitigation measures identified within this report.