Review of Environmental Factors

Richmond River High Campus Redevelopment

Submitted to NSW Reconstruction Authority on behalf of the NSW Department of Education

24 July 2025

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Acknowledgment of Country

Gyde Consulting acknowledges and pays respect to Aboriginal and Torres Strait Islander peoples past, present, Traditional Custodians and Elders of this nation and the cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander people. We recognise the deep and ongoing connections to Country – the land, water and sky – and the memories, knowledge and diverse values of past and contemporary Aboriginal and Torres Strait communities.

Gyde is committed to learning from Aboriginal and Torres Strait Islander people in the work we do across the country.

Towards Harmony by Aboriginal Artist Adam Laws

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Declaration

This Review of Environmental Factors (REF) has been prepared by Gyde Consulting on behalf of the NSW Department of Education (the department), to assess the potential impacts which could arise from the proposed Northern Rivers Flood Recovery – Richmond River High Campus Redevelopment (RRHC), located at Dunoon Road, 163 and 170 Alexandra Parade, Lismore.

This REF has been prepared to support an approval for the RRHC rebuild under Section 68 of the NSW Reconstruction Authority Act 2022 (RA Act). This project would otherwise constitute an activity under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and would be permissible without development consent (subject to gazettal of the proposed rezoning which is under consideration by the RA) under Section 3.37A of the State Environmental Planning Policy (Transport and Infrastructure) 2021.

Due to the unprecedented flooding in the Northern Rivers region in 2022 and record-breaking water levels affecting several major river systems, the existing RRHC site at Lake Street suffered significant flood damage during these flood events. The majority of its structures suffered above-floor inundation and thus rendered the existing buildings unsuitable for school operations.

Given the circumstances of the delivery of the project, and the location of the activity within a reconstruction area following a disaster that resulted in the declaration of a State emergency, the project will be determined by the RA under the Ministerial powers of Section 68 of the RA Act. To inform the RA's decision, a 'REF style' report has been prepared to provide an equivalent level of assessment to that which would be required under Part 5 of the EP&A Act.

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).

This REF has been prepared by Gyde Consulting with input from several other expert consultants. To the best of our knowledge, the information contained herein is neither false nor misleading and the contents are based on information and facts that were correct at the time of writing. Gyde Consulting accepts no responsibility or liability for any errors, omissions or resultant consequences including any loss or damage arising from reliance in information in this publication.

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Glossary and Abbreviations

Abbreviation	Description
ACD	Asbestos Containing Dust
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACM	Asbestos Containing Materials
AECG	Aboriginal Education Consultative Group
AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System
AIA	Arboricultural Impact Assessment
AMP	Interim Asbestos Management Plan
ANEF	Australian Noise Exposure Forecast
APZ	Asset Protection Zone
ASSMP	Acid Sulfate Soils Management Plan
BC Act	Biodiversity Conservation Act 2016
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
BEMEP	Bushfire Emergency Management and Evacuation Plan
BoM	Bureau of Meteorology
CASA	Civil Aviation Safety Authority
CBD	Central Business District
CBR	California Bearing Ratio
CDC	Complying Development Certificates
CEMP	Construction Environmental Management Plan
CNVMP	Construction Noise and Vibration Management Plan
COLA	Covered Outdoor Learning Area
CPTED	Crime Prevention through Environmental Design
CTMP	Construction Traffic Management Plan
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DDA	*Disability Discrimination Act 1992*
DPHI	Department of Planning, Housing and Infrastructure
DSI	Detailed Site Investigation
DTS	Deemed-to-Satisfy
EDB	Electrical Distribution Boards
EFSG	Education Facilities Standards and Guidelines
EIS	Environmental Impact Statement

Abbreviation	Description
EMP	Environmental Management Plan
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instruments
ERG	Expert Review Group
ESD	Ecologically Sustainable Development
FCF	Fibre Cement Fragments
FDI	Fire Danger Index
FERP	Flood Emergency Response Plan
FFL	Finished Floor Level
FIRA	Flood Impact and Risk Assessment
FOGO	Food Organics and Garden Organics
FPL	Flood Planning Level
FPLDCP	Flood Prone Lands Development Control Plan
FRNSW	Fire and Rescue NSW
FTE	Full Time Equivalent
GANSW	Government Architect NSW
GARS	Lismore Growth and Realignment Strategy
GIPA Act	*Government Information (Public Access) Act 2009*
GLS	General Learning Space
HAA	Baseline Historical Archaeological Assessment
HBM	Hazardous Building Material
ILUA	Indigenous Land Use Agreement
LCC	Lismore City Council
LCSP	*Lismore Community Strategic Plan*
LDCP	*Lismore Development Control Plan 2012*
LGA	Local Government Area
LLEP	*Lismore Local Environmental Plan 2012*
MNES	Matters of National Environmental Significance
MSB	Main Switch Board
MSR	Main Switch Room
NCC	National Construction Code
NLPURA	North Lismore Plateau Urban Release Area
NPW Act	*National Parks and Wildlife Act 1974*
NRAR	NSW Dept of Natural Resources Access Regulator

Abbreviation	Description
NRC	Noise Reduction Coefficient
NRWC	Northern Rivers Wildlife Carers
OLS	Obstacle Limitation Surface
OMP	Operational Management Plan
OSD	On-site Stormwater Detention
OSHC	Outside School Hours Care
PBP	Planning for Bushfire Protection 2019
PCB	Polychlorinated Biphenyls
PCG	Project Control Group
PCT	Plant Community Type
PMF	Probable Maximum Flood
PRG	Project Reference Group
RA	Reconstruction Authority
RA Act	NSW Reconstruction Authority Act 2022
RAP	Remediation Action Plan
REF	Review of Environmental Factors
RFS	NSW Rural Fire Services
RRHC	Richmond River High Campus
RUM	Road User Movements
SAC	Site Assessment Criteria
SCPP DoE	*Stakeholder and community participation plan,* published by the NSW Department of Education October 2024
SCPP DPHI	*Stakeholder and community participation for new health services facilities and schools* published by the Department of Planning, Housing and Infrastructure October 2024
SDRP	State Design Review Panel
SEPP	State Environmental Planning Policy
SES	State Emergency Service
SFPP	Special Fire Protection Purpose
SIA	Social Impact Assessment
SIDRA	Signalised Intersection Design and Research Aid
SINSW	School Infrastructure NSW
SMF	Synthetic Mineral Fibres
SMP	Salinity Management Plan
SoHI	Statement of Heritage Impacts
SSD	State Significant Development
STP	School Travel Plan

Abbreviation	Description
TAIA	Transport and Accessibility Impact Assessment
TEC	Threatened Ecological Community
The department	NSW Department of Education
TI SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
TPZ	Tree Protection Zone
TRH	Total Recoverable Hydrocarbons
TSG	Technical Stakeholder Group
TWG	Transport Working Group
URA	Urban Release Area
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

Executive Summary

This REF has been prepared to support an approval under Section 68 of the NSW Reconstruction Authority Act 2022 (RA Act) for the rebuild of the Richmond River High Campus (RRHC) project. This project would otherwise constitute an activity under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act) as it would be permissible without development consent under Section 3.37A of the State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP).

Due to the unprecedented flooding in the Northern Rivers region in 2022 and record-breaking water levels affecting several major river systems, the existing RRHC site at Lake Street suffered significant flood damage during these flood events. Most of its structures suffered above-floor inundation and thus rendered the existing buildings unsuitable for school operations.

Given the circumstances of the delivery of the project, and the location of the activity within a reconstruction area following a disaster that resulted in the declaration of a State emergency, the project will be determined by the NSW Reconstruction Authority (RA) under the Ministerial powers of Section 68 of the RA Act. To inform the RA's decision, a 'REF style' report has been prepared to provide an equivalent level of assessment to what would be required to support an authorisation under Part 5 (Division 5.1) of the EP&A Act.

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

The Site

The site is located at Dunoon Road, North Lismore and is also known as 163 and 170 Alexandra Parade. It comprises of 3 separate lots, has an area of 33.53 hectares and comprises small scale structures including two residential farmhouses and associated structures (i.e., pool, carport, sheds). Access to the site is via Alexandra Parade, which is Crown land. Alexandra Parade is a local road, and Dunoon Road has a regional classification.

The site consists of relatively flat grassland in the east towards Dunoon Road, rising towards the western boundary. The western most portion of the site is characterised by steep terrain is (in part) subject to a slow-moving landslip. The north-west and south-west corners of the site contain vegetated areas of predominantly Camphor Laurel with regenerating dry rainforest. There is a minor, unnamed drainage line traversing the northern portion of the site, flowing generally from west to east.

The eastern extent of the site is affected by flooding, with the peak PMF flood level sitting at 16.94m Australian Height Datum (AHD). The western extent of the site is identified as bush fire prone land. While the site is not mapped as comprising biodiversity values, there are areas of significant flora and fauna identified on the site. A small patch of primary koala habitat is mapped on the site and there are areas of Lowland Rainforest Threatened Ecological Community (TEC) identified on site, as well as forested areas providing potential fauna habitat. The site has limited public transport and pedestrian accessibility. There is currently no access to cycleways.

The site is partially underlain by areas considered to have a high risk of slope instability. However, the design has been informed by investigations, testing, analysis and an engineered design that responds to the geotechnical conditions of the site.

The study area has high social and aesthetic significance for the local Aboriginal community. It is a component of the wider North Lismore cultural landscape and holds specific connections to local Aboriginal people in association with Banyam/Baigham, an echidna djurabihl, and Aboriginal objects identified during the excavations. However, the Aboriginal objects recovered from test excavation within the study area are of low scientific significance in themselves. The study area has no known historical significance.

While there is no gas supply available in the area, there are existing sanitary drainage, potable water, electricity and telecommunications services available in the vicinity of the site. The site is also located within a drinking water catchment.

The site is within the Obstacle Aircraft buffer 4km area and within an Obstacle Limitation Surface (OLS) area set of RL 54.5m AHD OLS for Lismore Airport. The site is not within any Australian Noise Exposure Forecast (ANEF) contours for the airport, but there are noise generating uses in proximity to the site, including the speedway to the east and industrial uses (such as a concrete batching plant) further south.

The site is immediately south of the North Lismore Plateau Urban Release Area (NLPURA) and is currently in the process of being rezoned to permit the use of the school on the eastern part of the site. The western part of the site will be rezoned to reflect the biodiversity integrity of that part of the site, for conservation purposes.

As summarised above, the site is subject to several environmental constraints. However, as will be demonstrated in this REF, it is sufficiently sized to enable a development outcome that appropriately responds to those constraints.

The Proposed Activity

The proposed activity involves the construction of a secondary school and ancillary facilities on the site for the purpose of the RRHC rebuild. The existing two farmhouses and a number of other structures onsite will be demolished as part of the works. No other works are proposed outside of the school's main footprint, with the areas of mapped vegetation, koala habitat, and bushfire prone lands to the western boundary being retained.

The buildings have been designed to sit outside of the relevant asset protection zone to minimise bushfire risk, and outside of the areas mapped as high flood risk, to minimise risks and impact from flood events. The activity responds to all the relevant site constraints and characteristics identified above in "the site" description.

The proposed new school will accommodate 660 students and 66 full time educations staff, which includes three support teaching spaces across the range of buildings on the site, which extend to a maximum of three storeys.

Project Need and Justification

As noted above, the majority of structures suffered at RRHC were subject to above-floor flood inundation and thus rendered the existing buildings unsuitable for school operations. The school was then subsequently subject to a fire.

The NSW Government is committed to rebuilding RRHC. An investigation into the viability of the site has confirmed the department's intention to rebuild the school back at an alternative location given the devastation that occurred at the former Lake Street site. The school, the activity that is the subject of this REF, has been designed to be flood resilient, and to the latest Education Facilities Standards and Guidelines (EFSG) and the department's standards.

Section 4 of this REF includes a more detailed analysis of options considered and project need.

Permissibility

If this REF was being prepared under typical circumstances (as development permitted without consent under Division 5.1 of the EP&A Act), Section 3.37A of the Transport & Infrastructure SEPP (TI SEPP) would normally apply. In order for a project to be subject to this planning approval pathway, a school must not be a prohibited land use. Permissibility can be established either through the land use zoning in the respective LEP or pursuant to Section 3.36 of the TI SEPP, which states that development for the purpose of a school may be carried out with development consent on land in a prescribed zone. A prescribed zone is defined in Section 3.34 of the TI SEPP; however, it does not include the current RU1 zone. Therefore, the school would

still be a prohibited use under the TI SEPP. Similarly, a school is prohibited under the Lismore LEP in the RU1 zone.

Typically, a rezoning would be required to enable the land use to be permissible, prior to any approval or authorisation being issued. However, a Ministerial Authorisation under Section 68 of the RA Act authorises development without the need for a planning application or other approval under the EP&A Act. Further, Section 69 of the RA Act specifies that a Ministerial Authorisation under Section 68 may have effect despite any environmental planning instrument or development consent. In other words, land use permissibility is not a precondition to the issue of a Section 68 approval by the RA.

Despite this, it is the intention of department and the RA to rezone the land. A rezoning package is currently being considered by the RA, to rezone the land for special purposes (SP2 Educational Establishment) and a mix of conservation lands to reflect the biodiversity value of vegetated areas in the western portion (C2 Environmental Conservation and C3 Environmental Management).

Planning Pathway

Pursuant to Sections 3.37A of the TI SEPP, the proposal would ordinarily be classified as development which may be carried out without consent, and subject to assessment and approval pursuant to Division 5.1 of the EP&A Act. A REF would be prepared to document the findings of the environmental assessment of the activity, to determine whether the proposal will have a significant impact on the environment.

However, as noted earlier, given the importance and urgency of the delivery of this flood recovery rebuild, the RA will determine the project pursuant to Section 68 of the RA Act. This REF has been prepared to inform the RA's decision regarding the reconstruction of the school at the site, the risk response to the flood affectation of the site and surrounds, the impacts of the proposal and the mitigation measures required to be imposed to ensure all impacts are reasonably mitigated or managed.

Consultation

The activity has been subject to considerable consultation and engagement with key stakeholders. This includes meetings and workshops with Lismore City Council (LCC), Department of Planning, Housing and Infrastructure (DPHI), the Department of Climate Change, Energy, the Environment and Water (DCCEEW), the State Emergency Service (SES), the Reconstruction Authority (RA), Transport for NSW (TfNSW), Heritage NSW, Registered Aboriginal Parties (including a walk on Country), the Government Architect NSW (GANSW) School Design Review Panel (SDRP) and the local Community (through workshops, informational updates, and project website). A series of cross-government risk workshops were also undertaken in late 2024/early 2025 to evaluate flood risk relevant to the site and agree an approach to assessment, risk mitigation and emergency management.

Formal consultation regarding the project will be undertaken by means of exhibition of this REF and supporting documentation. Exhibition will be equivalent to the consultation that would ordinarily be undertaken per the TI SEPP and having regard to the Stakeholder and community participation plan for new health services facilities and schools (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, where required, prior to the RA's determination of the proposal.

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 EPBC Act.
- Whether a species impact statement would be required under the Biodiversity Conservation Act 2016.

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

- **Flooding –** Portions of the site are located within multiple flood risk zones, with flood modelling showing significant inundation during major events. In response, the proposed school buildings are designed with finished floor levels above the probable maximum flood (PMF) plus freeboard to mitigate risk. Comprehensive flood mitigation measures include diversion channels, detention basins, and stormwater infrastructure, which have been incorporated alongside a Flood Emergency Response Plan (FERP) that outlines evacuation procedures, shelter-in-place strategies, and clear communication protocols coordinated with State Emergency Service (SES). Ongoing training, monitoring, and emergency preparedness will ensure that flood risk to the school and its users is managed to an acceptable level.
- **Bushfire –** A Bushfire Hazard Assessment (BHA) confirmed that all proposed school buildings are sited outside the required 38m Asset Protection Zone (APZ) and will be constructed to BAL-19 standards in accordance with Planning for Bushfire Protection 2019 and AS3959-2018. The design includes appropriate landscaping, non-combustible fencing, emergency vehicle access, and a firefighting water supply exceeding requirements to effectively manage bushfire risk. Ongoing compliance and operational preparedness will be ensured through detailed design, construction specifications, and a Bushfire Emergency Management and Evacuation Plan prior to occupation.
- **Ecology and Biodiversity** – The Arboricultural Impact Assessment (AIA) identified the need to remove 20 trees, mostly weed species or low retention value vegetation, with mitigation measures in place to protect retained trees and enhance canopy cover by planting new trees. The Biodiversity Assessment Report (BAR) found four vulnerable threatened flora species onsite and potential koala habitat, but no significant impact on threatened fauna or ecological communities is expected due to the activity's location within cleared pastureland and retention of key vegetation areas. Overall, the project is unlikely to significantly affect biodiversity values or require further detailed biodiversity approvals, provided recommended mitigation measures are implemented.
- **Traffic, Access and Parking** – The school's access, parking, and internal circulation, including a new Dunoon Road intersection, are designed to operate safely and efficiently without adverse impacts on the local road network. Forecasted 2027 traffic volumes show that key intersections will continue to perform well, with no mitigation required. The accompanying School Transport Plan promotes sustainable travel modes and includes ongoing monitoring, management, and stakeholder engagement to support safe and efficient school access.
- **Noise and Vibration** – With recommended mitigation measures including mechanical plant acoustic treatments, controlled PA system use, and a Construction Noise and Vibration Management Plan, the activity (in both construction and during operation) is expected to comply with relevant noise criteria. Overall, the project will not result in significant adverse noise or vibration effects on the surrounding environment or school amenity.
- **Soils and Geology –** The site is not located within an acid sulfate soil risk area and no indicators of salinity or acid sulfate soils were observed; therefore, no management plans are required. Geotechnical investigations identified slope instability in the north-west and highly reactive, fissured clays across the site, requiring careful excavation design, deep piling for foundations, and site-specific retention systems. Subject to further design development and implementation of the recommended mitigation measures, the site is considered suitable for the proposed development.
- **Surface Water and Groundwater –** The Supplementary Groundwater and Surface Water Impact Assessment found that while groundwater and surface water quality showed some elevated levels of manganese, selenium, and microorganisms, these pose low risk and can be managed with mitigation measures such as treatment prior to discharge. The stormwater design, including on-site detention tanks and water quality treatment devices, meets Council's discharge and pollutant reduction targets, ensuring no significant environmental impact if mitigation measures are implemented.
- **Contamination** – The Supplementary Investigation (SI) confirmed the site is suitable for the proposed development from a contamination perspective, with no significant or widespread contamination detected and all soils classified as Virgin Excavated Natural Material (VENM). Whilst the potential for

asbestos and other contaminants is considered low, an unexpected finds protocol is recommended as a precaution due to historical land uses and some sampling limitations.

- **Hazardous Building Materials** – The Hazardous Building Materials (HBM) assessment identified various hazardous materials, including friable and non-friable asbestos, lead-based paint, synthetic mineral fibres, and potential polychlorinated biphenyls (PCB), with two friable items posing a high risk. With appropriate mitigation, primarily the removal of all hazardous materials likely to be disturbed before demolition the works are not expected to have a significant environmental impact**.**
- **Waste Management** – The Waste Management Plan (WMP) prioritises waste avoidance, minimisation, and recycling throughout demolition, construction, and operation of the school, with hazardous materials like asbestos managed in accordance with Environmental Protection Authority (EPA) guidelines. Waste generated during operations will be efficiently handled through clearly defined responsibilities, adequate waste storage, and regular monitoring, ensuring minimal environmental or health impacts when mitigation measures are implemented.
- **Aboriginal Heritage** – The Aboriginal Cultural Heritage Assessment Report (ACHAR) found that the site holds high cultural significance for the Widjabul Wia-bal people due to its connection with the echidna djurabihl and broader ceremonial landscape. Whilst no further excavation is required, an Aboriginal Heritage Impact Permit (AHIP) is recommended to manage and protect known and potential Aboriginal objects, with mitigation measures ensuring no significant impacts under the EP&A Act.
- **Visual Impact** – The Visual Impact Assessment (VIA) concludes that views rated as moderate or low impact have been carefully addressed through design, with extended setbacks and a detailed landscaping plan proposed. The mitigation measures provided ensure that any visual effects will be localised and have minimal impact on the broader surrounding area, particularly in the context of the transitioning character of the locality as the urban release area in the North Lismore Plateau is developed.
- **Social impact** – The Social Impact Assessment (SIA) found that the rebuild of RRHC will deliver very high positive social outcomes, particularly through improved education infrastructure, stronger community cohesion, enhanced First Nations engagement, and increased flood resilience. While minor impacts such as traffic may occur, these can be effectively mitigated/managed, and the overall project is expected to significantly benefit the school community and broader Lismore region.

Standard and bespoke 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.

Other impacts have been considered as detailed in this REF.

Other Approvals Required

Section 68 of the RA Act states that the Minister may authorise the undertaking of development without an approval or assessment under the EP&A Act and without consent from any person. Unless the Ministerial authorisation explicitly states that another Act or statutory instrument does not apply, other approvals *may* be required under other NSW legislation. For this project, approval under Section 138 of the Roads Act 1993 for the new driveway to the site and off-site transport improvements is not required to be obtained by a public authority, such as the department. However, landowners' consent will be required from TfNSW prior to undertaking the works given the land is within its ownership.

Based on the excavation requirements for the activity, temporary dewatering during construction will likely be required, as will the requisite approvals from the relevant agency under the *Water Management Act 2000*.

Separate consent may be required from LCC, under Section 68 of the Local Government Act for stormwater drainage work (Part B of Section 68).

Through a process of archaeological test excavations, and field surveys, the ACHAR has confirmed that the RRHC site area contains Aboriginal objects. Provisions under Section 90 of the *National Parks and Wildlife Act 1974* (NPW Act) require an application for an Aboriginal Heritage Impact Permit (AHIP) that allows harm to identified Aboriginal objects.

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 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, if this project had proceeded as a Part 5 activity, an Environmental Impact Statement would not be required to be furnished to the department prior to approval of the activity. Further, the proposal 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 RA approve the proposal in accordance with Section 68 of the RA Act, and subject to the adoption and implementation of mitigation measures identified within this REF.

1. Introduction

The department proposes to relocate and rebuild the Richmond River High Campus (the activity) at the site. This REF will demonstrate that the new school buildings have been sited and designed to respond to the specific constraints and site conditions, and the surrounding area.

This REF has been prepared by Gyde on behalf of the department to evaluate the environmental impacts of the proposed activity. The purpose of this REF is to describe the activity, examine and take into account all matters affecting or likely to affect the environment and to detail protective measures to be implemented to mitigate impacts.

For the purpose of these works, the department is the proponent, and the Reconstruction Authority (RA) is the approval authority under Section 68 of the NSW Reconstruction Authority Act 2022. This REF will assist the RA in it's determination of the proposed activity.

Under typical circumstances, the proposed activity would be categorised as a *new government school – development permitted without consent* pursuant to Section 3.37A of the TI SEPP, as it would meet all the following requirements (subject to gazettal of the rezoning):

> *(1) Development for the purposes of a government school may be carried out by or on behalf of a public authority without consent on land—*
>
> *(a) in a prescribed zone, and*
>
> *(b) on which there is no existing or approved school.*
>
> *(2) A building resulting from development carried out on land under this section 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, and*
>
> *(b) 4 storeys.*

As part of the broader scope of works associated with the rebuild, the department will be undertaking minor ancillary public domain improvements including at the proposed intersection of the site with Dunoon Road. These improvements are entirely ancillary to the activity.

A detailed description of the proposed activity and assessment of the associated environmental impacts have been documented in this REF 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 EP&A Regulation, 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 EIS to be prepared and separate approval to be sought from the Minister for Planning and Public Spaces under Part 5 of the EP&A Act; and
- The potential for the activity 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.

The REF addresses the requirements of Section 5.5 of the EP&A Act, which requires the department to examine, and take into account to the fullest extent possible, all matters affecting, or likely to affect, the environment by reason of the proposed activity.

2. The Site and Proposed Activity

2.1 The Site and Surrounds

The site is located at 163 and 170 Alexandra Parade, North Lismore, refer to Figure 1. The site is in in the Lismore City Local Government Area (LGA) and under the planning jurisdiction of Lismore City Council. The site is comprised of three allotments with a combined area of approximately 33.53 hectares. The site is legally described as:

- Lot 1 in DP 376007.
- Lot 1 in DP 539012.
- Lot 2 in DP 539012.

The site is directly bound by Dunoon Road to the east and Alexandra Parade to the south. To the north is rural land and to the west is a densely vegetated hill. The site has a primary frontage to a Regional classified road, being Dunoon Road. The secondary frontage is to Alexandra Parade which is a local classified road and Crown land. The site is currently accessible via Alexandra Parade.

The site is sparsely vegetated and is currently used for rural residential purposes. There are two existing farmhouses on the site in the south-eastern corner, which are both accessible via Alexandra Parade. Both farmhouses are single storey with a pitched roof. There are also several shed structures on the site that appear to be associated with the rural residential uses.

Vehicular access to the site from Alexandra Parade comprises a mix of bitumen and gravel roadways.

An aerial image of the subject site is shown below.

Figure 1 **Aerial view of the site outlined in red (Source: Nearmap)**

2.1.1 Surrounding Locality

The site is located in North Lismore, approximately 3km north-west of the main township of Lismore and directly west of Lismore Showground. Lismore is located in the North Rivers region of NSW, approximately 200km of Brisbane and 734km north of Sydney. The Lismore City LGA is the traditional home of the Widjabul Wia-bal people of the Bundjalung Nation.

North Lismore is in the Richmond River catchment at the confluence point of Leycester Creek and Wilson Creek. Lismore and the surrounding area have experienced several extreme flooding events, including significant impacts from the 2022 floods.

Figure 2 **Regional context of the site (red star) in the North Lismore suburb (Source: Lismore City Council IntraMaps)**

Figure 3 **Aerial image of the site (outlined in red) in the context of the North Lismore suburb (Source: Nearmap)**

The surrounding area is generally rural in nature, consisting of a mix of rural residential properties to the north, stockyards and small-scale industry including a Boral Concrete batching plant to the south, Lismore Showground, go-kart club, Lismore Farmers Market to the east, and rural bushland and a quarry to the west.

It is noted within the Chapter 10 of the Lismore Development Control Plan 2012 (LDCP), that the adjacent quarry is disused, not currently operational. It is located in the North Lismore Plateau Urban Release Area (NLPURA) and is mapped as being a potential park/open space venue for recreational activities. This is further detailed below.

There are no existing educational establishments within close proximity to the site. There are a number of these located further southwest and within the boundaries of the North Lismore suburb or just on the outskirts. The following educational establishments are located within the wider Lismore area, though not immediate near to the site:

- Lismore South Public School
- Lismore Public School
- Lismore Heights Public School
- Lismore High School
- Wyrallah Road Public School
- Goonellabah Public School
- Wilson Park School
- Albert Park Public School
- St Carthage's Primary School
- Trinity Catholic College Lismore
- Blue Hills College Lismore
- Our Lady Help of Christian's Primary School
- Summerland Christian College
- St John's College Woodlawn
- Vistara Primary School
- Bexhill Primary School
- Caniaba Public School

2.1.2 Planning Context

Pursuant to the *Lismore Local Environmental Plan 2012* (LLEP) the site and surrounding areas are zoned as follows:

- The Site – currently zoned RU1 Primary Production, however it is intended to be rezoned by the RA as SP2 Educational Establishment (school footprint), C2 Environmental Conservation, and C3 Environmental Management. This process (rezoning) is currently underway. Refer to Section 5.1 of this REF for further discussion. Note the figure overleaf reflects the current zoning and not the intended future zoning that is currently under consideration by the RA.
- North – mix of E1 Local Centre, R1 General Residential and C3 – Environmental Management
- South – RU1 Primary Production immediately south, then E4 – General Industrial
- East – RE2 Private Recreation and RE1 Public Recreation
- West – C3 Environmental Management, R1 General Residential and C2 Environmental Conservation

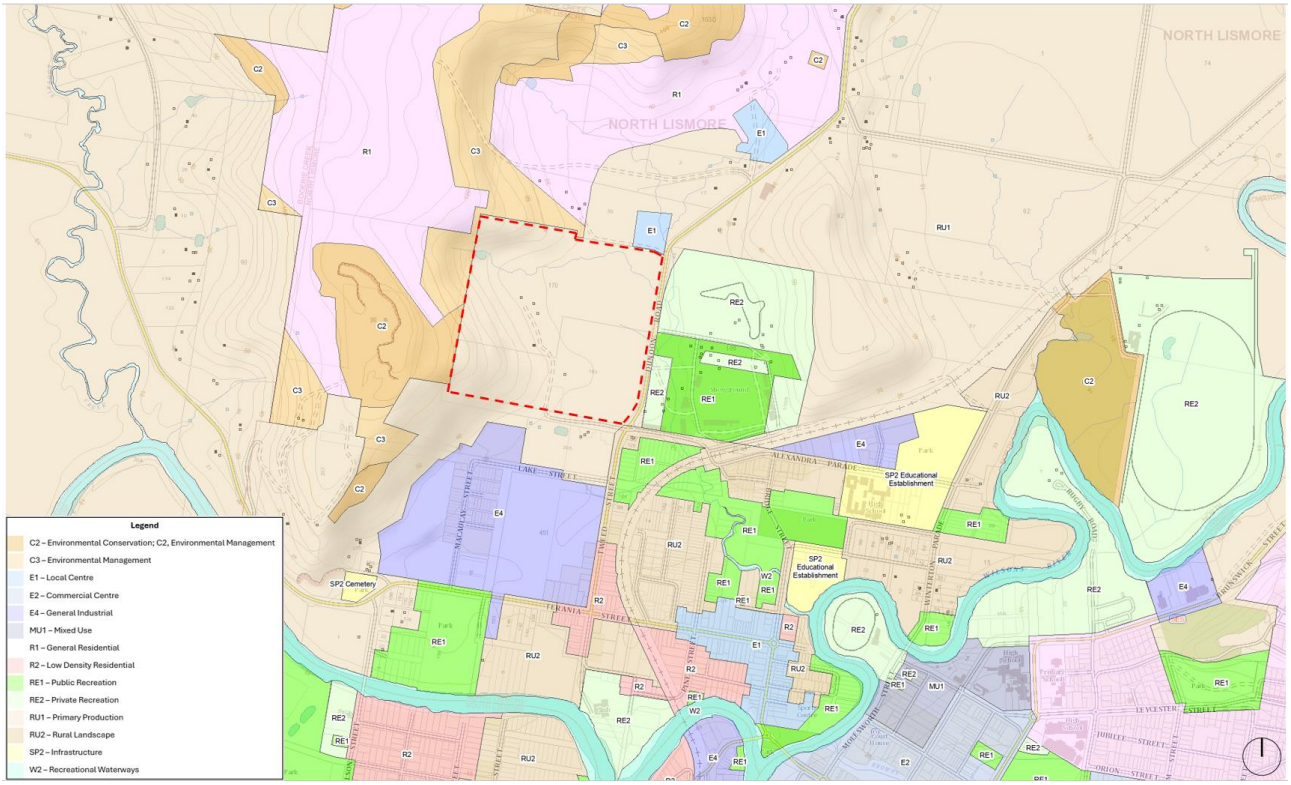


Figure 4 **Current land use zoning of surrounding area (prior to RA Rezoning) (Source: NSW Planning Portal Spatial Viewer)**

Whilst the area is currently general rural and relatively undeveloped (particularly to the north), this area is marked as a significant greenfield area in transition. Lands to the north and further west are identified as an urban release area with much of the land zoned for general residential purposes.

The site is located directly south of an area that is identified as the NLPURA which under Chapter 10 of the LDCP, will be subject to future growth and a new residential community. The Urban Release Area (URA) is outlined in Figure 5 with the subject site outlined in the heavy red dashed line. The URA will see the overall area transition from predominantly rural to largely urban and residential.

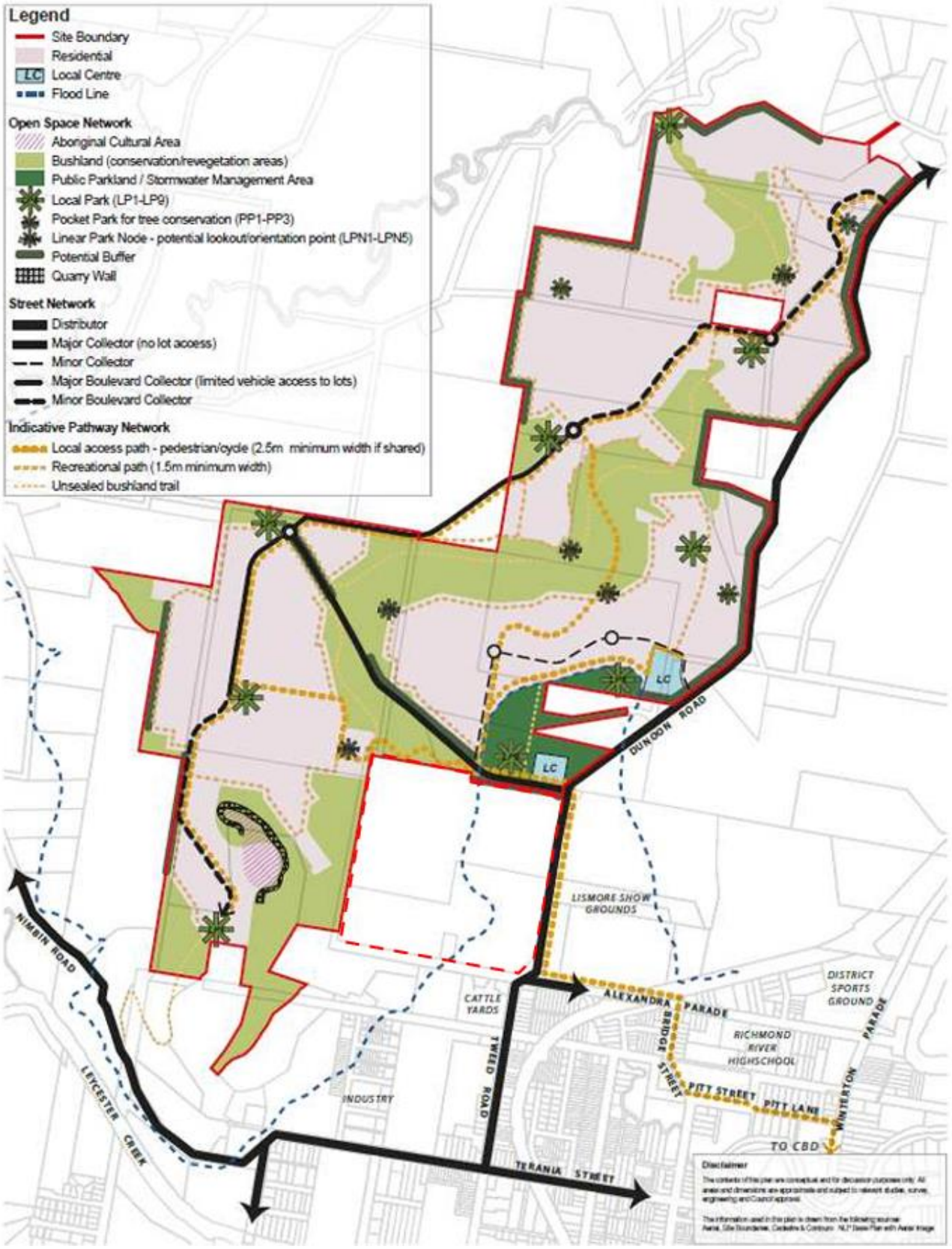
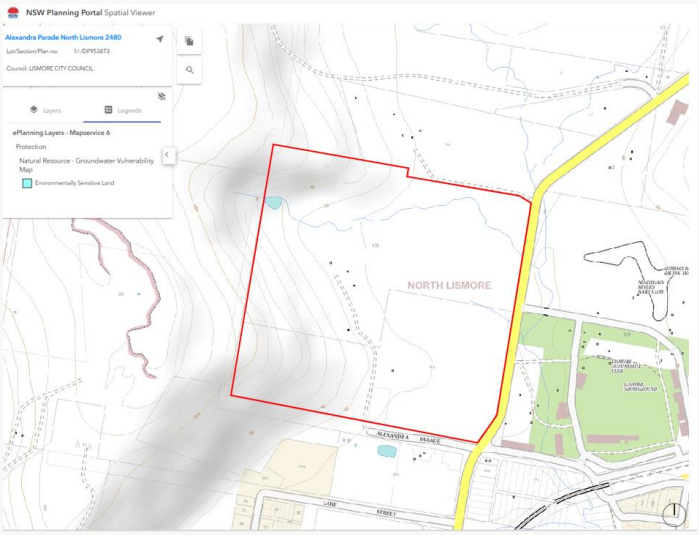


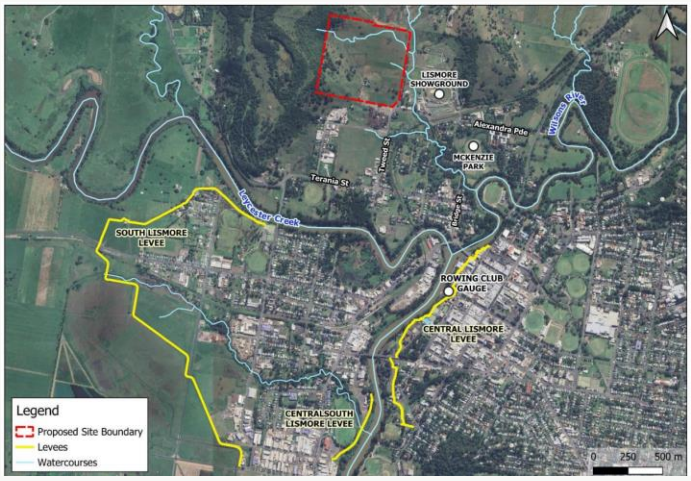
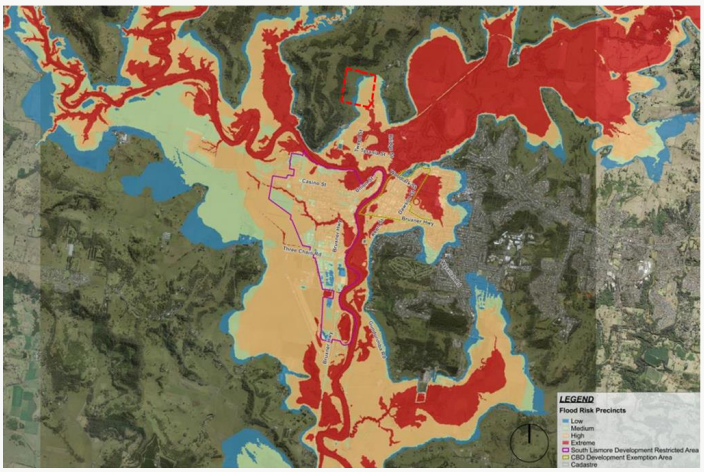
Figure 5 **Extract of the North Lismore Plateau URA with the subject site outlined in red (Source: Chapter 10 of the LDCP)**

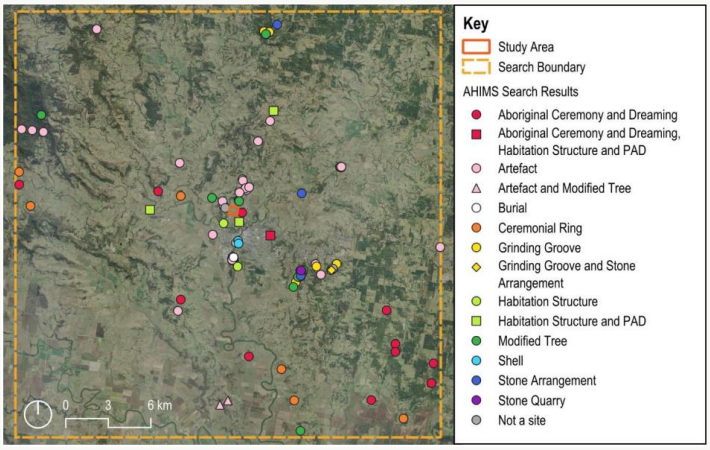
2.1.3 Site Constraints and Opportunities

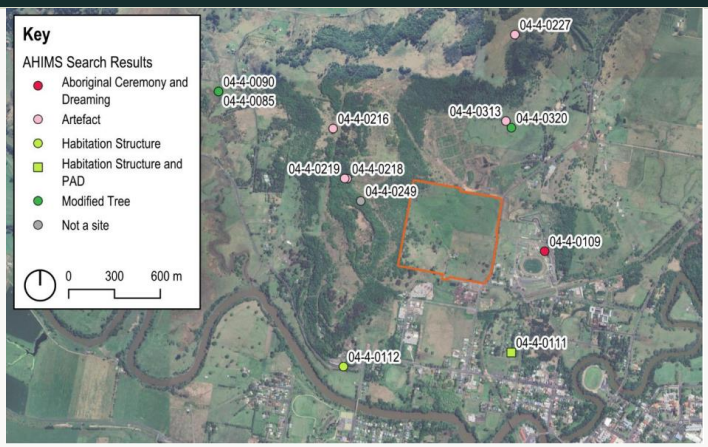
Table 1 **Site considerations and constraints**

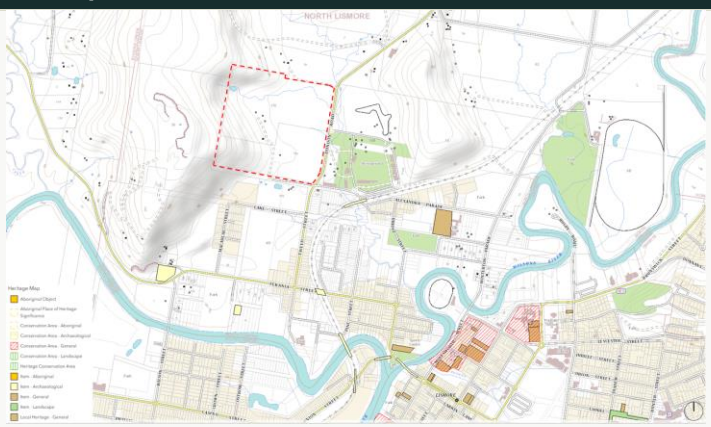
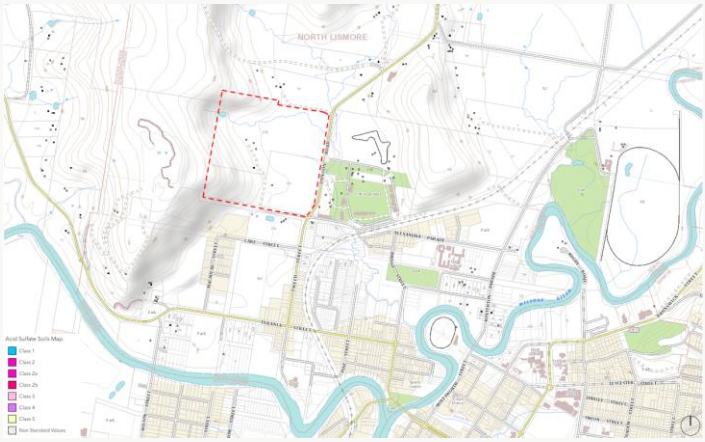
Matter	Applies?	Source	Description
Crown Land	No	NSW Planning Portal Spatial Viewer	The site is adjacent to Crown land along Alexandra Parade. No works are proposed on this Crown land.  **Figure 6** **Crown land surrounding the subject site (outlined in red) (Source: NSW Planning Portal Spatial Viewer)**
Significant Farmland / Biophysical Strategic Agricultural Land	Yes	NSW Planning Portal Spatial Viewer	The site is (in part) mapped by Council as comprising Regionally Significant Farmland. Further, the site is (in part) mapped as comprising Biophysical Strategic Agricultural Land. Strategic planning policies and Council's DCP support protection of strategic and important agricultural/farmland. Other non-agricultural development may be supported if it does not fragment, alienate such lands and providing the development does not cause any land use conflict with surrounding agricultural land.  **Figure 7** **Biophysical Strategic Agricultural land mapping (Source: NSW Planning Portal Spatial Viewer)** However, while there is strategic basis for this, the maps for this area and the agricultural uses are now out of date following the rezoning of the NLP. Furthermore, the site is adjacent to the planned URA to the north and west that will all be urban land in the future. The site is the only land that will not be absorbed by the URA. As RRHC offers agricultural learning opportunities, there will be agricultural plots and associated activities by the

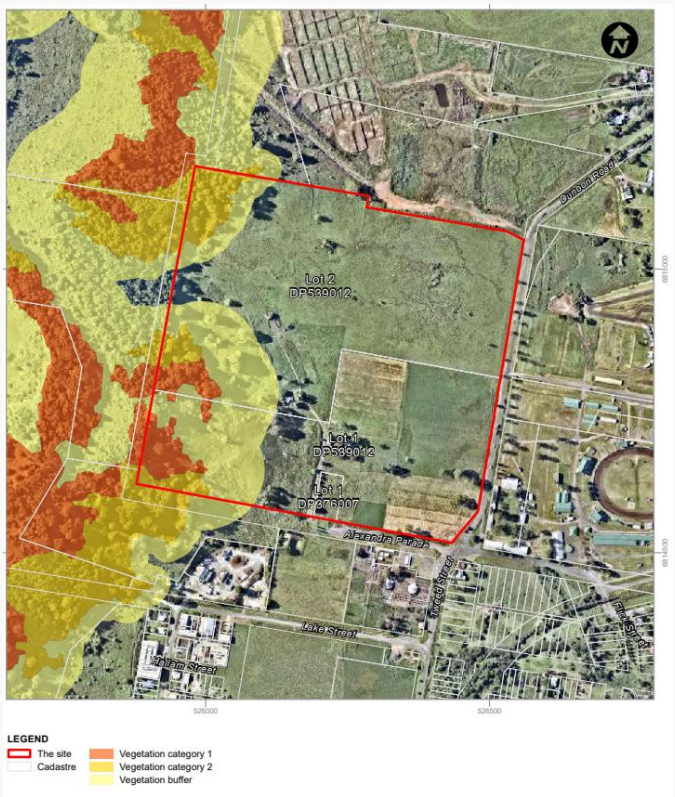
Matter	Applies?	Source	Description
			school to support the agricultural aspect of the curriculum. Therefore, in terms of compatibility of use, a school with supporting agricultural function will be more compatible with future urban uses than would be sole primary production uses on the site. It is not envisaged that the development will fragment, or alienate the lands, nor will it cause any land use conflict with surrounding agricultural lands.
Hydrology and Groundwater	Yes	Supplementary Surface and Groundwater Impact Assessment (Appendix 33)	The site is not mapped as being subject to groundwater vulnerability.  **Figure 8 Groundwater vulnerability map (Source: NSW Planning Portal Spatial Viewer)** Subsurface conditions at the site are expected to consist of variable soils, including alluvial soils. Groundwater is anticipated to fall generally toward the southeast of the site overall. Groundwater flows locally in the vicinity of the hillside (western part of the site) are expected to align with the site's topography. Groundwater dependent ecosystems are not present onsite. Inflow dependent ecosystems were not identified onsite or within 500m radius of the site. The site is not listed under the Ramsar Wetlands Register.
Flooding	Yes	Flood Impact Risk Assessment (Appendix 29) Section 10.7 Planning Certificates Flood Prone Lands DCP	Lismore is in one of the most flood-prone urban areas in Australia, characterised by its geographical location at the junction of two major streams; Leycester Creek and Wilsons River. The Wilsons River and Leycester Creek, fed by numerous major creeks, converge in the vicinity of Lismore. Major flooding events can arise from increased water levels in either the Wilsons River or Leycester Creek. Significant flooding may also occur when both watercourses experience flooding simultaneously. There are several significant hydraulic controls within the Lismore floodplain, including the South Lismore Levee, CBD Levee, Gasworks Creek floodgates, Hollingworth Creek floodgates, Bruxner Highway, and the railway embankment. North Lismore is a low flood island that is not protected by any of these

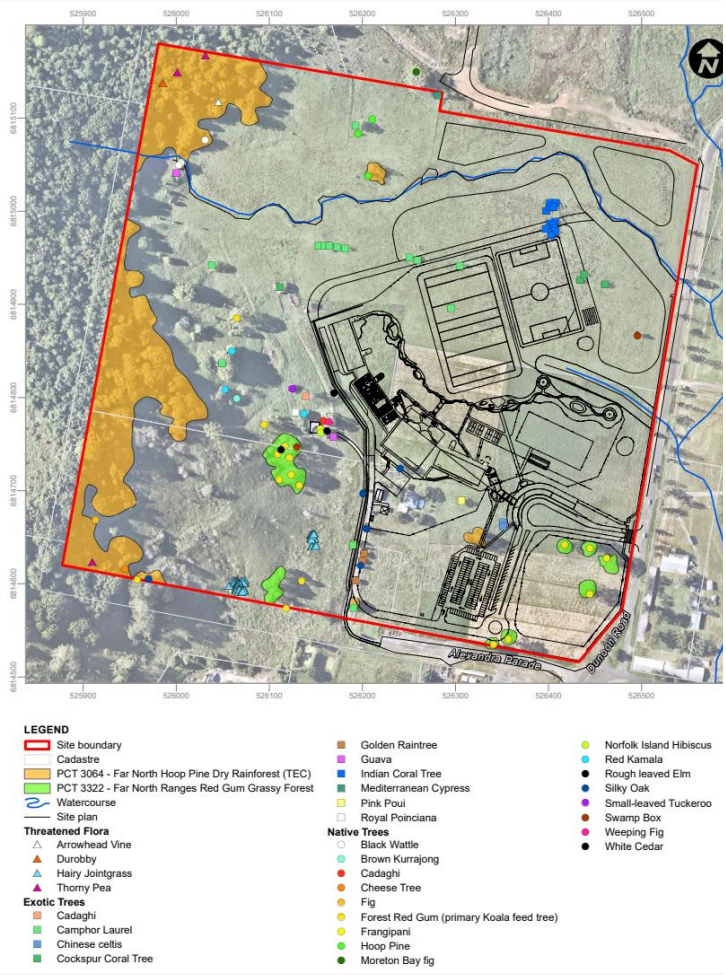
Matter	Applies?	Source	Description
			hydraulic controls, which are situated in South and Central Lismore. The most severe recorded flood in Lismore occurred on February 28, 2022, with the flood level at the Rowing Club Gauge on the Wilsons River peaking at 14.4m AHD. Prior to this event, the record stood at 12.11m AHD, a height reached during floods in February 1954 and March 1974. Additionally, the flood in March 2017 reached a level of 11.6 m AHD. Portions of the site are located within the following flood risk zones as set out in the LDCP; Flood Fringe Area and Low Flood Risk Area. Refer to figure 9 below.  **Figure 9** **Major streams and hydraulic controls in the vicinity of the site (Source: Flood Impact and Risk Assessment)** The eastern part of the site is identified as a low to extreme flood risk area as identified in the Flood Prone Lands Development Control Plan (FPLDCP). The Section 10.7 Planning Certificates identify the site as '*land identified as being located between the flood planning area and the probable maximum flood and subject to flood related development controls'.* 

Matter	Applies?	Source	Description
			Figure 10 **Flood Risk Precincts Map, approximate site location outlined in red (Source: Flood Prone Lands Development Control Plan)**
Drinking Water Catchment	Yes	LLEP NSW Planning Portal Spatial Viewer	The site is located within a drinking water catchment pursuant to Clause 6.4 of the LLEP. The drinking catchment is not a regulated catchment as per 171A of the EP&A Act (Sydney Drinking Water Catchment, Georges River Catchment, Sydney Harbour Catchment, and the Hawkesbury-Nepean Catchment).  **Figure 11** **Drinking Water Catchment Mapping (Source: NSW Planning Portal Spatial Viewer)**
Aboriginal Cultural Heritage	Yes	Aboriginal Cultural Heritage Assessment Report (Appendix 23)	There are no Aboriginal Heritage Information Management System (AHIMS) sites located within the site area, but there are 8 sites located within 1km of the site (the majority of which are artefact sites).  **Figure 12** **AHIMS search results for the landscape surrounding the study area (Source: ACHAR)**

Matter	Applies?	Source	Description
			 **Figure 13 Details of AHIMS search results (Source: ACHAR)** There are no EPI recorded sites of Aboriginal Cultural Heritage Significance on the subject site. The area has very high cultural significance to the local Aboriginal people, particularly the Widjabul Wia-bal People, as part of the wider cultural landscape, and the Bundjalung Nation. The project area is located within the boundary of the determined Widjabul Wia-bal Native Title determination area, and Indigenous Land Use Agreement (ILUA). The site is located adjacent to the Lismore Showground, which was traditionally used as a Wandarahn (Bora Ring) by the Widjabul Wia-bal people, which was a ceremonial meeting space. It was identified at the site was highly culturally significant due to its association with nearby ceremonial and significant sites in Widjabul Wia-bal's cultural landscape. The southern spur was noted as the 'snout' of the echidna, associated with the nearby djurabihl site.
Non-Aboriginal Heritage	No	Statement of Heritage Impact (Appendix 25)	The site is not listed as a local heritage item under the LLEP, or a state listed heritage item under the Heritage Act 1977. The site is located within proximity to the following heritage items: Lismore Railway Underbridges (SHR #01044). Also listed as an Archaeological Site, Railway Viaduct, Alexandra Parade (LEP A7, State Significance). Richmond River High School (LEP #I92, Local Significance). Also listed as Richmond River High School (S170 #4640357). Richmond River High School Grounds (LEP #I30186, Local Significance).

Matter	Applies?	Source	Description
			 **Figure 14** **Heritage items in the vicinity of the subject site (Source: NSW Planning Portal Spatial Viewer)**
Acid Sulfate Soils	No	Supplementary Salinity and Acid Sulfate Soil Assessment & Salinity Management Plan (Appendix 30.1)	The site is not mapped as being affected by Acid Sulfate Soils (Class 5) pursuant to Clause 6.1 of the LLEP.  **Figure 15** **Acid sulfate soils (Source: NSW Planning Portal Spatial Viewer)**
Salinity	No	Supplementary Salinity and Acid Sulfate Soil Assessment & Salinity Management Plan (Appendix 30.1)	There was no dryland salinity national assessment data for the site.
Geotechnical and Contamination	Yes	Supplementary Contamination Investigation (Appendix 30) Further Geotechnical Investigation (Appendix 18)	The site is partially underlain by areas considered to have a high risk of slope instability. The northern portion of the site has undergone recent landslide movement. There are numerous surface indications of slumping and flow slides within the western portion of the site, particularly in the steeply sloping areas, with dense bushland located immediately upslope. The farm dam is located on an active landslide, as inferred from the above-mentioned surface indications of slumping and flow slides. The side slopes of

Matter	Applies?	Source	Description
			the spur over the central portion of the site typically sloped down to the north, west and south, at approximately 10° from a gently sloping crest area to the relatively flat flood plain below. The site surrounds are subject to historic agricultural activities. Potential risks of contamination are present in the existing farmhouses onsite and hazardous buildings materials, pesticides and agricultural uses, and historic fill material.
Asbestos	Yes	Hazardous Building Materials Assessment (Appendix 31)	The two existing buildings on site are due for demolition to accommodate the proposed activity. Hazardous building materials may be present as a result of former building and demolition activities and in the existing buildings/structures on the site.
Bushfire	Yes	Bushfire Hazard Assessment (Appendix 28)	The western extent of the site is identified as bush fire prone land, comprising Vegetation Category 1, Vegetation Category 2, and Vegetation Buffer.  **Figure 16 Bushfire Mapping affecting the site (Source: Bushfire Hazards Assessment)**
Vegetation	Yes	Arboricultural Impact Assessment (Appendix 27)	The site contains scattered trees, particularly within the southern portion. The density of landscape coverage increases towards the western boundary of the site, noting that further west of the site is an extensive area of bushland/vegetation. The site has been historically cleared and used for cattle grazing. In general terms, it comprises a mixture of exotic and, to a lesser extent, native grass species, making up a pasture grass complex. In the western portion of the site,

Matter	Applies?	Source	Description
			areas of Camphor Laurel (Cinnamomum camphora) and Large-leaved Privet (Ligustrum lucidum) provide habitat for early regenerating pioneer subtropical rainforest species. Exotic and native paddock trees occur scattered throughout the site, including Forest Red Gum (Eucalyptus tereticornis), which occurs in the southern portion of the site outside the proposal footprint. Four threatened flora species were detected onsite, these species are listed as vulnerable under the Biodiversity Conservation Act 2016 (BC Act) and the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act): • Hairy Jointgrass.(Arthraxon hispidus). • Thorny Pea (Pedleya acanthocladum). • Arrow-head Vine (Tinospora tinosporoides). • Durobby (Syzygium moorei).  **Figure 17 Vegetation Mapping (Source: Biodiversity Assessment Report)**
Koala Habitat		Biodiversity Assessment	A small patch of mapped Primary Koala Habitat occurs to the southwest of the site. The western boundary

Matter	Applies?	Source	Description
		Report (Appendix 26)	encompasses vegetation that is mapped as 'Unknown Koala Habitat'.

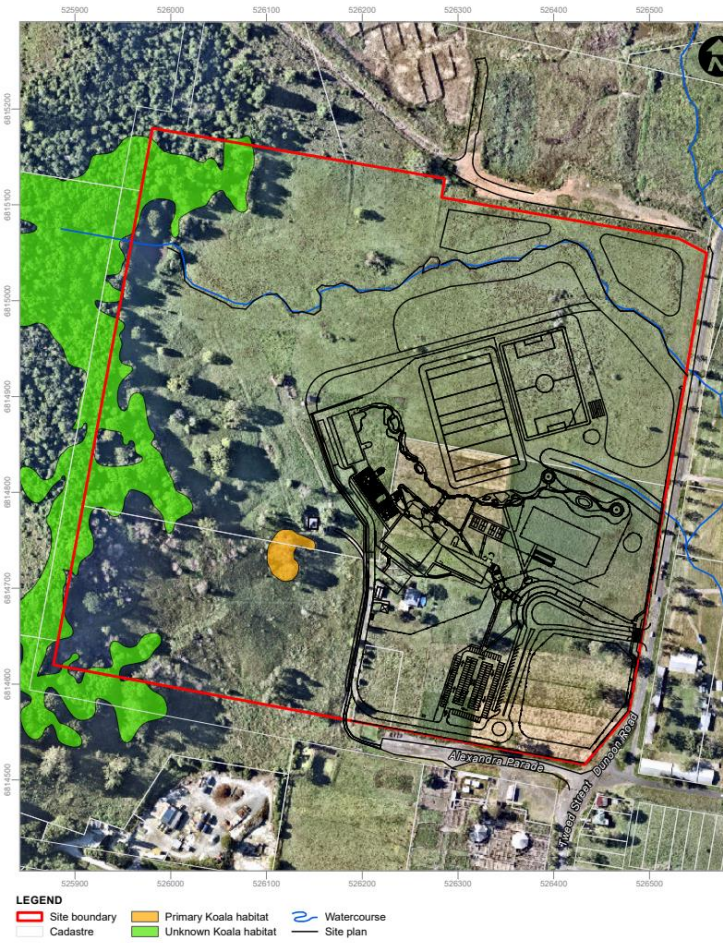
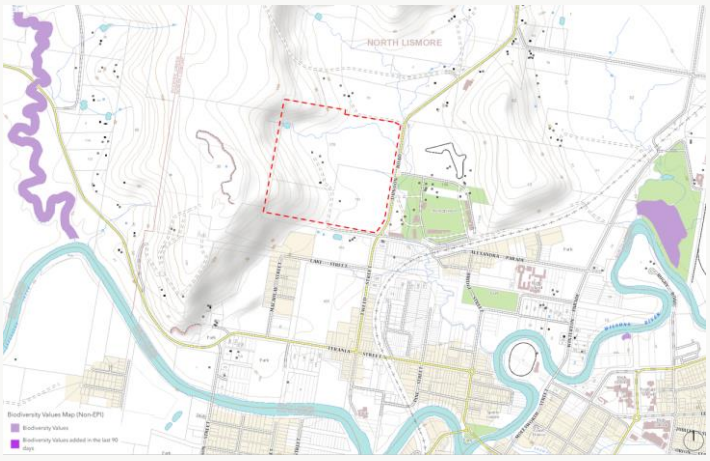


Figure 18 **Koala Habitat Mapping (Source: Biodiversity Assessment Report)**

Biodiversity		Biodiversity Assessment Report (Appendix 26)	The NSW Biodiversity Values (BV) Map identifies land with high biodiversity value particularly sensitive to impacts from development. No areas of BV mapping occur on or in proximity to the site.



Matter	Applies?	Source	Description
			Figure 19 **Biodiversity Values Map (Source: NSW Planning Portal Spatial Viewer)**
Aviation	Yes	LLEP LDCP	Due to its proximity to Lismore Airport, the site is within the Obstacle Aircraft buffer 4km area and within an Obstacle Limitation Surface (OLS) area set of RL 54.5m AHD OLS. Therefore, the development restrictions set out in LDCP apply to the site. The controls require that developments above RL 54.5m AHD obtain approval from the Civil Aviation Safety Authority (CASA). It is subject to the inner horizontal surface classification and a maximum height of RL 54.5m AHD before the airspace is considered to be 'penetrated'.  **Figure 20** **Lismore Aircraft Obstacle Buffer Mapping (Source: Lismore City Council IntraMaps)** The site is not affected by any ANEF contours for the airport.  **Figure 21** **Lismore Airport ANEF Mapping (Source: Lismore City Council IntraMaps)**
Infrastructure – Services	Yes	Building Services Infrastructure Report (Appendix 10)	Electricity – At this site location, there is an overhead network located approximately 330m to the south from the proposed school building location. There is existing 11kV (3-phase) Essential Energy network, and this is located within the road reserve at the intersection of Dunoon Road and Alexandra Parade. The existing 11kV network extends

Matter	Applies?	Source	Description
		Survey Plans (Appendix 06)	toward north-west from the intersection into property that has a pole mounted substation 6527 installed, and this supports two connections. Importantly, there is no authority electricity network between the intersection at Alexandra Parade and the site. Telecommunications – The site currently has an existing underground communications network in Dunoon Road, Alexandra Parade and Lake Street. From the Dial Before You Dig enquiry, the providers supplying the area are Telstra, NBN and Optus. Potable Cold Water - There is an existing Utility 50mm water main which reticulates in Dunoon Road and there is an existing utility 100mm PVC water main which reticulates in Alexandra Parade. There is no existing water connection to the site that will be of a sufficient capacity to serve either the fire water or domestic water systems. Gas – there is no existing gas supply in the area. Sanitary Drainage – There is an existing utility Sewer Main on the near side of Dunoon Road and there is an existing utility Sewer Main in Alexandra Parade on the Eastern side of Dunoon Road, but there is no Sewer Main present in Alexandra Parade on the Western side on the Western side of Dunoon Road. There is no sewer connection to the site from the sewer main in Dunoon Road. Stormwater – The site currently has no stormwater infrastructure on site. The site drains to the east and off-site via drainage culverts under Dunoon Road.
Infrastructure – Transport	Yes	Transport and Accessibility Impact Assessment (Appendix 20)	There is currently limited transport infrastructure on the site/surrounding it. The closest bus stop is located approximately 800m south of the site on Tweed Street and is serviced by bus route 650 which travels between Nimbin and Lismore. The site is located approximately 200 metres north-west of a rail corridor, however, direct access to Lismore train station is limited. The approximate journey from the station to the site is 2.5km (33-minute walking/9-minute cycling time), and safe footpath access is only in place along Bridge Street, ending south of the Bridge Street/Pitt Street intersection and approximately 1km from the site. There is also currently no cycle path infrastructure in place along Dunoon Road accessible to the site.

3. The Proposed Activity

3.1 Overview

The proposed activity comprises the relocation and rebuild of the Richmond River High Campus from its existing temporary location alongside The Rivers Secondary College Lismore High Campus at East Lismore to the site at 163 and 170 Alexandra Parade, North Lismore.

The school will be delivered in one stage. A detailed description of the proposal is as follows:

1. Demolition of existing features including existing buildings, cattle drinking well, cattle sheds, and wire fencing, and removal of trees to accommodate school development.
2. Construction of new 3 storey buildings on the southeastern portion of the site for the proposed public secondary school including:
    a. General and Specialist Learning Spaces, and Workshops.
    b. Administration, and Staff facilities.
    c. Library, Hall, and Movement Studio.
    d. Construction, Hospitality, and Agricultural Learning Facilities.
    e. Amenity, Plant, Circulation, and Storage areas.
    f. Outdoor Learning Spaces and play spaces.
3. Landscaping including tree planting.
4. Internal access and transport works comprising:
    a. Access road off Dunoon Road, comprising a separate shared bicycle/pedestrian pathway, and internal access roundabout.
    b. Kiss and ride drop-off and pick up zones.
    c. Bus transport arrangements with a separate bus zone.
5. Outdoor spaces including assembly zones, agricultural spaces, sports fields, games courts, yarning and dancing circles, seating and shade structures.
6. On-site carparking, including accessible spaces and provision for EV charging spaces.

The figures below demonstrate the overall site plan, ground floor, level 1 and level 2 plans as proposed. Please refer to the Architectural Drawings at Appendix 03 for full details.

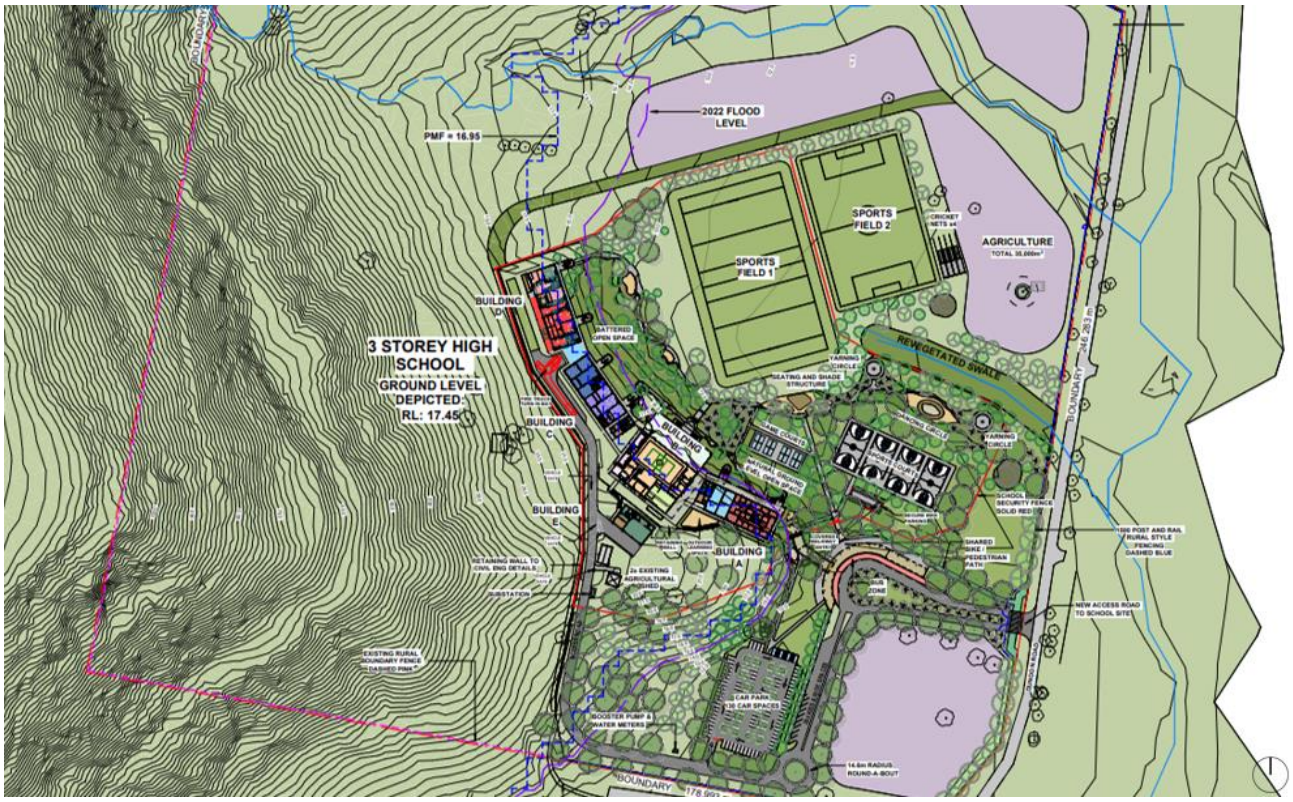


Figure 22 **Overall site plan (Source: EJE)**

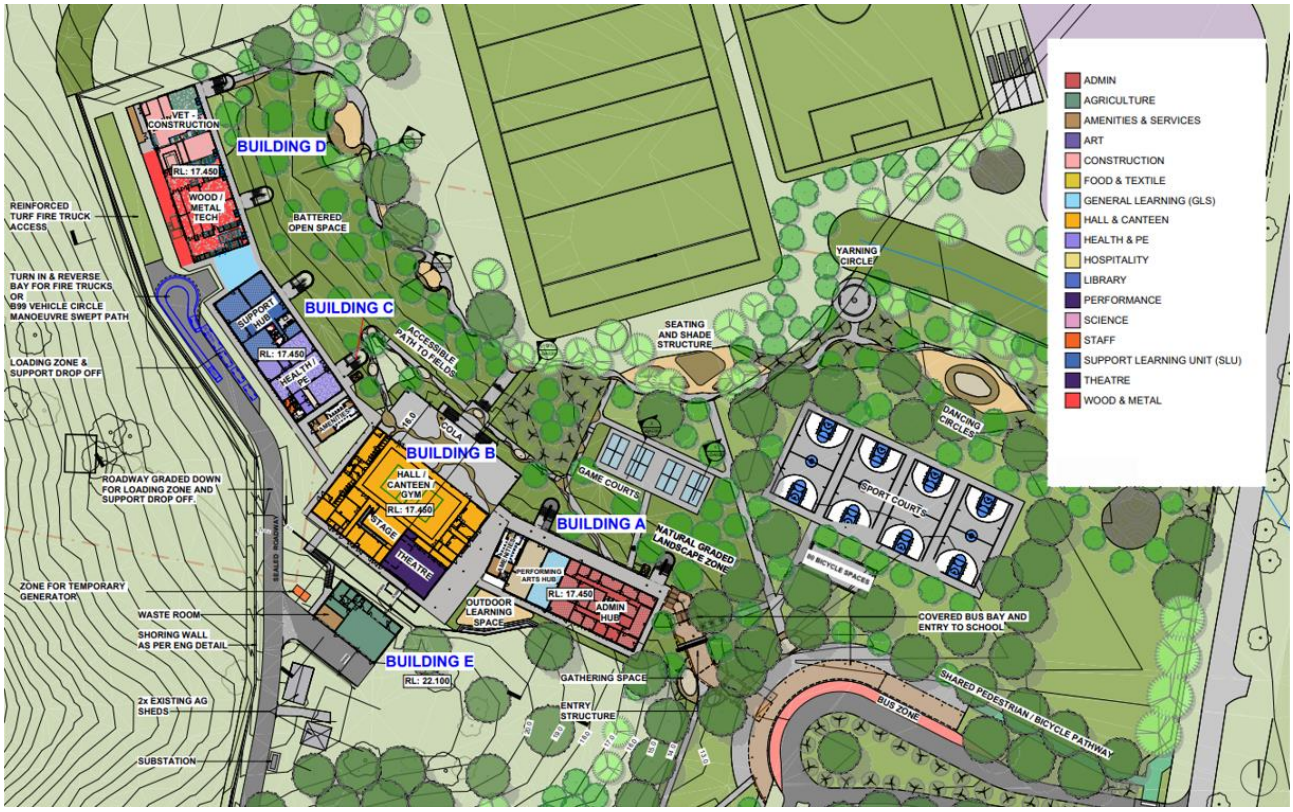


Figure 23 **Extract showing ground floor plan of proposed buildings (Source: EJE)**

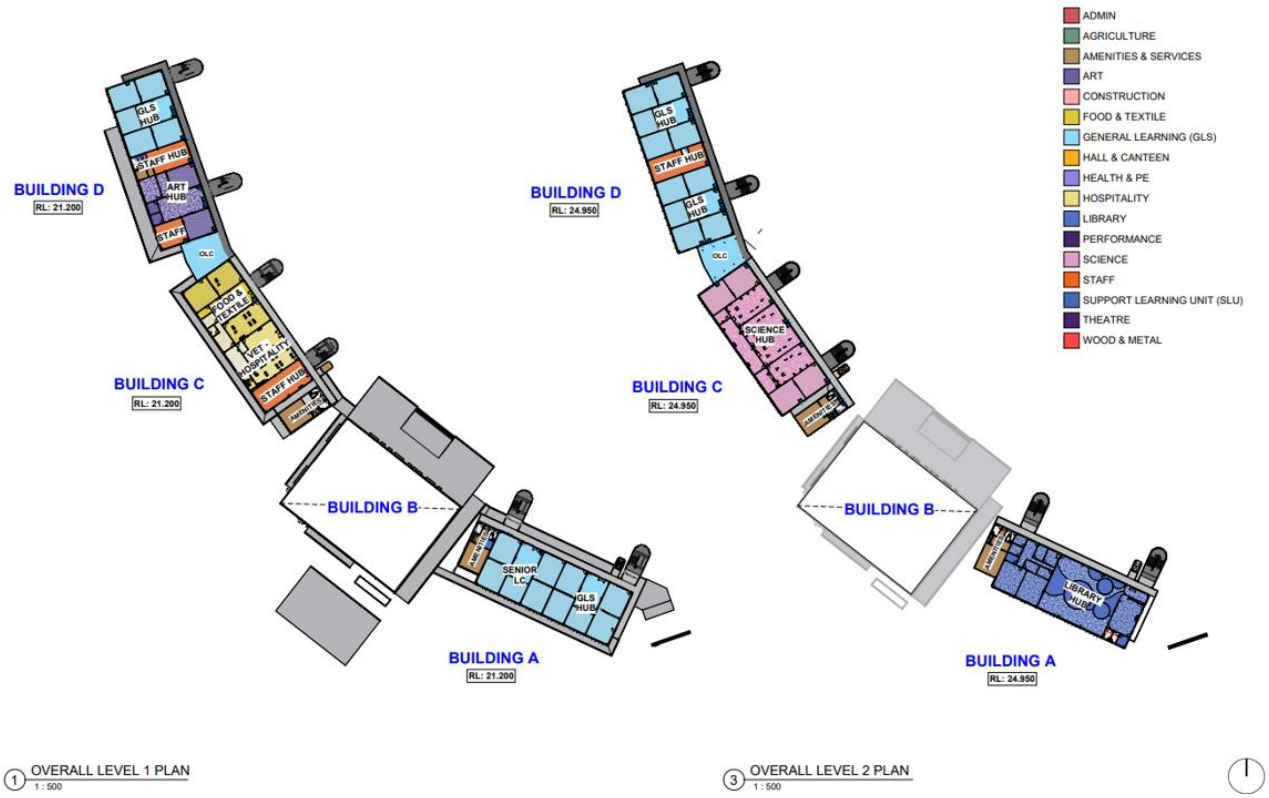


Figure 24 **Level 1 (left) and Level 2 (right) floor plans (Source: EJE)**

A detailed description of the works associated with the proposed activity is provided in Table 2 and the sections below.

Table 2 **Summary of the activity**

Project Element	Description
Total Site Area	33.53 hectares
Activity Area	12.07 hectares
Project Name	Richmond River High Campus
Activity Use	The site will be used primarily for the purposes of an educational establishment; however, the western portion of the site does not form part of the high school. The two key areas and their use is outlined as follows: • Activity Area – Educational Establishment comprising a high school to be located on the eastern portion of the site • Densely Vegetated area – Densely vegetated area located in the western portion of the site which consists of native vegetation, which will be retained as part of the activity.
Breakdown of Building Use	**Building A** 126sqm undercroft, administration offices, staff areas, student reception, general learnings spaces (GLS), performing arts GLS and workshops, multi-purpose and

Project Element	Description
	learning commons, 401sqm library, study areas and computer learning.
	Building B 603sqm hall/basketball court, 213sqm movement studio and theatre, 721sqm covered outdoor learning area (COLA), storage and equipment areas, changing rooms and showers, canteen and servery, first aid room, main comms and switch room.
	Building C Physical education GLS and lab, support learning spaces and common areas, Vocational Education and Training (VET) hospitality kitchen and bistro, food tech GLS, science GLS and labs, open air plant and comms.
	Building D Outdoor covered workshop and learning commons, metal and wood GLS and workshop, VET construction workshop, visual arts GLS, GLS, staff study, and multi-purpose and learning commons.
	Building E 173sqm agricultural man space, storage and equipment, agricultural office, and 40sqm waste room.
Student and Staff Numbers	660 students 66 FTE staff 3 support staff
Car Parking and Bicycle Spaces	117 standard car parking spaces 9 EV car parking spaces 4 accessible car parking spaces 80 bicycle parking spaces
Kiss and Ride Drop off Zone	20 spaces
Bus Zone	77.5m to accommodate four buses.
Height of Buildings	Building A – 13.40 metres. Building B – 11.20 metres. Building C – 13.40 metres. Building D – 13.40 metres. Building E – 5.50 metres.
Tree Removal	20 trees in total requiring removal including: - 7 Very Low Retention Value. - 7 Low Retention Value. - 6 Medium Retention Value.
Proposed Landscaping	• Proposed area of new trees 37,107sqm with minimum pot sizes of 75litres throughout, and 5litres outside of security fencing. • Wayfinding and main entry signage. • 2.100m security top palisade fencing, 1.500m post and rail rural style fencing, existing rural boundary fencing, and compound diplomat fencing.

Project Element	Description
	• CwC principles centred around the Buninj-Echidna story, reflected through: – Outdoor learning spaces, collaborative artwork, bush tucker walk and ant trail, yarning and dance circles, and materials that talk to place and culture.
Canopy Cover	32.11% (total 3.87 hectares canopy cover).
Off Site Works	As part of the broader scope of works associated with the rebuild, the department will be undertaking minor ancillary public domain improvements at the proposed intersection of the site with Dunoon Road.

3.1.1 Design Development and Intent

3.1.1.1 Overview

The proposed activity has been designed according to relevant design principles:

- TI SEPP - Chapter 3 Schedule 8 - Design quality principles in schools.
- GANSW Design Guide for Schools.
- Education Planning Principles in the Place Creation Handbook for Public Schools.

Figure 25 School site overview (Source: EJE)

The following sections explore the activity in detail, outlining the design, Connecting with Country initiatives, and sustainability initiatives that have shaped the design. The RA Act does not outline relevant design principles or guidelines to adhere to, therefore, for the purpose of assessing the design quality of the activity, the above design principles have been assessed.

3.1.1.2 Design Guide for Schools and Design Quality Principles

The Architectural Design Quality Report at **Appendix 04** evaluates how the activity responds to the Design Guide for Schools and the Design Quality Principles in the TI SEPP. A summary (and relevant extracts from the design report) is below.

Table 3 Response to the relevant design principles

Design Principle	Response
Principle 1: Responsive to Context *Schools should be designed to respond to and enhance the positive qualities of their surroundings.* *In designing built forms and landscapes, consideration should be given to a Country-centred approach and respond to site conditions such as orientation, topography, natural systems, Aboriginal and European cultural heritage and the impacts of climate change.* *Landscapes should be integrated into the overall design to improve amenity and to help mitigate negative impacts on the streetscape and neighbouring sites.*	The school's design responds to the physical context of the surrounds by positioning the buildings in an open C-shape to overlook the valley and following the contours of the land. This design also maximises natural light and preserves the high environmental values of the site. The buildings are positioned towards the higher point in the site, above the PMF to increase durability and flood resilience. The buildings are set away from the site boundaries to provide greater opportunities for outdoor learning, play spaces and landscaping. Separate cultural gathering spaces are incorporated within the design and located within the landscaped areas with native and endemic planting included across the site. The planting proposed allows students to learn about Bunjalung country and fosters a strong Connection to Country. The character of the site is maintained with a significant portion of the site being kept as agricultural land, close to the location of the existing farmhouse buildings. The sites natural water courses have been retained and enhanced, providing a significant site feature and character to the local area. The landscape materials chosen are inspired by the site's heritage and history, rich floodplains and wetlands providing fertile land throughout Lismore. Local timber is proposed throughout the site with the introduction of coloured concrete to create visual interest.
Principle 2: Sustainable, Efficient and Resilient *Good school design combines positive environmental, social and economic outcomes and should align with the principles of caring for Country.* *Schools should be designed to be durable and resilient in an evolving climate.* *Schools and their grounds should be designed to minimise the consumption of energy, water and other natural resources and reduce waste.*	The school is designed for long-term durability and climate resilience, targeting a 4-star Green Star rating and incorporating Net-Zero ready principles. The design uses passive elements to improve thermal performance and minimise active energy use, providing comfort. The learning spaces have natural ventilation and fans to allow passive cooing and services have energy performance ratings over the minimum prescribed standards. Photovoltaic panels will be installed on the roof for onsite energy generation and recycle materials will be used to improve sustainability. Areas of paving have been shaded with tree planting as much as possible and substantial new panting is incorporated into the design. The outdoor spaces have been designed to benefit from local microclimates and are shaded by either open covered areas or with vegetation. Water Sensitive Urban Design (WSUD) principles have been integrated into the stormwater drainage system; rainwater use and education. The design has maximised permeable surfaces where possible and rainwater harvesting will occur to serve as irrigation for the site.

Design Principle	Response
	Durable, low-maintenance materials ensure longevity, while recycled and sustainably sourced materials support a circular economy. Educational opportunities on sustainability principles further reinforce the school's commitment to caring for Country.
Principle 3: Accessible and Inclusive *School buildings and grounds should be welcoming, easy to navigate and accessible and inclusive for people with differing needs and abilities.* *Schools should be designed to respond to the needs of children of different ages and developmental stages, foster a sense of belonging and seek to reflect the cultural diversity of the student body and community.* *Schools should be designed to enable sharing of facilities with the community and to cater for activities outside of school hours.*	The school is designed to be welcoming, accessible, and inclusive for all users. The main entry is from Dunoon Road to the east with a two-way vehicle entrance and separate shared path for pedestrians and bicycles. The pedestrian entrance is completely separate from the driveway and links to the bus set down area with a covered walkway to provide all weather protection. The path connects to Building A, bike parking area and outdoor place areas. The vehicular entry provides access for buses, parents kiss and ride drop off, deliveries, staff and students. The driveway separates buses from the kiss and ride drop off zone; with the first roundabout enabling buses to safely turn and provide adequate sit-down zones, and cars continuing to a second roundabout that directs cars to the kiss and ride drop off zone, staff carpark or to the access road for delivery and support drop-off. Security gates will limit access onto the site after hours. Multiple lifts and accessible pathways will provide an equitable access network throughout the that is compliant with the relevant requirements. Colours and finishes have also been selected to assist users with visual impairments, and the overall design helps to define spaces for variable user groups.
Principle 4: Healthy and Safe *Good school design should support wellbeing by creating healthy internal and external environments.* *The design should ensure safety and security within the school boundaries, while maintaining a welcoming address and accessible environment.* *In designing schools, consideration should be given to connections, transport networks and safe routes for travel to and from school.*	The school is designed to promote wellbeing through healthy, safe, and accessible environments. The school is positioned for clear, secure pedestrian access, with dedicated pathways linking to community cycling networks and secure bike parking. Fencing ensures safety while maintaining a welcoming interface with the streetscape. Stacked amenities and services are distributed throughout the buildings on each level, for privacy and accessibility, supporting student comfort and security. The buildings are designed and oriented to maximise natural light and ventilation while addressing the surrounding landscape and creating inviting outdoor spaces. Covered walkways and areas provide weather protection. Noise mitigation strategies include insulated walls, acoustic glazing, and tree buffers. Learning spaces maximise natural light, ventilation, and outdoor outlooks, enhancing comfort and focus. Flexible indoor and outdoor zones support a range of activities, from play to cultural and academic programs.
Principle 5: Amenity, Functional and Comfortable *Schools should have comfortable and engaging spaces that are accessible for a wide range of formal and informal educational and community activities.* *In designing schools, consideration should be given to the amenity of adjacent development, access to sunlight, natural ventilation, proximity to*	The design is intended to engage with the community and the surrounding environment through the positioning of the new buildings to provide extensive landscaping opportunities to rehabilitate the site and to create connections through the provision of community spaces, and access to school facilities. The buildings offer inviting and lively additions to the surrounding context with a variated of shared educational and active spaces. The activity will give the school renewed presence and identity within the community, strengthening its position within the North Lismore neighbourhood. Noise mitigation strategies include insulated walls, acoustic glazing, and natural screening from perimeter trees. The urban release area

Design Principle	Response
vegetation and landscape, outlook and visual and acoustic privacy. *Schools should include appropriate indoor and outdoor learning and play spaces, access to services and adequate storage.*	to the north has been considered in the design of the activity including the housing lots. The nosier operations such as construction, metal, woodwork and agricultural facilities have been located to the south of the development. The new buildings and internal learning spaces have been designed and positioned to maximise opportunities for cross-ventilation and sunlight capture. As the buildings are positioned well away from the boundaries and neighbouring properties, overshadowing of adjacent properties will not occur. Learning spaces are designed for flexibility, with access to technology and diverse outdoor areas for play, exercise, and cultural activities. Storage and service areas are efficiently planned, with flood-resistant storage solutions in place.
Principle 6: Whole of Life, Flexible and Adaptable *In designing schools, consideration should be given to future needs and take a long-term approach that is informed by site-wide strategic and spatial planning.* *Good design for schools should deliver high environmental performance and ease of adaptation and maximise multi-use facilities.* *Schools should be adaptable to evolving teaching methods, future growth and changes in climate, and should minimise the environmental impact of the school across its life cycle.*	The design of the site has considered future growth and long-term sustainability, ensuring adaptability to evolving needs while prioritising environmental performance and community integration. Guided by comprehensive master planning, the design maximises the potential to improve flood resilience and providing a clear entry into the school to enhance the street presence. The design is positioned between these areas and although restricted there is potential for future expansion to the south following the contours of the landscape. The position retains the eastern portions of the site for potential future growth. Flexible and modular learning spaces, aligned with standardised hub layouts and the School Infrastructure NSW (SINSW) Pattern Book template, support contemporary teaching methods and future reconfiguration. The building integrates robust materials, natural ventilation, and thermal insulation to minimise environmental impact and enhance comfort, while its raised footprint improves flood resilience and provides shaded open spaces. Multi-use facilities, such as the Hall and Theatre are placed towards the main entrance to create an after-hours zone which can improve access to the facilities for the wider community. The outdoor areas have been designed to enable public use through co-locating the outdoor sport facilities with the hall for larger community events.
Principle 7: Aesthetics, Visual Appeal *School buildings and their landscape settings should be aesthetically pleasing by achieving good proportions and a balanced composition of built and natural elements.* *Schools should be designed to respond to and have a positive impact on streetscape amenity and the quality and character of the neighbourhood.* *The identity and street presence of schools should respond to the existing or desired future character of their locations.*	The design harmoniously integrates built form and natural elements to create a visually appealing, functional, and community-focused environment. The building façade established enables easy wayfinding and breaks up the massing and bulk of the activity. Tree planting will occur along the boundary and landscaping zones across the site will help to balance the built form with the surrounding context, prioritising balance and resilience. Key elements like Building A (Admin) and Building B (Hall) are prominent on the build form and are easily identifiable access points. The layout maximises outdoor spaces and supports accessibility, through connected walkways and reflects the importance of inclusivity in design.

Design Principle	Response
The design of schools should reflect the school's civic role and community significance.	

3.1.1.3 School Design Review Panel Response

Two school design review panel (SDRP) meetings took place in relation to the activity; 24 April 2024, and 27 November 2024. The proposal has considered all feedback, and where feasible, has incorporated changes into the proposal. Refer to Section 5 and the Architectural Design Quality Report at Appendix 04 or a detailed response to each matter raised by the SDRP. Of particular note is that the school was located within the northern portion of the site when the design was presented to the SDRP (on both occasions). The proposed school siting, footprint, arrangement and design now better responds to the constraints of the site, which was one of the primary comments from the SDRP at the initial meeting.

3.1.1.4 Connecting with Country

The objective of Connecting with Country (CwC) was developed under five main strategies, which have been developed in conjunction with Widjabul Wia-bal representatives during the schematic design stage. The five strategies for the design area:

1. Telling Bundjalung Stories
2. Gathering on Bundjalung Country
3. Healing and Respecting Bundjalung Country
4. Celebrating Bundjalung Language
5. Connecting Through Sport

The CwC consultation process helped to inform the design and provided opportunities for the landscaping proposed to help educate the school community, providing a welcoming and safe environment for all people visiting the site. CwC principles were specifically designed into the proposed artworks to be displayed throughout the school, two yarning circles connected by a river edge bush tucker walk, a dust dance space, and native vegetation and planting that is focused on endemic species. Utilisation of modern technology in the form or local language QR codes throughout signage, reflects the Widjabul Wia-bal and Bundjalung stories, language, and culture, and provides opportunities for learning, gathering, and reflection.

There are opportunities to develop the design of artwork, signage, and the naming of spaces and classrooms at detailed design stage in conjunction with the NSW Aboriginal Educational Consultative Group (AECG).

Figure 26 Connection with Country landscaping plan (Source: Terras)

3.1.1.5 Sustainability and Climate Change

Design measures that have been incorporated to ensure the activity meets a 4-star rating, are assessed under the sustainable design principles, which have been incorporated to comply with the EFSG under the following themes:

Responsible

Material finishes will be selected based on their responsible product value. Buildings have been set up for optimum ongoing management due to appropriate metering and monitoring systems. The activity will divert at least 90% of construction and demolition waste from landfill. Site workers will be educated around the importance of sustainable design and climate change.

Healthy

Building occupant health is a primary objective for the activity which overall improves morale and productivity of staff and students and enhances health and wellbeing. Use of ventilation systems, access to daylight and light quality, providing acoustic comfort, omission of toxins from the space, and connection to nature, all ensure healthy sustainable practices are incorporated.

Resilient

Future proofing the activity and buildings from climate pressures such as floods, droughts, high temperatures, and storms all assist in prolonging the lifespan of the buildings. To prevent the urban heat island effect locally onsite, vegetation and materials with a high solar reflective index will be used.

Positive

Upfront carbon reduction of emissions by 10% is targeted, with onsite solar PV arrays maximised on roof surfaces. LED lighting will be used throughout to reduce energy use, and water conservation and preservation of rainwater will reduce the demand of potable water use.

Place

The buildings design encourages the use of active transport, providing bus bays, kiss and ride drop off zones, end of trip facilities, and safe and secure bicycle parking.

People

The design concept has focused on aligning with the principles of the Australian Indigenous Design Charter and representation of Aboriginal Heritage throughout the design.

Nature

The building design integrates to the local environment as best as possible, allowing local flora and fauna to share the site with the activity, and further by implementing native and local species on site. Negative impacts are reduced on nature such as reducing light spill and pollution to the surrounding ecological environment.

The proposal demonstrates a clear pathway to becoming fossil fuel-free and achieving net zero emissions. The following sections outline the design considerations that will assist in reaching net zero targets.

Fossil fuel-free

The electrification of building services will see electric powered systems, high efficiency chillers for space cooling, and kitchens with induction cooking systems, eliminating the need for gas. To further reduce energy consumption, passive design integration, such as shading and natural ventilation, are incorporated.

Renewable energy and technical features

Provisions have been made for solar photovoltaic (PV) panels to the roof, battery systems which could enable energy storage and increase operational resilience, high performance building envelopes, energy efficient heating, ventilation, and air conditioning (HVAC) systems, and LED lighting. A Building Management System (BMS) may be installed to monitor real time energy uses providing the operator with the tools to make decisions aimed at optimisation of energy performance and reduction of energy waste. Diesel backup generators may be used for potential power source during outages, however, noting that provisions have been made to transition of battery-based backup systems by 2035.

Annual energy consumption and emissions

Whole-building energy consumption calculations are not yet available as the project has not reached the level of design to complete comprehensive modelling. Energy figures will be developed during the detailed design phase, with ongoing efforts to minimise energy use and emissions wherever possible.

Passive design features

Passive design minimises energy consumption and is done so regarding the EFSG and the department's Pattern Book, which proposes fixed shading systems, protecting windows from the high summer sun, whilst allowing the low angle winter sun to penetrate. Natural ventilation is provided throughout, cross ventilation pathways allow effective airflow throughout learning spaces, with smart sensors proposed to inform occupants whether outdoor conditions are suitable for natural ventilation. High performance insulation stabilises indoor temperatures and reduced the need for active heating and cooling.

3.1.1.6 Landscaping

Landscaping plans have been prepared and accompany this REF at Appendix 08. The landscape vision is underpinned by four key pillars which are:

1. Connection to Country – Value and respect Aboriginal cultural knowledge and language and engage with truth, ensure country is cared for appropriately and sensitive sies are protected and reduce the impacts of natural events through sustainable land and water use practices
2. Human Connections – Provide legible and easily accessible links through the site at a human scale, create opportunities for active and passive recreation, and create positive relationships and connections to natural and built landscapes
3. Climate Positive Design – Retain as many trees as possible, reduce demolition and recycle and reuse materials, reduce the extent of high carbon elements, maximise soft surfaces, increase biodiversity and design for longevity
4. Site Specific Design – Design which preserves, enhances and creates strong visual and physical connections to the natural features inherent to the site

The western portion of the site has a substantial area of existing vegetation and tree canopy cover that will be retained and enhanced as part of the activity. This area offers significant habitat value and will be enhanced through the planting strategy for the site. The planting strategy draws form the local ecology and cultural significance of the site, incorporating endemic species to create a sense of place unique to the area. Significant shade trees have been selected including the Forest Red Gum and small to medium trees such as the Water Gym and Lemon Myrtle. The trees, shrubs and native grasses selected emphasise the site's relationship with Country, reinforcing natural movement patterns. The integration of bush tucker plants not only highlights the agricultural heritage of Lismore but also fosters opportunities for cultural learning and community engagement.

Canopy cover will be enhanced through the retention of existing trees and vegetation, particularly along the western portion of the site, and the strategic planting of share trees across the activity area. The design achieves an adequate canopy cover of 32.11% over the site to provide shade and reduce the heat island effect. Large feature trees, particularly around the outdoor play areas, will provide natural shade, offering a welcoming and calming environment.

In total, 20 trees will require removal due to their location within the development footprint or having major conflict with the proposed activity particularly within their protection zones. 40 trees will be retained on site as the fall outside of the activity footprint. The majority of the proposed trees for retention occur to the north and east of the site. Of the trees proposed to be removed, offset planting will occur within the site in accordance with the landscape plans. Trees will be planted along the eastern boundary of the site screen and soften the interface between the school building and the adjacent sites. New trees will also be planted around the boundaries of the site and within the playground area of the school.

The proposed landscape design offers a vibrant and multifunctional environment that promotes active play, exploration, and community connection while embracing cultural and ecological significance. Active play areas are shaded by canopies to encourage physical development and creative exploration. Open play fields provide opportunities for collaborative games and sports, supporting social interaction and healthy competition.

Cultural and sensory experiences are seamlessly integrated, with the Ant Trail introducing native plantings, Yarning Circles surrounded by cultural plantings, and features such as the Buninj Shade Structure and storytelling zones to deepen ties to both Widjabul Wia-bal and Bundjalung heritage.

The design incorporates sustainable strategies such as vegetation buffers for microclimate regulation and boundary screening to reduce heat island effects. This also includes the revegetation of the swale along the eastern boundary. Gathering spaces, including the Dance Circle feature deco granite and coloured concrete and seating areas to foster connection among users. By prioritising inclusivity, environmental stewardship, and cultural respect, the landscape design creates a meaningful and dynamic space for play, learning, and community engagement. An extract of the site wide landscape plan is below.

Figure 27 **Extract of Landscape Masterplan (Source: Terras Landscape Architects)**

3.1.1.7 Tree and Vegetation Removal

In order to facilitate the proposed activity, the removal of 20 trees and the retention of 40 trees within the activity area is required. Of the 20 trees to be removed, 19 of these trees are within the activity footprint and will conflict with construction of the proposed school, with the remaining one recommended for removal because of its weed status (tree #028)).

The trees to be removed are majorly non-native, with only two species to be removed being native/exotic species (Melia azadrach/Chinaberry, and Grevillea robusta/silky oak).The majority of species that are non-native/exotic have remove/low retention value, including the Cinnamomum camphora/Camphor Laurel, Erythrina crista-galli/ Cockspur coral tree, Celtis sinensis/Chinese celtis, Tabebuia rosea/Pink poui, and Koelreuteria paniculata/Golden rain tree. There are only two species having a medium retention value (silky oak and chinaberry), however, requiring removal due to their location within the activity footprint.

40 trees are proposed to be retained. These are generally more suitable for retention and fall outside of the activity footprint, to the north and northeast of the site Six large Eucalyptus tereticornis (forest red gum) trees (trees #043, #044, #045, #046, #047 and #048) occurring in the proposed agriculture plot to the south-east of the site are also proposed to be retained. Tree protection zones (TPZs) and tree protection management principles are outlined in the Arboricultural Impact Assessment prepared by the project arborist (Appendix 27).

The majority of trees to be retained are located west of the activity footprint, or within the proposed agricultural lands. All trees to be removed and retained are outlined below in Figure 28.

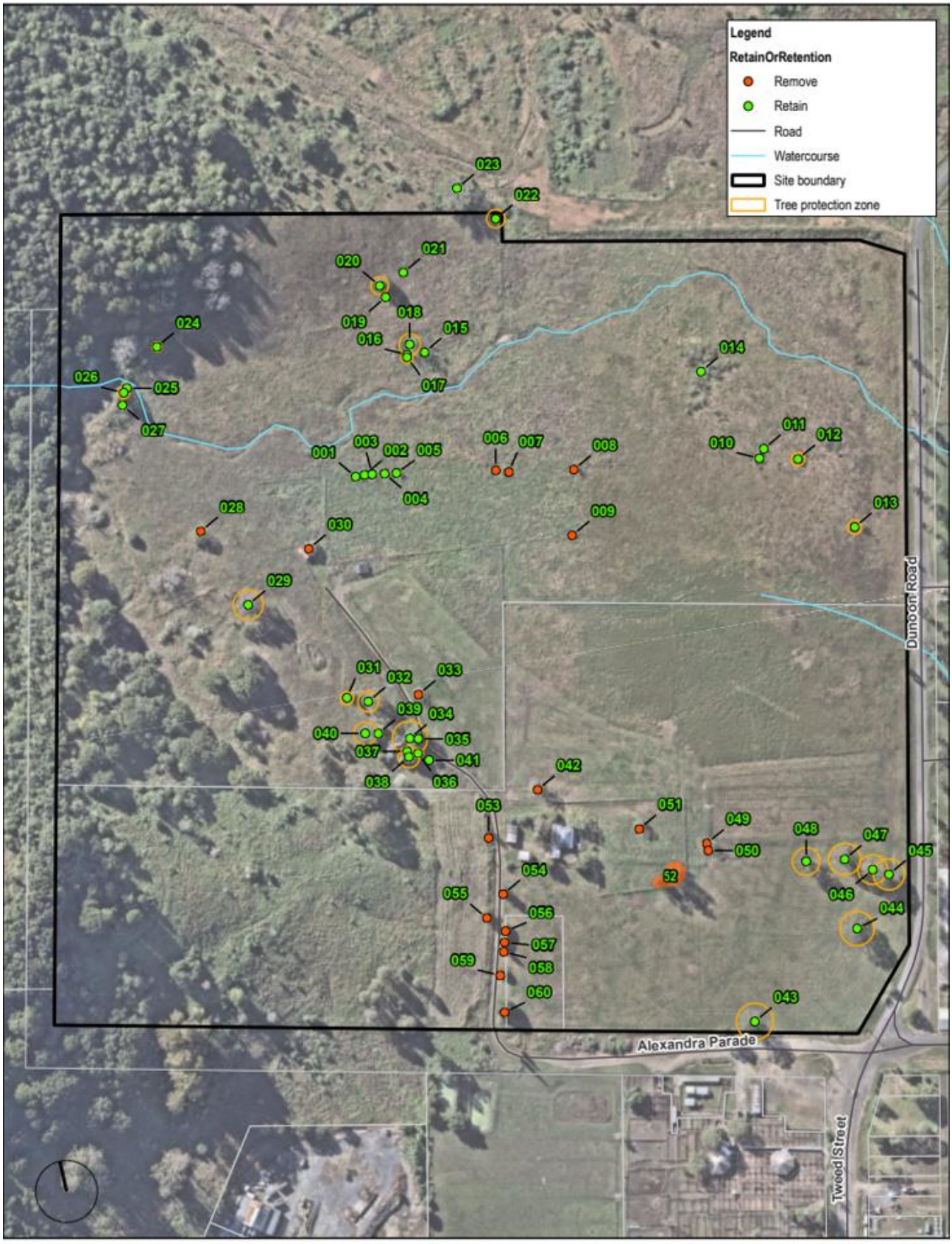


Figure 28 **Tree Removal and Retention Plan (Source: AIA)**

3.1.1.8 Crime Prevention Through Environmental Design

Crime Prevention Through Environmental Design (CPTED) principles have been incorporated into the school design to ensure the space is both safe and welcoming to positive interactions.

Table 4 Assessment against CPTED Principles

CPTED Principle	Response
Territorial Re-enforcement *Territorial Re-enforcement uses actual and symbolic boundary markers, spatial legibility and environmental cues to 'connect' people with space, to encourage communal responsibility for public areas and facilities, and to communicate to people where they should/not be and what activities are appropriate.*	This is achieved by defining school boundaries with perimeter fencing along the property boundary. The design includes fencing arrangements which improves delineation between spaces, and safety and access limitation to unauthorised persons. The design also incorporates signage at all entrances to address the street and create a defined image for the school. Landscaping at the entrances at sporting areas helps define the space and create a sense of familiarity with landscape landmarks.
Surveillance *Natural surveillance is achieved when normal space users can see and be seen by others. This highlights the importance of building layout, orientation and location; the strategic use of design; landscaping and lighting – it is a by-product of well-planned, well-designed and well-used space.* *Technical/mechanical surveillance is achieved through mechanical/electronic measures such as CCTV, help points and mirrored building panels. It is commonly used as a 'patch' to supervise isolated, high risk locations.* *Formal (or Organised) surveillance is achieved through the tactical positioning of guardians. An example would be the use of on-site supervisors, e.g. security guards at higher risk locations.*	Natural surveillance is achieved in the design layout of the buildings, placed in a C-shape that overlooks the outdoor play spaces. The design allows visual permeability, combined with the clearly visible entries to maximise visibility. Classrooms and staff areas are oriented toward high traffic areas such as the playgrounds to allow for passive monitoring. The car park has a strong visual connection to the administration building to the north, with the building overlooking the carp park, allowing for passive surveillance. Organised surveillance can be achieved with seating areas near high activity zones such as the COLA and sports fields, where teachers are encouraged to partake in active monitoring of students. Closed circuit television (CCTV) will be in operation throughout the school where appropriate, in high traffic areas such as the school entry points, bicycle parking, and circulation areas.
Access Control *Access control treatments restrict, channel and encourage people and vehicles into, out of and around the development. Way-finding, desire-lines and formal/informal routes are important crime prevention considerations. Effective access control can be achieved by using physical and symbolic barriers that channel and group pedestrians into areas, therefore increasing the time and effort required for criminals to commit crime.* *Natural access control includes the tactical use of landforms and waterways features, design*	Access and wayfinding around the site will be controlled by access gates, signage, and clear formalised routes through smooth pathways that encourage easy movement and access throughout the site. Safety features such as clearly marked evacuation routes, assembly points, and communication systems allow for emergency readiness throughout the site.

CPTED Principle	Response
measures including building configuration; formal and informal pathways, landscaping, fencing and gardens. *Technical/Mechanical access control includes the employment of security hardware.* *Formal (or Organised) access control includes on-site guardians such as employed security officers.*	
Space/Activity Management *Space/Activity Management strategies are an important way to develop and maintain natural community control. Space management involves the formal supervision, control and care of the development. All space, even well planned and well-designed areas need to be effectively used and maintained to maximise community safety. Places that are infrequently used are commonly abused. There is a high correlation between urban decay, fear of crime and avoidance behaviour.*	The proposed school has been designed to ensure that maintenance and upkeep of the site is easily manageable, such as to landscaping, material finishes, and open play areas. The lighting design provides adequate illumination reducing opportunities for concealed activity or poor visibility in areas. School caretakers will be responsible for undertaking site management and maintenance to ensure the school site is cared for, maximising community safety.

3.1.1.9 Access and Parking

Access

Access to the site is proposed off a new priority-controlled T-intersection on Dunoon Road, approximately 150 metres north of the Alexandra Parade. All vehicles will enter the site, and for buses entering will turn right into the dedicated bus zone, and for all other vehicles, will turn left. An internal 14.6m diameter roundabout allows vehicles to turn into the kiss and ride drop off zone, or continue to the carpark, or site servicing loading area.

Access gates are provided to the school entry, and further, to the agricultural sheds and the school's loading area that are provided further north along the access road, located to the rear of the school buildings. This access road is provided only for emergency vehicles, service and waste vehicles, and agricultural machinery vehicles. School staff may use this access road only where appropriately required to do so (for example school caretakers, or groundskeepers).

A shared bicycle and pedestrian path is provided within the site boundary from Dunoon Road to the school's covered walkway. This is provided to future proof the school for pedestrian and bicycle access should that ever be safely provided on Dunoon Road. Currently there is no shared path provided along Dunoon Road.

No access is provided off Alexandra Parade due to its unsealed condition, limited capacity, and proximity to the adjacent livestock sales yard which generates heavy vehicle activity. The access road will be retained as part of this activity, and will act as an additional access point in emergency events.

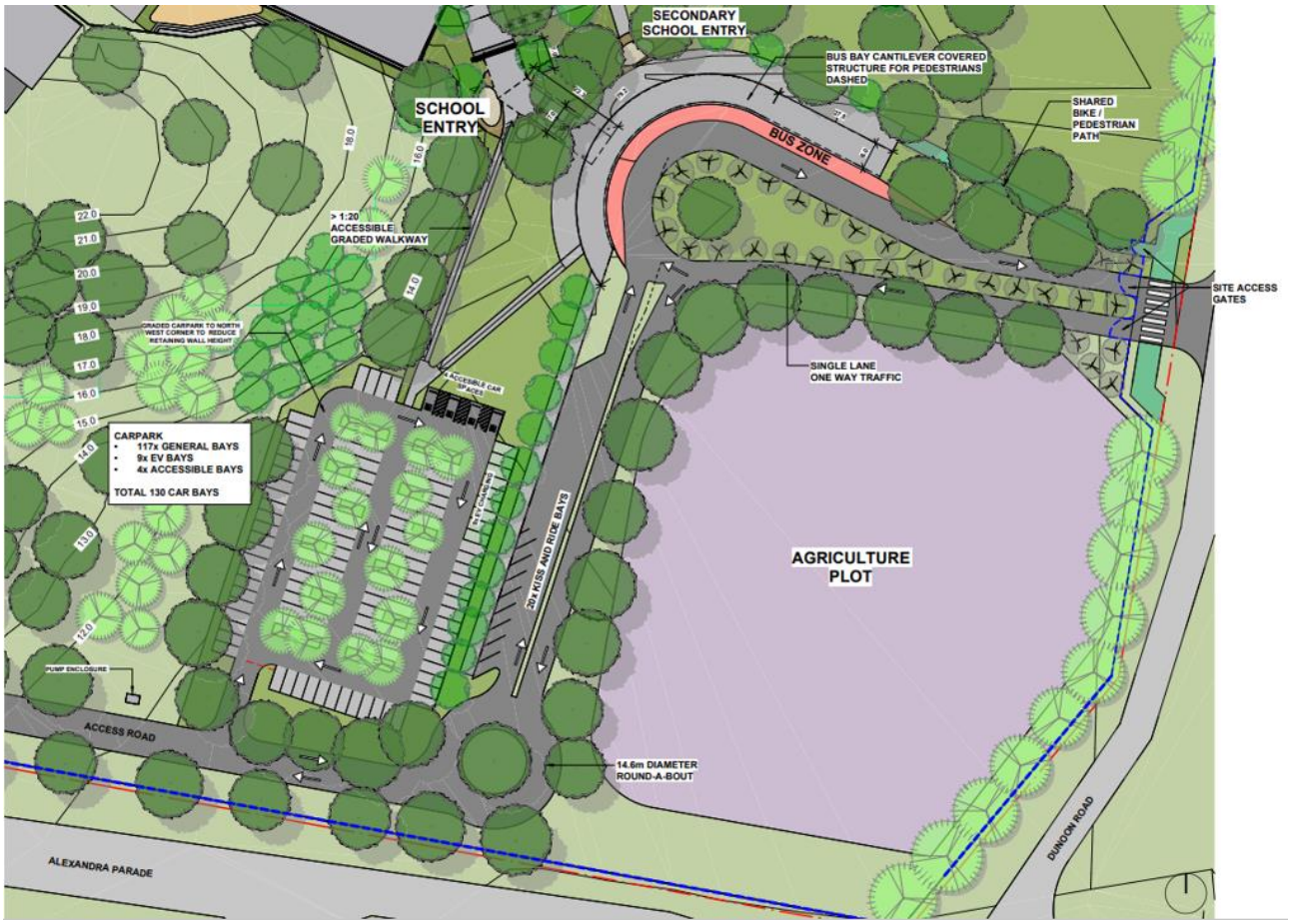


Figure 29 **Site access, transport, and carparking (Source: EJE)**

Parking

Staff and visitor parking is provided to the south with access from Dunoon Road. The proposed carparking spaces provided are compliant with the LDCP, providing 117 standard carparking spaces, 9 EV charging spaces, and 4 accessible carparking spaces for the activity. Carparking spaces provided are compliant with relevant parking dimension, aisle widths, gradients and all other relevant requirements pursuant to AS2890.1.

Sheltered bicycle parking for 80 spaces for staff and students are provided to the north of the covered walkway entry. Kiss and ride drop off zones provide spaces for 20 spaces within the school's transport area. Internal bus zones extend to 77.5 metres with the capacity for four buses parked at one time.

The separation of all these spaces, ensures conflict of vehicles is reduced, and safe operation of the school's access and public transport operations.

A covered walkway entry is provided from the school's bus zone, through to an elevated walkway that extends to Building A. A depiction of this is provided overleaf.

Figure 30 School entry and bus zone photomontage (Source: EJE)

3.1.2 Construction

3.1.2.1 Construction Activities

Indicative estimates of employees on site during the construction phases includes:

- 30 employees on site from October to December 2025.
- 120 employees on site from January to March 2026.
- 220 employees on site from April to September 2026.
- 30 employees on site from September to December 2026.

Construction activities include site establishment works, ground works and demolition. The equipment likely to be employed during construction works may include:

- Mobile crane.
- Power hand tools.
- Semi rigid vehicle.
- Excavator.
- Handheld jack hammer.
- Dump truck.
- Concrete saw.
- Power hand tools.

Site establishment works include the provision of site amenities within the boundaries of the RRHC, and include:

- An on-site office.
- Worker's toilets.
- First aid kit(s).

- Lunchroom.
- Secured storage.
- Toilets.

Construction hours will be as follows:

- 7:00am to 6:00pm, Monday to Friday.
- 8:00am to 4:00pm, Saturday.
- No work without prior approval on Sundays and Public Holidays.

3.1.2.2 Demolition

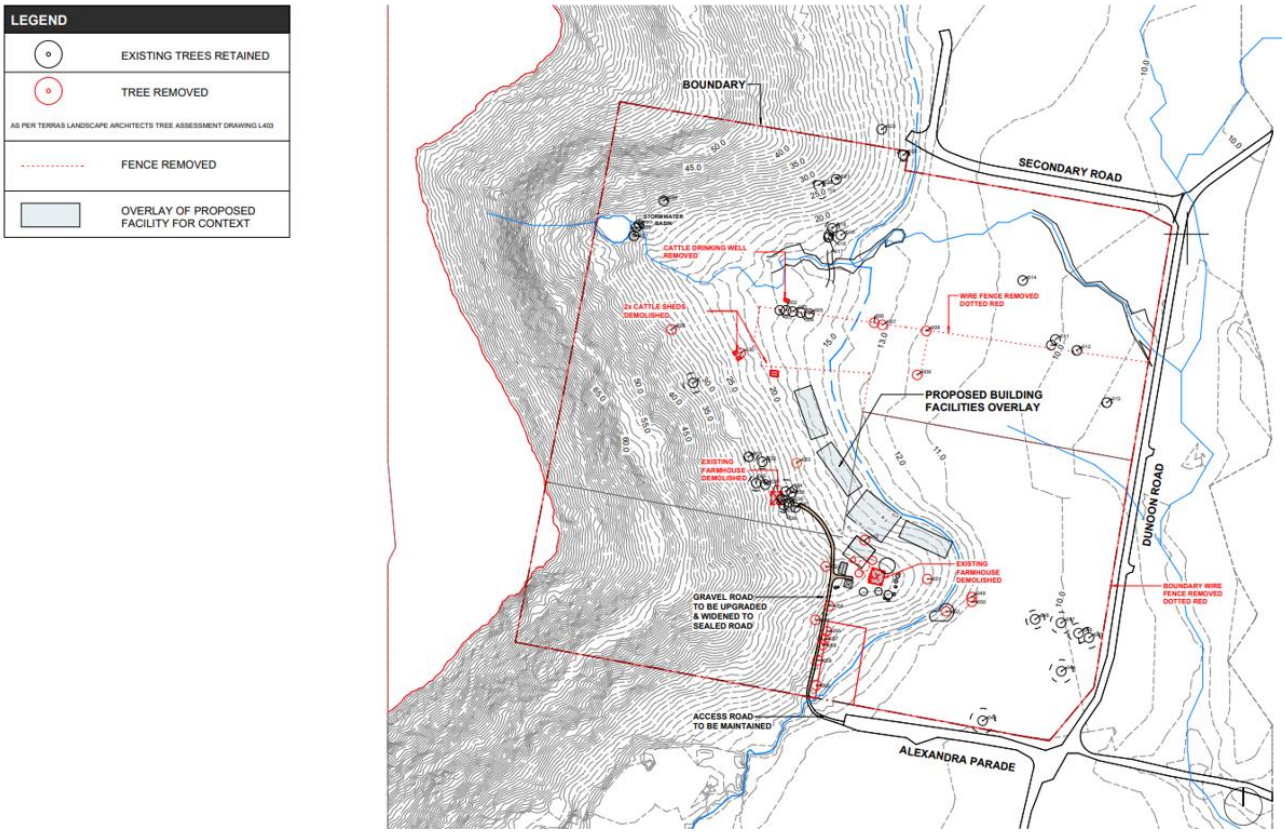


Figure 31 Demolition Plan (Source: EJE)

The site consists of existing features including two residential farmhouses, cattle drinking wells, two cattle sheds, and wire boundary fencing. These are proposed for demolition in order to accommodate the new school buildings.

3.1.2.3 Earthworks

The site preparation will be generally limited to topsoil stripping (approximately 300mm) and ground levelling. The extent of excavation will be subject to further geotechnical investigation during detailed design which will confirm details of retaining walls and earthworks required to deal with landslide issues onsite. The estimated general ground fill to be placed over the site is 54,500m³ with estimated cut of 11,000m³, leaving a total balance of 45,500m³ fill onsite.

3.1.2.4 Utilities and Services

The proposed building and site services for the activity are summarised in Table 5 below.

Table 5 Proposed Utilities and Services Arrangements

Building Services	Proposed Arrangement
Electrical	**Substation** A substation is proposed along the internal access road which will connect the site to the existing pole substations, located near the north-west corner of the site. Essential Energy has confirmed that a new padmount substation will be required to be installed on the site. Based on the activity, the site will require a 1500kVa padmount substation to be installed via HV underground extension from the existing overheads. From the substation, underground cabling will be connected to the main switch room (MSR) located in Building C. All air conditioning units and electrical switchboards will be located above the flood planning level (FPL). The MSR will house the main switchboard (MSB) and a temporary generation in the event of an extended power outage. The MSB will supply Electrical Distribution Boards (EDBs) across the school for general power, lighting, and base building services, including mechanical, hydraulic, and fire services. Services will be distributed via cable trays, conduits, and pits throughout the site, with detailed routing to be determined during further design development. The existing LV network and service connections on site will be decommissioned as part of the activity.
Telecommunications	The existing telecommunications infrastructure will be adjusted to meet the needs of the activity. The site currently has underground communications networks for Telstra, NBN and Optus. The NBN and Optus network do not run within the site boundary and exist on Dunoon Road and Lake Street respectively. The Telstra network exists on Dunoon Road and the existing cabling within the site boundary is required. Pit and pipe shall be designed to the existing communication providers standards to facilitate connection of the school to the service providers in the public domain. The lead-in cables shall terminate at the MSR and will be developed as part of the detailed design phase.
Water and Sewer	**Stormwater** Three On-Site Detention (OSD) tanks are proposed and are located within outdoor areas to ensure access can be obtained for maintenance works . These are: • Inground OSD tank with 200m^3 storage volume to be locate adjacent to the north-eastern face of Building D. • Inground OSD tank with 140m^3 storage volume located in landscape area between Buildings A and B. • Above ground OSD tank with 500m^3 storage volume located on western side of carpark. **Potable Cold Water** The site is currently serviced for potable water from a 50mm water main located in Dunoon Street and a 150mm water main located in Alexandra Parade. The connection proposed will connect to the main on Alexandra Parade with a new 150mm tee and valve proposed to supply the potable and fire water services. The existing water main on Alexanra Parade will connect t the new pump along the internal access road near the carpark, along the southern boundary. **Sewer**

Building Services	Proposed Arrangement
	The site is currently serviced by a gravity sewer main located on the eastern side of the site, inside the property boundary. The existing sewer services will remain and a new connection to an existing manhole will be created. No upgrade to the sewer infrastructure is required outside of the new Ø150mm connection.
Gas	No gas services are proposed onsite.

3.1.2.5 Waste Management

Waste management has been assessed in the Waste Management Plan (WMP) (Appendix 19) which includes demolition, construction, and operational waste.

Demolition Waste

Demolition of the existing buildings and structures on site will be required to facilitate the proposed activity. This includes the existing farmhouses, pool, cattle sheds, drinking well, hard surfaces and boundary wire fence. The demolition phase also includes the removal of 20 trees and clearance of hazardous materials including asbestos from the site.

The inspection undertaken for the Hazardous Building Materials Assessment (Appendix 31) confirmed the presence of asbestos containing materials (ACM), asbestos containing debris, lead based paint and synthetic mineral fibres within the existing buildings on site that are proposed to be demolished.

Waste during demolition will largely include concrete, bricks, timber/gyprock, garden waste, waste water, asbestos, lead and synthetic mineral fibres. General demolition and construction waste will be segregated and stockpiled on site with materials sent to the appropriate waste management facility or recycling station. Hazardous waste will be transferred offsite to a licenced disposal facility. Garden waste will be reused on site where possible or sent to a suitably licensed facility. Details of the management approach are assessed at Section 7.11.

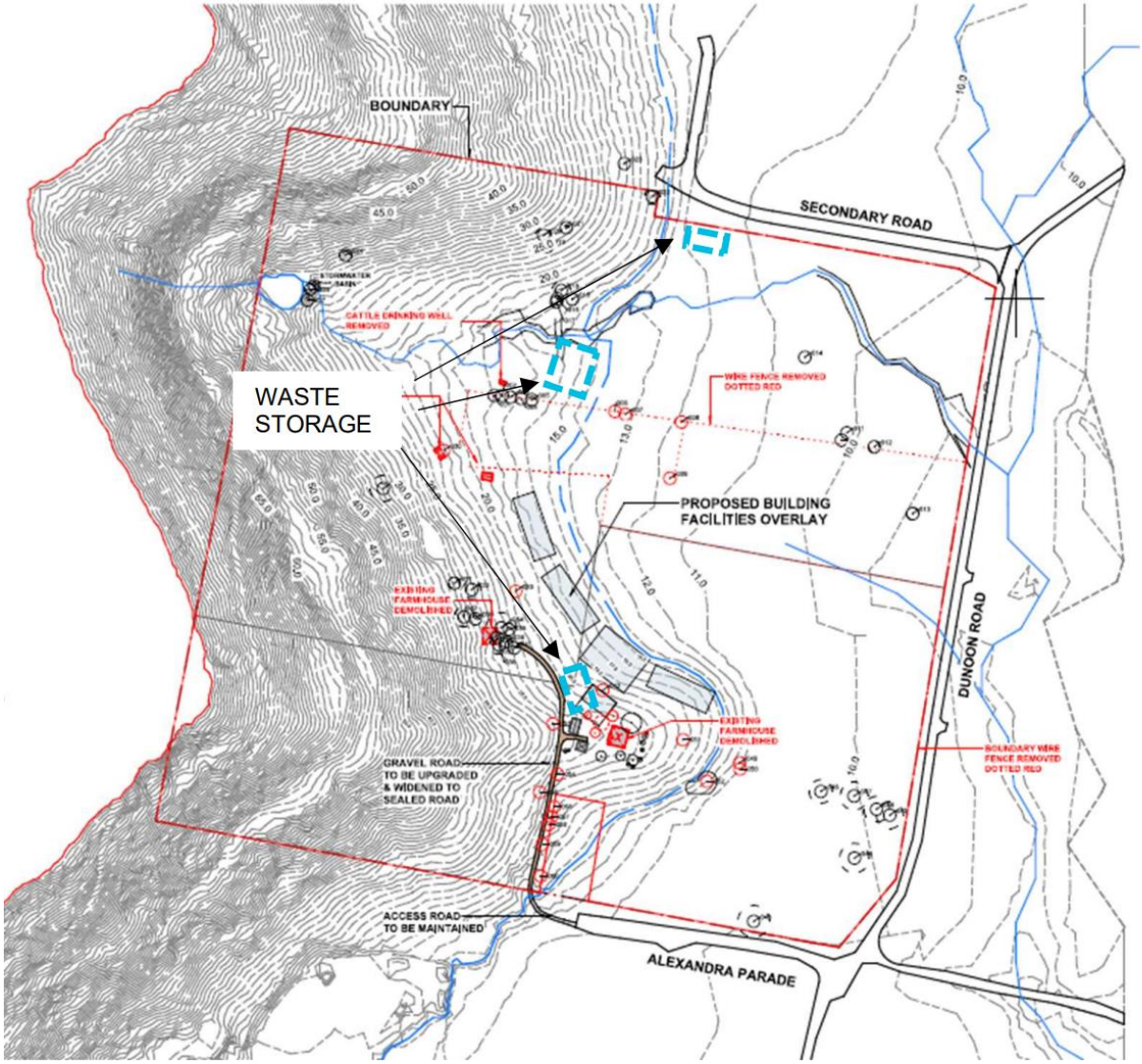


Figure 32 **Indicative location of on-site waste storage areas (Source: GHD)**

Construction Waste

Waste generated during the construction stage will be managed by the principal contractor and sub-contractors. Materials will be reused and recycled where possible, if neither reuse nor recycling are possible options, waste will be disposed of as general waste at a licensed landfill site.

All staff employed during the construction (and demolition stage) will be required to undertake site specific induction training, of which waste management procedures will be enforced by the head contractor/site manager. Waste and recycling areas on site will ensure the sufficient separation storage of waste on site, safety and signage will be implemented throughout the site to ensure all construction staff are following the proper waste management procedures according to regulatory guidelines.

Operational Waste

The waste management strategies detailed in Appendix 19 will be implemented during operation of the site. This includes strategies for general waste, recyclable material, food and garden organised, chemical waste, sanitary waste, clinical waste, electronic waste, chemical drums, cattle waste and animal carcases and chicken waste bedding.

For each of the waste types, different management techniques will be utilised to adhere to the relevant Australian standards and requirements. Based on the estimated waste and recycling volumes generated by the activity, the proposed number and type of bins are as follows:

- 4 x 660L mobile garbage bins for general waste.
- 6 x 660L mobile garbage bins for mixed recycling.
- 8 x 240L mobile garbage bins for Food and Garden Organics (FOGO).

A total waste area of 30.1sqm is required for the site. The waste room proposed is 40sqm, providing an additional area of 9.7sqm within the room for temporary storage of bulky waste or other waste that has infrequent collection. The waste will be stored in the waste room in Building E the agricultural shed which is enclosed and ventilated.

General waste and recycling bins will be collected weekly, sanitary waste will be collected a minimum of every four weeks, and chemical waste collected yearly. All other waste types will be collected as per the maintenance schedule or where requested.

3.1.2.6 Staging

The proposed activity will not be staged.

3.1.2.7 Operation

The school will be due to open and operate from Day 1 of Term 1 in 2027. The school is expected to service:

- 66 FTE school staff.
- 3 support learning staff.
- 660 student enrolments.

3.1.3 Related Activities

There are no other projects occurring concurrently at the site under other planning pathways.

As part of the broader scope of works associated with the rebuild, the department will be undertaking minor ancillary public domain improvements. Offsite public domain works improvements are required for the proposed intersection at Dunoon Road. These works will be undertaken on land similarly zoned RU1 Primary Production.

4. Proposal Need and Alternatives

4.1 Proposal Need

RRHC suffered extensive damage in the February 2022 floods in Lismore, where the school was extremely damaged with only one building surviving the floods. The school was then subsequently affected by a fire in March 2025, further devastating the remaining structures on the site. The school is currently operating out of temporary accommodation alongside The Rivers Secondary College Lismore High Campus at East Lismore.

The NSW Government is committed to rebuilding the schools in Lismore that experienced flood damage, including RRHC. The new school will be designed to be flood resilient, and to the latest EFSG and department standards.

4.2 Alternatives Considered

Table 6 Assessment of Options and Alternatives

Option	Discussion	Preferred Option
Option 1: The Proposed Activity (preferred)	The NSW Government and the department has committed to rebuilding flood impacted schools in the Northern Rivers region, ensuring government “builds back better” with more flood resilient schools for local students and local communities of North Lismore. Part of this commitment is to rebuild RRHC after it was extensively damaged during floods in early 2022. New educational facilities have been designed to meet the long-term needs of high school students in North Lismore. The new school buildings have been designed to respond to the constraints of the site and surrounding area. The design focuses on and ensures that an extensive flood emergency management response is in place. The school has been designed based on extensive agency engagement with LCC, DPHI, the NSW State Emergency Service and the community.	Option 1 is preferred as new educational facilities will best meet the long-term educational and social needs of high school students in Lismore.
Option 2: Alternative Sites	The department has carried out an extensive due diligence phase, considering a number of possible alternative sites for the proposal. The process of site selection resulted in the subject site being the most suitable for the school relocation. Rebuilding on the existing site was considered; however, it was determined to not be suitable from a flood risk perspective. Further devastation to the existing school site occurred in March 2025 following a fire that affected a large portion of the existing buildings, deeming them entirely unsuitable for rebuild.	Option 2 is not preferred as the existing school site is heavily constrained by flood risk.
Option 3: Alternative Designs for Preferred / Subject Site	Alternative designs and options for the chosen site have been considered during the design development of the project. With the consideration of several specialities and	Alternative designs that were considered were not preferred as the chosen design was required to ensure safety and

Option	Discussion	Preferred Option
	expertise of the project team including traffic, flooding, heritage, ecological, and bushfire, the design proposed has been nominated as the most suitable to accommodate the facilities required and the site's constraints. A significant shift in the siting and footprint of the site, and subsequent design, occurred to respond to the geotechnical conditions and constraints of the site, with the current design representing the best outcome for the site, surrounds and intended end users.	minimal impacts as a result of the activity.
Option 4: Do Nothing	The existing school is currently operating from temporary buildings alongside The Rivers Secondary College Lismore High Campus at East Lismore. As the Richmond River High Campus forms part of the collective 'Rivers Secondary College' with Lismore and Kadina High Schools, this has been beneficial in the short term in there being alternative temporary facilities that are available for the RRHC students. This temporary solution was necessary to ensure continuity of education for students in the catchment following the flood event in 2022. However, it cannot accommodate a permanent solution and is not viable long term. A "Do nothing" approach would result in the failure of the department to provide contemporary, fit-for-purpose early learning and secondary education services within the nominated catchment, which is not an option. A series of communications with the community have been made, confirming the school will be rebuilt to meet the educational needs of the catchment. The project will involve an extensive community engagement process which is discussed in detail in Section 5.	Option 4 Is not preferred. A "Do nothing" approach would result in the failure of the department to provide secondary education services within the nominated catchment.

5. Statutory and Strategic Planning Considerations

5.1 Land Use Permissibility

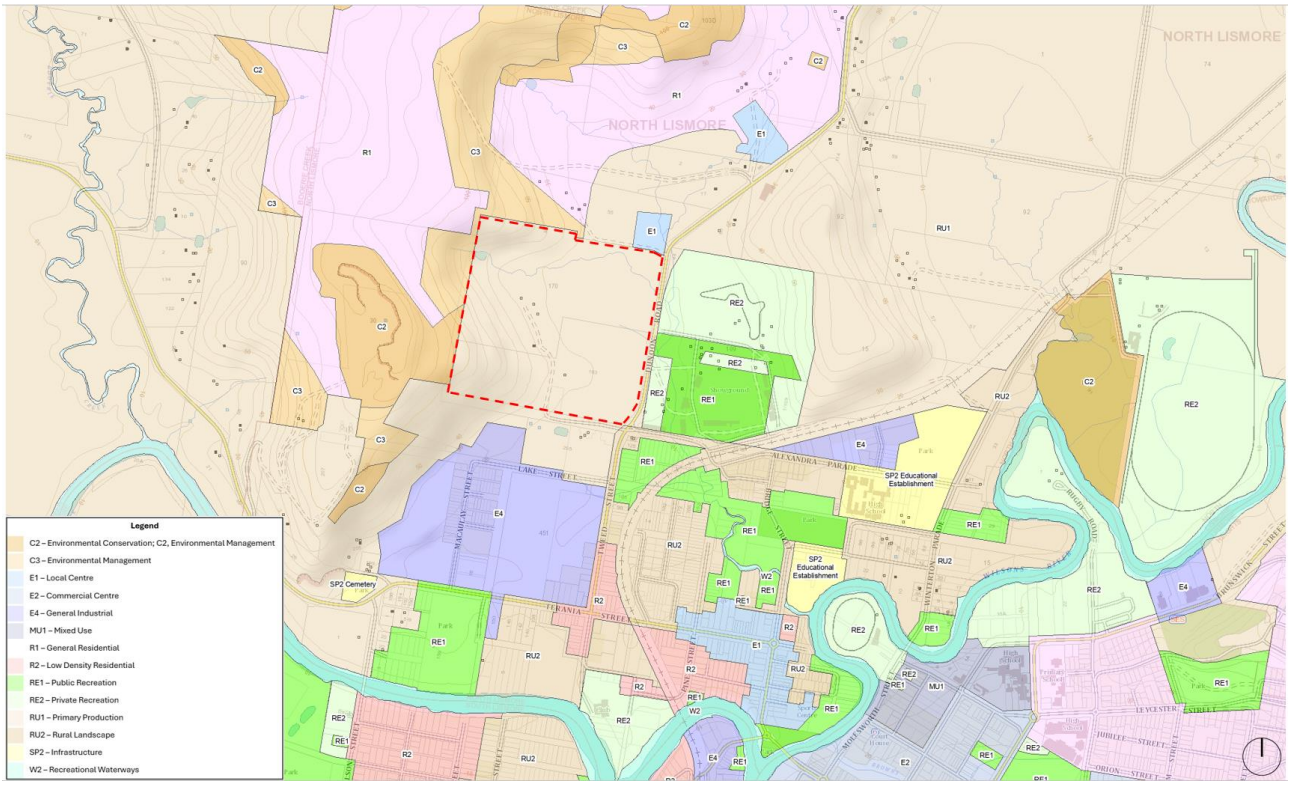


Figure 33 Current land use zoning of surrounding area – site outlined in red (Source: NSW Planning Portal Spatial Viewer)

At the time of preparing this REF (July 2025), the site is zoned RU1 Primary Production pursuant to the LLEP 2012. In RU1 zoned lands, *educational establishments* (the school) are prohibited under the LLEP 2012.

If this REF was being prepared under typical circumstances (as *development permitted without consent* under Part 5 of the EP&A Act), Section 3.37A of the Transport & Infrastructure SEPP (TI SEPP) would normally apply. In order for a project to be subject to this planning approval pathway, a school must not be a prohibited land use. Permissibility can be established either through the land use zoning in the respective LEP or pursuant to Section 3.36 of the TI SEPP, which states that development for the purpose of a school may be carried out with development consent on land in a prescribed zone. A prescribed zone is defined in Section 3.34 of the TI SEPP; however, it does not include the current RU1 zone. Therefore, the school would still be a prohibited use under the TI SEPP. Similarly, a school is prohibited under the Lismore LEP in the RU1 zone.

Typically, a rezoning would be required to enable the land use to be permissible, prior to any approval or authorisation being issued. However, a Ministerial Authorisation under Section 68 of the RA Act authorises development without the need for a planning application or other approval under the EP&A Act. Further, Section 69 of the RA Act specifies that a Ministerial Authorisation under Section 68 may have effect despite any environmental planning instrument or development consent. In other words, land use permissibility is not a precondition to the issue of a Section 68 approval by the RA.

Despite this, it is the intention of department and the RA to rezone the land. A rezoning package is currently being considered by the RA, to rezone the land for special purposes (SP2 Educational Establishment) and a mix of conservation lands to reflect the biodiversity value of vegetated areas in the western portion.

Following extensive discussions between NSW Government agencies including the RA, the department, DPHI, and LCC, there was agreement that the proposed method in which to rezone the land to permit *Educational Establishments,* was through Section 3.22(1)(c1) of the EP&A Act which enables the RA to act as planning proposal authority to rezone the land.

Section 3.22(1)(c1) enables amendments to environmental planning instruments such as LEPs, to enable the RA to deal with matters it considers necessary to give effect to the RA Act 2022.The rezoning of the land includes amending the relevant land zoning map under the LLEP, therefore meeting the provisions of s3.22(2).

The site, currently zoned RU1 Primary Production under the LLEP, is undergoing rezoning to:

- SP2 Educational Establishment
- C2 Environmental Conservation
- C3 Environmental Management

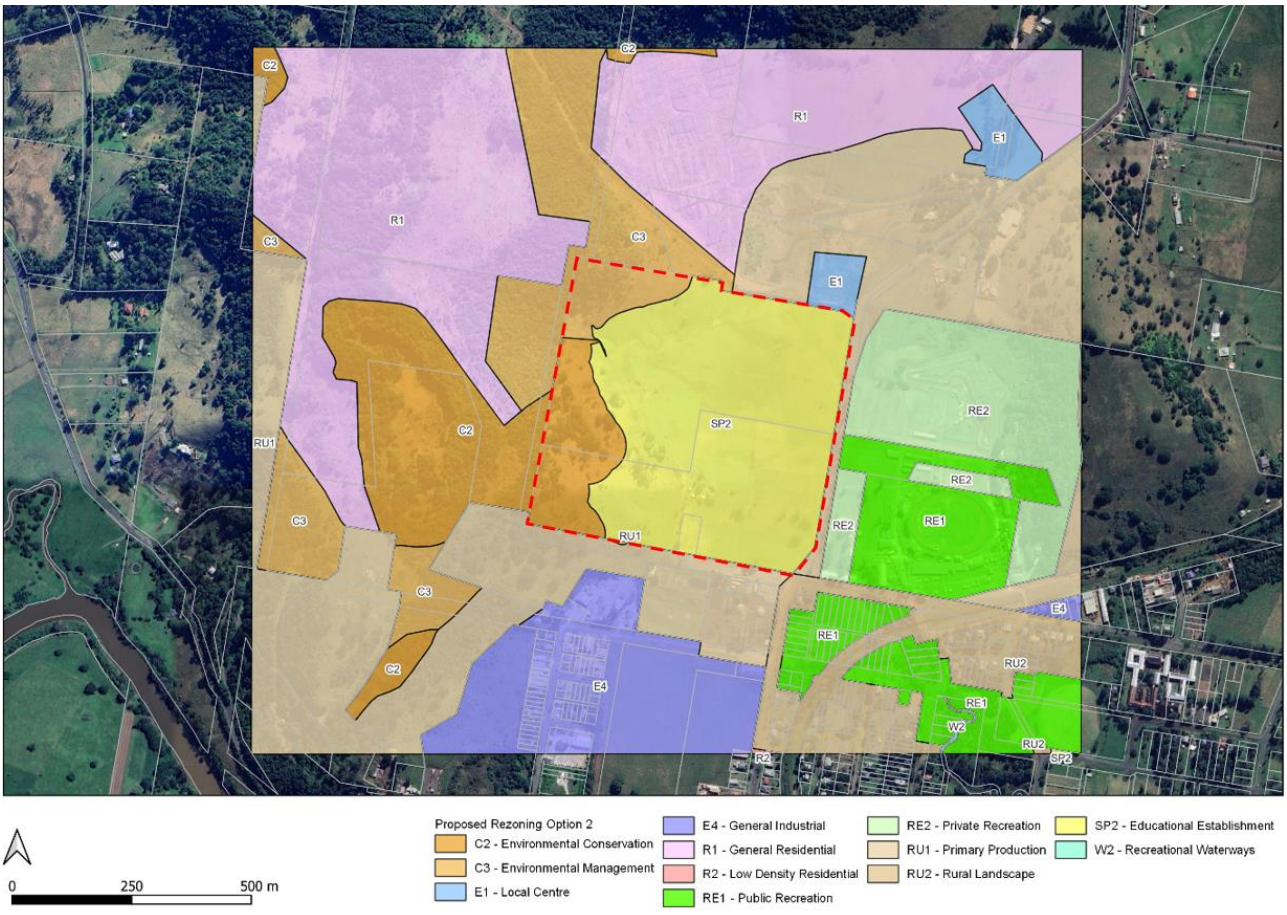


Figure 34 Proposed land zoning map that will apply to the site following rezoning (Source: Gyde Consulting)

The map below identifies the extent of land within the site to be zoned in accordance with each of the above land use zones, which will enable the use of the school to be permissible on this site. The proposed land use zoning responds to the site's constraints, in particular to the biodiversity, and bushfire conditions on the site.

5.2 Planning Approval Pathway

Section 68 of the RA Act states that the Minister may, by order (a Ministerial authorisation), authorise the undertaking of development without the need for any consent or approval under the EP&A Act. An authorisation may only be given in certain circumstances as set out in Section 68(3) or (4). The relevant circumstances for this project are:

- The authorisation may be given in relation to a reconstruction area Section 68(3)(b)(ii), and
- The chief executive officer may advise, and the Minister may be satisfied that:
    a. the authorisation is necessary for the safety and welfare of the public because of the disaster (2022 floods) that resulted in the declaration of the reconstruction area. LSPS is currently operating out of temporary facilities that are not fit for purpose and not flood resilient. The proposed rebuild will ensure the school community is provided with contemporary facilities that are flood resilient – Section 68(3)(c)(i)(B).
    b. the development is in a part of the State that has been directly affected by the disaster – Section 68(3)(c)(ii).
- The Ministerial authorisation may be given pursuant to Section 68(4) because:
    c. Exceptional circumstances exist – which pursuant to the RA Regulation 2023 includes a circumstance where a disaster has occurred that has resulted in significant and widespread harm to life or damage to property or the environment. This is relevant to the 2022 flood events in the Northern Rivers, which includes the site, and is therefore deemed to be an exceptional circumstance.
    d. Immediate action is required to restore flood resilient and fit for purpose school facilities to ensure the safety and welfare of the school community.
    e. No other mechanism available under the RA Act would be appropriate in the circumstances.

As noted earlier, if not for Section 68 of the RA Act, the project would otherwise be classified as an activity and subject to assessment under Part 5 of the EP&A Act. This is because the works would ordinarily be classified as *development permitted without consent* (if not for the current zoning of the land) pursuant to Section 3.37A of the TI SEPP.

5.3 Other Legislation

Under normal circumstances, the legislation that would be relevant to the evaluation of this activity is:

- The Environmental Planning and Assessment Act 1979 (EP&A Act).
- The Environmental Planning and Assessment Regulation 2021 (the Regulation).

To allow for a comprehensive assessment to take place, this REF also addresses all other various other legislation, and Environmental Planning Instruments (EPIs), including provisions which have also been considered, primarily including:

- TI SEPP.
- LLEP 2012.

This legislation and these planning instruments are addressed below. A summary of all other legislation has also been prepared to ascertain relevant compliance.

Table 7 Description of Proposed Activities under the TI SEPP

Division and Section within TI SEPP	Description of Works
3.37A New Government schools – development permitted without consent	
(1) Development for the purposes of a government school may be carried out by or on behalf of a public authority without consent on land— (a) in a prescribed zone, and (b) on which there is no existing or approved school	The proposed activity comprises development for the purposes of a government school on behalf of a public authority on land which does not contain an existing or approved school and is in RU1 Primary Production zoned lands. In RU1 zoned lands, *educational establishments* (the school) are prohibited under the LLEP. If this REF was being prepared under other circumstances (as *development permitted without consent* under Part 5 of the EP&A Act), Section 3.36 of the TI SEPP would normally apply. Section 3.36 states that development for the purpose of a school may be carried out with development consent on land in a prescribed zone. A prescribed zone is defined in Section 3.34 of the TI SEPP; however, it does not include RU1 Primary Production zoned lands. Therefore, the school would still be a prohibited use. When the land is rezoned, the school will be permissible, and the new zone (SP2) will be defined as a prescribed one. As noted earlier, an authorisation under Sections 68 and 69 of the RA Act can be made for the project irrespective of land use permissibility.
(2) A building resulting from development carried out on land under this section 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, and (b) 4 storeys.	The LLEP does not outline a maximum building height for the site. The proposed buildings do not exceed 4 storeys.
(3) Development must not be carried out under this section unless— (a) the public authority is satisfied that appropriate consultation has been undertaken having regard to— (i) the SCPP—new health services facilities and schools, and (ii) the stakeholder and community participation plan, and (b) the public authority has considered- (i) the design quality of the development, evaluated in accordance with the design quality principles set out in Schedule 8, and	(a) Early stakeholder consultation has been undertaken in accordance with the SCPP (as described in Section 6 of this REF). (b) The public authority has considered the following design requirements: The Design Quality Principles set out in Schedule 8 of the TI SEPP and the Design Principles set out in the Design Guide for Schools have been considered as set out in Section 2.2.1 and within the Architectural Design Report (Appendix 04).

Division and Section within TI SEPP	Description of Works
(ii) the design principles set out in the design guide.	
(4) In this section— government school includes a relevant preschool.	This section is not relevant. A preschool does not form part of the proposed activity.
3.8 Consultation with councils – development with impacts on council-related infrastructure or services	This section applies where there is likely to be a substantial impact on stormwater management, traffic capacity of the road system, the sewerage system, water supply system, more than inconsequential excavation in a road reserve or installation of a temporary structure on a public place. Whilst the activity will not trigger any substantial impacts on these threshold requirements, consultation was made with LCC with regard to the traffic and transport impacts (through Transport Working Groups), and in regard to connection to the sewer and water network.
3.9 Consultation with councils— development with impacts on local heritage	The site is not listed as a heritage item, nor is it located within a heritage conservation area. A Statement of Heritage Impacts (Appendix 25) and Archaeological Assessment (Appendix 24) have been prepared which concludes that the activity will not have an impact on any heritage items in proximity to the site, or any historical archaeological relics. Notification to LCC will be made as part of the broader public exhibition process in which the REF and accompanying documents will be made available to Council.
3.10 Notification of councils and State Emergency Service— development on flood liable land	The eastern part of the site is identified as a low to extreme flood risk area. Notification of LCC and the SES has been undertaken, and engagement with LCC, DPHI, and the SES took place through the form of risk workshops to discuss the flood risks associated with the activity. Evacuation strategies have been determined with consultation with the SES. The activity has been designed in accordance with SES feedback and review, and the Flood Impact Risk Assessment (FIRA) (Appendix 29) and Flood Emergency Response Plan (FERP) (Appendix 29.1) will both be made publicly available during the broader public exhibition process.
3.11 Consideration of Planning for Bush Fire Protection	The site is located on bushfire prone land. Consideration of Planning for Bush Fire Protection has been undertaken in the Bushfire Hazards Assessment (Appendix 28), which outlines that early consultation with RFS was sought, in which it was advised that a bushfire assessment that details proposed bushfire protection measures and demonstrates compliance with Planning for Bushfire Protection 2019 (PBP) is required.
3.12 Consultation with public authorities other than councils	The activity will not involve: • Development adjacent to land reserve under the NPW Act. • Development on land immediately adjacent on a rail corridor that would have an effect on rail safety (noting the rail corridor south of the site is dis-used and not intended to be reinstated). • Development that would increase the amount of artificial light in the night sky. • Development on land within a mine subsidence district. The activity will however involve access to a road and a school capacity of more than 50 students, as well as a new vehicular access point to the school from a public road. Therefore, notification of TfNSW is required under this section of the TI SEPP. The requirement for

Division and Section within TI SEPP	Description of Works
	consultation under Section 3.12 will be satisfied as part of the broader exhibition of this REF and accompanying documents.
3.38A Notification of carrying out of certain development under Section 3.37A	The activity involves development to which Section 3.37A(1)(a) would usually apply, written notice of the intention to carry out the development to Council and TfNSW for 28 days would be required. The requirement for notification will be satisfied as part of the broader exhibition of this REF, and accompanying documents.
With regard to stakeholder engagement, whilst the planning approval pathway is different than that of a Part 5 Development without Consent pathway, comprehensive and meaningful engagement has taken place with the relevant stakeholders and agencies. Furthermore, during the rezoning process, the RA requested that exhibition of the rezoning report and supporting documentation would take place. This provided another opportunity for key stakeholders such as the SES and RFS to provide comment on the proposed activity. A public exhibition stage, where the REF and supporting documentation will be displayed for community feedback, will take place. The extent of this process will be guided by the RA, at this stage details are unknown, however, it will be of similar format and timeframe as a Part 5 REF, and will aim to comply with the principles of the SCPP.	

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 the RA is the 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 7 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 7.

5.4 Environmental Protection and Biodiversity Conservation Act 1999

The activity described will not affect areas of outstanding biodiversity value or Wilderness Areas. The activity is unlikely to significantly affect threatened species or ecological communities or their habitats, within the meaning of the Biodiversity Conservation Act 2016, and therefore a Species Impact Statement (or Biodiversity Development Assessment Report (BDAR) is not required. The activity is also unlikely to affect Commonwealth land or have a significant impact on any matters of national environmental significance in relation to the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

An assessment against the EPBC Act checklist is provided at Table 8. Refer to the Biodiversity Assessment Report (BAR) at Appendix 26 for further details of the below.

Table 8 EPBC Act Checklist

Consideration	Yes/No	Response
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No	No World Heritage properties occur within 5 km of the site.
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No	No National Heritage places occur within 5 km of the site.
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No	No wetlands of international importance (Ramsar sites) occur within 5 km of the site.
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No – only a minor impact identified	Habitat for five threatened ecological communities and 66 threatened species is identified within 5 km of the site. No EPBC Act listed TECs occur on site. A highly degraded form of Lowland subtropical rainforest listed as candidate Lowland Rainforest of Subtropical Australia TEC under the EPBC Act is present, with 0.05 ha impacted by the activity. Three EPBC Act listed threatened flora species (Hairy Joint grass, Thorny Pea and Durobby) occur on site. Threatened flora species are not proximate to the activity footprint and would not be impacted by the activity. Two EPBC Act listed threatened fauna (Koala and Grey-headed Flying-fox) have the potential to occur on site. Threatened fauna species considered to have potential to occur on the subject land may only occur on occasion as part of broader foraging ranges in the local area. Significant habitat for threatened fauna species would not be impacted by the activity given that it has been sited within areas of cleared pastureland. The activity would be unlikely to result in the removal of habitat important to any threatened fauna species in a local context and would not contribute significantly to any listed key threatening processes.
Will the activity have, or likely to have, a significant impact on listed migratory species?	No	Habitat for 13 migratory species is identified within a 5 km radius of the site. Given the relatively fragmented and disturbed habitat present, migratory species are unlikely to be significantly affected by the activity.
Will the activity involve any nuclear actions?	No	The activity does not involve a nuclear action.
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No	No Commonwealth marine areas occur within 5 km of the site.
Will the activity have any significant impact on the Great Barrier Reef Marine Park?	No	The Great Barrier Reef Marine Park is distant from the site.

Consideration	Yes/No	Response
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No	The activity does not involve any impact on a water resource, in relation to coal seam gas development and large mining development.
Will the activity have any significant impact on Commonwealth land?	No	The activity will not have any impact on Commonwealth land.

5.5 Other Approvals

Table 9 identifies any additional approvals that may be required for the proposed activity.

Table 9 Consideration of other approvals and legislation

Legislation	Relevant?	Approval Required?	Applicability
State Legislation			
National Parks and Wildlife Act 1974	Yes	Yes	An ACHAR (Appendix 23) has been prepared to assess whether any impact imposes to Aboriginal objects and Aboriginal places, as protected under the National Parks and Wildlife Act 1974 (NPW Act). Through a process of archaeological test excavations, and field surveys, the ACHAR has confirmed that the RRHC site area contains Aboriginal objects. Provisions under Section 90 of the NPW Act require an application for an AHIP that allows harm to identified Aboriginal objects. The ACHAR recommends that a whole of the project area AHIP be sought, which provides statutory defence against harm to all known and unknown Aboriginal objects inside the RRHC boundary. The AHIP will also provide approval for the management of lithics recovered during the test archaeological excavation, and collection of lithics from a surface-base context across the RRHC site. A mitigation measure has been included to outline an unexpected finds protocol, and a stop work order Stop work order, where any identified Aboriginal object(s) should be left in situ and not disturbed in accordance with the requirements of Section 89A of the NPW Act.
Rural Fires Act 1997	Yes	Yes	As noted earlier in this REF, part of the western portion of the site is mapped as bushfire prone land (Category 1, Category 2, and Vegetation Buffer). The proposed use, being an educational establishment, is defined as a special fire protection purpose (SFPP) pursuant to the Rural Fires Act 1997. To assess the suitability of the activity on the site, and ongoing bushfire protection measures to minimise the risk of bushfire impact to the school, a Bushfire Hazard Assessment (Appendix 28) has been prepared to undertake an assessment of the proposal in accordance with PBP. The bushfire consultant has identified a mitigation measure that is required to ensure that an application will be prepared and submitted to the NSW Rural Fire Service (RFS) for approval under Section 100B of the Rural Fires

Legislation	Relevant?	Approval Required?	Applicability
			Act 1997. This approval is to be obtained in writing prior to construction commencing on site.
Water Management Act 2000	Yes	Yes	A first order stream is mapped on the site from DPE's Hydro Line spatial data map. This small unnamed tributary of Wilsons Creek traverses the northern portion of the site flowing west to east. A controlled activity approval in accordance with the Water Management Act 2000 (WM Act) is not required as the proposed activity is being conducted further than 40 metres away from any waterways (as per the definition of waterfront land within the WM Act). Based on the excavation requirements for the activity, temporary dewatering during construction is required, the requisite approvals from the relevant agency will be obtained, where required, under the WM Act.
Biodiversity Conservation Act 2016	Yes	No	Four threatened flora species were detected onsite, these species are listed as vulnerable under the Biodiversity Conservation Act 2016 (BC Act): • Hairy Jointgrass.(Arthraxon hispidus). • Thorny Pea (Pedleya acanthocladum). • Arrow-head Vine (Tinospora tinosporoides). • Durobby (Syzygium moorei). A test of significance under the BC Act was not required for TECs or threatened flora known to occur onsite because: • Impacts to Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions TEC are limited to highly degraded, isolated stands of Silky Oak occurring as clumped paddock trees (equating to 0.05 ha). This community also occurs proximate to site forming larger contiguous area of lowland rainforest. The impacted vegetation is highly disturbed and comprises a relatively minor amount of vegetation in the context of the site and adjacent areas. The lowland subtropical rainforest community within the wider locality is expected to persist and remain unaffected by the activity. The activity is not expected to significantly affect or alter the extent or composition of the TEC such that its local occurrence is likely to be placed at risk of extinction. • Threatened flora species are not proximate to the activity footprint and would not be impacted by the activity. • Threatened fauna species considered to have potential to occur on the site may only occur on occasion as part of broader foraging ranges in the local area. • Significant habitat for threatened fauna species would not be impacted by the activity given that it has been sited within areas of cleared pastureland.

Legislation	Relevant?	Approval Required?	Applicability
			• Non-native vegetation on the site is not considered to provide permanent/ regularly used habitat for threatened species. • Increased impacts to threatened fauna as a result of increased noise/ light are considered to be negligible given the sites location within cleared agricultural land. Based on the results of the BAR at Appendix 26, no significant impacts to any BC Act listed threatened entities would be likely to result from the activity.
Heritage Act 1977	No	No	**Heritage** A Statement of Heritage Impact (SoHI) (Appendix 25) was prepared due to the site's proximity to the following heritage-listed items: • Lismore Railway Underbridges (SHR #01044). Also listed as an Archaeological Site, Railway Viaduct, Alexandra Parade (LLEP A7, State Significance). • Richmond River High School (LLEP #I92, Local Significance). Also listed as Richmond River High School (S170 #4640357). • Richmond River High School Grounds (LLEP #I30186, Local Significance). To support the SoHI, a Historical Archaeological Assessment was prepared (appended to the SoHI at Appendix 24) which assessed the potential for historical archaeological relics within the proposed activity footprint in accordance with the Heritage Act 1977. **Aboriginal Heritage** 40 artefacts were recovered during the excavations, and the consensus of this testing confirmed the archaeological nature and extent of Aboriginal objects within the study area, concluding that there are no intact archaeological deposits that required further investigation. Given the recovery of these artefacts, the remainder of the study area has a very low potential to contain Aboriginal objects. It was concluded that no further Aboriginal archaeological excavation was required. However, the ACHAR (Appendix 23) recommends that a whole of the project area AHIP be sought, which provides statutory defence against harm to all known and unknown Aboriginal objects inside the RRHC boundary. The AHIP will also provide approval for the management of lithics recovered during the test archaeological excavation, and collection of lithics from a surface-base context across the RRHC site.
Fisheries Management Act 1994	No	No	A small unnamed tributary of Wilson's Creek traverses the northern portion of the site, flowing west to east. This stream is not mapped as Key Fish Habitat (KFH) by NSW Department of Primary Industries (DPI). Minimal water was present within this waterway, and accordingly, the potential for aquatic fauna to occur is minimal.

Legislation	Relevant?	Approval Required?	Applicability
			Therefore, it does not trigger any approval under the Fisheries Management Act 1994.
Contaminated Lands Management Act 1997	Yes	No	Potential risks associated with the contaminants of potential concerns (CoPC) at the site are low and the data collected during the investigations suggest that significant and widespread contamination issues are unlikely to be encountered. Further investigation and/or remediation is not required, and the site is suitable for the proposed activity.
Protection of the Environment Operations Act 1997	No	No	There are no significant air, noise, water, or waste pollutions as a result of the activity that would require an environment protection licence.
Roads Act 1993	Yes	No	Offsite public domain works improvements are required for the proposed intersection at Dunoon Road, a classified road. For this project, approval under Section 138 of the Roads Act 1993 for the new driveway to the site and off-site transport improvements is not required to be obtained by a public authority, such as the department. Landowners' consent will be required from TfNSW prior to undertaking the works given the land is within its ownership. Section 4 of the Inclosed Lands Protection Act 1901 makes it an offence to enter inclosed lands without permission or consent from the landowner.
Local Government Act 1993	Yes	Yes	Separate approval from LCC, under Section 68 Part B of the Local Government Act may be required for new stormwater drainage inlet pits and pipes that will connect to existing discharge points along Dunoon Road.
Environmental Planning and Assessment Regulation 2021 (Section 171A	Yes	No	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 Part 5 of the EP&A Act. Whilst this REF will not be approved under Part 5 of the EP&A Act, these factors are considered in detail at Section 6.16. Further, Section 171(4) outlines circumstances where an REF must be published on the department's website or the NSW Planning Portal. This REF will go on public exhibition in a similar format to that of a standard Part 5 REF. In addition, Section 171A of the EP&A Regulation requires the consideration of the impact an activity in a defined catchment. The site is not located in a defined catchment and therefore, no further consideration of Section 171A matters is required.
State Legislation – State Environmental Planning Policies			
State Environmental Planning Policy	Yes	No	It is noted that the proposal may be identified as state significant development pursuant to Schedule 1, Section 15(2), of the Planning Systems SEPP. The proposal could

Legislation	Relevant?	Approval Required?	Applicability
(Planning Systems) 2021			be classified as state significant development, noting that the land would still require rezoning through this pathway as educational establishments are prohibited in the RU1 Primary Production zoned lands.
State Environmental Planning Policy (Biodiversity and Conservation) 2021	No	No	Chapter 2 Vegetation in non-rural areas does not apply to the site as it is not located in any of the areas listed in Section 2.3(1)(a). Chapter 3 and Chapter 4 apply to koala habitat protection. As described earlier in this REF, a small part of the site is mapped as Primary Koala Habitat (PCT 3322 – Far North Ranges Red Gum Grassy Forest), with vegetation along the western boundary mapped as Unknown Koala Habitat (PCT 3064 – Far North Hoop Pine Dry Rainforest TEC)). Whilst these trees provide potential habitat for koala onsite, no scats were detected beneath the Forest Red Gums onsite, however, it is possible that these trees may be used on occasion by koala ranging throughout the broader areas rather than as part of their permanent breeding habitat. Given these areas of vegetation are to be retained and do not form part of the activity area, potential impact to koala species is low. A precautionary mitigation measure has been provided to minimise any potential impacts in the instance that koalas are found onsite during the site excavation and vegetation clearings. Chapter 5 River Murray lands does not apply as the site is not located in any of the areas listed in Section 5.3. Chapter 6 Water catchments does not apply as the site is not located within the Sydney Drinking Water Catchment, Sydney Harbour Catchment, Georges River Catchment, or the Hawkesbury-Nepean Catchment.
State Environmental Planning Policy (Transport and Infrastructure) 2021	Yes	No	In accordance with Section 3.58(1)(a) of the TI SEPP, the proposed activity would be considered as traffic-generating development. Traffic generating development applies to an educational establishment being able to accommodate 50 or more additional students. If development consent was required (via a DA), then the application would need to be referred to TfNSW for comment. The activity does not require development consent. However, as noted earlier in this REF, notification to TfNSW is required prior to determination of the activity. This will be undertaken, providing TfNSW with an opportunity to comment on the activity and the relevant transport arrangements.
State Environmental Planning Policy (Sustainable Buildings) 2022	Yes	No	Section 3.1(1)(a) of the Sustainable Buildings SEPP 2022 applies to the erection of a new building, if the development has an estimated development cost of $5 million or more. Section 3.2 of the SEPP specifies sustainability outcomes for non-residential development that the consent authority must consider in deciding whether to grant development consent.

Legislation	Relevant?	Approval Required?	Applicability
			Whilst the activity does not require development consent under Part 4 of the EP&A Act, an Ecologically Sustainable Development (ESD) Report has been prepared (Appendix 14) to demonstrate how sustainability has been integrated into the design and operations of the activity. In doing so, the provisions of Section 3.2 of this SEPP were considered, and a net zero statement was also prepared as part of this ESD Report.
State Environmental Planning Policy (Resilience and Hazards) 2021	Yes	No	A Contamination Supplementary Investigation (Appendix 30) determined that further investigation of the site, and/or remediation is not required, and that the site is suitable for the activity from a contamination viewpoint. A Hazardous Buildings Materials Assessment (Appendix 31) has been prepared to assess the risks associated with the hazardous building materials identified in the existing buildings onsite due to be demolished. The HBA outlines recommendations and mitigation measures to ensure that any hazardous materials can be safely removed without causing any harm to the environment.
State Environmental Planning Policy (Industry and Employment) 2021	No	No	Chapter 3 Advertising Signage of the SEPP (Industry and Employment) does not apply to the proposed activity. Chapter 3 applies to regulating signage under Part 4 of the EP&A Act.
Lismore Local Environmental Plan 2012			
Land Use Table - Zoning	Yes	N/A	As noted earlier, a school is currently prohibited under the LLEP 2012 on the site, which is zoned RU1 Primary production. Once the site is rezoned, the use will be permissible on the SP2 portion. Irrespective, Section 68 (and 69) of the RA Act prevails, providing the RA the authority to authorise the development despite this EPI.
Cl. 4.1 Minimum subdivision lot size	No	N/A	Subdivision is not proposed as part of the development.
Cl. 4.3 Height of Buildings	Yes	N/A	No maximum building height applies to the site.
Cl. 4.4 Floor Space Ratio	Yes	N/A	No maximum floor space ratio applies to the site.
Cl. 5.10 Heritage	No	N/A	The site is not listed as a heritage item and is not located in a heritage conservation area. A SoHI has been prepared and accompanies the REF (Appendix 25) to assess any potential impact the proposed activity may have to any heritage items within the vicinity. Assessment of impact to the following heritage items has been outlined in the SoHI:

Legislation	Relevant?	Approval Required?	Applicability
			• Lismore Railway Underbridges (SHR #01044). Also listed as an Archaeological Site, Railway Viaduct, Alexandra Parade (LLEP A7, State Significance). • Richmond River High School (LEP #I92, Local Significance). Also listed as Richmond River High School (S170 #4640357). • Richmond River High School Grounds (LLEP #I30186, Local Significance).
Cl. 5.21 Flood Planning	Yes	N/A	The FIRA outlines that the site is impacted by high hazard floodwaters in both the 1% annual exceedance probability (AEP) and probable maximum flood (PMF) events (categorised as H4-H5 hazard level in the 1% AEP event, and H6 hazard level in the PMF). The site, located in North Lismore, is in an area of Lismore that is not protected by the Lismore Levee Scheme and therefore has limited warning time for evacuation in comparison to South and Central Lismore. A Flood Emergency Response Plan (FERP) was prepared to ensure that safe and timely evacuation of the school during flood events can occur. The site is at risk of both localised and regional flooding. Localised flooding is brief, while regional flooding can last for several hours. To manage these risks, two response strategies have been adopted: a 'Shelter-in-Place' strategy for localized flooding and a pre-emptive closure and evacuation strategy for regional flooding. Refer to the detailed FIRA and FERP which can be found at Appendix 29 and Appendix 29.1.
Cl. 7.1 Acid Sulfate Soils	Yes	N/A	The Supplementary Salinity and Acid Sulfate Soil Assessment & Salinity Management Plan (Appendix 30.1) found that the site is not located within an acid sulfate soil risk area.
Cl. 7.2 Earthworks	Yes	N/A	The objective of this clause is to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land. The proposed earthworks will not impact on the environment subject to implementing the mitigation measures in Appendix 1 related to erosion and sediment control.
Cl. 7.4 Airspace Operations	No	N/A	The site is within the OLS mapped area set of RL 54.5, AHD OLS. It is subject to the inner horizontal surface classification and a maximum height of RL 54.5m AHD before the airspace is ‘penetrated’. The proposed activity consists of a maximum height of RL 30.850 AHD. Therefore, the activity will not penetrate the airspace, and the proposal will comply with Cl. 6.5 Airspace operations of the LLEP.
Cl. 7.6 Essential Services	Yes	N/A	The activity has made adequate arrangements to provide the following essential services: (a) the supply of water,

Legislation	Relevant?	Approval Required?	Applicability
			(b) the supply of electricity, (c) the disposal and management of sewage, (d) stormwater drainage or on-site conservation, (e) suitable vehicular access. A Building Services Infrastructure Report has been prepared and accompanies this REF (Appendix 10).
Cl. 7.8 Drinking Water Catchment	Yes	N/A	The site is located within a drinking water catchment. The objective of Cl. 7.8 is to protect drinking water catchments by minimising the adverse impacts of development on the quality and quantity of water entering drinking water storages. The REF includes erosion and sediment control plans, stormwater management plans and a Civil Engineering Report (Appendix 07) to address stormwater quality and quantity.

5.6 Lismore Development Control Plan 2012

There are no specific development controls in the Lismore Development Control Plan 2012 (LDCP) that relate to educational establishments or school infrastructure. The following table is a list of the most relevant development controls that are applicable to the proposed activity.

Table 10 Lismore DCP Relevant Controls

LDCP Provision	Comment
Chapter A	
Chapter 7 – Off Street Carparking	**Driveways and Access Points** The DCP has specific requirements for the siting of driveways and access points relating to safety, signage, manoeuvrability and clearance. The proposed new access road is two directional and contains two internal roundabouts to ensure that vehicles can enter and exit the site in a safe and forward-facing manner. The site will be access via a new priority-controlled T-intersection on Dunoon Road, approximately 150m north of the interaction with Alexandra Parade. The access is located with a 50km/h speed limit zone and will be a single-entry point. The entryway is situated away from surrounding intersections to ensure that any vehicle turning from or into the site can be readily seen by the driver of an approaching vehicle or pedestrian. Traffic will be separated internally with a carpark for staff and students, a dedicated kiss and ride drop off zone and a dedicated internal bus bay located fully within the side. The speed limit will be reduced to 40km/h as a school zone in accordance with the NSW Speeding Zoning Guidelines. **Landscaping** The DCP requires car parks to be suitably landscaped to provide screening, shade for vehicles and reduce radiant heat. The proposed landscaping treatment for the site includes planting trees around the carpark to meet the requirements of the DCP. Shade trees will be planted surrounding the carpark to provide screening while ensuring adequate space for root growth. **Car parking rates**

LDCP Provision	Comment
	Car parking requirements for areas outside of Lismore Central Business District (CBD) are specified in Schedule 1 of Chapter A7. The following parking rates are stipulated for secondary educational establishments: • 1 per 2 employees, plus 1 per 10 students The Transport and Accessibility Impact Assessment (TAIA) (Appendix 20) confirms that the car parking spaces provided exceeds the requirements under the DCP. Based on the projected staff and student enrolment numbers, a provision of 99 car parking spaces is required (33 for staff, 66 for students) to align with the DCP. The proposed car parking exceeds this with 130 spaces provided, of which there are four accessible spaces, and 9 EV charging spaces. The department notes that student parking is not provided in line with State policy, and that this is a consistent approach taken for all new high schools.
Chapter 8 – Flood Prone Lands	A FIRA (Appendix 29) and FERP (Appendix 29.1) have been prepared as part of the REF package. An assessment against flood risks is outlined in Section 7.2 of this REF.
Chapter 9 - Signage	Key signage for the activity is proposed at the main vehicle and pedestrian entrance to the site off Dunoon Road, to identify the school and assist in public wayfinding. Additional signage will be placed at the school entrance to inform the community about school events and achievements. Onsite wayfinding signage and school signage will be located accordingly throughout the school. Signage and QR Codes will be placed around the garden beds to teach the students about Bundjalung stories and language as part of the CwC design approach. The development of signage and artwork is ongoing and will be carried out in conjunction with the AECG during detailed design stages.
Chapter 11 – Buffer Areas	**Environmental Buffers** To protect the integrity of areas which are recognised as having high environmental value, a sufficient setback between new development and the defined boundary of the environmentally sensitive area should be maintained. The site contains a small area mapped as primary koala habitat in the central/south-western portion of the site. To protect this area and the surrounding environmental values, the siting of the development has been carefully considered. To ensure protection of flora, fauna and habitat, a buffer of approximately 30m has been provided to the activity area. The development is situated towards the western boundary of the site to ensure no adverse impacts on the environmental values of the site. **Lismore Airport** The DCP notes that air space protection is important to maintaining the safe operation of an aerodrome. The site falls within the 4km buffer area of Lismore Airport and therefore is within the OLS. The DCP prohibits any structure to be installed above RL 54.5m AHD or within the runway approach surfaces. The maximum height of building on site is RL 30.850 AHD and therefore, the development does not penetrate the OLS area, and the appropriate buffer has been maintained.
Chapter 13 – CPTED	The Architectural and Landscape Design Report (Appendix 04) addresses the CPTED principles. An assessment against CPTED is provided earlier in this REF in Section 3.1.1.8.
Chapter 14 Tree Preservation Order	This chapter's objective is to promote the retention of trees and tree cover, within urban, village and rural residential areas to conserve the existing landscape quality and remaining natural ecosystems.

LDCP Provision	Comment
	The arboricultural assessment undertaken for the activity (Appendix 27) assessed a total of 60 trees within the project area. Out of the 60 trees assessed, 31 were exotic and 29 native to Australia. Additionally, Corymbia torelliana was identified on site, a non-indigenous species which is native to north Queensland and classed as an environmental weed in north-east New South Wales and south-east Queensland. Nine trees were assigned to a high, nine to a medium and 42 to a low/remove retention value (Figure 3.1). No trees were recorded as a threatened species. Of the trees assessed, 40 were found to be suitable for retention as they fall outside of the activity footprint. The densely vegetated area on the eastern portion of the site was not assessed however, no trees in this vicinity are proposed to be removed. The closest trees proposed to be removed are no. 27 and 28 which are identified as dying and a weed respectively, both with low/remove retention value.
Chapter 15 – Waste Minimisation	**Demolition of Buildings or Structures** The DCP sets objectives to maximise reuse and recycling of materials while minimise waste generation. During demolition, the DCP encourages careful practices that aim to maximise re-use potential and better site management to ensure safe handling. The WMP (Appendix 19) provides the waste management solutions for the proposed activity. The WMP identifies to waste that will be generated at all stages of the activity, being demolition, construction and operation, and identifies opportunities for reuse and appropriate removal. During demolition, waste generation, storage, transportation and recycling will be managed in accordance with the WMP. Waste will be separated and stockpiled on site and some materials will be sent to an off-site recycling facility. Hazardous waste will be removed, transported and handled by a licensed asbestos removalist in accordance with the *Waste Regulation and WHS Regulation 2017.* **Construction** During construction, waste generation should be minimised and better site management (e.g. ordering of materials) helps ensure less waste is produced. The WMP has been prepared for both demolition and construction waste management to ensure handling, storage and collection are appropriately managed. The on-site waste management will be established along the rear access road in the southern portion of the site to provide space for collection vehicles. Waste will be segregated on site and all disposal bins will be clearly marked with reporting requirements tracked and reviewed. **Operation** During operation, waste will be avoided where possible and a dedicated storage space has been identified in Building E to ensure safe handling and collection. Waste will be collected frequently as identified for each type in the WMP and clear signage will show how to use the waste management system, acceptable materials for recycling and other relevant information. The REF is accompanied by a Waste Management Plan (Appendix 19) which provides an approach to waste minimisation consistent with Council's requirements.
Chapter 22 Water Sensitive Urban Design	The DCP defines Water Sensitive Urban Design (WSUD) as a multidisciplinary approach for integrating land use and water management (water supply, stormwater, wastewater and groundwater) planning, with the aim of minimising the impacts of development on the natural water cycle. The main emphasis of this Chapter is stormwater management and water supply. A Civil Engineering Report has been prepared for the activity (Appendix 07) that outlines the WSUD principles used on site. The report concludes that the inground stormwater

LDCP Provision	Comment
	system has been designed with the requirements outlined in the DCP and discharges water from the site in two locations at the existing culvert crossings under Dunoon Road.
Chapter B	
Chapter 10 – North Lismore Plateau Urban Release Area	The site is immediately south of the NLPURA. The vision for this area is to provide residential opportunities close to Lismore CBD and within a unique landscape setting rich in natural and cultural heritage vales. Whilst the site is not within this area, the provision of the high school will help support current and future residents by providing access to essential infrastructure. The activity has been considerate of the NLPURA and has accommodate Council's road widening and provided adequate space for any future public domain works required.

5.7 Draft Revised Flood Prone Lands Development Control Plan

The draft Revised Flood Prone Lands DCP (FPLDCP), dated 2023, outlines updated Council requirements for building on flood-prone land in the Lismore LGA. It introduced revised Flood Risk Precinct zones and updated guidance on recommended FPL, now incorporating the potential impacts of climate change.

As per the FPLDCP, if two or more flood risk precincts apply to an activity, the highest food risk category controls will apply. As such, under the draft DCP, the eastern part of the site is identified as a low to extreme flood risk area as shown in Figure 35 below. In the extreme risk precinct, generally no new development will be permissible in these areas given the extreme risk to life and property. However, this precinct only affects the south-eastern most corner of the site, majority of the site falls within the high-risk precinct. The high-risk precinct is characterised by high flood depths and includes areas that would experience H6 hazard in a 0.2% AEP (1:500 probability event), a H5 hazard in the 1% or 5% AEP, or a H4 hazard in a 10%AEP.

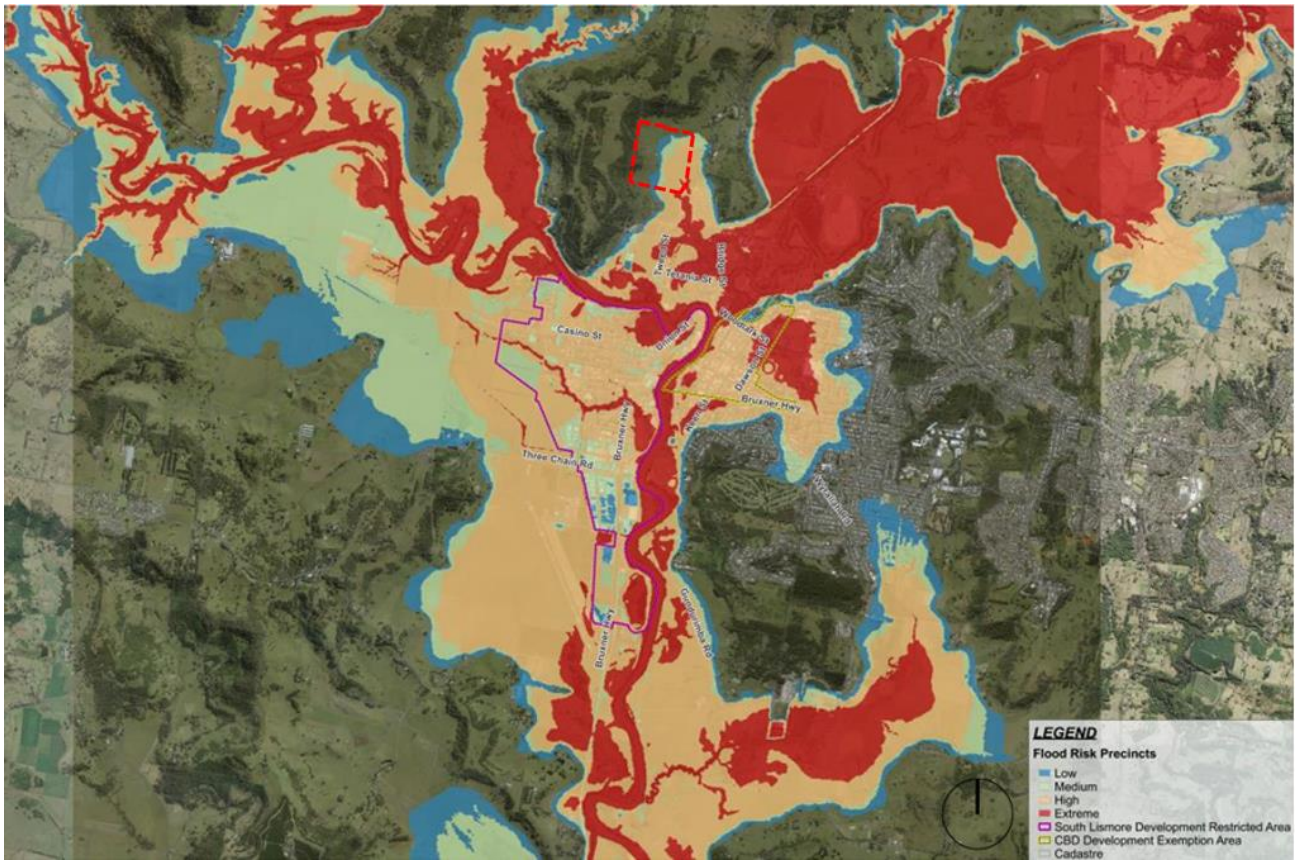


Figure 35 **Flood Risk Precincts Map, approximate side location outlined in set (Source: FPLDCP)**

Additionally, the FPLDCP reclassifies educational establishments as commercial developments. The relevant planning controls for commercial development within the High-Risk Precinct and the South Lismore Development Restricted Area are detailed in Table 11.

Table 11 **Development controls for a commercial development within the High Risk Precinct**

FPLDCP Provision	Comment
Floor Level Reference #4 – Non-habitable levels as close to FPL as practical. Where below the FPL, more than 25% of floor space must be above the FPL.	In the draft DCP, the FPL is the 1% AEP flood level + a climate change factor (that varies according to location) + 500mm freeboard. The climate change factor is based upon RCP 8.5, which represents a "worst-case" climate change scenario where rainfall intensity increases by 19.7% in 2090. Based on the climate afflux mapping provided in the draft DCP, the site is within the 0.5-0.6m climate afflux region. Based on regional flooding to the east of the site, this FPL equates to: 12.84m AHD (1% AEP flood level) + 600mm climate change factor + 500mm freeboard = 13.94m AHD.
Fill Reference #1 – Bulk fill to within 300mm of finished surfaced level is to be sourced from on-site. No filling permissible in land identified as floodway.	The estimated general ground fill to be placed over the site is 54,500m³ with estimated cut of 11,000m³, leaving a total balance of 45,500m³ fill onsite.

FPLDCP Provision	Comment
Flood Affectation Reference #1 – Flood impact and risk assessment (FIRA) required by a suitably qualified professional to certify the development will not increase flood affectation elsewhere. Such a report to be satisfactory to Council.	A FIRA has been prepared and is provided at Appendix 29. The FIRA confirms that no increase in flood affectation outside the school boundary is proposed.
Building materials and design Reference #1 – All structures to have flood resilient materials below or at the FPL^. Services such as air conditioning units, electrical switchboards, storage hot water units and water tanks to be placed above the FPL. Reference #3 – Fencing must be permeable to allow the passage of flood flows (minimum 90% void space), or be collapsible under flood flow. Reference #4 – Any enclosure below the flood planning level must have openings to allow automatic entry and exit of floodwater.	These requirements will be outlined further during detailed design of the proposal; however, flood-resilient materials and design has been a priority of the design from concept stages. Air conditioning and electrical switchboards are located above the FPL. Fencing will be permeable to allow the passage of flood flows.
Structural soundness Reference #2 – Report required that includes certification by a suitably qualified professional that any structure can withstand the forces of floodwater, debris & buoyancy up to & including the 0.2%AEP (and PMF if on-site refuge is required). Such a report, to be provided at Construction Certificate stage, to be satisfactory to Council.	The FIRA (Appendix 29) is accompanied by a Structural Design Statement which confirms that the structure has been designed to withstand the flood forces associated with the PMF event.
Emergency response Reference #1 – A site-specific evacuation plan prepared by a suitably qualified consultant must be submitted with any DA. Reference #2 – Development must have a road evacuation route to land above PMF.	The evacuation route, situated to the west of the project, lies above the PMF riverine flood level. Additionally, a diversion channel has been designed to the west of the road to protect the evacuation route from local flooding.
Management Reference #2 – A business flood safe plan is to be provided addressing how safety and property damage (including fitouts and goods storage) is addressed, considering the full range of floods. Reference #3 – No storage of hazardous materials is allowed below the flood planning level.	The proposed use is not for a business, however, a FIRA and FERP have been prepared for the school, and this has been in accordance with SES feedback. The storage of hazardous materials will not occur below the FPL.

5.8 Strategic Plans

Table 12 considers strategic plans that are relevant to the proposed activity.

Table 12 Consideration of applicable Strategic Plans

Strategic Plan and Assessment
North Coast Regional Plan 2041
The North Coast Regional Plan 2041 (Regional Plan) sets a 20-year strategic land use planning framework for the region, aiming to protect and enhance the region's assets and plan for a sustainable future.

Strategic Plan and Assessment
The Regional Plan anticipates a significant amount of growth across the regional cities of Coffs Harbour, Port Macquarie, and Tweed, requiring the coordinated and sustainable delivery of housing, services, and infrastructure to support their communities. The Regional Plan envisions the North Coast as, “healthy and thriving communities, supported by a vibrant and dynamic economy that builds on the region’s strengths and natural environment.” Three goals and 20 objectives are outlined to guide the delivery of the vision. Of relevance to this proposal is: *Objective 5: Manage and improve resilience to shocks and stresses, natural hazards and climate change* The project's focus on flood-resistant buildings with suitable structural strength is in line with the goal of enhancing resilience to natural hazards. By embracing the concept of "building back better," the project seeks to construct more resilient communities that learn from previous disasters and leverage reliable data for informed decision-making during recovery phases. Rather than reconstructing buildings in their original forms, the project aims to assess acceptable risk thresholds and mitigate existing vulnerabilities in the impacted area. It promotes the construction of infrastructure to elevated standards or relocation when appropriate to mitigate the potential impacts of future hazards.
Inspire Lismore 2040 (Local Strategic Planning Statement)
The Local Strategic Planning Statement (LSPS) creates a land use vision for the future of the Lismore Local Government Area (LGA), guiding planning decisions and growth management. The LSPS outlines 5 themes to support sustainable development in the community: • Theme 1 Liveable Places • Theme 2 Productive Economy • Theme 3 Connected Communities • Theme 4 Sustainable Environment • Theme 5 Climate Resilience The project is closely aligned with several themes. The project will be underpinned by community consultation and engagement throughout, recognising the importance of connecting a community that have experienced a traumatic event such as the 2022 floods. This ties in with Theme 3, which has not only seen the community connect on a greater level based on their experience, but also the level of community engagement has increased during the rebuilding strategy and process in Lismore. The project adopts an ESD approach, integrating principles outlined in the Sustainable Buildings SEPP. This includes strategies aimed at reducing emissions and achieving net-zero targets, demonstrating a commitment to environmental sustainability and responsible resource management as per Theme 4. Furthermore, the project's focus on constructing flood-resilient buildings directly addresses the challenges posed by climate change, aligning with Theme 5. By prioritising resilience to natural hazards such as flooding, the project contributes to broader climate change response efforts and ensures that infrastructure is designed to withstand and adapt to future environmental changes. Lastly, from a social perspective, the project aims to deliver contemporary facilities for the student population, supporting the regeneration of the North Lismore community. This aspect underscores the project's commitment to enhancing social impact by providing modern amenities that contribute positively to the educational experience and overall well-being of the community.
Lismore Growth and Realignment Strategy 2022
The Lismore Growth and Realignment Strategy identifies land that is potentially suitable for future housing, commercial and industrial purposes by ensuring future growth areas are consistent with the planning priorities identified in the Local Strategic Planning Statement and meet the economic, social and environmental expectations of the community. It does this by ensuring growth areas are planned and located in areas that have minimal constraints and can be adequately serviced by necessary and appropriate infrastructure. The project aligns with the intent of the Lismore Growth and Realignment Strategy (GARS) by adhering to stringent flood risk considerations in its planning and development. Its primary focus on constructing flood-resistant buildings with robust structural integrity contributes to enhancing resilience against natural

Strategic Plan and Assessment
hazards and rather than replicating structures as they were, the project prioritises evaluating acceptable risk thresholds and actively works to mitigate existing vulnerabilities within the impacted area.
Imagine Lismore – Community Strategic Plan 2022-2032
A Community Strategy Plan sets the community's vision and aspirations for a minimum of ten years. Developed through robust community engagement, it functions as a forward-looking roadmap, with the council holding a custodial role in its refinement. Guided by social justice principles, it aligns with the State Plan and other pertinent strategies. Addressing fundamental questions, the plan outlines priorities, aspirations, and implementation strategies over the next three decades. Regular updates every four years ensure adaptability to changing circumstances and evolving community aspirations, adhering to government requirements. The Lismore Community Strategic Plan (LCSP) sets the over-arching 10-year plan for the LGA, identifying the main priorities and strategies for achieving the community's desired future. The LCSP identifies 5 themes to guide sustainable development in Lismore: • An inclusive and healthy community • A prosperous and vibrant city • Our natural environment • Our built environment • Leadership and participation The project aligns with key themes crucial for sustainable development. It promotes inclusivity and supports community well-being by incorporating feedback and providing modern facilities, particularly for students. Additionally, its focus on flood-resilient buildings and sustainable practices contributes to creating a prosperous urban environment, attracting investment and fostering economic growth. The project reduces emissions, enhances resilience to natural hazards, and minimises its ecological footprint, thereby supporting a healthier natural environment. Prioritising resilient infrastructure and sustainable building practices ensures that structures can withstand environmental challenges, ultimately contributing to a more resilient and environmentally friendly built environment. Furthermore, the project's engagement with stakeholders, feedback integration, and commitment to sustainability demonstrate leadership and active participation in driving positive change and responsible development practices.
North Lismore Plateau: Urban Release Area
Chapter 10 of the LDCP 2012 identifies specific provisions for the North Lismore Plateau: Urban Release, although the site is not identified in the URA, it is adjacent to the entirety of the western and northern boundaries. The LDCP sets out the vision, objectives, and acceptable development solutions for the future development of the URA in order to achieve a subsequent built form for the area. It is noted in the URA structure plan that there is not an educational establishment identified within the area (refer to Figure 29 on Page 24). The delivery of a school so close to the URA will be of considerable benefit as a school has not yet been planned for the area, which will experience significant growth over the coming years due to the URA rezoning. It is noted in the LDCP that it is a performance criterion for the URA to ensure there are pedestrian and cycle path links from the NLP to existing roads and facilities, including schools. Whilst the LDCP does not refer to the proposed development of RRHC as it was prepared prior, engagement will be undertaken with Council and TfNSW to work through the extent of off-site transport improvements required to support the delivery of the school. Whilst Development Control Plans (DCPs) do not apply to State Significant Development pursuant to Section 2.10 of the Planning Systems SEPP, consideration will be given to the impact of the URA on the proposal, especially in the context of traffic and access via Dunoon Road to the secondary road to the north.
Open Space Strategy 2024-2034
The Open Space Strategy provides a framework for planning public open space following the 2022 natural disaster.
Design Guide for Schools (Government Architect NSW)

Strategic Plan and Assessment
The Design Guide for Schools (Government Architect NSW) outline 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 Design Quality Report prepared by EJE Architecture (Appendix 04).

6. Consultation

6.1 Early Stakeholder Engagement

Table 13 below provides a summary of early stakeholder (non-statutory) consultation undertaken to inform project development and preparation of the REF.

Table 13 Summary of Early Stakeholder Engagement

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
Heritage NSW	17 January 2024	Introductory meeting was held with Heritage NSW to understand the consultation process required by the Widjabul Wia-bal Gurrumbil Aboriginal Corporation (WWGAC). A response from Heritage NSW dated 19 January 2024 provided details on the process for notification to WWGAC and the process for consulting on and preparing the ACHAR.	An introductory meeting was organised with the WWGAC.
Aboriginal stakeholders – WWGAC	23 August 2024	A Walk on Country was held with WWGAC, and school teachers and students.	Further discussion took place in meeting 28 August 2024.
As above	28 August 2024	During this meeting, the project Aboriginal Heritage consultant, and the department, presented the proposed activity to the WWGAC. Formal notification of the project was requested.	Following this meeting, formal notification of the project in accordance with Part 4 22.1(c) of the Widjabul Wia-bal Goori Naa ILUA was provided in the form of a letter.
As above	3 September 2024	A letter was sent to WWGAC to provide further detail and outline of the study area, its archaeological context, and the proposed activity. A methodology for undertaking the ACHAR and a request for any information on culturally sensitive areas of local traditional knowledge relating to the study area was requested.	The WWGAC had 28 days to respond to this letter.
As above	9 September 2024	A field survey was completed, during the field survey participants discussed local Aboriginal heritage values, places and site with the community representatives.	The results of the field survey are presented in the Archaeological Technical Report (ATR) which is Appendix 1 of the ACHAR.
As above	23 September – 15 October 2024	During this program of archaeological test excavation, the identification of subsurface Aboriginal objects was subject to further discussion with the WWGAC.	Following this discussion, further understanding of the cultural information and social values associated with these objects was obtained. This was recorded and included in

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
			the assessment of heritage significance in the ACHAR.
As above	7 November 2024	Connecting with Country Workshop took place with the WWGAC to determine the scope and extent for Connecting with Country elements in the design.	WWGAC discussions around CwC have informed the overall design of the school.
As above	27 November 2024	The WWGAC were provided the draft ACHAR for review and comment. A minimum review period of 4 weeks was provided to the WWGAC.	All community comments and amendments were incorporated into the amended ACHAR. No comments were received regarding the Aboriginal heritage management policy. This process identified heritage values and social connections between the local Aboriginal community and the project area. These were considered in the assessment of values in Section 5 of the ACHAR.
As above	February 2025	Redesign of the school was required following identification of potential landslip associated with the original proposed design.	The ACHAR and ATR methodology was required to be updated to reflect the new design of the proposed school.
As above	21 February 2025	In response to the design change, a letter was sent to WWGAC to provide an outline of the proposed works and a sampling methodology for additional test excavations in areas that may be impacted by the proposed redesign, which had not been sampled during the initial test excavations.	The WWGAC had 28 days to respond to this letter.
As above	3 March 2025	A meeting took place with WWGAC in which approval of the proposed methodology was provided, approving the addition test excavations to take place.	As the WWGAC approved the proposed methodology, the program of archaeological test excavation was undertaken between 9 April and 16 April 2025, and 5 May to 8 May 2025.
As above	May 2025	Additional test excavations identified subsurface Aboriginal objects, which were then subject to further discussion with the WWGAC.	The cultural information and social values associated with these objects was recorded and included in the assessment of heritage significance. The ACHAR was updated

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
			and issued to WWGAC for final review.
As above	18 July 2025	A final meeting took place with the WWGAC in which it was confirmed that there are no further updates required to the ATR, with minor wording update required to the ACHAR, and the REF can proceed to lodgement.	No further actions required.
Transport Working Group #1	23 September 2024	This Transport Working Group (TWG), and those following and outlined below, were all attended by a range of representatives from; Lismore City Council (LCC), the project team and project traffic engineers (Crossley) and civil engineers (TTW), TfNSW, the RA, and the department. The TAIA (Appendix 20) provides detailed meeting minutes of each TWG. This initial meeting was an opportunity to discuss the project overview, transport assessment findings, and the proposed site access. LCC, TfNSW, and the RA were all provided the opportunity to comment on the proposal and provide advice for the project team to proceed with in the traffic and transport design prior to the next TWG. Key actions arising from TWG #1 were: TfNSW to review TWG package and provide comment on speed limits on roads adjacent to the new school, and bus requirements. Project traffic engineer to investigate bus route planning to interchange at Old Trinity College, separation of the kiss and ride drop off zone and bus zone, bus stop on eastern side of Dunoon Road. LCC to inform TWG of outcomes on funding application.	Whilst the design of the school and the proposed access has been amended since TWG #1, #2, and #3, consideration of the matters raised by TfNSW, the RA, and LCC in the TWGs has been implemented and assessed in the TAIA (Appendix 20). In summary: The kiss and ride drop off zone and the bus zone has been separated in the proposed activity, 20 kiss and ride drop off spaces are provided, and space for four buses has been provided onsite in the dedicated bus zone. A 40km/h speed zone on Dunoon Road has been proposed subject to TfNSW assessment and approval. A bus stop has not been proposed at this stage on the eastern side of Dunoon Road as all bus pickup and drop off for the school can be accommodated within the site itself in the bus zone.
Transport Working Group #2	14 October 2024	TWG #2 discussion was largely around the bus route planning of the Trinity College Interchange and the proposed bus services from Old Trinity College to RRHC. Key actions arising from TWG #2 were: • TfNSW to review list of bus services and confirm they are current and in operation.	Whilst LCC may consider improvements and funding for a roundabout at the Secondary Road and Dunoon Road junction to upgrade for future NLPURA development, this is no longer relevant for the individual operation of the school itself, as site access has been relocated further

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
		• A request was sent to TfNSW to review speed zones. • LCC to consider funding for the active transport network requirements (at this time there was a funding application in place for roundabout, and Secondary Road and Dunoon Road intersection to upgrade for future housing projects, noting this being a 20 year + delivery).	south from Dunoon Road and no longer relies on the Secondary Road being delivered.
Transport Working Group #3	24 November 2024	TWG #3 discussion was focused around: • Proposed bus services from Old Trinity College to RRHC. • Additional bus stop along Dunoon Road. • Speed limit review. • Bus zone and kiss and ride drop off zone. • Secondary Road and Dunoon Road design update. • LCC update on funding applications. TIt was noted that the next TWG would be on hold until LCC could provide further information on the funding application.	As further information from LCC was required regarding the funding application for network infrastructure updates, the TWG was put on hold. It is however noted that following this, the access proposal was redesigned to coordinate with the shifting of the school development from the northern portion of the site to the southern portion.
Transport Working Group #4	8 May 2025	It was noted that this TWG addresses the design in its current proposal. The amended design was issued to LCC and TfNSW prior to this TWG to guide the consultation on the revised access proposal from Dunoon Road. The following was recommended by TfNSW: • A pedestrian refuge should be provided on Dunoon Road to facilitate safe crossing for pedestrian accessing bus stops and the school grounds. • Formalisation and upgrading of the intersection at Dunoon Road and Alexandra Parade to ensure safe and efficient operation due to anticipated increase in vehicle usage. • The project team should ensure the pavement width along Tweed Street is suitable to accommodate	A pedestrian refuge is not required as all school buses will enter the school site for student drop off and pick up. There was no objection to this from the TWG and therefore the item was closed. The traffic modelling and crash analysis confirm that the Alexandra Parade intersection continues to operate at Level of Service (LoS) A with the project school traffic. There was no objection to this from the TWG and therefore the item was closed. The road function, crash data, and traffic modelling indicate that the current design should be adequate. There was no objection to this from the TWG and

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
		school buses and other general traffic safely and efficiently. • The provision of a channelised right turn (CHR) treatment on Terania Street to facilitate safe right turns into Tweed Street. Additionally, an auxiliary left turn (AUL) lane should be considered to accommodate the anticipated increase in left turning traffic accessing the school.	therefore the item was closed. The turning movements analysis at Terania Street into Tweed Street are adequate for the current design. There was no objection to this from the TWG and therefore the item was closed. All other TfNSW comments were closed out and the TWG confirmed no further objections to the proposed access road off Dunoon Road.
Government Architect NSW SDRP #1	24 April 2024	The SDRP introduced the project to GANSW, outlining the concept design and intent of the design for the school. The SDRP supported the following elements of the proposal: • The cultural considerations of the CwC engagement process. • The engagement with the school community and the commitment to respond to the desire for the character of the current campus to be reflected in the new design. • The ease of access to the facilities to be shared with the community. • The placement of buildings clear from bush fire and flood risk.	Comments from SDRP were taking on board despite the design and location of the school having been shifted completely south.
Government Architect NSW SDRP #2	27 November 2024	The SDRP commended the project team for addressing the recommendations from SDRP in the second presentation. The SDRP supported the following elements of the proposal: • The improved response to the site's natural features that enable a meaningful approach to CwC. • The use of the creek as a driver for the landscape design and building placement. • The use of revegetation of the watercourse as an educational resource for the school. • The variety of formal and informal outdoor learning spaces.	The comments from the SDRP #2 were taking on board, noting that since this presentation, the design and location of the school has been completely shifted south to avoid those landslip issues, and subsequent knock on access and evacuation concerns that the SDRP raised. This results in a number of concerns raised by the SDRP as being no longer applicable (such as the access being relocated from Dunoon Road, thus removing any concerns around delivery of the Secondary Road, and the

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
		• The sustainability improvements and focus on natural ventilation. • The use of capturing and storing rainwater for irrigational use. • The aim to source local materials for retaining walls. • The intention to source endemic and native plants from a local nursery. The main items that the SDRP commented on requiring further consideration at this stage were mainly based around access and evacuation. There were concerns around the timing of delivery of the proposed (at the time) access from the secondary road to the north, and around access locations about the landslip to the north of the site. The SDRP provided some recommendations around landscaping, general design of buildings, and sustainability efforts, noting that since SDRP #1 there were significant improvements, that would result in a successful outcome for the site.	relocation of buildings now avoiding direct connection with the creek onsite.
LCC, DPHI, and SES – Flood Risk	26 February 2024	An initial meeting was held to discuss the findings of the preliminary due diligence investigations undertaken to assess flood risk. The intention of this meeting was to review these findings with the relevant stakeholders prior to submitting a SEARs request to DPHI.	Detailed meeting minutes are outlined in the FIRA at Appendix 29. SEARs request is no longer relevant to this REF package and approval process. However, design matters raised during this meeting have been considered in the flood risk assessment.
Flood Risk Workshop *which included attendance from the department, DPHI, and DCCEEW*	18 December 2024	A risk workshop took place to assess the flood risks associated with the proposed activity. The workshop was a collaborative approach to ensuring that flood risks were evaluated from multiple perspectives and technical expertise. The risk workshop categorised risk into specific groups such as safe evacuation, environmental, structural, climate change, social impact, and community related concerns. The discussions emphasised the importance of pre-emptive action and collaborative planning to effectively mitigate flood-related risks, with	Detailed meeting minutes are outlined in the FIRA at Appendix A.

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
		practical solutions shared including structural reinforcements, improved evacuation protocols, and measures to enhance community preparedness.	
SES	23 October 2023	School to be closed prior to flooding and before local roads closed. Refuge on site is last resort and not recommended.	Flood reporting completed as part of planning submission process.
	26 February 2024	Undertake additional flood impact assessment modelling and develop FERP Undertake risk assessments for the site	> Additional flood reporting completed > Risk assessments completed
	06 May 2024	Recommend consideration of flooding issues is undertaken in accordance with requirements of NSW Governments Floor Prone Land Policy and supporting guidelines. Recommend FIRA Report, close school prior to start of school day if risk of flooding exists, seek advice from DCCEEW regarding impacts of fill and develop FERP.	Reverse brief developed in line with SES requirements to ensure flood reporting satisfies requirements.
	20 February 2025	A meeting was held between the department and the SES (North-Eastern Zone) to discuss the proposed evacuation planning for the site.	The following key points were agreed to by the SES and therefore have been considered in detail within the FERP prepared as part of the REF package (Appendix 29.1). Rising road access dictates evacuation before sites are flood-affected. Evacuation will be triggered by one or both of the following; A Watch and Act warning issued for Lismore CBD or Lismore South, particularly when the Lismore gauge (Rowing Club) reached 5.4m with a forecast to exceed the moderate flood level, and/or the Lismore gauge reaches 5.4m accompanied by a forecast indicating exceedance of the moderate flood level. Road access beings to be impacted around 7.2m at which point the school is captured within the existing

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
			SES evacuation polygon. This scenario allows a 2-4 hour evacuation window, however this is reliant on availability of bus services. The evacuation triggers also account for the wide geographic catchments of schools.
Project Review Group #1	26, 27, and 28 June 2023	The project review group consisted of RRHC teachers and staff, RRHC students, TRSC principals, Partner school principals, P&C representatives Aboriginal Education Advisory group, Lismore City Council.	This was held to inform the school community and the department of the project status and discuss issues.
Project Review Group #2	26 and 27 July 2023	The project review group consisted of RRHC teachers and staff, RRHC students, TRSC principals, Partner school principals, P&C representatives Aboriginal Education Advisory group, Lismore City Council.	Held to consultant and inform the school community and the department of the project status and discuss issues and close out items discussed in the previous session.
Project Review Group #3	27 March 2025	Senior Project Director, Project Team, Managing Contractor, Architect, Operational Readiness, DEL, School Principal, PNC Representative, AMU, CEM, AECG Representative.	Held to consultant and inform the school community and the department of the project status and discuss issues and close out items discussed in the previous session.
Project Review Group #4	05 June 2025	Senior Project Director, Project Team, Managing Contractor, Architect, Operational Readiness, DEL, School Principal, PNC Representative, AMU, CEM, AECG Representative.	Held to consultant and inform the school community and the department of the project status and discuss issues and close out items discussed in the previous session.
LCC	23 October 2023	Draft LCC flood DCP not yet adopted. LCC do not foresee any issues if the proposed design levels are above the 0.2% AEP. Project to consider draft DCP flood requirements in planning decisions.	Draft LCC DCP considered in flood reporting and planning.
	26 February 2024	Undertake additional flood impact assessment modelling and develop FERP. Undertake risk assessments for the site.	Additional flood reporting completed. Risk assessments completed including cross-government risk workshops.

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
	18 June 2024	> In principal support for the development.	Ongoing liaison.
	28 May 2024	Project supported in principle. Offered advice to consider NSW RA property buy backs when completing the conflicting land-use assessment.	Assessment technical reports development to consider adjoining land uses. Noting alternate planning pathway being adopted.
TfNSW	02 May 2024	Prepare TAIA in accordance with TfNSW requirements letter.	TAIA prepared in accordance with TfNSW requirements.
	18 June 2024	In principal support for the development. Noted consideration should be given to fences on bus zone street boundary. Student safety during construction to be considered	Secondary Traffic Working Group (TWG) to present School Transport Plan & Traffic Impact Assessments and close out TWG 01 actions being coordinated by SINSW Transport Team.
DPHI	20 December 2023	DCP/LEP referred to for requirements on minimum habitable floor height. Concurrence with SES recommended.	DCP/LEP adhered to, and SES concurrence obtained.
	30 May 2024	General requirements, key issues and documentation as per issued SEARs.	Alternate planning pathway being adopted. Consideration given to SEARs requirements.
DCCEEW (BCS Group)	07 May 2024	BDAR required under an SSD pathway. Project specific SEARs provided.	SEARs requirements no long applicable.
NSW Reconstruction Authority (NSW RA)	20 December 202 20/12/2023	DCP/LEP referred to for requirements on minimum habitable floor height. Concurrence with SES recommended.	DCP/LEP adhered to, and SES concurrence obtained.
Fire Rescue NSW	30 April 2024	Fire and Rescue NSW (FRNSW) will review and provide comment at planning exhibition stage, if required.	Ongoing liaison as required part of the planning submission.
Essential Energy	Ongoing	Requirements to be included in Level 3 electrical design.	Services consultant managing requirements and coordinating design certification.
Community – Ongoing project updates	29 March 2022 – ongoing	During the lifecycle of the project, the department released regular project updates, at the following dates: • March 2022 • May 2022 • October 2022 • February 2023 • April 2023 • June 2023	These project updates were a range of general updates, and invitations to community drop in sessions.

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
		• September 2023 • October 2023 December 2023 • April 2024 • June 2024 • August 2024 • November 2024 • February 2025 • April 2025 • July 2025	
Community – Stage 1 Consultation	July 2023 August 2023	Stage 1 of consultation was held in July and August 2023 to understand the community's long-term vision for secondary education in Lismore and surrounding areas, and the role of the campus. This involved workshops with over 110 representatives from the following key groups: • RRHC teachers and staff • RRHC students • The Rivers Secondary College (TRSC) Principals, students, staff, and teachers • Parents & Community Associations • Aboriginal Education Consultative Group • Further, discussions took place with LCC, TAFE NSW, and Southern Cross University. An online survey was also conducted during this period of time; this saw feedback from 350 people via the online survey and project email.	The workshops and online survey highlighted some key themes that were of importance to the community during the rebuild of the RRHC. Theme 1: Choice – three unique campuses within the one college. Theme 2: Flood free and accessible schools. Theme 3: Schools embedded in, and reflective of, a diverse Lismore community. Theme 4: A system that responds to varied students needs and interests. Theme 5: Environments that support different ways of learning and interacting. Theme 6: Good schools and great learning are about more than buildings. Feedback from the community also highlighted other aspects of rebuilding RRHC that were important to consider: Connecting with the Bundjalung Country. Linking school buildings with the environment. Sustainability and natural materials. Indoor and outdoor learning spaces.

Stakeholder	Dates of Engagement	Key Matters Raised	Project Response
			Technologically advanced campus. Flexible and adaptable buildings. Agriculture and farming a core school offering.
Community – Information drop-in session	24 August 2024	A community information drop-in session was held on 22 August 2024 in which concept design for the new RRHC were shared with the community.	
Community – Information drop-in session	24 July 2025	A community information drop-in session has been scheduled for 24 July 2025 at the Rivers Secondary College Richmond River High Campus Library. This drop-in session gives the community an opportunity to review the latest plans for the project, before the REF is placed on public exhibition.	All comments received from the community drop-in session will be given consideration and will be responded to appropriately.
Community – Project website	August 2023 – present	A standalone website project page was established in August 2023. The website provides a platform for the school and community to keep up to date on the project and provides access to all communication materials published. A Frequently Asked Questions (FAQs) sheet is also available on the website. The school project page is available on the department's website, found at the following link: Richmond River High Campus	The project website will remain active for the lifecycle of the project.

In addition to the above, project working group consultation has been ongoing since inception of the project. Feedback from consultation with project working groups and community stakeholders has significantly shaped the scope of the project. Key project working groups include:

- The Project Reference Group (PRG) is a key governance group that provides feedback on critical design elements and the overall project direction. The PRG is comprised of the Director Educational Leadership, the Principal, Deputy Principal, teacher representatives, a parent representative, project team members and the project architect.
- The Project Control Group (PCG) oversees the planning and delivery of a project. The group ensures project objectives, communications, stakeholder engagement, key deliverables, program, budget, scope and risk are considered. The PCG is comprised of the Director of Operational Readiness, Director Educational Leadership, the Principal, Deputy Principal, ICT, project team members and the project architect.
- The Technical Stakeholder Group (TSG) is comprised of technical specialists within SINSW in the areas of design, heritage, EFSG, disability access and standards, sustainability, IT services, safety and school transport. The TSG ensures the project design meets education facility standards and operational needs.

- The Expert Review Group (ERG) is comprised of a panel of experts who advise across all SINSW projects regarding design, buildability and, compliance to ensure the teaching and learning needs of every student are met.
- The Design Advisory Group is comprised of a group of experts who advise on EFSG compliance of the project.

6.2 Public Exhibition

A Part 5 activity would ordinarily require statutory notification prior to determination of the activity. This would typically include:

- sending notices to adjoining neighbours, owners and occupiers inviting comments within 28 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.

We understand the department will facilitate the community consultation and statutory agency notifications on behalf of the RA. If any responses are received during the exhibition period, they can be considered and responded to prior to determination by the RA.

7. Environmental Impact Assessment

7.1 Introduction

This section describes and assesses the potential impacts of the proposed activity.

Notwithstanding that an assessment under Part 5 of the EP&A Act is not required in order to grant an approval under Section 68 of the RA Act, in the absence of an environmental assessment process under the RA Act, we have prepared an assessment against Section 171 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) to support the determination under Section 68 as relevant.

Section 171(2) of the Regulation prescribes factors that must be taken into account concerning the impact of an activity on the environment. The prescribed matters and an assessment of the proposed activity against those matters are outlined in Section 7.16 of this REF. In summary, the proposal has appropriately considered the impact of the activity on the environment and is not expected to negatively impact the environment, subject to the incorporation of the mitigation measures identified within this report.

Relevant sections of the report are referenced which provides a more detailed assessment of the potential impacts.

7.2 Flooding

7.2.1 Assessment Guidelines

The Flood Impact Risk Assessment (Appendix 29) has been prepared in regard to the following guidance documents:

- Australian Institute of Disaster Resilience (AIDR) Guideline 7-3: Flood Hazard (2017).
- Australian Rainfall and Runoff: A Guide to Flood Estimation (2019).
- Bureau of Meteorology (BoM) Service Level Specification for Flood Forecasting and Warning Services for New South Wales and the Australian Capital Territory – Version 3.13.
- Considering Flooding in Land Use Planning Guideline DPE 2021.
- CSIRO (2022) Characterisation of the 2022 floods in the Northern Rivers region, https://nema.gov.au/
- Department of Environment and Heritage – Flood Risk Management Guideline LU01, June 2023.
- Department of Planning, Housing and Infrastructure – Planning Circular PS 24-001, Update on addressing flood risk in planning decisions (2024).
- Engeny Water Management (2021) Lismore Floodplain Risk Management Study – Report, https://flooddata.ses.nsw.gov.au/related-dataset/lismore-floodplain-risk-management-study-report.
- Engeny Water Management (2023) Lismore Floodplain Risk Management Plan – Land Use Planning and Development Control, Draft Interim Report (2023).
- FloodSafe guidelines and the relative FloodSafe Tool Kits.
- Lismore Development Control Plan 2012 – Part A. Chapter 8 Flood Prone Lands.
- Lismore Local Environmental Plan 2012.
- Lismore Floodplain Risk Management Plan 2014.
- Lismore City Council Draft Revised Flood Prone Lands DCP for exhibition (2023).
- NSW Department of Planning and Environment Flood Risk Management Manual (2023).

7.2.2 Assessment

Portions of the site are located within the following flood risk zones as set out in the LDCP; Flood Fringe Area and Low Flood Risk Area. Refer below.

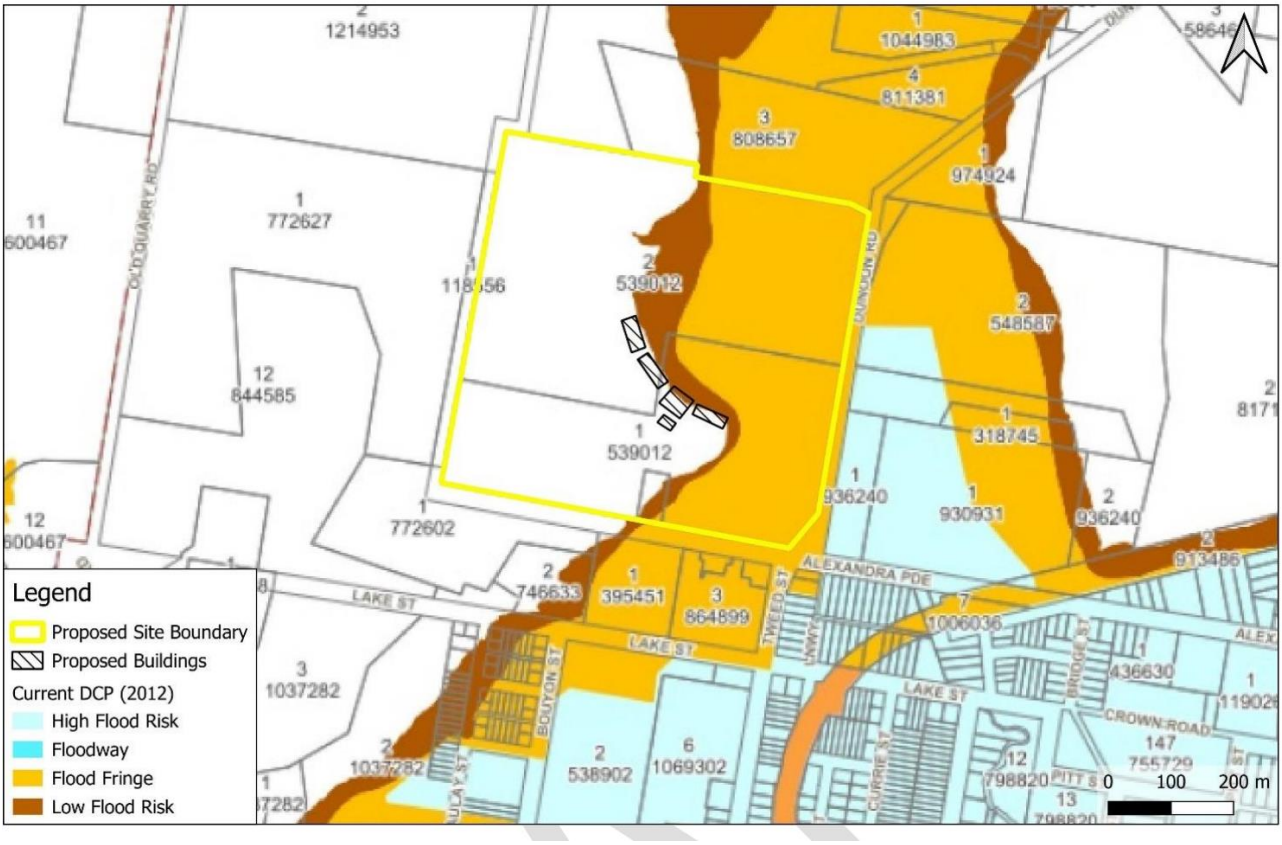


Figure 36 **Flood risk categorisations in the LLEP based on LDCP definitions (Source: FIRA)**

A similar flood pattern is also identified in the Floodplain Risk Management Plan 2014, which identifies the site as being mapped within a range of flood areas from low, medium, to high flood risk. High flood risk areas are those where there is potential for flood waters to cause danger to personal safety, damage to properties, and possible danger to safe evacuation routes. The majority of Lismore is within the high-risk precinct. Medium flood risk areas apply to those areas of flood liable land within the limit of the 1 in 100-year average recurrence interval (ARI) design flood. These areas have less risk of damage to buildings, and residents are able to evacuate with ease due to proximity of higher ground. Low flood risk areas apply to those areas of flood liable land within the extent of the PMF but outside the extent of the 1 in 100-year ARI design flood.

Figure 37 Flood risk categorisation based on the Floodplain Risk Management Plan 2014 (Source: FIRA)

The FIRA was prepared with regard to the Lismore Floodplain Risk Management Study (2021), in which the TUFLOW model files were obtained, and model runs covering the entirety of the Rous County Council's TUFLOW model extent were undertaken. The model covered the full extent of flood prone land in the Lismore LGA (sourced from Wilsons River and Leycester Creek flooding). The output from these regionally scaled model runs then provide input data for a smaller, local catchment flood model produced by the flood consultant, which enabled analysis of the maximum flood risk from both flood sources.

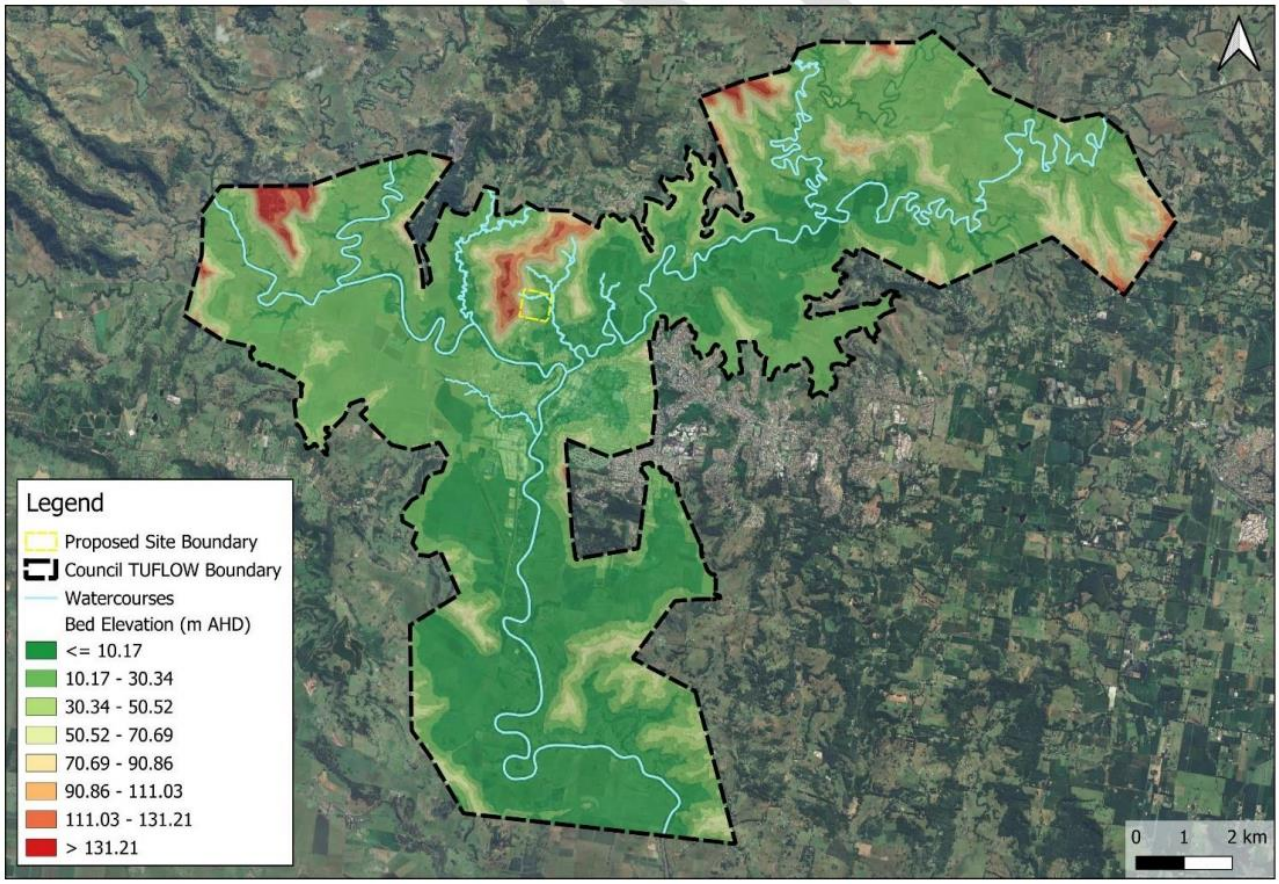


Figure 38 Regional flood model TUFLOW model extent in relation to the proposed RRHC site (Source: FIRA)

Given the extensive flood history in Lismore, the FIRA prepared for the activity captured modelling against the 10% Annual Exceedance Probability (AEP), 5% AEP, 1% AEP, 1% AEP + climate change, and 0.2% AEP events, alongside the Probable Maximum Flood (PMF).

The FIRA addressed both pre-development and post-development outcomes. The 1% AEP flood depths on the site with existing conditions reach 12.84m AHD, and the PMF flood depths with existing conditions reach 16.95m AHD. Post development flood conditions have been mitigated throughout the design with the following measures (as illustrated in Figure 39):

- Proposed stormwater system and retaining wall upstream of the proposed buildings to manage potential flooding from small catchment located upstream of the proposed buildings.
- Diversion channel upstream of the proposed evacuation route to intercept flood from the upstream of the catchment.
- Longitudinal road drainage.

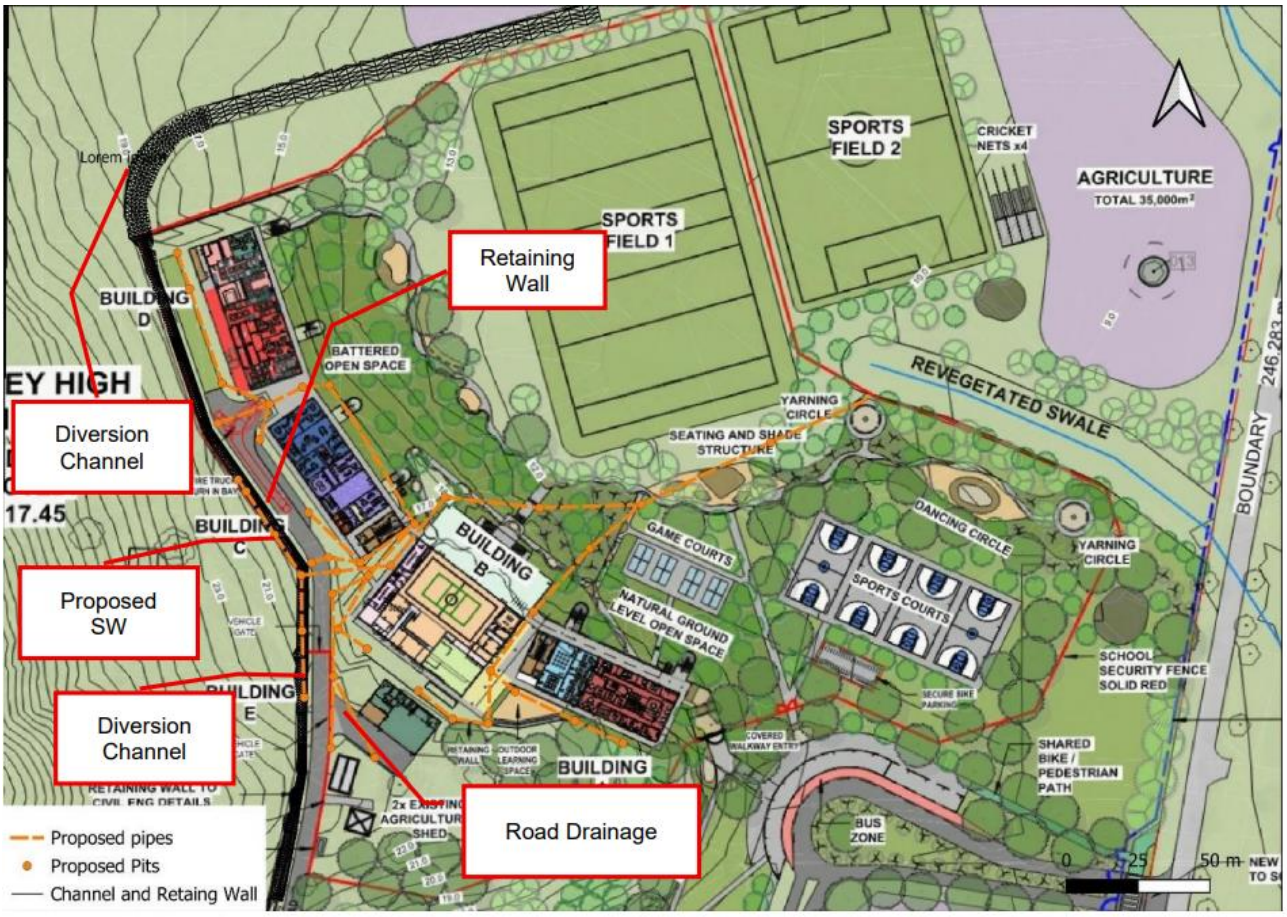


Figure 39 **Proposed design measures to mitigate flood impacts post-development (Source: FIRA)**

A flood hazard assessment has been carried out with regard to the following categories, which are triggered when a flood reaches a certain size and depth, as outlined in the figure overleaf.

- H1 Generally safe for people, vehicles and buildings.
- H2 Unsafe for small vehicles.
- H3 Unsafe for vehicles, children and the elderly.
- H4 Unsafe for people and vehicles.
- H5 Unsafe for people and vehicles. All buildings vulnerable to structural damage.
- H6 Unsafe for people and vehicles. All building types considered vulnerable to failure.

Flood modelling results confirm that the site is subject to flooding, with the most significant impacts observed to the east of the site. The school buildings have been carefully designed in a location that best avoids flood impacts with consideration of the existing flood conditions on the site. All proposed buildings, except for Building A and Building B, remain unaffected during the February 2022 flood and PMF events. All proposed buildings are designed with a finished floor level (FFL) of 17.45m AHD (16.95m AHD + 500mm), which allows for a 500mm freeboard and clearance above the PMF flood level. The flood planning levels are illustrated in the figure overleaf.

The site is also impacted by high hazard floodwaters in both the 1% AEP and PMF events (categorised as H4-H5 hazard level in the 1% AEP event, and H6 hazard level in the PMF). This will have implications for the evacuation of the site during rare flood events. Access and egress from the site are constricted during significant flood events.

The impact of climate change has also been assessed for the site in accordance with the recommendation of ARR2019. Modelling identifies that the 1% AEP flood level at the site will increase by 0.54m due to climate change, with flood levels across the site similar to those in the 0.2% AEP event.

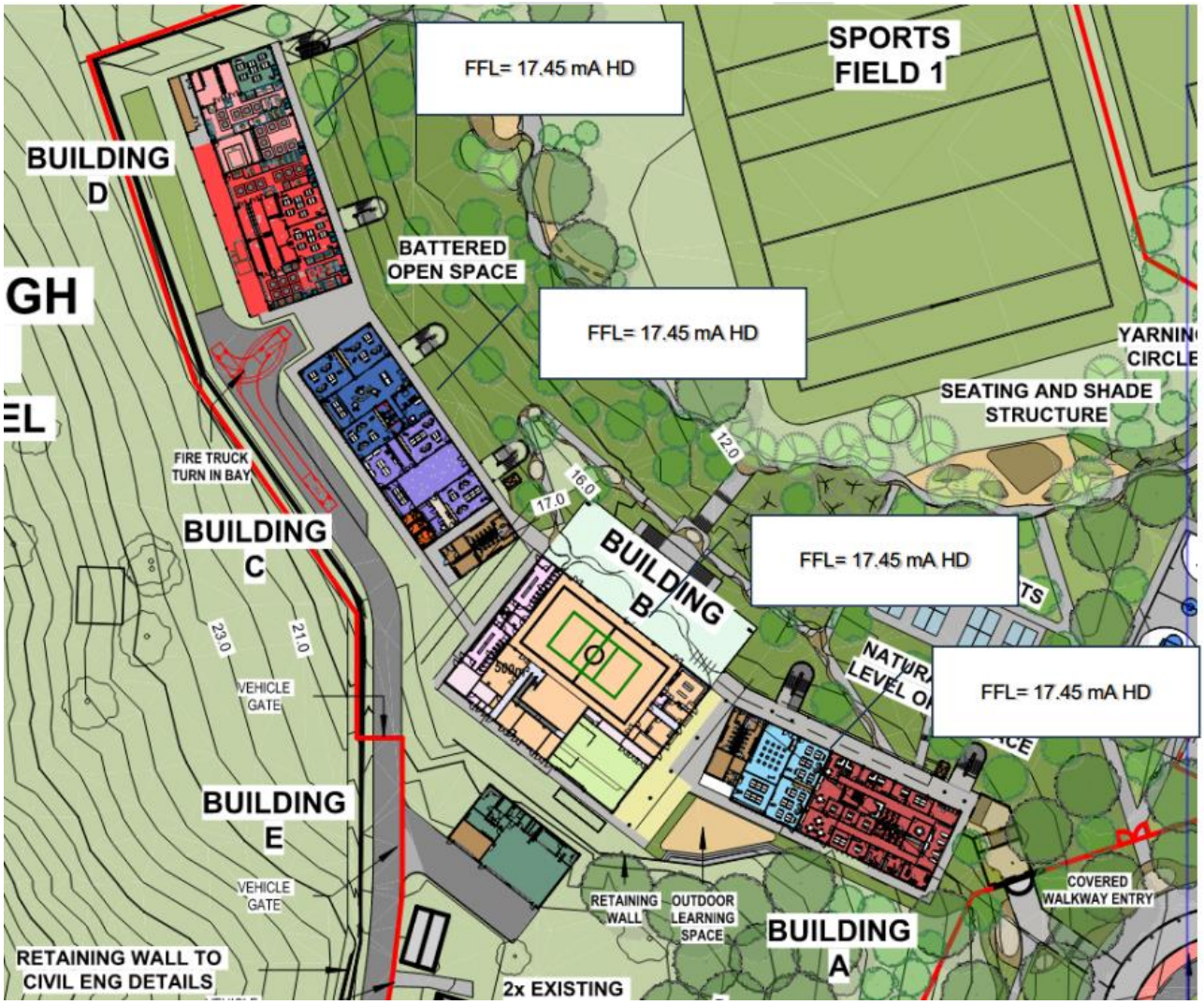


Figure 40 Flood Planning Levels (Source: FIRA)

To address flood risk and the site's proximity to a first-order creek, with poses risks from stormwater, overland flows, and flash flooding, the design includes several mitigation measures:

The construction of a flood detention basin and a series of box culverts located to the northwest of the site.

A stormwater system upstream of the proposed school buildings designed to mitigate potential flooding from the road and adjacent batter.

A diversion channel upstream of the proposed evacuation route will intercept floodwaters from the upper catchment, whilst longitudinal road drainage along the evacuation route will manage runoff effectively.

To enhance resilience, flood resistant materials will be used for structure below or at the FPL. Essential services such as air conditioning units and electrical switchboards are to be located above the FPL. Additionally, permeable fencing with a minimum 90% void space or collapsible fencing will be installed, and enclosures below the FPL will include openings to allow for the automatic entry and exit of floodwaters.

Furthermore, preparation of a detailed emergency response strategy is recommended in the FIRA, which is outlined in the FERP accompanying this REF. The FERP has been prepared in conjunction with consultation with the SES, which is outlined in Section 5 of this REF, and with consideration of the NSW SES Local Flood Emergency Sub-Plan. The Sub-Plan was prepared and endorsed by the Northern Rivers Local Emergency Management Committee on 22 August 2023, and it covers the entirety of the Lismore LGA.

Figure 41 Evacuation route for RRHC based on the Sub-Plan (Source: FERP)

The current evacuation for the site and general area as per the Sub-Plan, is for residents of North Lismore to proceed to the evacuation centre at Southern Cross University, accessed via Bridge Street to the CBD, through Keen Street and Leycester Street (Figure 41).

Responsibility for issuing general evacuation orders during flooding lies with the Lismore City SES Local Controller. Evacuation orders are generally issued when a flood warning predicts water levels exceeding 10 metres at the Rowing Club gauge or when high flows in Leycester Creek are anticipated to overtop the South Lismore levee. However, Chapter 2 of Volume 3 of the Lismore Sub Plan, which specifically addresses the North Lismore sector, indicates that evacuation procedures for this area commence when the Rowing Club gauge reaches 9.0 metres AHD. The 2022 flood event, saw the flood exceed the Rowing Club gauge and target lead times for evacuation of 12 hours. The flood event evolved rapidly, and for parts of Lismore, it is unclear whether BoM prompted timely evacuation, however, an evacuation order for South and Central Lismore meant that evacuation times were reduced to 5.5 hours instead of the targeted 12 hours. This faster lead time to flood inundation than that expected, also indicated that Bridge Street, which forms part of the Sub-Plan evacuation route, experiences early inundation in heavy rainfall events. With consideration of this,

a new evacuation route has been proposed for the school that avoids Bridge Street and heads south onto Tweed Street and east along Terania Street. This will allow for safer evacuation during flood events.

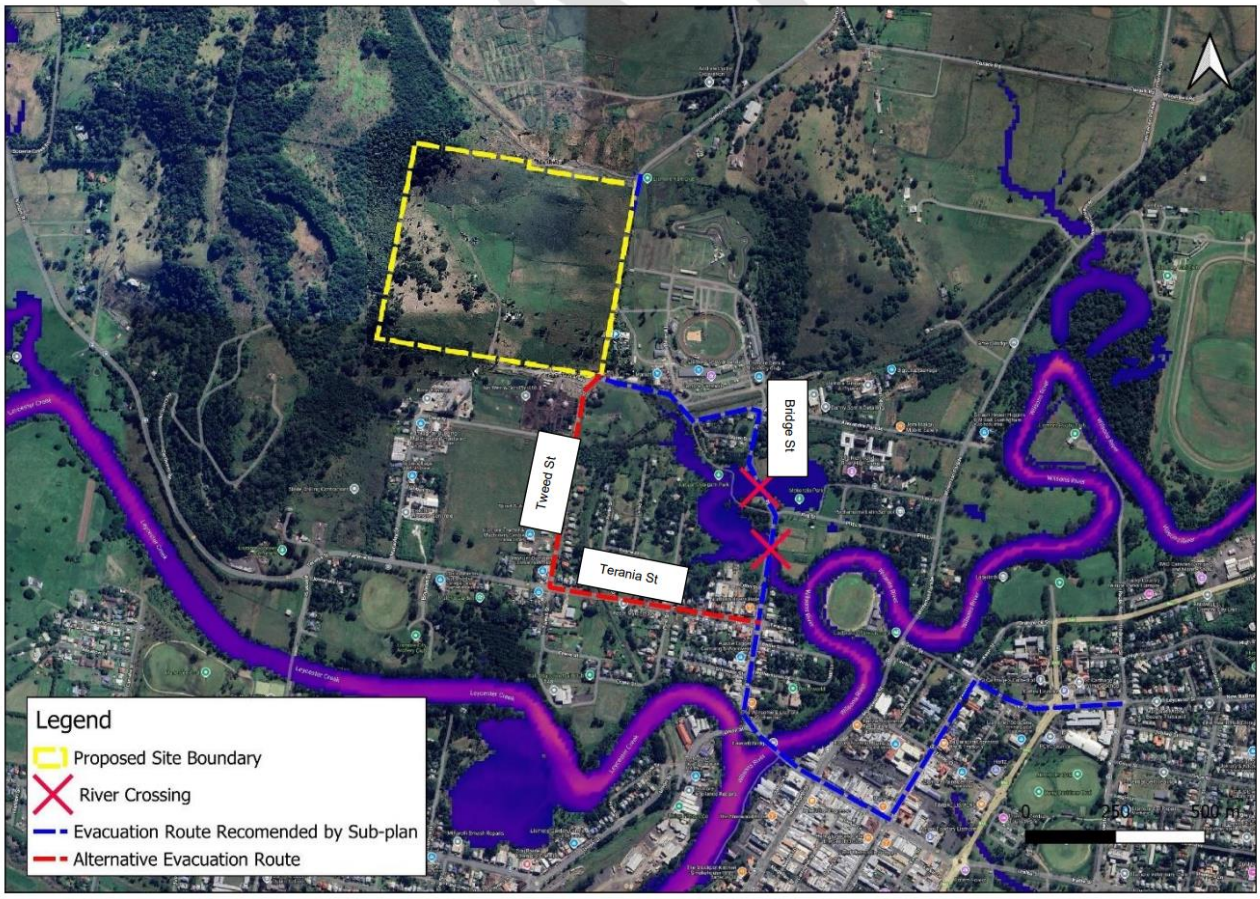


Figure 42 Proposed new evacuation route (Source: FERP)

The PMF modelling results show that Tweed Street and Terania Street will become flood inundated at the 3-hour storm modelling time step, at the same time that the Rowing Club gauge would reach 9.3m AHD. Consequently, these roads are unsuitable after 3 hours, and the access roads become fully inundated by the 8-hour time step of the model, with peak inundation occurring at the 42-hour mark.

The 2022 flood event saw the largest flood event ever recorded and posed significant challenges to emergency response planning. Whilst the BoM typically recommend a 12-hour warning lead time for evacuation, the 2022 flood saw multiple forecast changes and therefore this ultimately provided only 5 hours' notice. The FERP is based on the latest Sub-Plan and assumes that the BoM will provide the necessary 12-hour warning lead time. However, it is crucial to continually review and update emergency plans to account for potential changes in weather patterns and emergency response capabilities.

The site is at risk of both localised and regional flooding, localised flooding can be brief, whilst regional flooding can last for several hours. To manage both risks, two response strategies have been adopted; a Shelter-in-Place strategy for localised flooding, and a pre-emptive closure and evacuation strategy for regional flooding. The following measures are proposed as part of the FERP.

Closure and Evacuation

Outside of school hours the school should be closed if the BoM issues a flood warning for an approaching moderate of major flood event at the Lismore gauge, or if no warning is issued, if the gauge reaches 5.4m with forecasts indicating exceedance of the moderate flood level. Flood watches are to be monitored by the

Chief Warden (nominated individual responsible for coordinating the school's flood response), and communication to staff, parents, and students shall clearly advise them of the potential for school closure.

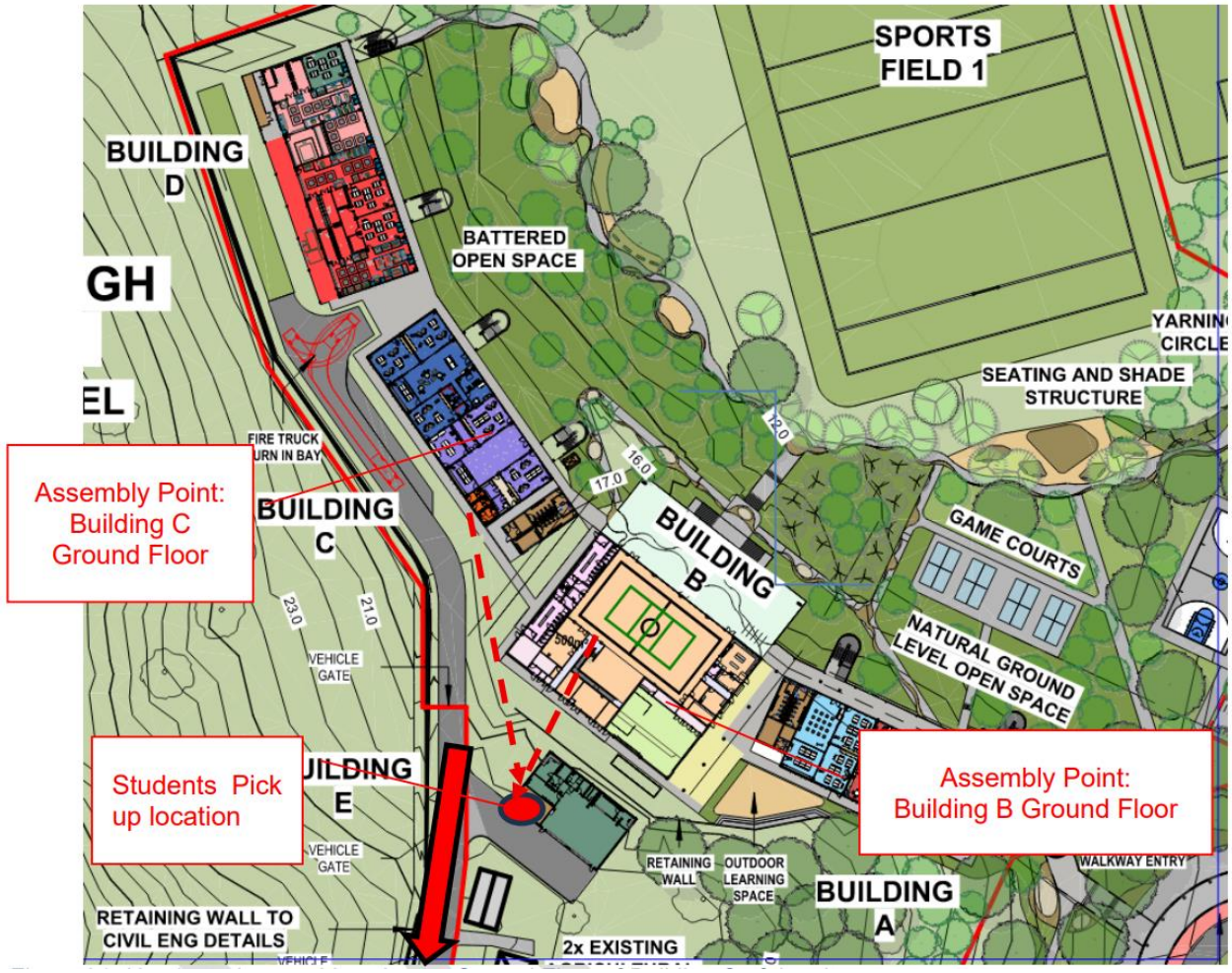


Figure 43 Designated assembly points (Source: FERP)

During school hours, in the same instances as outside of school hours, staff are to gather students at the designated assembly points (refer figure below), parents and carers are to be notified, and transport shall be arranged for any students not picked up promptly. Evacuation can proceed to Southern Cross University, following the designated evacuation route, which has been identified as the safest option for flood evacuation during moderate to major flood events.

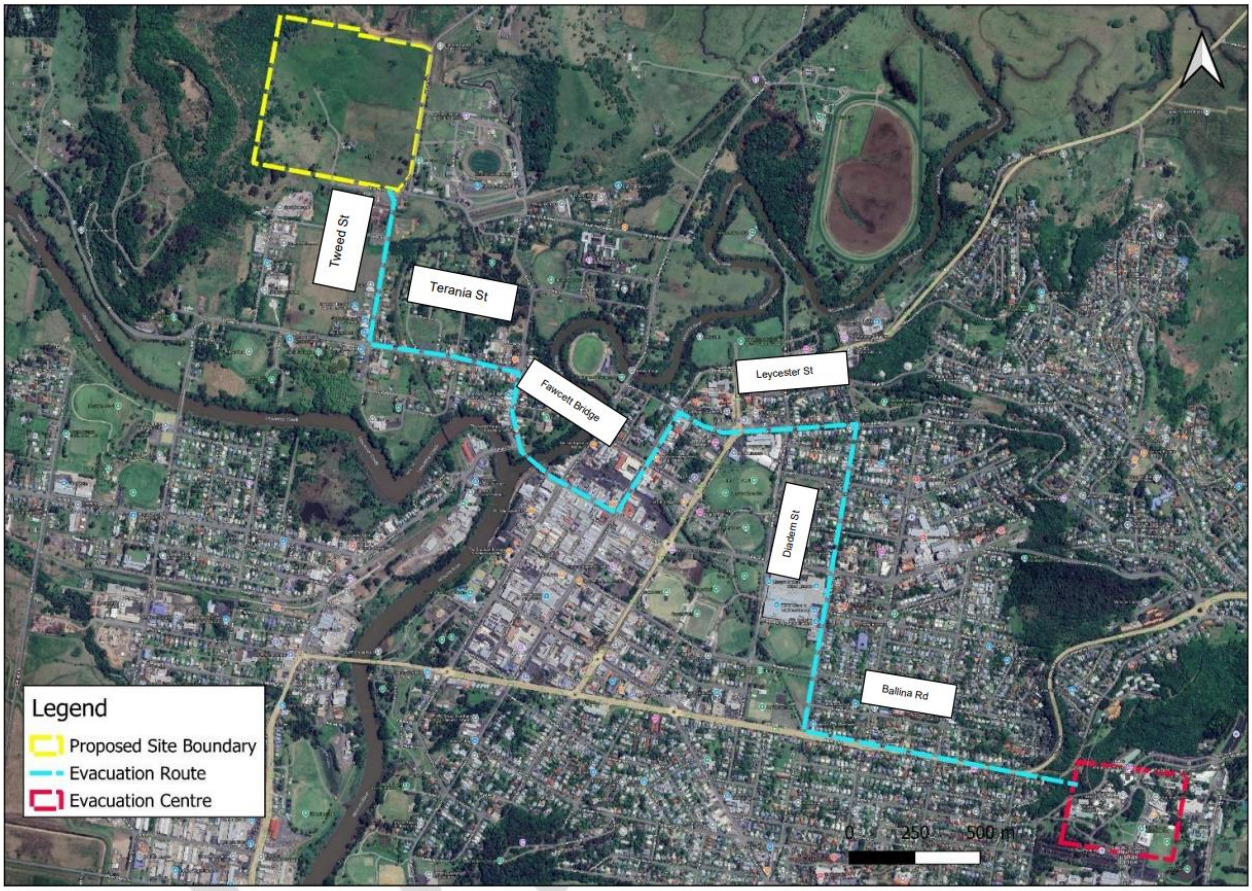


Figure 44 **Designated evacuation route to Southern Cross University (Source: FERP)**

Flood warnings and notifications

The water level at the Rowing Club Gauge (Station Number: 058176) can be monitored via BoM website at BoM Rowing Club Gauge. However, due to the significant influence of Wilsons River and the resulting variability in trigger heights, it is recommended that both BoM Flood Warnings and SES alerts be closely monitored. These alerts should serve as the primary indicators for the timely closure of the school, ensuring that parents have the opportunity to collect their children before hazardous road conditions develop. The school is required to evacuate when instructed by the SES. The SES, in coordination with the BoM, will continuously assess conditions and when evacuation becomes necessary, will liaise with the Chief Warden to facilitate a safe and orderly evacuation.

The SES have implemented the Australian Warning System (AWS), a new national approach to information for hazards including flooding. This follows three icons with three warning levels; Advice (Yellow), Watch and Act (Orange), and Emergency Warning (Red). SES warnings are displayed through a number of platforms including social media, local news, radio stations, and a dedicated website 'Hazard Watch'. Nonetheless, it will be the responsibility of the Chief Warden to actively monitor information from the AWS.

There are other warning platforms that can be utilised including the LCC Flood Alert free SMS service, the Early Warning Network subscription service that includes SMS and push notifications through the Hazards Near Me app.

Shelter-in-Place Strategy

Due to its location on steep terrain, the school is susceptible to flash flooding from the local catchment. To mitigate this risk, a retaining wall, diversion channel, and stormwater infrastructure have been designed to divert floodwater, up to and including the PMF event, away from the school buildings. Flood modelling

confirms that, under all assessed flood scenarios, including the PMF, floodwaters are successfully diverted downstream and do not pose a risk to school infrastructure.

Although the modelling shows that the site is not directly impacted, a Shelter-in-Place strategy is recommended due to the potential for rapid-onset flash flooding.

Staff Responsibilities

The FERP identifies that a Chief Warden is responsible for management and monitoring of flood risk within the school, coordination of flood evacuation drills, decision making for evacuation, liaison with SES, and providing updating information to staff, students, and parents. The Chief Warden will be supported by first aid officers, floor wardens, and all other staff who will all receive the relevant training to ensure that they are fully equipped to deal with a flood event.

Preparing for a Flood Event

Education of individuals listed above with key responsibilities is required as part of school inductions. Students are to be educated on the potential flood risk and actions that are to be undertaken during a flood event. Evacuation drills will be regularly conducted to ensure that students and staff are aware of procedures for evacuation (twice per year). A copy of the FERP which includes emergency response procedures is to be made available within accessible areas of the school.

Educational and directional signage for evacuation and flood warning shall be displayed in school corridors and in prominent areas of the school indicating the evacuation route. A flood emergency kit shall be prepared and available during an emergency, responsible of the First Aid Officer.

The Flood Emergency Response Plan as outlined in Section 7 of the FERP, outlines flood warning and notification procedures and evacuation protocols that will be following in the event of a flood.

Overall, with consideration of the ability to Shelter-in-Place, and evacuate the school buildings accordingly in a flood event, and the proposed mitigation measures outlined in Table 14, the risk of flooding to the school and it's users has been deemed acceptable by the flood consultant, the department and other stakeholders involved in the various risk workshops (i.e., SES).

7.2.3 Mitigation Measures

Table 14 Mitigation Measures for Flooding

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
OPFMM1	During operation.	Prior to the commencement of operation, the Flood Emergency Response Plan (FERP) is to be incorporated with the Emergency Management Plan and include the following: Prioritise evacuation and avoid shelter-in-place by closing the school before the school day if flood events are forecasted and SES advises. School administration must undertake annual evacuation preparations and an evacuation drill prior to the commencement of the wet season (typically November to April); School administration to undertake responsibilities as set out in the FERP; and Ensure that the Flood Warning Notice is maintained and permanently visible.	To mitigate risk to students and staff during a severe flood event.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
FLMM1	During detailed design and prior to occupation.	Green Star Building certification must be obtained demonstrating that the activity achieves a minimum 4 star rating. Evidence of the certification must be provided to the department Sustainability Team. For enquiries on requirements please contact the department Sustainability Team on Sustainability.ESD@det.nsw.edu.au.	To ensure that the structures can withstand the flood load during severe flood events.
FLMM2	Prior to and during construction.	Flood resistant materials are to be applied to structures at or below FPL. Critical services including air conditioning units and electrical switchboards are to be situated above the FPL.	To improve resilience and reduce the risk of flood damage.
FLMM3	Prior to operation.	Educational signage is to be erected throughout the school displaying information on flood protocols and procedures. Depth markers are to be implemented onto the piers of the buildings undercrofts to identify the estimated 1% AEP and PMF depths.	To ensure all staff and students are aware of the flood risks present onsite.
FLMM4	During operation.	Flood evacuation drills are to take place twice a year to ensure staff and students are familiar with the sound of the flood alert and that all responsible parties are aware of their flood response actions.	To prepare for a flood evacuation.
FLMM5	During operation.	A flood emergency kit is to be prepared and regularly checked by the First Aid Officer to ensure that all supplies are in working condition.	To prepared for a flood evacuation.

7.3 Bushfire

7.3.1 Assessment Guidelines

The assessment in the Bushfire Hazard Assessment accompanying this REF was undertaken in regard to the following legislative framework and guidelines:

- Environmental Planning and Assessment Act 1979 (EP&A Act).
- Reconstruction Authority Act 2022.
- Environmental Planning and Assessment Regulation 2021.
- Rural Fires Act 1997.
- Rural Fires Regulation 2022.
- State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP).
- Australian Standard 3959:2018 ‘Construction of Buildings in Bushfire Prone Areas’.
- National Construction Code.
- Planning for Bushfire Protection (PBP) 2019.

7.3.2 Assessment

As noted earlier in this REF, part of the western portion of the site is mapped as bushfire prone land (Category 1, Category 2, and Vegetation Buffer). The proposed use, being an educational establishment, is defined as a special fire protection purpose (SFPP) pursuant to the Rural Fires Act 1997. To assess the suitability of the activity on the site, and ongoing bushfire protection measures to minimise the risk of bushfire impact to the school, a Bushfire Hazard Assessment has been prepared to undertake an assessment of the proposal in accordance with Planning for Bushfire Protection 2019 (PBP).

Preliminary assessments were prepared with a Bushfire Constraints Assessment at the concept stage for the proposal, in which comments were sought from the Rural Fire Service (RFS) who advised that a bushfire assessment that details proposed bushfire protection measures and demonstrates compliance with PBP is required.

Following a site visit in January 2024, the bushfire consultant determined that:

- The vegetation classifications on the site can be categorised into ‘managed lands’ and ‘rainforest’ under the vegetation formations and fuel loads outlined in the PBP. Rainforest lands are across the western portions of the land, with the presence of exotic vegetation including Camphor Laurel, Privet, and woody weeds such as Lantana existing on the site.
- The effective slope of the land beneath the vegetation assessed is a hazard that will have the greatest influence on bushfire behaviour in relation to the activity. The effective slope is assessed over 100m in each relevant direction.
- The Lismore LGA is located within the ‘Far North Coast’ fire weather district, with a Fire Danger Index (FDI) of 80. Higher FDI values mean a greater potential for dangerous fire behaviour, with 50-99 depicting an ‘extreme’ rating under the Bureau of Meteorology (BoM).

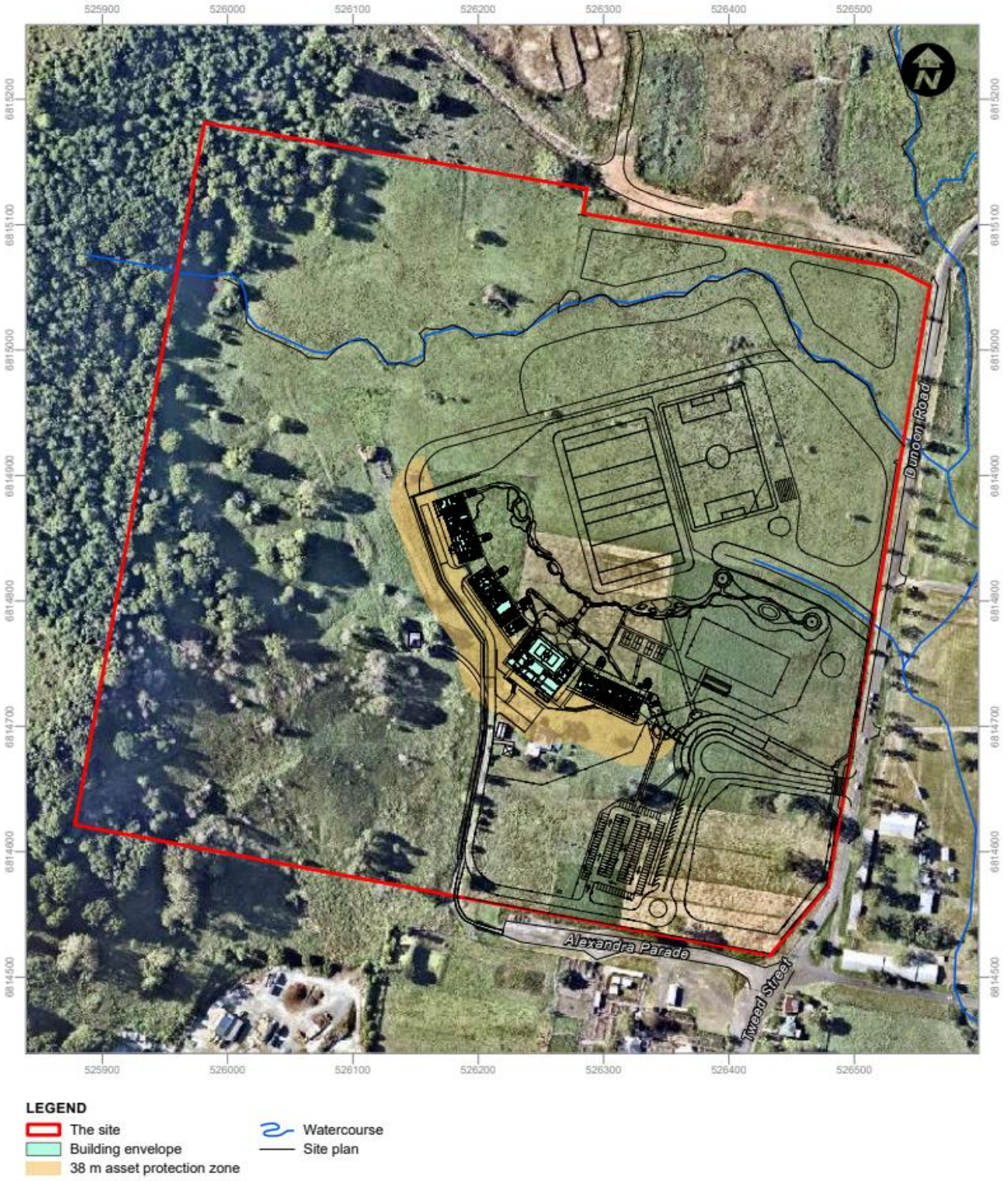


Figure 45 Asset protection zone (APZ) Mapping (Source: Bushfire Hazard Assessment)

The following bushfire protection measures have been included in the design of the school buildings:

- As can be seen in Figure 45 above, all proposed buildings are located outside of the relevant asset protection zone (APZ) of 38m, which has been determined in accordance with the PBP, the vegetation formation, the effective slope, and FDI. The APZ provides an area of reduced bushfire fuel that allows

for suppression of fire, where backburning and hazard reduction can be conducted, and an area which allows emergency services access and an area to defend the property/buildings.

- The APZ is located on land with a slope less than 18 degrees, located wholly within the boundary of the site, and no structures are proposed within the APZ.
- Landscaping complies with PBP and is designed to minimise flame contact and radiant heat to buildings, a per the PBP. Fencing within 6m of the school buildings are to be constructed of non-combustible materials.
- The standard of building construction required to provide sufficient bushfire protection as per the ABP is based on the Bushfire Attack Level (BAL). A construction level of BAL-19 is to be applied to educational establishments under the PBP and AS3959-2018 'Construction of buildings in bushfire prone areas'. Appropriate mitigation measures to ensure construction with BAL-19 are outlined below in the table below and Appendix 1.
- The access road proposed as part of the activity can accommodate movements of emergency vehicles, and the increase on traffic on the surrounding road network is confirmed as being sufficient to cope with evacuating traffic from both the school and the urban release area (future development).
- Appropriate water supply of 24,000L, far exceeding the requirement of 10,000L, will be available on site for firefighting purposes, where reticulated water sources are not available to parts of the site. Electricity services are provided underground from the proposed substation to the school buildings, with the existing overhead electricity lines extended to the substation.

Regarding the above, bushfire risk on the site and to the future occupants of the school have been, and are capable of being, managed through various measures. The current design accommodates bushfire protection measures, where appropriate at this stage of the design process. Detailed design will ensure ongoing compliance with requirements for access, APZs, landscaping and utilities provision. Construction will be undertaken in accordance with the construction specifications in BPB and AS 3959-2018 and operational emergency management will be implemented through a Bushfire Emergency Management and Evacuation Plan prior to occupation. Mitigation measures to ensure minimisation of bushfire risk can be found in the section below.

7.3.3 Mitigation Measures

Table 15 Mitigation Measures for Bushfire

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
BFMM1	Prior to relevant construction.	An application is to be prepared and submitted to the NSW Rural Fire Service (RFS) for approval under Section 100B of the Rural Fires Act 1997. This approval is to be obtained in writing prior to construction commencing on site.	To meet the relevant bushfire requirements as prescribed by the NSW Rural Fire Service.
BFMM2	All stages.	The required Asset Protection Zone (APZ) of 38m, is to be established on site and maintained in perpetuity to the specifications detailed in the approved Bushfire Hazard Assessment, and in accordance with Appendix A4.1.1 of PBP 2019.	To minimise the risk of bushfire to the school.
BFMM3	All stages.	Landscaping is to be designed and managed in accordance with Appendix 4 of PBP 2019.	To minimise flame contact and radiant heat to buildings and minimise potential for wind driven embers to cause ignitions.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
BFMM4	During construction.	Fencing is to comply with Section 7.6 of the PBP 2019. Fencing is to be made of either hardwood or non-combustible material. If the fence is within 6m of a building, it must be made of non-combustible material only.	To minimise flame contact and radiant heat to buildings and minimise potential for wind driven embers to cause ignitions.
BFMM5	Prior to relevant construction.	Prior to the issue of a Crown Construction Certificate, the construction plans are to demonstrate that the proposed activity will be constructed to BAL-19 based on the construction specifications detailed in Section 3 and Section 6 of AS 3959-2018, Section 7.5.2 of PBP 2019 and PBP Addendum 2022. If necessary, written confirmation by a suitably qualified bushfire professional is to accompany the Crown Construction Certificate.	To withstand bushfire attack in the form of wind, embers, radiant heat and flame contact.
BFMM6	Prior to operation.	Property access is to comply with Table 6.8b of PBP 2019.	To allow safe, all-weather access to structures and hazard vegetation.
BFMM7	Prior to relevant construction.	Prior to the issue of the Crown Construction Certificate, written confirmation that the water supply for firefighting purposes is in accordance with Table 6.8c of PBP 2019 and PBP Addendum 2022 is to be obtained.	To provide an adequate water supply for fire fighting purposes.
BFMM8	Prior to operation.	Provision of electricity and gas services is to comply with Table 8.6c of PBP 2019.	To prevent the ignition of surrounding bushland or the fabric of buildings.
BFMM9	Prior to and during operation.	A Bushfire Emergency Management and Evacuation Plan (BEMEP) is to be prepared (and implemented during operation of the school) in accordance with Table 6.8d of Planning for Bushfire Protection 2019. The BEMEP: • Is required to be consistent with the: • The NSW RFS document: A Guide to Developing a Bushfire Emergency Management and Evacuation Plan. • NSW RFS Schools Program Guide. • Australian Standard AS 3745:2010 Planning for emergencies in facilities. • Australian Standard AS 4083:2010 Planning for emergencies – Health care facilities (where applicable). • Include planning for the early relocation of occupants. • A copy of the BEMEP should be provided to the Local Emergency Management Committee for	To establish appropriate management arrangements for staff and occupants.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		its information prior to occupation of the development. • An Emergency Planning Committee is to be established to consult with staff, students, and their families in developing and implementing an Emergency Procedures Manual. • Detailed plans of all emergency assembly areas are to be included onsite, and off-site arrangements as stated in AS 3745:2010 are to be clearly displayed, with annual emergency evacuation conducted.	

7.4 Ecology and Biodiversity

7.4.1 Assessment Guidelines

An assessment of impacts associated with tree removal and the broader activity on biodiversity has been undertaken on the basis of the following guidelines and information databases:

- Australian Standard 4970-2009: Protection of Trees on Development Sites AS4970-2009.
- Australian Standard for the Pruning of Amenity Trees, AS4373-2007.
- Bean, A.R. 2024. Census of the Queensland Flora and Fungi 2023. Queensland Department of Environment, Science and Innovation, Queensland Government.
- Coder, K.D., 1996. Construction Damage Assessments: Trees and Sites, The University of Georgia, South Carolina, USA.
- Matheny, N.P. & Clark, J.R., 1998. Trees and Development: A Technical Guide to Preservation of Trees During Land Development, ISA Publications.
- Mattheck, C. & Breloer, H., 1997. The Body Language of Trees – A Handbook for Failure Analysis, Norwich, London: The Stationary Office.
- BioNet Wildlife Atlas.
- Protected Matters Search Tool (PMST) for Matters of National Environmental Significance (MNES) .
- NSW Department of Primary Industries (DPI) Fisheries Threatened and Protected Species Records Viewer and key fish habitat mapping.
- Lismore City Council (LCC) online interactive mapping tool.
- NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) ePlanning Spatial Viewer.
- Department of Planning and Environment (DPE) Biodiversity Values Map and Threshold Tool.
- Trees Near Me NSW vegetation mapping (DPE).
- State Environmental Planning Policy (Biodiversity and Conservation) 2021.
- State Environmental Planning Policy (Resilience and Hazards) 2021.
- Environmental Planning and Assessment Act 1979.
- Local Government Act 1993.
- Water Management Act 2000.
- Fisheries Management Act 1994.
- Lismore Local Environmental Plan 2012.
- Lismore Development Control Plan 2014.

- Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999).
- Biodiversity Conservation Act 2016.

7.4.2 Assessment

Tree Removal

Tree removal has been assessed in the Arboricultural Impact Assessment (AIA), accompanying this REF. The AIA was prepared on the basis of a comprehensive review of relevant plans and reports, a review of a Preliminary Tree Assessment (not part of this REF package) and complemented with subsequent site inspections carried out by the arborists on 22 August 2024 and 2 July 2025.

The AIA identified a total of 50 trees on and near to the proposed activity area. Of these 50 trees, the following is required to accommodate the activity:

- 20 trees require removal. Of these, 19 trees are to be removed due to their location within the activity footprint or having a major conflict with the proposed construction. One additional tree is recommended for removal because of its weed status. Trees to be removed are classified with the following retention values:
  - 7 x very low retention value (other wise referred to retention value of “remove”).
  - 7 x low retention value.
  - 6 x medium retention value.

The removal of medium retention value trees (Trees 33, 42, 52-54 and 58) is considered necessary to facilitate the activity as they are located within the activity footprint and will be wholly impacted by construction.

The majority of tree removal is of weed species and undesirable species, with the overall impact of the activity on trees being low, subject to implementation of the mitigation measures in Section 7.4.3. The Tree Protection Plan outlines key recommendations to ensure protection of trees during construction, including establishing tree protection zones (TPZ), trunk, soil, and root protections, and canopy works. All tree removal will be undertaken in such a way to prevent damage to above and below ground parts of retained trees, and will be undertaken by suitably qualified and experienced arborists. Furthermore, to support long-term environmental sustainability the proposal will introduce new trees, providing 37,107sqm of additional trees and canopy cover, ensuring improved biodiversity and the support of native wildlife species to the site.

Flora and Fauna

A Biodiversity Assessment Report (BAR) has been prepared to assess the potential ecological impacts as a result of the proposed activity. The BAR was carried out through desktop reviews, and a review of all relevant vegetation mapping databases. Several field surveys were conducted from 29 January 2024, 30 January 2024, 21 August 2024, and 12 May 2025. Field surveys included the following tasks:

- Undertaking vegetation survey plots to determine the percentage of native vegetation cover.
- Identifying vegetation communities to plant community types (PCTs).
- Verifying vegetation communities on the site and undertaking vegetation mapping.
- Targeted searches for threatened flora species identified as potential occurrences by the desktop assessment. These included traverses searching for the threatened flora species, Hairy Jointgrass (Arthraxon hispidus).
- Identification of threatened ecological communities (TECs).
- Recording isolated paddock trees on the site.
- Searching for evidence of Koalas, including observation of individuals, faecal pellets and indicative scratches on smooth barked trees.

The BAR identified the following ecological considerations:

Within 5km of the site, there are records of threatened flora species, including 17 species listed under the EPBC Act. There are records of 11 threatened ecological communities (TECs) within the site.

The Protected Matters Search Tool results identified: Habitat for 32 EPBC Act listed threatened flora species within 5 km of the site and habitat for five EPBC Act listed TECs within 5 km of the site.

Four threatened flora species were detected onsite. These species are listed as vulnerable under the Biodiversity Conservation Act 2016 (BC Act) and the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act);

- Hairy Jointgrass.(Arthraxon hispidus).
- Thorny Pea (Pedleya acanthocladum).
- Arrow-head Vine (Tinospora tinosporoides).
- Durobby (Syzygium moorei).
- Forest Red Gums occurring on the site are a primary Koala feed tree species. A small patch of mapped 'Primary Koala habitat' occurs in the central/ south-western portion of the site, providing potential habitat for this species. No scats were detected beneath Forest Red Gums on the site, however, it is possible that these trees may be used on occasion by Koalas ranging throughout the broader area rather than as part permanent/ breeding habitat.
- Areas of fragmented and degraded vegetation are likely to support a range of common bird and mammal species. Flowering eucalypts and rainforest trees provide good resources for fruit and nectar feeding birds (Pigeons, Fruit-doves, Honeyeaters, Friarbirds, Lorikeets, Figbirds, etc.) and also support insect feeding species such as Thornbills, Fantails.
- Grassland areas may provide habitat for a range of grassland birds and reptiles.
- The entire site is likely to be used for foraging by several species of microchiropteran bats and flying-foxes are likely to utilise fruiting figs and rainforest trees on an opportunistic basis.
- No threatened fauna was detected onsite.
- The stream that traverses the site is not mapped as Key Fish Habitat (KFH) by NSW Department of Primary Industries (DPI). Minimal water was present within this waterway at the time of the site inspection in January 2024, and accordingly, the potential for aquatic fauna to occur is minimal.
- A test of significance under the BC Act was not required for TECs or threatened flora known to occur onsite because:
  - Impacts to Lowland Rainforest in the NSW North Coast and Sydney Basin Bioregions TEC are limited to highly degraded, isolated stands of Silky Oak occurring as clumped paddock trees (equating to 0.05 ha). This community also occurs proximate to site forming larger contiguous area of lowland rainforest. The impacted vegetation is highly disturbed and comprises a relatively minor amount of vegetation in the context of the site and adjacent areas. The lowland subtropical rainforest community within the wider locality is expected to persist and remain unaffected by the activity. The activity is not expected to significantly affect or alter the extent or composition of the TEC such that its local occurrence is likely to be placed at risk of extinction.
  - Threatened flora species are not proximate to the activity footprint and would not be impacted by the activity.
  - Threatened fauna species considered to have potential to occur on the site may only occur on occasion as part of broader foraging ranges in the local area.
  - Significant habitat for threatened fauna species would not be impacted by the activity given that it has been sited within areas of cleared pastureland.
  - Non-native vegetation on the site is not considered to provide permanent/ regularly used habitat for threatened species.
  - Increased impacts to threatened fauna as a result of increased noise/ light are considered to be negligible given the sites location within cleared agricultural land.

Koala Management

As described earlier in this REF, a small part of the site is mapped as Primary Koala Habitat (PCT 3322 – Far North Ranges Red Gum Grassy Forest), with vegetation along the western boundary mapped as Unknown Koala Habitat (PCT 3064 – Far North Hoop Pine Dry Rainforest TEC)). Whilst these trees provide potential habitat for koala onsite, no scats were detected beneath the Forest Red Gums onsite, however, it is possible that these trees may be used on occasion by koala ranging throughout the broader areas rather than as part of their permanent breeding habitat.

Given these areas of vegetation are to be retained and do not form part of the activity area, potential impact to koala species is low. A precautionary mitigation measure has been provided to minimise any potential impacts in the instance that koalas are found onsite during the site excavation and vegetation clearings.

Conclusion

Overall, the BAR concludes that:

- The activity is unlikely to significantly affect threatened species, ecological communities or their habitats, within the meaning of the BC Act, and therefore a Species Impact Statement (SIS) or BDAR is not required.
- No significant impacts to any Commonwealth land or matters of national environmental significance (MNES) under the EPBC Act will be likely to result from the activity.
- The proposed activity is not expected to have a significant impact on the biodiversity values present at the site, given the location of protected and/or threatened species outside of the activity footprint.

Mitigation measures are recommended, to minimise any potential biodiversity impacts resulting from the activity.

7.4.3 Mitigation Measures

Table 16 Mitigation Measures for Ecology and Biodiversity

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
TMM2	Prior to and during construction.	Pruning works are to be undertaken by a suitably qualified and experienced arborist complying with the Australian Standard for the Pruning of Amenity Trees, AS4373-2007. Natural Target Pruning methods should be used wherever possible when removing sections from retained trees.	To increase viability of pruned trees if access for high clearance vehicles is required during demolition or construction.
TMM3	Prior to and during construction.	TPZ fencing is to be installed as per the recommendations prescribed under the approved Arboricultural Impact Assessment.	To prevent constriction impacting retained trees.
TMM4	During construction.	Stump and root material from a tree elected for removal that is growing in close association with a tree nominated for retention is to be cut to ground level or by other means deemed appropriate. Tree removals are to be undertaken by a suitably qualified and experienced arborist.	To protect retained trees.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
TMM5	During construction.	Trees requiring trunk protection (#43) are to have padding of multiple layers of orange polypropylene woven mesh wrapped around the trunk to 2 m minimum. This is to be held in place with untreated hardwood timber battens as per the recommendations prescribed under the Arboricultural Impact Assessment.	To protect trunks of retained trees.
TMM6	During construction.	Rumble boards or steel plates are to be used to between the stages of demolition and construction of the roundabout. Where any structural roots (those with a diameter greater than 20 mm) are encountered by excavation, these are to be pruned with clean, sharp pruning tools by a suitably qualified arborist. If temporary access into any TPZ is required for machinery during construction, then ground protection measures are required. Measures may include permeable membranes such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards.	To protect retained trees from soil compaction and root damage.
TMM7	Prior to and during operation.	Immediately after the completion of construction work and 18 months after, the consulting arborist is to carry out an assessment of all trees retained and/or affected by the works (within reasonable proximity to the school buildings and infrastructure within the broader site), documenting their condition and any on-going remedial care required.	To ensure viable retention of trees.
BARMM1	Prior to construction.	The limit of vegetation clearing is to be clearly delineated on site prior to works commencing.	To minimise potential impacts to retained trees.
BARMM2	Prior to construction	Pre-clearing surveys are to be undertaken if any hollow-bearing trees are to be removed each morning by an ecologist or spotter-catcher.	To ensure nesting or roosting fauna are not present within vegetation to be removed.
BARMM3	During construction.	Should Koalas be found on site during the clearing of native vegetation and/ or earthworks, works must: - be temporarily suspended within a range of 50 m from any tree which is occupied by a Koala; - be avoided in any area between the Koala and the nearest areas of habitat to allow the animal to move to adjacent undisturbed areas;	To minimise potential impacts to Koalas (if present).

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		- must not resume until the koala has moved from the tree of its own volition.	
BARMM4	During construction.	Measures are to be implemented during construction works so that machinery and plant do not introduce weed seed, propagules, pathogens such as myrtle rust or phytophthora to the site (e.g. by adoption and implementation of the 'Arrive Clean, Leave Clean' guidelines (DoE 2015).	To minimise spread of weeds and pathogens.

7.5 Traffic, Access, and Parking

7.5.1 Assessment Guidelines

The Transport and Accessibility Impact Assessment (TAIA) accompanying this REF, has been prepared in accordance with the following guidelines and broader transport planning strategies:

- Transport for NSW Guide to Transport Impact Assessments 2024.
- Inspire Lismore – Local Strategic Planning Statement 2023.
- Lismore Growth and Alignment Strategy 2022.
- Lismore Walking, Cycling, and Micromobility Strategy 2024-2034.
- Lismore Development Control Plan 2012.

7.5.2 Assessment

The TAIA has been prepared to inform evaluation of the traffic, access and parking requirements and impacts of the proposed activity. The methodology in the report, including approach to modelling (including scenarios), proposed access, and the scope of public domain transport improvements, have been subject to discussion with key stakeholders at four Transport Working Group (TWG) sessions. A summary of the TWG sessions is provided in Section 5.1 of this REF and within the TAIA.

Existing Environment

The TAIA describes the existing transport environment relevant to the site as follows:

- Dunoon Road (transitioning to Tweed Street further south) running along the eastern boundary of the site is a classified regional road and a designated B-double route. The speed limit is 50km/h within the urban fringe of Lismore, changing to 80km/h approximately 200m north of the Alexandra Parade intersection, reflecting the transition to a more rural environment.
- Alexandra Parade, running along the southern boundary of the site is a local road, unsealed to the west providing access to cattle yards and private farmhouses, operating under a 50km/h speed limit.
- Terania Street is a regional road providing east-west connectivity between Dunoon Road and Lismore CBD, it operates under a 50km/h speed limit.
- There are currently no formal parking facilities onsite as it is currently mostly undeveloped, with some informal parking of agricultural vehicles along Alexandra Parade during operation of the cattle yard (up to three events per week).
- Limited pedestrian and cyclist networks are established around the site. There are no dedicated footpaths or cycle facilities along Dunoon Road or Alexandra Parade.
- The existing public transport network in North Lismore includes four bus stops within walking distance (880m) of the proposed school, serving three existing school bus routes (S377, S897, S898). Each of

these services provide connectivity between North Lismore and the Trinity College Interchange, where broader connections across the region are available.

Figure 46 **Existing road hierarchy and speed zones (Source: TAIA)**

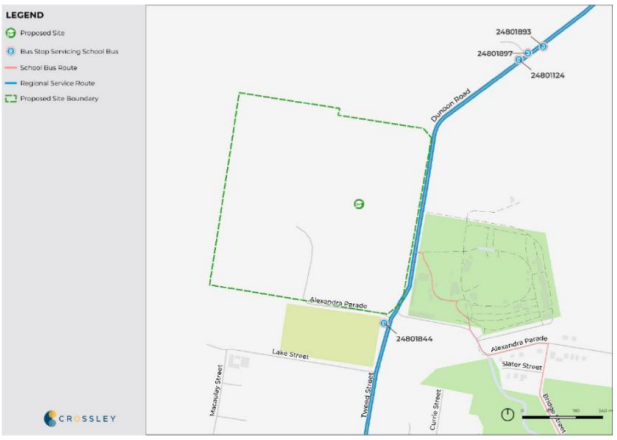


Figure 47 **Existing bus stops and bus routes (Source: TAIA)**

A review of available crash history data indicates that during the five years between 1 January 2019 to 31 December 2023, three reported crashes occurred within the vicinity of the proposed activity. Two crashes resulted in moderate injuries, with one crash resulting in a non-injury. The location of these crashes is illustrated in Figure 48 below. These crashes do not indicate any systemic safety issues in the local area but reinforce the need for safe access design and future monitoring as the school becomes operational.

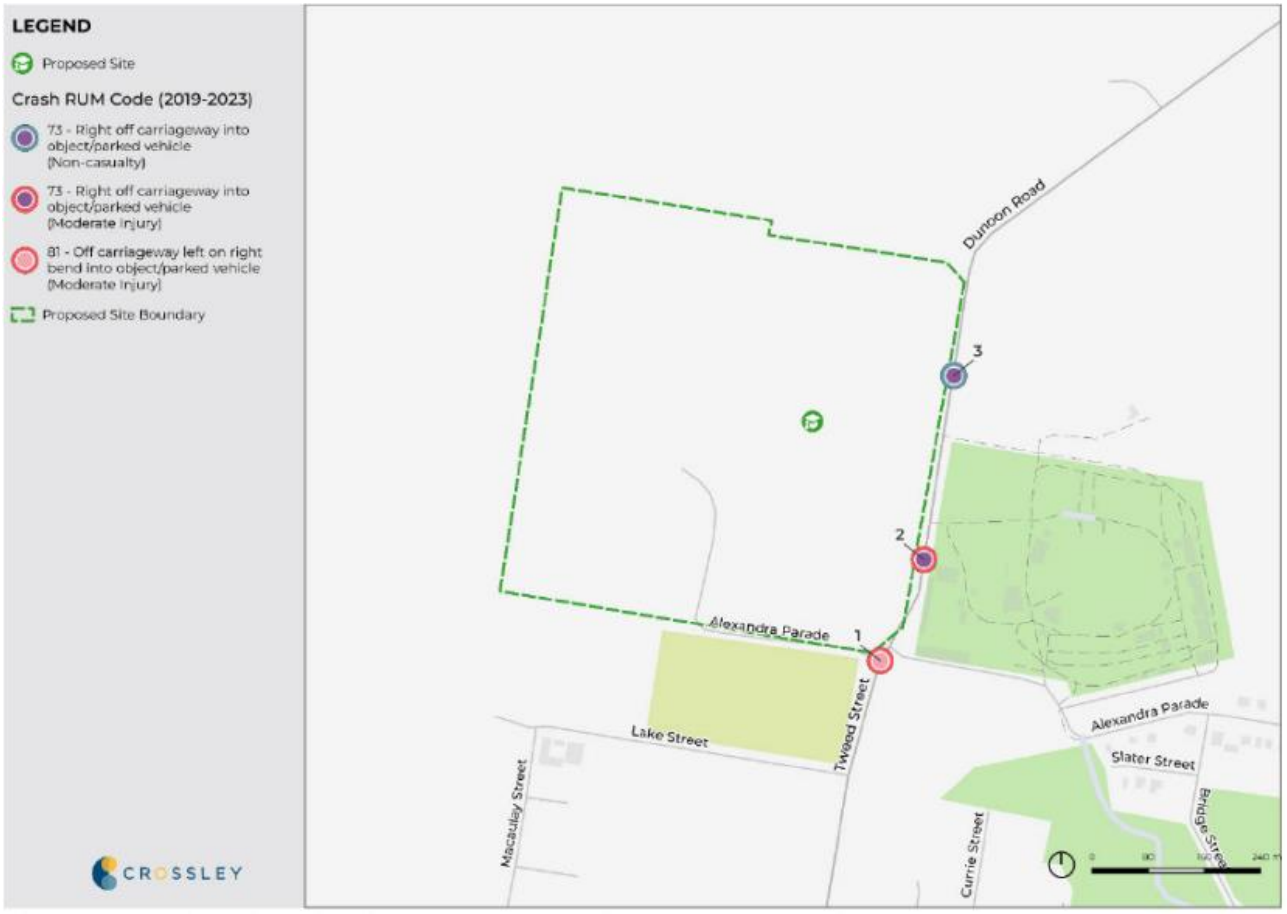


Figure 48 **Crash history within the vicinity of the site (Source: TAIA)**

Traffic surveys were conducted to understand the baseline performance of the local road network, the data of which was used to establish baseline traffic volumes, vehicle distribution patterns, as assess the operational performance and available capacity of the local network. Using these inputs, signalised intersection design and research aid (SIDRA) modelling was developed to test the current operation of key intersections (Terania Street/Tweed Street and Dunoon Road/south of Sexton Road). The modelling indicated that the existing road network operates within acceptable Levels of Service (LoS A-) during peak periods.

Assessment of design

The TAIA demonstrates that the proposed activity provides adequate facilities for staff parking, kiss and ride drop off, bus operations, and active travel. In summary, the school proposes:

- T-intersection on Dunoon Road providing new school access.
- Internal 14.6m diameter roundabout to facilitate traffic flow within the site.
- Rear access road for service, agricultural, and staff vehicles.
- 130 carparking spaces for staff, which includes four accessible spaces and nine EV charging spaces.
- 20 kiss and ride drop off zone spaces.
- Four bus spaces in the designated bus zone.
- 80 bicycle parking spaces.

The proposed internal layout provides sufficient capacity for efficient operation and allows for minor surges in arrival rates to prevent spillback onto Dunoon Road, supporting both traffic safety and flow. Access, and parking has been designed accordingly to the design parameters set in the LDCP, AS2890.2, and Building Code of Australia (BCA).

Assessment of traffic

To forecast transport demand and potential impacts associated with the proposal, standard trip generation rates were applied in accordance with the Transport for NSW Guide to Transport Impact Assessments (2024). The hands up survey was not used to forecast travel demand as it is based on students' preference as opposed to actual travel behaviour. The trip generation rates are based on data from eight regional schools, which is more realistic and representative estimate of actual travel patterns in similar regional contexts. The estimated travel rates are outlined below.

Time period	Student vehicle trips (Car Passenger)	Staff vehicle trips	School bus vehicle trips	Total vehicle trips
AM Peak Hour	528	66	8	602
PM Peak Hour	396	66	8	470

Figure 49 Estimated vehicle trips in AM and PM peak (Source: TAIA)

The trip generation estimates apply the following key assumptions:

- Trips are based on one-way trips per student. To reflect both arrivals and departures these rates were doubled to calculated total student vehicle trips.
- AM peak hour trip rates of 0.4 vehicle trips/student, resulting in 528 student vehicle trips, and PM peak hour trip rates of 0.3 vehicle trips/student, resulting in 396 student vehicle trips.
- 100% of staff (66 FTE) are assumed to drive to the school and park onsite.
- Four school buses are assumed to operate during both peak periods, equating to eight vehicles across arrival and departures.

Based on these assumptions, and a conservative approach that each car passenger will travel alone, RRHC is expected to generate up to 602 vehicle trips during the AM peak period and 470 vehicle trips during the PM peak period.

Likely distribution of student and staff across the surrounding road network was defined to three dominant corridors; north of the site via Dunoon Road, southwest via Terania Street, and southeast via Terania Street connecting to Lismore Town Centre, Trinity Interchange, Goonellabah and other regional areas. The following directional split was applied to assign future trips in the operational assessment:

- 16% to/from the north via Dunoon Road.
- 38% to/from the southwest via Terania Street.
- 46% to/from the southeast via Terania Street.

A 1% annual background traffic growth rate was applied to traffic count data collected in 2024, to produce estimated traffic volumes for 2027 (the year of the school opening). SIDRA modelling was undertaken for the key intersections impacted by the proposed activity;

- Proposed new T-intersection on Dunoon Road.
- Existing Dunoon Road and Alexandra Parade intersection.
- Existing Terania Street and Tweed Street intersection.

The modelling confirms that the existing road network has the capacity to accommodate the additional school-generated traffic from the proposed activity, and no mitigation measures are required to manage these intersections. No adverse impacts to the surrounding road network under the forecasted 2027 traffic conditions occur as a result of the activity.

The School Transport Plan (STP)

The overall vision of the STP is to promote more students to walk, cycle, and use public transport to reach the school on a daily basis. This will support active lifestyles and improve road safety around the school gates and pickup and drop off areas. The goal is to achieve the 'reach mode share target', which is 68% of students regularly walking, cycling, or choosing public transport. The reach scenario represents the aspirational mode splits for RRHC, which would require a significant behavioural change how students and staff travel to school.

Travel mode	Potential mode share with current infrastructure	Moderate mode share	Reach mode share with added infrastructure
Walk	6%	8%	10%
Bicycle (or other wheeled toy)	6%	8%	9%
Public transport	10%	30%	49%
Car passenger	69%	46%	24%
Drive a car	9%	8%	8%

Figure 50 Travel mode share targets (Source: STP)

In its temporary location at East Lismore, the hands up survey that was undertaken in June 2024 indicated that currently 42% of students are using public transport to school, and 20% are using active travel (cycling or walking). The hands up survey, alongside a review of the mode share targets, do indicate that there is a greater want for students to utilise public transport if the infrastructure and bus routes offered were improved (reach mode share).

The feasibility of achieving either the moderate or reach mode share targets depends on the level of infrastructure improvements provided for students. It is assumed that walking, cycling, and public transportation infrastructure will progressively improve around the site, thus improving potential to reach the reach mode share target over time. Until that time that all infrastructure is completed, a transition from car to more sustainable travel modes will occur as infrastructure is improved piece meal, thus reaching moderate mode share targets.

The STP outlines key management principles that will apply to each element of the school, in order to ensure the safe and efficient access to the school for students, staff, and visitors.

- Site transport access: provided from Dunoon Road, and is segregated to all types of use. Cyclists and pedestrians can access via separate gates thus avoiding conflict with vehicles. From the main entrance, clear areas have been provided for separation of the school carpark, kiss and ride drop off zone, and bus zones.
- Traffic management: managed through the implementation of school speed zones, proposing a 40km/h school zone during school drop off and pick up hours (8:00am-9:30am and 2:30pm-4:00pm), and a 50km/h speed zone at all other times. Clear signage of no parking zones will be implemented where appropriate in the school, for example, to prevent cars parking in the school bus zone.
- Site access: managed by school caretakers, with each gate serving a certain purpose which is influenced by the school operating hours and activities in the nearest buildings, as well as the availability of specific end-of-trip facilities such as pedestrian crossings, bicycle parking, and the kiss and ride drop off zones.
- Bus services: operated from the bus zone and will be managed by a staff member, who will supervise students alighting the bus, and will similarly coordinate students into groups as per the buses they need to take, which can be done with an electronic bus arrival sign.
- Kiss and ride drop off zone: accessed via the school's access road and will coordinate with gate opening times as managed by the caretaker.
- Parking: provided for all FTE staff, volunteers, and part time staff, and will be accessible with a swipe card. Visitors will be required to sign in and can utilise the kiss and ride drop off zone for parking outside of peak morning and afternoon hours. Students will not be allowed to park in the school carpark, aligning with the department's policies not to provide student parking and to encourage sustainable transport modes.
- Service vehicles: restricted to hours outside of school operations, to eliminate potential conflicts between pick-up and drop offs. Access of service or waste vehicles will require coordination with the school and can be actioned by the school caretaker.
- Event management: may be required from time to time such as parent-teacher interviews, sports days, and excursions. The school access and parking arrangements can cater for these events subject to prior permissions and coordination with school staff.

In order to promote sustainable transport options, a variety of initiatives and programs will be setup, including active transport initiatives, public transpire support, and carpooling promotion. The STP outlines a clear action plan of this to provide guidance on how these actions will be implemented to achieve the school's transport policy objectives.

A communication plan has been developed to outline the strategy for promoting and disseminating information about the various transport options detailed in the STP. This includes a range of methods and is for the attention of a range of stakeholders including students, parents, and school staff, to ensure they are well informed about available transportation methods, access points, and any operational changes. Any important communications will be done so via a school starter kit distributed to parents on enrolment, school newsletter, school website, school Facebook group, emails, and through the Sentral app.

To ensure ongoing safe operations, and success of the STP, ongoing monitoring and evaluation of travel behaviours of students and staff will be required. Further, a travel access guide (TAG) has been prepared for the school which provides the information to be shared through the multiple channels listed above (such as

school access points and arrangements, bicycle parking locations, and kiss and ride drop off zone expectations).

A travel coordinator will also be appointed to implement the STP and effectively engage stakeholders, particularly throughout construction and the first-year post-occupancy. Internal and external working groups will also be responsible to assist in operating and improving the STP.

The requirement for the STP is enforced through a mitigation measure, and the steps outlined above, all assist in the overall encouragement and support of sustainable modes of transport to school, for both students and staff, thus, helping to achieve the reach mode share target.

Assessment of construction traffic

A preliminary construction traffic management plan has been outlined within the TAIA. Construction will occur within a single stage, with access proposed from Dunoon Road. All construction activities will occur within standard construction hours, in accordance with all relevant environmental and safety regulations.

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), to minimise traffic construction related impacts on the surrounding locality while the school is being built.

Conclusion

The TAIA, and STP demonstrate that the proposed activity is supported by an appropriate access strategy, including the new intersection on Dunoon Road and internal site circulation that is designed for safe modal separation. No adverse impacts on the surrounding road network are anticipated under the 2027 forecasted traffic conditions. Adequate facilities for staff parking, kiss and ride drop off, bus operations, and active travel has been provided. The transport strategy has been developed in coordination with both TfNSW and LCC through the TWG.

The traffic, parking and accessibility impacts during construction and operation of the proposed activity have either been mitigated through the current design, and any minor impacts can be adequately ameliorated through the recommended mitigation measures. The mitigation measures support the safe operation, design finalisation, and successful transition to the new school site from a traffic and transport perspective. A standard mitigation measure prescribed by the department requires the School Transport Plan prepared to the satisfaction of the department's Transport Planning Team.

7.5.3 Mitigation Measures

Table 17 Mitigation Measures for Traffic, Access, and Parking

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
TRMM1	Prior to construction.	A road safety audit shall be undertaken for the proposed Dunoon Road intersection.	To assess safety associated with a planned new access onto a regional road.
TRMM2	Prior to construction.	The project contractor is required to verify that the car park layout is compliant with AS 2890.	Demonstrate compliance with relevant Australian Standards.
TRMM3	Prior to construction.	A Construction Traffic Management Plan is to be prepared during detailed design.	To assess and manage construction

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
			phase traffic impacts on the surrounding network.
TRMM4	Prior to construction of the relevant elements.	Owners consent is to be obtained from Lismore City Council and TfNSW prior to the undertaking of any works within the road reserve.	To obtain owners consent for any works within the road reserve.
TRMM5	Prior to operation.	A request is to be submitted to TfNSW to implement a 40km/h school zone.	To control speeds on Dunoon Road and mitigate any safety issues to the access point.
TRMM6	Prior to operation.	The department is to work with TfNSW and local bus operators to review existing bus services to establish school bus routing and timetables as part of the transition to the new campus.	To provide bus transport provisions to the site.
TRMM7	Prior to operation.	Prior to the operation of the school, the Travel Access Guide is to be updated. The TAG is to encourage parent pick-up and drop-offs at the kiss and ride drop off zone, to encourage the provision of active and public transport to and from the school, and will be required to reflect final bus service details and access arrangements once construction is complete. The TAG is to be provided to all parents/ guardians of the school upon enrolment.	To encourage use of kiss and ride drop off zone and to use active and public transport to the school.
TRMM8	During operation.	During school operations, ongoing monitoring of traffic conditions and safety issues in the local area are to be undertaken to support the continuing management of traffic conditions.	To assess any changes in access arrangements and associated movements in and out of the site.

7.6 Noise and Vibration

7.6.1 Assessment Guidelines

Noise and vibration impacts have been assessed in accordance with the following guidelines:

Australian Standard AS1633:1985 “Acoustics – Glossary of terms and related symbols”.

NSW Noise Policy for Industry.

Association of Australasian Acoustical Consultants (AAAC) Guideline for Child Care Centre Acoustic Assessment.

State Environmental Planning Policy (Transport & Infrastructure) 2021 (TI SEPP).

NSW Department of Environment and Climate Change (DECC) “Interim Construction Noise Guideline” (ICNG) 2009.

7.6.2 Assessment

A Noise and Vibration Assessment Report (NVAR) has been prepared accompanying the REF (Appendix 21). The report provides an outline of the nearest sensitive receivers external to the site, as well as potential external noise sources that may impact the acoustic amenity of the school. The nearest sensitive receivers are:

- Residential dwellings located along Dunoon Road, and the intersection of Alexandra Parade, Dunoon Road, and Tweed Street.
- Active recreational areas including the Lismore Speedway and Lismore Kart Racing Club.
- Passive recreational areas including environmental conservation zones to the west of the site.
- Commercial and industrial premises within the vicinity.

Potential impacts of the school on those nearby receivers include:

- Additional traffic noise, particularly along Dunoon Road.
- Noise from access road and carpark.
- Noise from general operations of the school including the outdoor play areas and school hall, and mechanical plant.
- Temporary noise and vibration during construction phases of the school.

External noise emissions that have the potential to impact the school area:

- Traffic noise intrusion from surrounding roads.
- Aircraft noise intrusion.

Unattended noise monitoring was undertaken to establish existing ambient noise level onsite. The measurements were undertaken at the following location within the school site. Measurements at this location are representative of existing ambient noise levels and façade incident noise levels impacting the future RRHC school buildings.

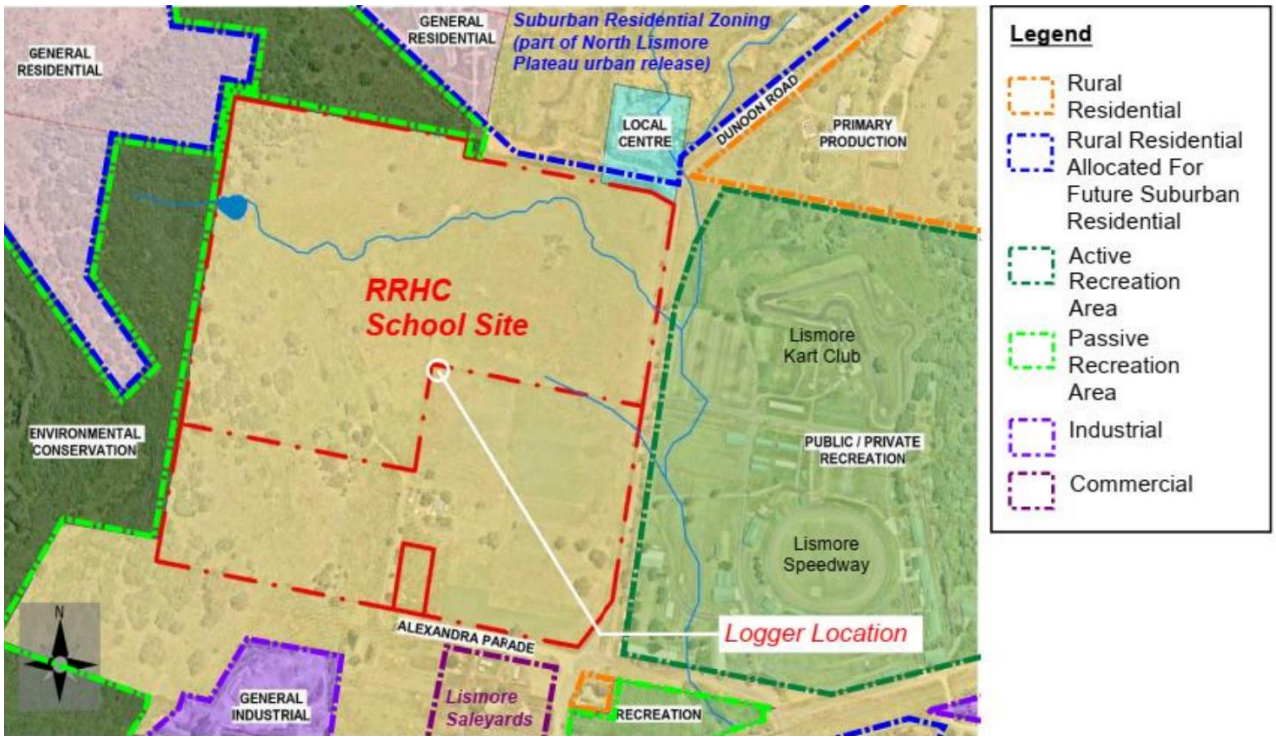


Figure 51 Site layout and logger detail (Source: NVAR)

The unattended logger recorded noise levels at 15-minute intervals between Saturday 24 August and Thursday 29 August 2024. Unattended noise measurements were conducted for 15-minute periods at the logger location, and present the LA1, LA10, LAEQ, and LA90 noise levels for the corresponding 15-minute periods. The most relevant environmental noise descriptors are the LAeq, LA1, LA10 and LA90 noise levels. The LAeq noise level represents the “equivalent energy average noise level”. The LA1, LA10 and LA90 levels are the levels exceeded for 1%, 10% and 90% of the sample period. These levels can be considered as the maximum noise level, the average repeatable maximum and average repeatable minimum noise levels, respectively.

The noise levels measured at the logger location have been used to assess the noise impact to the nearest noise affected receivers outlined above. Time periods used are in accordance with those recommended in the NSW Noise Policy for Industry.

The NVAR considers impacts associated with the following noise and vibration sources:

Operational Noise – Building Services

Internal and external building services, such as mechanical plant and ventilation is still under development, and a comprehensive acoustic assessment should be conducted at detailed development stage. However, the mechanical plant design and equipment selection will need to ensure compliance with the external noise criteria provided in Section 3.1 of the NVAR for the existing scenario which includes rural residential properties. Cumulative impact has been considered with the future scenario where suburban residences are developed as part of the NLPURA to the north of the site, of which the external noise criteria is provided in Section 3.8 of the NVAR. Plant items that will contribute to external noise emissions are outdoor units, roof mounted fans and ventilators, ducted inlets and outlets to fans, fan coil units and energy recovery ventilation, exhaust air and make-up air systems, and dust extraction systems.

This can be confirmed during detailed design once plant selection has been made, with the following being some of the recommendations in the NVAR to achieve compliance with acoustic requirements:

- Mechanical plant installation locations and the positioning of external air duct paths (such as inlets and outlets) near the property boundary should be limited, as far as practicable.

- Plant room walls should achieve a minimum airborne sound insulation performance of Rw 45 -50.
- Fully ducted airflow paths to/from the outside, incorporating at least 50 mm thick internal insulation or acoustic louvres will be required.
- All plant room walls and roof / ceiling to be internally lined with insulation.
- Reduce the number of operational plant items between 6:00 pm and 7:00 am (and during the night-time period generally).
- Outdoor units and other plant items to be screened from direct line of sight to the affected residences (depending on their locations).

These recommendations represent best-practice acoustic treatments and will require confirmation during detailed design stages. Building envelope constructions of school buildings should be treated so noise intrusion from external noise sources (such as local road traffic), do not increase the overall internal noise levels and compliance is achieved with the criteria discussed in Sections 3.4.2 and 3.4.3 of the NVAR.

Outdoor Noise Emissions – Playground and Sports Fields

An assessment of outdoor noise emissions from all outdoor spaces during a typical lunch and recess period was considered in the NVAR. In this scenario, it was assumed that all 660 students utilised designated outdoor play areas (divided across open spaces, sports field 1, sports field 2, and the games and sports court). This distribution of students ensures compliance with the minimum required area of 5-10sqm per student.

Predicted noise levels during periods of full outdoor use indicate that these levels are likely to intermittently exceed the target noise limits under worst-case scenarios. However, the noise generated during these times is comparable to what might be expected in public parks and large open community spaces. Since NSW lacks specific acoustic criteria for school playground operations, the noise targets were established based on the most relevant guidelines.

The school should adopt management practices to minimise impacts on the closest nearby residential areas, noting there are not any within close proximity to the site. These include supervising playground use to avoid excessive yelling or screaming, restricting outdoor play to daytime school hours, and adhering to public address (PA) system usage protocols outlined under Operational Noise – Outdoor PA System. All mitigation measures should be incorporated into the School's Operational Management Plan (OMP). Based on these considerations, the outdoor play areas are acoustically acceptable and justified.

Outdoor Noise Emissions – Multi-Purpose Hall and Movement Studio/Theatre

The multi-purpose school hall and movement studio/theatre is proposed to be used for regular school activities during typical school hours as well as during outside school hours care (OSHC), as such an acoustic assessment was undertaken during both daytime and evening periods. The assessment considered the following operational assumptions:

- Multi-purpose hall is operating at full capacity (660 students) and the PA system is in operation, producing internal sound levels that do not exceed 85 dB LAeq (15-minutes).
- Movement studio/theatre is operating at full capacity (133 students) and the PA system is in operation, producing internal sound levels that do not exceed 85 dB LAeq (15-minutes).

When the hall doors remain open, compliance is achieved provided overall internal noise level do not exceed 85 dB LAeq, 15 min. However, when the hall doors are closed, compliance with the noise targets is achievable, provided that further mitigation strategies are implemented through architectural and miscellaneous treatments.

To meet the noise criteria, the PA system should include a noise limiter to cap internal sound levels at 85 dB LAeq (15 minutes). Folding doors should have a minimum sound insulation performance of Rw 20 with non-perforated finishes, and hinged doors should have a minimum sound insulation performance of Rw 30 with a solid core, and rubber acoustic seals. Additionally, the building envelope for the hall should be designed to

avoid additional flanking paths that could allow noise breakout with glazed façade elements achieving minimum sound insultation performance requirements.

These measures will ensure compliance with noise emission targets and mitigate any potential adverse noise impacts on nearby residential receivers.

Operational Noise – PA System

The design and location of the PA and bell system have not been finalised at this stage. However, the system will be necessary for the school's operations, and its design must ensure compliance with acoustic standards. Specifically, noise emissions from the outdoor PA system should not exceed the intrusiveness criteria at the nearest impacted residences. The following will need to be considered during detailed design and operation of the school:

- The outdoor PA system should only operate between 9:00am and 3:00pm.
- Low-powered horn-type speakers should be located and orientated to provide a good coverage of the school areas whilst being directly away from residences and sensitive receivers. System coverage shall be reviewed during the design phases.
- Speakers should be mounted with a downward angle and as close to the floor as possible. Speakers should be mounted below the height of school buildings and include directional speakers to mitigation noise spill to neighbouring receivers.
- Once appropriate noise levels from the speakers are obtained within school premises and at nearest affected receivers, the system gain should be limited so that staff cannot increase the noise levels.
- A compliance survey should be undertaken to measure the operational noise level of the PA system.
- Construction noise and vibration impacts from standard plant and machinery including rollers, hammers, and pile drivers.

Operational Noise – Carpark and Access Road

The activity includes 130 car parking spaces, which includes four accessible spaces and nine EV charging spaces, with access from Dunoon Road. If the carpark operates at full capacity, it is expected to generate 130 vehicle movements within a 1.5-hour period, coinciding with the school's morning and afternoon peak traffic. During the same morning or afternoon peak hour traffic the following traffic flow has also been considered:

- Maximum of 12 school buses arriving or departing.
- Maximum of 455 vehicle movements for kiss and ride drop off zone.

Under these conditions, noise emissions from the carpark and access road are predicted to reach 45 dB LAeq (15-minutes) at the nearest impacted residential dwelling. This noise level is complaint with the noise level criterion discussed within the NVAR, and no further acoustic treatment is required.

Operational Noise – Waste Collection

As an operational measure, we recommend commercial waste collection should only be conducted between 7:00 am and 10:00 pm. This is recommended to minimise noise impact to local residences.

Operational Noise – Noise Impact on Local Roads

Based on vehicle movements for the school carpark and kiss and ride drop off zones, as well as typical sounds power levels (outlined in Table 23 of the NVAR), a noise level of 57 dB LAeq (1-hour) is predicted for the nearest impacted residence at 127 Tweed Street. This noise level is marginally compliant, since the 2 dB exceedance is found to be subjectively unnoticeable, it is expected that impact from road traffic noise levels generated from the activity will be negligible.

Construction Noise and Vibration

Detailed information regarding the construction program was unavailable at the time of preparing this REF. However, given the scale and scope of the project, a Construction Noise and Vibration Management Plan (CNVMP) will be required. The CNVMP should include the following works:

- An on-site noise monitoring is recommended in order to confirm the existing ambient noise levels.
- A detailed construction program should be provided which should include a schedule of construction activities, list of construction equipment per activity, location of construction equipment, and duration of activities and construction hours.
- Assess predict noise levels in accordance with the procedures discussed in Section 4 of the NVAR.
- Based on the outcome of the assessment, establish management and operational procedures to address noise and vibration mitigation measures and complaints.
- For vibration generating equipment, safe working distances are to be determined to maintain compliance with the appropriate human comfort criteria and to minimise impact on buildings. Vibration validation tests are to be undertaken at the commencement of works involving the actual equipment that will be used.
- Other vibration-sensitive structures, including tunnels, gas pipelines, and water retention basins, should also be identified, and specific vibration goals should be established on a case-by-case basis by an acoustic consultant engaged by the contractor.
- In addition, a construction traffic study should be conducted to assess noise levels generated by light and heavy vehicle movements related to construction activities. All construction works should be undertaken during recommended hours and the local council and community are to be notified prior to the start of construction activities that are likely to have a high noise impact.

The CNVMP will be required to consider all noise and vibration mitigation procedures in accordance with Section 6.2 of the NVAR, which are to be confirmed once detailed information of the construction program becomes available and further noise measurements have been conducted on site.

Conclusion

Subject to implementing the various mitigation measures outlined in Table 18 and Appendix 1 and provided the conceptual recommendations discussed herein are implemented and further developed during detailed design stages, the activity will not result in any adverse or significant acoustic impact in terms of impact on the surrounding environment, or adverse noise intrusion into the school and associated impact on amenity.

7.6.3 Mitigation Measures

Table 18 Mitigation Measures for Noise and Vibration

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
NVMM1	During operation.	Noise mitigation measures should be implemented to manage noise emissions from outdoor playgrounds. These measures should be included as part of the School's Operation Management Plan (OMP). These measures are discussed in Section 5.4 of the approved Noise and Vibration Assessment Report. Outdoor playgrounds should not be used before 7:00am. This measure should also be included as part of the OMP.	To reduce operational noise and ensure amenity of the surrounding area.
NVMM2	During operation.	The PA system is to ensure internal noise levels do not exceed 85 dB LAeq (15	To reduce operational

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		minutes). Additionally, refer to Section 5.5 of the approved Noise and Vibration Assessment Report for preliminary architectural treatments for hall doors and building envelope treatments. Hall doors should be maintained closed for school events, especially if these events are conducted during the evening and night-time periods. The outdoor PA system should be designed so that noise emissions do not exceed the intrusiveness criteria at nearest impacted residences. Also, refer to Section 5.6 for conceptual treatments to be considered during detailed design. Outdoor PA system should only operate between 9:00am and 3:00pm.	noise and ensure amenity of the surrounding area.
NVMM3	During operation.	Waste collection should only be conducted between 7:00 am and 10:00 pm.	To reduce operational noise and ensure amenity of the surrounding area.
NVMM4	During operation.	Students and carers should be located indoors between 6:30 am and 7:00 am.	To reduce operational noise and ensure amenity of the surrounding area.
NVMM5	Prior to construction.	A CNVMP is required to consider the measures outlined in Section 6 of the approved Noise and Vibration Assessment Report to address the acoustic impact from such construction activities.	To prevent any impact from construction activities.

7.7 Soils and Geology

7.7.1 Assessment Guidelines

The impacts on soils and geology assessed in the Geotechnical Investigation and the Salinity and Acid Sulfate Soil Assessment & Salinity Management Plan has been assessed in accordance with the following guidelines and legislation:

- NSW Department of Planning and Environment Guidelines for Groundwater Documentation for SSD/SSI Projects – Technical guideline (2022).
- Water Management Act 2000.
- NSW Aquifer Interference Policy (NSW Office of Water, 2012).

- NSW DPIE Minimum requirements for building site groundwater investigations and reporting (2022).
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018).
- Australian Drinking Water Guidelines 2011 (updated 2021).
- Department of Land and Water Conservation (DLWC) Site Investigations for Urban Salinity (2002).
- Western Sydney Regional Organisation of Councils (WSROC) and Department of Infrastructure, Planning and Natural Resources, (2003 amended 2004). Western Sydney Salinity Code of Practice.
- NSW Government/Landcom, Managing Urban Stormwater – Soil and Construction (Blue Book) (2004).
- NSW Department of Infrastructure, Planning and Natural Resources 1:100,000 Map – Salinity Potential in Western Sydney (2002).
- Standards Australia, Piling – Design and Installation, AS2159-2009 (2009).
- Cement, Concrete and Aggregates Australia, Industry Guide T56: Residential Slabs and Footings in Saline Environments (2018).
- Acid Sulfate Soils Management Advisory Committee, Acid Sulfate Soils Manual (1998).
- AS 2159-2009 Piling – Design and installation.
- AS 3600-2018 Concrete Structures.
- AS1170.4:2024 Structural Design Actions, Part 4: Earthquake actions in Australia.

7.7.2 Assessment

This section summarised the findings of the Geotechnical Investigation (Appendix 18) and the Salinity and Acid Sulfate Soil Assessment & Salinity Management Plan (Appendix 30.1).

Acid sulfate soils

The site is not mapped as being located within an acid sulfate soil (ASS) area, and this has been reviewed against the LLEP mapping.

There is a relatively low potential for ASS materials to be disturbed during the activity.

Based on the geology, site elevation and ASS risk mapping, intrusive investigation and sampling/analysis of soils for ASS characteristics was not deemed necessary, and an ASS management plan was not required.

Salinity

There was no dryland salinity national assessment data for the site. The assessment was undertaken subject to the following tasks being undertaken:

- A walkover site inspection to identify any obvious visual indicators of dryland salinity or potential problem areas.
- The site walkover inspection took place on 29 May 2025, and was limited to accessible areas of the site, focusing on assessing the site conditions relevant to ASS and salinity-related factors. There were no obvious indicators of ASS or salinity observed on structures or vegetation/ground surfaces during the site inspection.
- A field sampling and laboratory analysis program was designed and implemented; this involved the following:
  - The salinity investigation included sampling from 20 locations, as illustrated in the figure below. The salinity sampling density is equivalent to two to three sampling points per hectare, and meets the requirements for an initial site investigation, recommended by the Department of Land and Water Conservation. The density was considered adequate to identify large areas of salinity impacted soils at the site. Soil sampling for this assessment was confined to a maximum depth of approximately 3.9m below ground level (BGL).

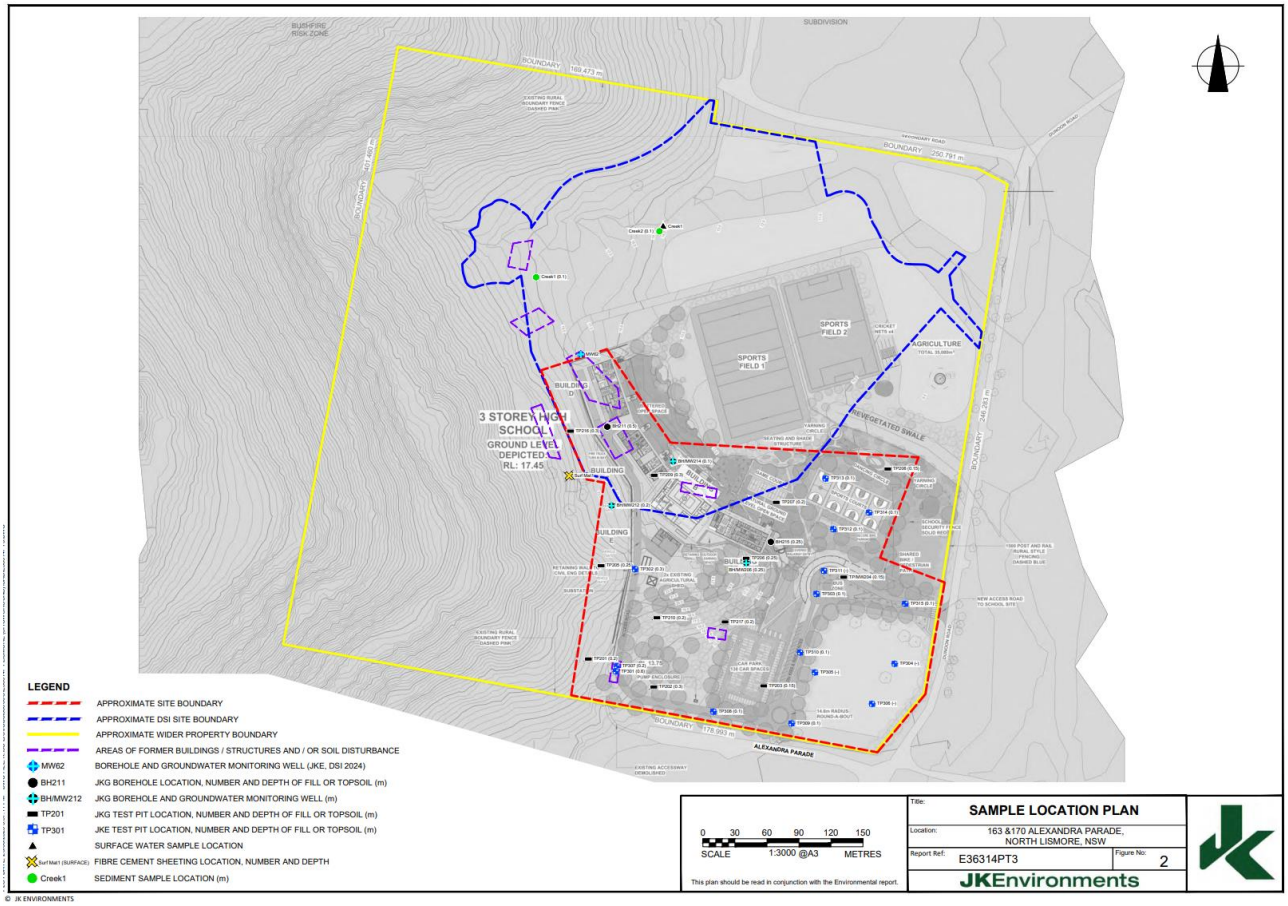


Figure 52 **Salinity sample location plan (Source: Salinity and Acid Sulfate Soil Assessment and Salinity Management Plan)**

- Fieldwork for sampling investigations took place between 19 to 30 May 2025, the method of soil sampling is outlined in Section 5.2 of the Salinity and ASS Assessment. Samples were obtained and sent to a NATA registered laboratory for analysis under standard Chain of Custody (COC) procedures.
- Three new monitoring wells were installed as part of the assessment and were positioned for site coverage. Monitoring well construction detailed are documented on appropriate borehole logs outlined within the Salinity and ASS Assessment, installed to depths of between approximately 5.7m BGL and 11.29m BGL.
- Standing water levels (SWLs) measured in the monitoring wells installed at the site ranged from 2.37mBGL to 6.78mBGL. Groundwater RLs calculated on these measurements ranged from 11.29mAHD to 17.29mAHD.
- A contour plot was prepared for the groundwater levels; groundwater flow generally occurs in a down gradient direction perpendicular to the groundwater elevation contours. The contour plot indicates that groundwater generally flows towards the north-east which is generally in sympathy with the topography (in the vicinity of the monitoring wells) and expectations.
- Monitoring wells were developed between 28 May and 30 May 2025; all wells were developed (i.e. water pumped out) until they were effectively dry. After recharging, groundwater samples were obtained between 30 May and 31 May 2025 from all monitoring wells.
  - The pH, temperature, electrical conductivity (EC), dissolved oxygen (DO) and redox potential (Eh) were monitored during sampling of the wells using calibrated field instruments. On completion of the fieldwork, the samples were sent to NATA registered laboratory for analysis under standard COC procedures.
  - Interpretation of the analytical results based on established assessment criteria.

– Preparation of a site-specific salinity management plan (SMP) for the activity.

Geotechnical

This section summarises the findings of the Supplementary Geotechnical Investigation (Appendix 18), which has been prepared additionally to a suite of geotechnical investigations taking place between 18 December 2023 and 10 January 2025. The report provided as part of this REF consolidates the findings across all previous documentation and largely focuses on a geotechnical investigation across the southeastern portion of the site where the activity is proposed, addressing site stability, site classification, earthworks, footings, and pavement designs.

To achieve the proposed floor levels onsite for the main buildings, cut and fill earthworks are provided. Excavation will generally be limited for the main buildings, although will locally extend down a maximum of approximately 3m. Filling up to a maximum of approximately 2m is proposed within the main building areas. Cut and fill earthworks are also proposed for the main access road from Dunoon Road, with maximum extents of 3m (cut) and 1.3m (fill). Two OSD tank excavations are proposed immediately downslope of Buildings B and C and have been estimated to extend a further 2m below the design surface level of the proposed buildings.

The Geotechnical Investigation was undertaken accordingly with three main investigative stages taking place:

Stage 1 geophysical survey between 8 April and 9 April 2025.

- Six seismic refraction (SR) lines were competed across the site by an external geophysical consultant, which extended to depths between approximately 10m and 25m below existing surface levels. The objective of this survey was to define the top of the rock.
- The geophysical investigation analysis resulted in a three-layer seismic interpretation which is assumed to represent a topsoil/sediment layer, extremely weathered material and slightly to highly weathered basalt based on geophysical results and available geotechnical information. SR models indicate that the depth to the top of basalt layer is varying in the survey area. It is covered by up to 10 m thick extremely weathered rock layer, containing fine to coarse grained basalt and ironstone gravel and ferricrete bands.

Stage 2 walkover inspection and test pit investigations between 15 May and 22 May 2025.

- The purpose of the walkover inspection was to understand the site's topography relative to previous inspections and check for visible signs of slope instability, especially on hillsides to the west and south-east of the development area. Following this, thirteen test pits were excavated on 19 and 20 May 2025 using a 20-tonne excavator to depths of up to 4.7 m.
- During excavation, soil consistency was assessed using hand penetrometer readings and visual inspections for signs of shear planes or fissuring to evaluate possible landslide movements. The strength of exposed bedrock was estimated through excavation difficulty, tactile checks, and probing, acknowledging approximate accuracy. Groundwater conditions were also observed and documented. The subsurface profile was logged and detailed cross-sectional sketches were prepared of each test pit, which include field test data and groundwater notes.

Stage 3 investigations comprising cored boreholes between 27 May and 5 June 2025.

- The Stage 3 fieldwork involved drilling six boreholes (BH206, BH211, BH212, BH213, BH214 and BH218). Following the discovery of an archaeological artifact in TP207, the positions of the boreholes were reviewed accordingly. Boreholes were drilled using auger techniques to depths between 1.9 m and 13.95 m, and extended further with NMLC diamond coring to final depths of up to 16.9 m. Groundwater monitoring wells were installed at selected boreholes to depths between 5.7 m and 6.3 m for longer-term monitoring.
- The geotechnical team assessed soil density and clay consistency using Standard Penetration Test (SPT) ‘N’ values, hand penetrometer readings, and tube samples where possible, while rock strength was estimated through drilling resistance and laboratory Point Load Strength Index tests. Groundwater

was observed during drilling, though core drilling water flush limited accurate measurements. Detailed borehole logs with test results and groundwater data accompany the report.

Selected soil samples from the boreholes and test pits were returned for analysis to NATA accredited laboratories. The results of which are outlined in the Supplementary Geotechnical Investigation. The primary geotechnical findings outlined in the report are summarised below, referring to the report for a detailed outline of the site history and classifications.

The main geotechnical risks and constraints identified within geotechnical investigations are that there is slope instability on the northwestern and western parts of the site, being the primary constraint, this requires careful excavation design to prevent large scale failures. Furthermore, the site's clays are highly reactive, fissured, and prone to collapse and strength loss when wet, which can impact excavation, earthworks, and fill placement onsite.

A summary of the investigation recommendations is provided below:

Earthworks:

Earthworks should be carefully planned and scheduled to maintain good cross-falls during construction. Good surface and subsurface drainage must also be provided post construction to improve the long-term performance of the external paved areas.

Site preparation is required prior to placing engineered fill and forming the access road, carpark area, and other paved areas. This includes demolition works onsite, removal of any existing uncontrolled gill and any contaminated soils, and stripping of topsoil or root affected soils.

After site preparation and excavation to design levels, the subgrade should be proof rolled with a heavy smooth drum roller under the supervision of a geotechnical engineer to identify any soft or unstable areas. If issues like softening or shrinkage cracking occur, the soil should be treated or replaced with engineered fill, and sloped areas should have benches cut to aid rolling and fill placement.

The site's clay soils can be used but may need drying out or mixing with materials like lime to make them stronger and easier to work with, using specialist machinery. When filling sloped areas, the ground must be carefully compacted and checked for stability, especially where weak soil layers exist, with regular testing to make sure it's properly packed. For walls that hold back soil, using clean gravel or crushed rock with a special fabric to stop water flow is best, and the top should be covered with clay to keep water out.

Excavation conditions and seepage:

Excavations up to around 3 m deep will mainly pass through clay and weathered rock that can be removed with standard earthmoving equipment, though harder rock may need rock saws or hammers. After heavy rain or flooding, groundwater may enter the excavations, so pumps and extra drainage might be needed, and it's recommended to keep monitoring groundwater levels during the works.

Retention and temporary and permanent batter slopes:

Where shear planes within the natural soil have been identified, particular care and attention will be required to maintain the stability of the temporary excavation. Two options are provided, with preference for option one which is to support the excavations with engineer designed shoring systems (i.e. a contiguous piling wall) prior to commencing excavations, possibly with the use of permanent anchors. This will maintain the stability of the excavation throughout, the construction sequence would be more efficient and the likelihood of batter slope or hillside slope would be much lower than any other option.

The options for retention systems include retaining walls constructed in sequential panel length, or installation of a piled shoring wall before excavation commences. For either selection the retaining or piled wall would need to be designed to resist the sloping soil slope above which contains shear planes. Until further design development and investigation is carried out, it can be assumed that the retention system will comprise a contagious piled wall with at least one row of anchors.

Design parameters and recommendations are set out within the geotechnical investigation for the design of cantilever or gravity retaining walls, which are not to exceed 3m in height and should be constructed within stable areas (i.e. no retained soils containing shear planes).

Permanent batter slopes up to 2m in height may need to be locally flatter due to the presence of fissured clays and clays containing shear planes. This will be essential over the southern end of the proposed access road and within downslope areas of the main buildings where placement of up to 2m is proposed. Depending on results of future numerical analyses, excavation of low shear strength clays down to bedrock and replacement with select fill may be required.

Foundations:

Due to shear planes in the soil profile and potential ground movement under additional loads, all main building footings extending into competent bedrock is recommended. Given the depth, piled foundations will generally be required. Bored piers may be suitable if groundwater seepage is minimal; otherwise, sacrificial liners or CFA piles should be used. Piles should be founded at least 0.5 m into competent bedrock, or pad/strip footings keyed at least 0.3 m into bedrock.

Rock sockets must be cleaned and roughened to at least Roughness Class R2 to achieve design capacities. Piling contractors should have suitable equipment and methods, and initial piles should be inspected by a geotechnical engineer. Due to variable bedrock conditions, further deep cored boreholes are recommended to confirm depth and continuity for design refinement. Alternative solutions like micropiles may be considered in challenging areas.

Exposure classification:

Soil aggression testing indicates the natural clays and extremely weathered bedrock are classified as ‘Non-aggressive’ to ‘Mild’ for concrete and steel piles (in accordance with AS 2159-2009 Piling – Design and installation). Adoption of a ‘Mild’ classification is recommended. For concrete structures in contact with these materials, an ‘A2’ exposure classification (AS 3600-2018 Concrete Structures) is recommended.

Earthquake design:

Earthquake design is required to comply with AS1170.4:2024 Structural Design Actions, Part 4: Earthquake actions in Australia.

Pavement design:

Recommended pavement designs are as follows:

- Provide an appropriate well, graded good quality ripper or crushed basalt select fill layer as part of the overall pavement thickness.
- Stabilise the subgrade to a depth of about 300 mm by the addition of lime.
- If rigid pavements are preferred a 150 mm lean-mix concrete subbase should be placed below the concrete base course such that an effective subgrade strength of 5% may be adopted.

Further geotechnical input:

Further geotechnical investigations are recommended to confirm the depth to competent basalt bedrock, which is critical for the design of foundations and potential piled wall retention systems. Detailed slope stability analyses should be undertaken to inform the design of earthworks, including cut and fill operations, and to develop appropriate retention strategies, particularly in areas affected by slope instability, fissured clays, or clays containing shear planes.

Additional assessment of reactive soil movements is warranted once the final development design and selection of engineered fill materials are confirmed. Numerical analyses will also be required to determine safe permanent batter slopes for areas of engineered fill to ensure long-term stability.

During construction, it is recommended to undertake proof-rolling inspections to assess subgrade conditions and to provide further guidance on appropriate subgrade treatments. In-situ density testing should be carried

out on all engineered fill materials to verify compliance with earthworks specifications and to confirm adequate compaction.

Design of specific working platforms for the piling rigs to be used on site should be completed to ensure safe and efficient piling operations. Additionally, inspection of footing excavations and piling works is recommended to verify that construction conforms to the design intent and to manage any variations encountered during excavation.

Conclusions

Subject to further design development and geotechnical investigations taking place, and the mitigation measures provided below in Table 19 and Appendix 1, the site is suitable for the activity proposed. Additional targeted geotechnical investigations are required to inform the detailed design at the next stages, in order to reduce:

- the risk to acceptable levels with regards to the existing slope instability over the north-western and western portions of the proposed RRHC development.
- the geotechnical challenges posed by the fissured alluvial clays over the flatter eastern portion of the activity area.

7.7.3 Mitigation Measures

Table 19 Mitigation Measures for Soils and Geology

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
GEOMM1	During detailed design.	During detailed design, the recommendations as set out in Section 9 of the approved Further Geotechnical Investigation Report are to be implemented. Further investigations are to be carried out by a suitably experienced geotechnical consultant, prior to the issue of a Crown Construction Certificate.	To ensure that the site is suitable for the proposed activity and that no impacts arise as a result of slope instability.
GEOMM2	Prior to operation.	Prior to the operation of the school, a suitably qualified geotechnical and/or structural engineer is to confirm, in writing, the construction of the school has complied with all recommendations that have arisen from further investigations and advice per GEOMM1. This written confirmation is to also confirm the school can operate in a safe manner with no risk to occupants of the buildings due to slope instability issues on the site.	To ensure the safety of school infrastructure and future occupants on the site.

7.8 Surface Water and Groundwater

7.8.1 Assessment Guidelines

The impacts on surface water and groundwater have been informed by the following guidelines and legislation:

- NSW Department of Planning and Environment Guidelines for Groundwater Documentation for SSD/SSI Projects – Technical guideline (2022)
- Water Management Act 2000.

- NSW Aquifer Interference Policy (NSW Office of Water, 2012).
- NSW DPIE Minimum requirements for building site groundwater investigations and reporting (2022).
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018).
- Australian Drinking Water Guidelines 2011 (updated 2021).
- DPE 'Minimum Requirements for Building Site Groundwater Investigations and Reporting'.

7.8.2 Assessment

Surface water and groundwater

A Supplementary Surface and Groundwater Impact Assessment (SGIA) was prepared to accompany the REF to assess the surface, and groundwater impacts likely to be disturbed during the activity. The GIA was undertaken subject to the following scope of works:

- Reviews of current and previous investigation reporting undertaken for the activity.
- Review of groundwater conditions including hydrology, hydrogeology, receiving water bodies, occurrence of groundwater, groundwater quality, groundwater dependent ecosystems (GDE), and inflow dependent ecosystems (IDE).
- Review of surface water bodies, drainage lines, downstream groundwater users and watercourses in the immediate vicinity of the site.
- Review of surface and groundwater conditions at the site including groundwater flow, groundwater permeability, surface and groundwater quality, groundwater contamination conditions, and other parameters.
- Preparation of the GIA identifying the surface and groundwater conditions at the site and potential impacts associated with the activity. A walkover inspection of the site was undertaken 29 May 2025.
- Additional groundwater monitoring wells were developed onsite, with groundwater samples obtained from all wells, analysed for a range of chemicals and compounds, and sent to the laboratory and tested by a NATA registered laboratory.

The SGIA outlines the following review of surface water and groundwater conditions onsite:

As outlined earlier in this REF, an unnamed tributary of Leycester Creek usually flows the site, however, site inspections across a range of expertise note this creek as dry onsite. A creek sample was obtained from the creek on another property to the north of the site. The creek sample analysed for the SGIA indicated elevations of manganese above the site assessment criteria (SAC). The sample also contained high turbidity and microorganisms.

The source of manganese could be from agricultural run-off. The presence of microorganisms could be due to the former cattle located on the rural property. These elevations are not considered to pose a major impact on the future activity.

Considering the majority of the site is unpaved, there is potential for surface water infiltration to occur at the site which may impact on the groundwater levels. Considering the site topography, previous observations, and flooding onsite, the conditions indicate that surface water drainage at the site is relatively poor, and care should be taken during the activity to ensure adequate drainage is provided and to retain the existing surface water features. Erosion and sediment control plans have been prepared as part of the Civil Package accompanying this REF, and CEMP will be required as per standard mitigation measures.

The activity is likely to include deeper excavations in the southern, western and northern areas of the site for construction of the road and the new school buildings. The groundwater RLs recorded during the fieldwork indicate that excavations may intercept groundwater.

The groundwater at the site is generally non-aggressive towards buried concrete and buried steel. However, management measures outlined in the Salinity Management Plan (SMP)(Appendix 30.1) should be implemented.

No GDE or IDE were identified within 500m of the site. The activity is not likely to have an impact on the GDE and/or IDE identified beyond 500m from the site.

Review of the groundwater levels recorded generally appear to grade down towards the east which is anticipated based on the location of the site and the overall site topography.

The assessment indicated that groundwater was impacted by the following:

> *Selenium was detected in groundwater sample MW212. A likely source for this metal could be associated with agricultural runoff and/or irrigation drainage. Some agricultural fertilizers and pesticides can contain traces of selenium. Changes in the natural occurrence of the heavy metals in the bedrock may also be influencing the results. It is also possible that the heavy metal concentration may reduce further over time as the groundwater in the wells stabilises. The SGIA states that elevated heavy metal does not pose an unacceptable risk to on-site receptors in the context of the activity, and the risk posed to off-site receptors are low considering the proximity of the nearest receiving water body and downgradient bore. However, treatment of the groundwater will be required prior to discharge to stormwater during the construction phase, and this may require Council approval prior to stormwater discharge.*
>
> *The detections of Faecal Coliforms and E. Coli in the samples are likely associate with the former cattle onsite (removed from site in 2024), noting the higher results were reported in the creek sample.*
>
> *The turbidity of MW206, MW212, and the creek samples were also outside the acceptable range for freshwater ecosystems. These results are considered likely to be associated with sediment load in the samples.*

The SGIA recommends that additional assessment and analysis of likely groundwater inflows into excavations will need to be undertaken prior to and during construction works as excavations are likely to intersect the groundwater table.

It is considered that potential risks associated with the surface and groundwater at the site can be adequately managed through the mitigation measures outlined below and in Appendix 1.

Stormwater

Stormwater drainage for the site has been designed for the use of site facilities in all weather conditions up to the 1year Average Recurrence Interval (ARI) flood event and 10year ARI event. Onsite stormwater detention (OSD) is required as the site's impervious area increased from existing conditions. This is in accordance with Chapter 22 of the LDCP, which states that post-development discharge for the 1year ARI and 10year ARI design storms must be limited to pre-development discharges. For the 100year ARI event there must be adequate flow paths to accommodate post-development diversions of stormwater.

Three on-site detention (OSD) tanks are proposed; inground OSD tank with 200m³ storage volume located adjacent to the northeastern face of building C, inground OSD tank with 140m³ storage volume located in landscaped area between buildings A and B, and above ground OSD tank with 500m³ storage volume located on the western side of the carpark.

OSD modelling has been conducted by the stormwater consultant using DRAINS and MUSIC. The inground stormwater system has been designed using the hydraulic analysis program DRAINS in line with requirements outlined in by EFSG and the LDCP. The DRAINS modelling, which assesses the pre vs. post flows for the 1% AEP and 10% AEP events, shows that the outflow from the OSD tank is lower than the pre-developed discharge as required.

A detailed MUSIC model has been prepared to assess the required treatment devices to achieve Council's reduction targets. The MUSIC model shows that stormwater quality targets set out by Council have been achieved. Stormwater quality targets are to be met through the use of the following devices:

- 30 x 690mm PSorb Ocean Protect Stormfilter Cartridges (or equivalent).
- 70 x Ocean Protect Oceanguard Pit inserts (or equivalent).

- Grass swales.
- 1 x 100sqm bioretention basins.
- Bioretention swales.

Stormwater water quality reduction targets of 90% gross pollutants (95% achieved), 75% total suspended solids (86.6% achieved), 65% total phosphorous (68.2%), and 40% total nitrogen (46.8% achieved) have been achieved as demonstrated by the MUSIC modelling.

An erosion and sediment control plan has been developed to manage stormwater runoff in the construction phase, which is provided in Appendix 33. The proposed activity will not have a significant impact on the environment subject to the implementation of the mitigation measures in Appendix 1 and the table below. A standard mitigation measure prescribed by the department requires the preparation of a Construction Environmental Management Plan, refer to Appendix 1.

7.8.3 Mitigation Measures

Table 20 Mitigation Measures for Surface Water and Groundwater

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
SWMM7	During construction.	Treatment of groundwater is required prior to the off-site disposal into stormwater during the construction phase. Reference shall be made to the WaterNSW approval requirements. Council approval is required for disposal of treated groundwater into the stormwater system.	To ensure groundwater is treated prior to discharge.
SWMM8	Prior to and during construction.	A Groundwater Management Plan is required to address Water NSW “Minimum Requirements for Building Site Groundwater Investigations and Reporting” and to assess if the development requires a Water Supply Works (WSW) and/or a Water Access Licence (WAL).	To ensure groundwater is appropriately managed on the site during construction.
SWMM9	During construction.	The stormwater design is to include installation of 78x690mm PSorb Stormfilters, 130 x Ocean Protect Oceanguard Pit inserts and grassed swales to remove the quantity of gross pollutants, suspended solids, nitrogen and phosphorous to council water quality requirements or equivalent.	To improve stormwater quality.
SWMM10	During construction.	The stormwater design is to include installation of OSD to reduce flows from the developed site to less than pre-development flows for the 1 year and 10-year ARI design storms.	To reduce stormwater runoff.
SWMM11	During construction.	Construction of temporary channels to direct existing site upstream catchments to existing discharge locations on Dunoon Road is to be undertaken, where required, during construction. Stormwater design outlets are to be directed towards existing points of discharge on Dunoon Road.	To mitigate impact on neighbouring properties or environment by retaining existing stormwater

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
			paths from the site.

7.9 Contamination

7.9.1 Assessment Guidelines

The assessment outlined in the Contamination Supplementary Investigation Report accompanying this REF has been undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 (NEPM) as amended in 2013. The assessment is also based on the following legislative framework and guidelines:

- Australian and New Zealand Governments (ANZG), (2018). Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Governments and Australian state and territory governments.
- Canadian Council of Ministers of the Environment, (1999).
- Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)
- CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document.
- Contaminated Land Management Act 1997.
- (NSW) Department of Land and Water Conservation, (1997). 1:25,000 Acid Sulfate Soil Risk Map Series.
- Managing Land Contamination, Planning Guidelines SEPP55 – Remediation of Land (1998).
- National Health and Medical Research Council (NHMRC), (2021). National Water Quality Management Strategy, Australian Drinking Water Guidelines 2011.
- NSW Department of Environment and Conservation, (2007). Guidelines for the Assessment and Management of Groundwater Contamination.
- NSW EPA, (2014). Waste Classification Guidelines - Part 1: Classifying Waste.
- NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997.
- NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition.
- NSW EPA, (2020). Consultants Reporting on Contaminated Land, Contaminated Land Guidelines.
- NSW EPA, (2022). Sampling design part 1 - application, Contaminated Land Guidelines National Environment Protection Council (NEPC), (2013). National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013).
- Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission.
- Protection of the Environment Operations Act 1997 (NSW).
- State Environmental Planning Policy (Resilience and Hazards) 2021.
- (NSW) World Health Organisation (WHO), (2008). Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality.
- Western Australia Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.

7.9.2 Assessment

Prior to the Supplementary Investigation (SI), a Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) were undertaken of a section of the north of the site and the wider property.

The PSI included a review of historical information and other relevant information for the site and preparation of a preliminary conceptual site model (CSM). It is acknowledged that at the time of the PSI, the area that was investigated included the wider property. Subsequent to the PSI, a DSI was undertaken in part of the northern and central sections of the wider property. The DSI included soil sampling from 37 boreholes, 31 test pits, groundwater sampling from five of six monitoring wells, and surface water sampling from the onsite dam and creek.

Elevated concentrations of the contaminants of potential concerns (CoPC) were not encountered above the adopted SAC in fill/soil. Copper, nickel and zinc were reported above the ecological SAC in surface and groundwater however, these results were a regional issue, and risks were assessed to be low. Further investigation and/or remediation was not considered to be required and the DSI site was suitable for the proposed activity, from a contamination viewpoint.

Development and implementation of an unexpected finds protocol was recommended. Since completion of the DSI, the proposed site for the high school development has been moved to the south. As there is only a small overlap between the site and the DSI site area, additional data collection was required as part of this SI to establish whether the site conditions are consistent with the findings of the DSI undertaken previously.

The primary aim of the SI assessment was to provide additional data to establish whether the site is consistent with the expectations with reference to the CSM and findings of the DSI previously undertaken. Secondary aim of the SI was to provide preliminary waste classification for off-site disposal of soil waste which may be generated as part of the proposed activity.

The objectives of the SI were to:

- Assess the soil and groundwater contamination conditions through the implementation of a sampling and analysis program that considers the potential contamination sources/areas of environmental concern (AEC) and CoPC as identified in the PSI.
- Document an iteration and review of the CSM.
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment).
- Provide a preliminary waste classification for off-site disposal of soil.
- Assess whether the site is suitable or can be made suitable for the proposed activity form a contamination viewpoint.
- Assess whether further intrusive investigation or remediation is required.

Despite the site's location in proximity to a number of uses including agricultural properties, the Lismore Showground and kart track, Boral Concrete quarry, and undeveloped scrublands, no obvious land uses in the immediate surrounds of the site were identified as potential contamination sources. Given the investigations that took place as part of the PSI, DSI, and more recent site investigations as part of the SI, the following potential and or/known AECs and CoPc were identified. **Historical fill materials** particularly around the existing farmhouses on the site, may have taken place in the past. This fill may have been imported from various sources and could be contaminated. Soils used during earthworks can also become contaminated with hazardous building materials from previous demolition works.

Agricultural uses as the site has been used for farming and grazing purposes. This may have resulted in contamination across the site via the use of machinery, and the application of pesticides.

Use of pesticides which may have been used beneath the buildings or around the site.

Hazardous building materials may be present as a result of former building and demolition activity. Refer to Section 7.10 and Appendix 31 for an assessment of hazardous building materials.

Offsite cattle dips were identified within approximately 55m south of the site and may represent sources of contamination for the site.

The SI is accompanied by a standalone Sampling Analysis and Quality Plan (SAQP), which outlines the investigative assessment and sampling that took place. Additional soil samples were obtained from four borehole locations and 27 test pit locations in May 2025. Samples were analysed by a NATA accredited laboratory using the analytical methods detailed in Schedule B(3) of the NEPM.

The SI concludes that:

Based on the results of the waste classification assessment, the topsoil, underlying natural soil, and bedrock at the site meets the definition of Virgin Excavated Natural Material (VENM) for off-site disposal or re-use purposes, and is considered suitable from a contamination viewpoint for re-use onsite.

Asbestos was not detected in any of the soil samples analysed and there were no widespread indicators for asbestos observed in or on soils at the site. Considering these lines of evidence, the potential for widespread asbestos impacts at the site is considered to be low. Implementation of an unexpected finds protocol would be an appropriate mechanism to manage any localised issues should these be encountered during future works. The SI refers to the Hazardous Building Materials assessment for further detail (Appendix 31).

A selection of soil, groundwater, and surface water samples were analysed for the CoPC identified in the CSM. Elevated concentrations of the CoPC were not encountered above the adopted SAC in the samples analysed. Refer to Section 7.7 and Section 7.8 for further details on the assessment of soil, groundwater, and surface water.

Potential risks associated with the CoPC at the site are low and the data collected during the investigations suggest that significant and widespread contamination issues are unlikely to be encountered. Further investigation and/or remediation is not required, and the site is suitable for the proposed activity.

A precautionary mitigation measure has been provided for unexpected finds protocol due to some minor limitations to sampling in areas with archaeological constraints. This is a standard mitigation measure prescribed by the department, refer to LCMM4 in Appendix 1.

7.10 Hazardous Building Materials

7.10.1 Assessment Guidelines

The hazardous building materials (HBM) assessment was undertaken based on the requirements of the following legislation and guidance documents:

- Work Health and Safety Act 2011 (NSW).
- Work Health and Safety Regulations 2017 (NSW).
- How to Manage and Control Asbestos in the Workplace, 2022. SafeWork NSW.
- How to Safely Remove Asbestos, 2022. SafeWork NSW.
- National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres; and the National Code of Practice for the Safe Use of Synthetic Mineral Fibres.
- AS4361.2 (2017) Guide to Lead Paint Management. Part 2: Residential and Commercial Buildings.
- ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors.
- National Environment Protection Measure (Assessment of Site Contamination) 1999, as amended May 2013 (NEPC, 2013).
- Safework Australia Workplace Exposure Standards for Airborne Contaminants (2022).

7.10.2 Assessment

As the proposed activity involves demolition of existing structures including residential farmhouses and cattle sheds, a HBM assessment has been prepared to support the REF. The objective of the HBM assessment was to locate, assess, and document a risk assessment, so far as reasonably practicable, for all identified and suspected HBM within visible and accessible areas of the nominated buildings onsite.

The HBM assessment consisted of a visual inspection and sampling process, where materials that were physically accessible and visible were located and identified.

Representative samples were collected and analysed to confirm the presence (or absence) of asbestos or asbestos containing materials (HCM), asbestos containing dust (ACD), lead paint, and lead in dust in order to form the basis for individual records in the HBM register.

Where possible, samples were collected from previously damaged or discrete locations with limited cross-referencing of similar suspect building materials. Samples were labelled with a definitive and unique sample location identifier and a material description. Where required, after sample collection, the sample location was sealed with polyvinyl acetate (PVA) adhesive to seal the sample location and prevent further disturbance.

Asbestos and lead in paint samples were taken and sent to a National Association of Testing Authorities (NATA) Accredited Laboratory for analytical testing. Synthetic mineral fibres (SMF) were not sampled for laboratory analysis as part of the site assessment and were visually identified. Internal inspection or sampling of polychlorinated biphenyls (PCB) was not possible due to access limitations, however, they were generally assessed under the HBM register.

The risk register outlined in the HBM Assessment Report, considers a number of factors in determining the level of risk, including the material condition, the likelihood of disturbance, and the friability of the ACM. Friability refers to ACM that when dry, is or may become crumbled, pulverized or reduced to powder by hand pressure.

The results of the HBM assessment indicate that:

- Whilst there is mostly a low to medium risk associated with hazardous materials, there is a high risk identified for two items that are considered friable.
- Non-friable ACM were also identified.
- Lead based paint in exceedance of the 0.1% w/w lead content threshold was identified.
- Lead in surface dust was not sampled.
- SMFs were visually identified as thermal insulation within a variety of locations in the building structures and heating equipment at the site.
- A register of observed fluorescent light fittings potentially containing PCBs was identified.
- Some areas were noted as inaccessible including beneath buildings, in ceiling spaces, above roof lines, inside set ceilings or wall cavities, ground surface areas with high vegetation density, and within sealed plant and equipment. Within both Farmhouse 1 and Farmhouse 2 due for demolition, there is the potential in these areas for ACM, ACD, SMF, lead based paint, or lead containing dust.

Following the risk assessment, each instance of HBM is then categorised as requiring one of the following control methods outlined in Figure

Descriptor	Guideline
None required	No HBM identified
Defer (leave and maintain)	Stable material – not prone to damage
Encapsulate (seal)	Stable material – slightly deteriorated may be prone to damage and requires protection
Enclosure	Stable or damaged material – where removal is not practicable and more protection than encapsulation is required
Remove[1]	Deteriorated/damaged material, or material prone to routine disturbance, where encapsulating is not adequate or there is a requirement to remove prior to demolition

Figure 53 Control methods for HBM as identified in the HBM Assessment

The overall conclusion as outlined in the HBM Assessment is that prior to demolition or similar activities, all hazardous materials likely to be disturbed by those works must be removed, as far a reasonably practicable, from buildings and structures. Subject to implementation of the mitigation measures identified below in Table 21 and Appendix 1, the proposed activity will not have a significant effect on the environment with respect to the removal of hazardous building materials from the site.

7.10.3 Mitigation Measures

Table 21 Mitigation Measures for Hazardous Building Materials

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
HBMM1	Prior to demolition.	All identified ACM and ACD shall be removed prior to the demolition in accordance with the *SafeWork NSW Code of Practice – How to safely remove Asbestos (2022).* Detailed methodology for the safe removal of ACM and ACD shall be included in a Demolition Management Plan (or similar) for the Site.	To ensure safe removal of ACM and ACD.
HBMM2	Prior to demolition.	Friable ACM shall be removed by a Class A (Friable) licenced asbestos contractor.	To ensure safe removal of ACM.
HBMM3	Prior to demolition.	Bonded ACM shall be removed by either a Class A (Friable) or Class B (bonded) licenced asbestos contractor.	To ensure safe removal of ACM.
HBMM4	Prior to demolition.	Lead based paints may be disposed of attached to the substrates as long as they are in good condition. If chalking or delaminating, the paint residues will be removed from the substrates in accordance with *AS/NZS 4361.2:2017; Guide to Hazardous Paint Management. Part 2: Lead and other Hazardous Metallic Pigments in Industrial Applications.* The waste generated will be disposed of as a lead containing material in accordance with NSW EPA requirements. Detailed methodology for the safe removal of lead-based paint should be included in a Demolition Management Plan (or similar) for the Site.	To dispose of lead-based paints correctly.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
HBMM5	Prior to demolition.	SMF likely to be disturbed shall be removed. Management of SMF will be in accordance with the *National Occupational Health and Safety Commission (1990) Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres*; and the *National Code of Practice for the Safe Use of Synthetic Mineral Fibres.* Detailed methodology for the safe removal of SMF should be included in a Demolition Management Plan (or similar) for the Site.	To remove SMF safely.
HBMM6	Prior to demolition.	Electrical transformers and light fittings throughout the building shall be inspected by an electrician. If capacitors are identified as potentially containing PCBs, they are to be removed and disposed in accordance with *ANZECC (1997) Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors.* Detailed methodology for the safe removal of SMF should be included in a Demolition Management Plan (or similar) for the Site.	To confirm the presence of contained PCB onsite.
HBMM7	Prior to demolition.	Inaccessible areas and any assets where it is unclear if assessments have been conducted will be assumed to contain HBM until further inspected. Destructive pre-demolition HBM assessment is proposed and shall be a requirement in a Demolition Management Plan (or similar) for the Site	To identify presence of any HBM in areas not assessed.
HBMM8	Prior to and during demolition.	Maintenance of the HBM Register(s) is to be undertaken so that they remain current and the department and its tenants/workers/ contractors can rely upon it as an accurate representation of HBM present at the relevant assets. To continually improve the completeness and accuracy of the HBM register, the following is proposed: • Action and document the management recommendations made within the registers, particularly where an elevated risk is present with a corresponding recommended timeframe of 12 months or less. • Add entries related to precautionary testing, if conducted. • Undertake re-inspections to determine the presence of HBM in spaces or assets that were not accessible or may not be listed on the HBM register. • Record removal and maintenance of instances of HBM.	To improve the completeness and accuracy of the HBM register and correctly manage risks.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		• Record the demolition of assets (buildings/structures) containing HBM. • Undertake a re-inspection once every two years (or as otherwise required) to maintain the register and review the level of risk assigned to the particular instance of HBM. • Distribute or otherwise make available all HBM re-inspections, registers or other relevant information to all employees, visitors, contractors and maintenance people or companies with potential to disturb or work with known or presumed HBM.	
HBMM9	Prior to and during demolition.	Any material suspected of being a hazard to health that is encountered (but are not listed in existing HBM documentation) shall be treated as suspected HBM and the material will be sampled and analysed for the suspected hazard (if applicable). Any associated works with potential to disturb the material will cease and the area made safe. If the suspect material has already been disturbed, then the overarching provisions of a Hazardous Materials Management Plan or similar, will be followed, including advice sought from a suitably qualified and experienced professional. If in doubt or unsure of any issue involving known, presumed or suspect HBM, then works will cease and advice sought from a suitably qualified and experienced professional. Detailed methodology and procedures for the identification of suspect materials, including further advice and precautionary sampling, should be included as part of a Demolition Management Plan (or similar) for the Site.	To manage potential unexpected finds.
HBMM10	Prior to demolition.	Prior to demolition or similar activities, all hazardous materials likely to be disturbed by those works shall be removed prior to the commencement of demolition works. Planning of demolition works will include consideration of: • Requirements of an overarching Hazardous Materials Management Plan, Demolition Management Plan or similar. • Recognition that any identified HBM is the minimum amount of material present. • Subsequent recognition that the scope and limitations of prior HBM's may result in	To prevent disturbance to hazardous materials.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		additional unidentified HBM being present. This may require works to: • Address known information gaps, such as assessing any previously inaccessible areas and assuming that HBM may be present in other areas not accessed by previous HBM assessments. • Project team undertaking a HBM risk analysis and incorporating suitable provisions into contract/specification. • Consider directing the works Contractor to undertake their own independent HBM of the work area (may use existing information) which adds an additional layer of assurance as well as minimising potential Contractor time and cost variations as works progress. • Undertake an intrusive pre-demolition HBM assessment prior to any proposed demolition of the assets to verify the presence/ absence of Hazmat and verify expected quantities.	

7.11 Waste Management

7.11.1 Assessment Guidelines

The assessment of how waste will be managed during demolition, construction, and operation, has been undertaken with regard to the following policies and guidelines:

- Environmental Planning and Assessment Act 1979 (EP&A Act).
- Waste Avoidance and Resource Recovery Act 2001 (WARR Act).
- Protection of the Environment Operations Act 1997 (POEO Act).
- Work Health and Safety (WHS) Act 2011.
- Protection of the Environment Operations (Waste) Regulation 2014 (Waste Regulation).
- The Work Health and Safety Regulation 2017.
- Lismore City Council Development Control Plan (Lismore City Council, 2023).
- NSW Waste and Sustainable Materials Strategy 2041 Stage 1: 2021-2027 (DPIE, 2021).
- NSW Circular Economy Policy Statement: Too Good to Waste (NSW EPA, 2019).
- Waste Classification Guidelines: Part 1 Classifying (NSW EPA, 2014) and Addendum (NSW EPA, 2016). – Food and Garden Organics (FOGO) mandates proposal paper (NSW EPA, 2024).
- Educational Facilities – Standards and Guidelines EFSG 2.0 (NSW Department of Education - School Infrastructure NSW, 2023).
- Green Star Buildings Submission Guidelines (Green Building Council of Australia, 2021).

7.11.2 Assessment

The general approach of the Waste Management Plan (WMP) accompanying the REF prioritises waste avoidance, minimisation, and recycling above disposal (Figure Where waste cannot be found to be suitable

for reuse or recycling, then disposal methods will be selected based on the classification of waste material in accordance with the *Waste Classification Guidelines* (NSW EPA, 2014).

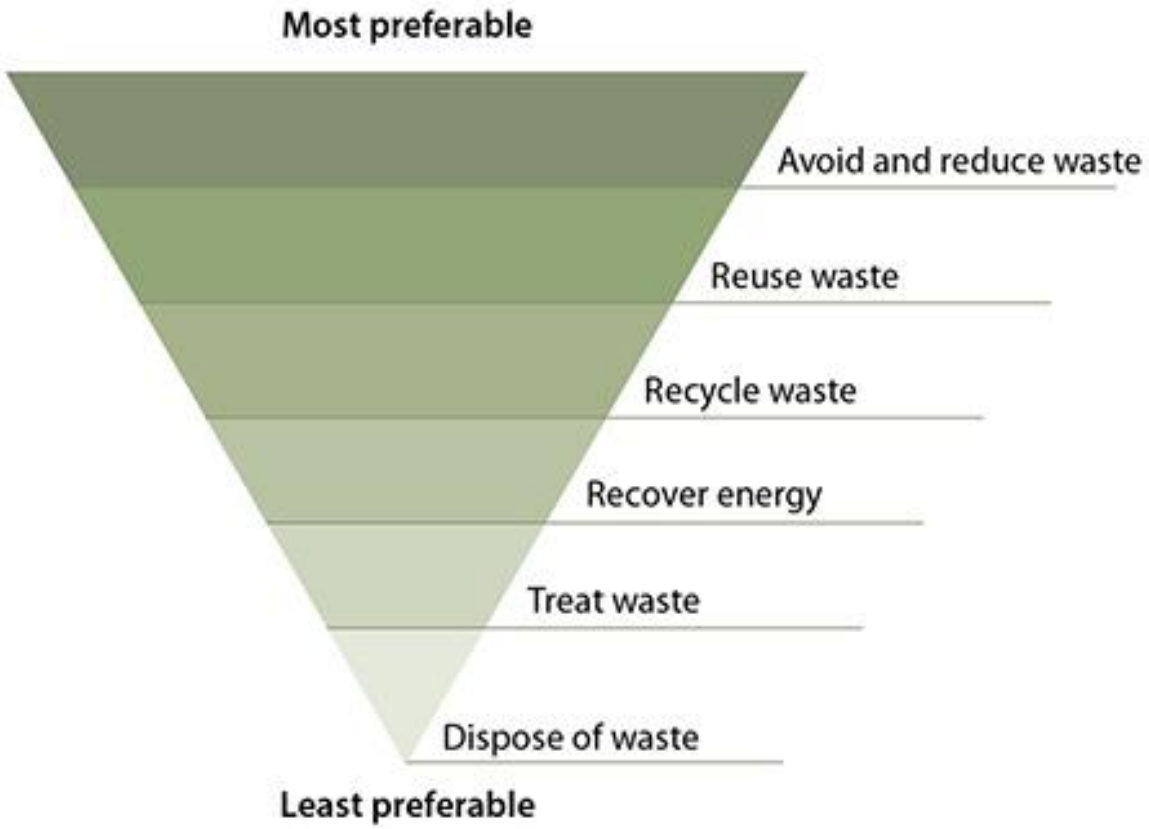


Figure 54 Waste management hierarchy adopted in the *Waste Classification Guidelines* (NSW EPA, 2014)

Demolition and construction waste

Most waste will be generated during the demolition and construction phases of the proposed activity.

Waste generation during the demolition stages includes demolition of existing farmhouses and cattle sheds onsite, removal of trees, and removal of hazardous materials including asbestos. The presence or potential presence of asbestos containing materials (ACM) and asbestos containing debris, lead based paint, and synthetic mineral fibres has been identified within the existing buildings proposed to be demolished. For details regarding disposal and management of hazardous materials onsite, refer to Section 6.10 of this REF.

The proposed approach to management of construction and demolition waste is to facilitate segregation and prevent cross-contamination. Firstly, waste generated at demolition and construction phase is to be classified in accordance with the waste hierarchy outlined in Figure Collected waste is to be directed to a relevant waste management facility, depending on the type of waste generated. Waste is to be segregated and stockpiled on site, with materials such as concrete, metals and asphalts sent to a recycling facility. Other recyclable materials are to be sent for recycling as a mixed waste stream.

Cleared vegetation on site will be chipped, mulched, and stockpiled in site for re-use as part of rehabilitation and landscaping works. If unable to be reused onsite, the material will be removed offsite for reuse or sent to a suitably licenced facility. Where practicable, works will generally adhere to the natural ground profile to reduce earthworks and surplus spoil generation.

Labelled and colour coded receptacles will be provided onsite to ensure that all site staff and personnel accessing the site are provided with sources for recyclable and residual landfill waste separation. Waste generated by personnel on site will be collected on a regular basis by an appropriately licensed waste

collection contractor. Waste from construction vehicle and plant maintenance activities is to be collected and stored in designated waste storage areas for collection by an authorised contractor for disposal offsite.

Daily site inspections are to be undertaken to identify and collect litter from the site, with investigation taking place to reduce the potential for the issue to occur in the future. This will be carried out my nominated litter personnel. Dust from waste storage, transport and collection would be controlled within the subject site by applying management measures such as using dust suppression sprays to minimise the impacts on the environment.

The WMP identifies waste storage areas that will be established to allow for safe and ease of access for waste collection during demolition and construction (Figure . Recommended storage and management for each waste type is set out in Table 7.3 of the WMP, with reuse and recycling being prioritised, and disposal only recommended for asbestos waste, lead paints, synthetic mineral fibres, and general waste.

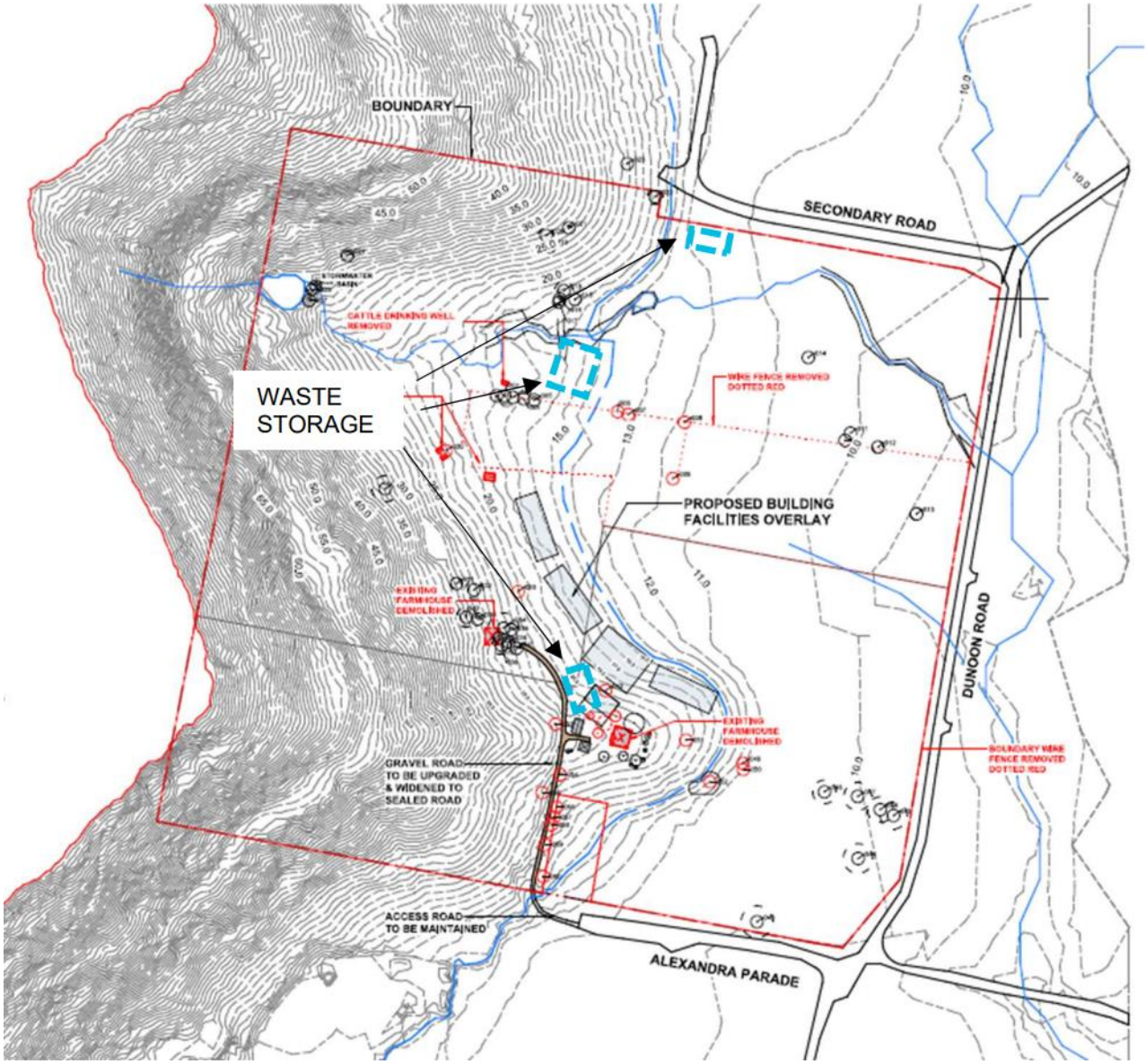


Figure 55 Waste storage areas identified in the Waste Management Plan

Waste planning activities, onsite controls, and waste management reporting, are all outlined within Section 7 of the WMP which will ensures for safe and proper management of waste on site during demolition and constriction.

Demolition and construction waste management activities are not expected to have a significant impact on the environment or human health, subject to implementation of the mitigation measures set out in Table 22 and Appendix 1. The contractor will need to ensure that demolition and construction are undertaken in accordance with these measures, and the broader Waste Management Plan prepared by GHD (Appendix 19).

Operational waste

Operational waste generation rates have been estimated for a 660-student capacity school, which would require 4 x 660L general waste bins, 6 x 660L mixed recycling bins, and 8 x 240L FOGO bins. General and FOGO waste is proposed to be collected once a week, with mixed recycling collected once or twice a fortnight. Waste generation requires a waste storage area of at least 30.1sqm, of which 40sqm is provided, given surplus area for potential bulky waste or electrical waste to be stored.

The waste room is located within the agricultural shed (Building E) and will comprise of an enclosed ventilated shed with roller door access, and sealed and graded floor to facilitate cleaning (Figure .

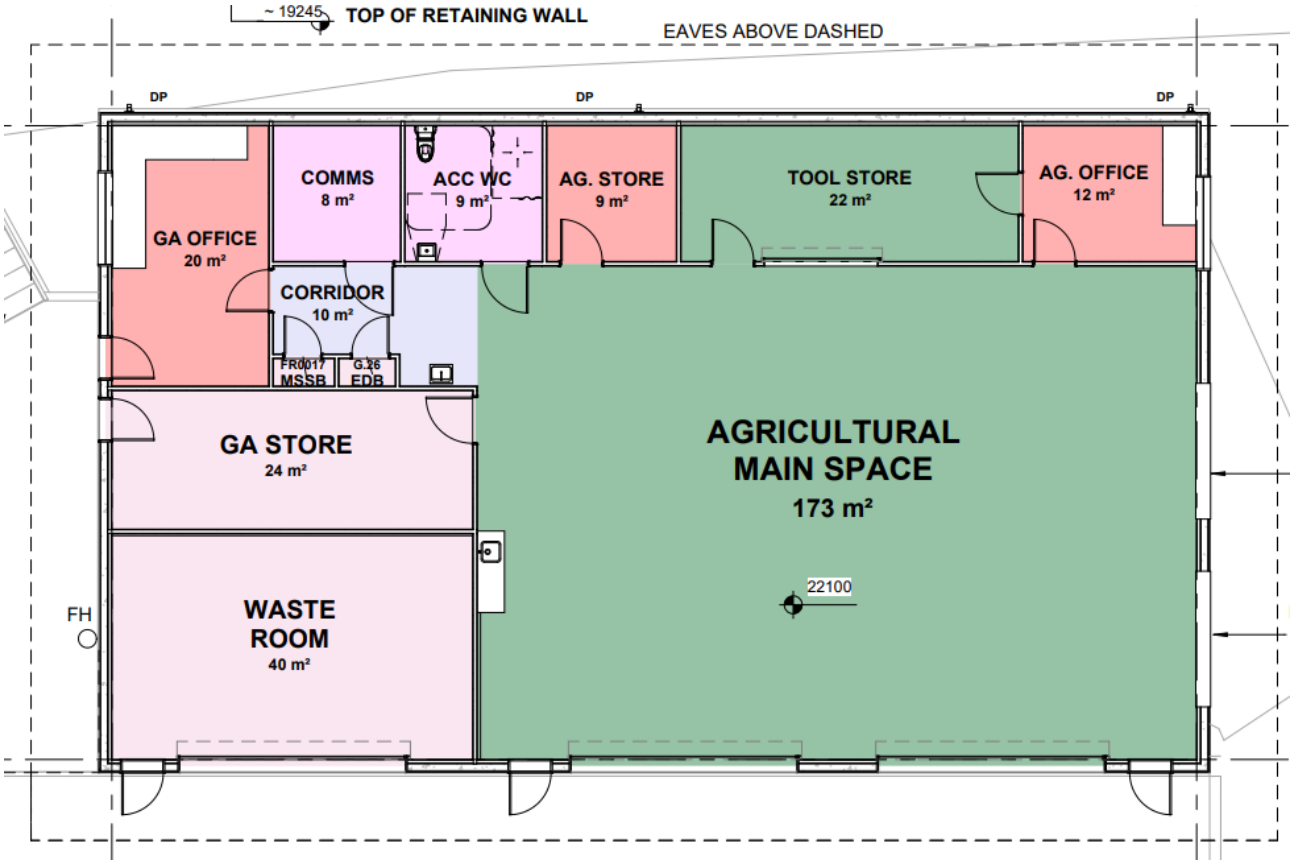


Figure 56 Extract of Building E ground floor (Source: EJE Drawing No. RRHC-EJE- B00E- GF-DR- A-DA5100)

General waste management procedures during the operation of the school are summarised below:

- The cleaning contractor is responsible for general maintenance of waste bins and storage areas, general litter control, and collection of waste and transfer to and from the waste room
- The farm manager is responsible for the maintenance of composting areas, burial of animal carcasses, classification of animal bedding waste prior to removal offsite, soil testing to inform compost waste application rates, and clean out of chemical drums prior to their removal offsite.

- The waste contractor is responsible for transfer of waste bins from the waste room to the waste collection point, transport of waste offsite for disposal or further processing, and waste monitoring.
- Staff at the school are responsible for regulating student use of bins.
- Clear and easy signage will be provided on the waste management system, to be posted at high traffic areas and waste areas including waste rooms, kitchens, school canteen, and recycling stations. Additionally, signage identifying the waste room and bulky waste storage area are to be displayed at all times, with waste receptacle clearly and correctly labelled.
- Regular review and reporting of waste collection data is to be carried out by the waste contractor, with this data assisting with the optimisation of waste collection frequency and timing.
- Operational waste can be easily managed subject to adoption of the waste management practices during operation, and the mitigation measures outlined below and in Appendix 1.

7.11.3 Mitigation Measures

Table 22 Mitigation Measures for Waste Management

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
WMM1	During demolition, construction, and operation.	Waste generated shall be managed in accordance with the waste management hierarchy. Waste avoidance, minimisation, and recycling shall be prioritised above disposal.	To ensure prioritisation of waste minimisation and recover over disposal.
WMM2	During demolition, construction, and operation.	Waste storage, processing, and reuse shall comply with the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Waste) Regulation 2014*.	To comply with relevant legislation for storage and segregation of waste on site.
WMM3	During demolition, construction, and operation.	Waste shall be exported to a site licensed by the NSW Environment Protection Authority for the storage, treatment, processing, reprocessing or disposal of the subject waste, or to any other place that can lawfully accept such waste.	To comply with relevant legislation for the transfer of waste off site.
WMM4	During demolition, construction, and operation.	All waste that is removed from site shall be classified in accordance with the EPA's Waste Classification Guidelines (NSW EPA, 2014), with appropriate records and disposal dockets retained for audit purposes.	To comply with relevant legislation for waste classification and reporting.
WMM5	Prior to demolition.	Prior to commencing demolition, an updated Waste Management Plan shall be prepared. This plan is to detail: • The anticipated quantity and type of the waste to be generated and their intended fate; • Details of how waste will be segregated, handled, stored, managed and then collected and transported for treatment and/or disposal;	To implement waste management measures.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		• Any testing or monitoring procedures; • How materials segregation will be achieved, particularly the segregation of hazardous demolition waste, resource recovery materials and waste generated from the construction and demolition staff; • The capability of the waste management facilities in Councils LGAs to accept the volumes of waste; • Waste tracking and reporting requirements.	

7.12 Aboriginal Heritage

7.12.1 Assessment Guidelines

The assessment of the activity with respect to Aboriginal Heritage has been undertaken in accordance with the following guidelines and legislation:

- National Parks and Wildlife Act 1974 (NPW Act).
- Environmental Planning and Assessment Act 1979.
- Guide to Determining and Issuing Aboriginal Heritage Impact Permits (2009).
- Operational Policy: Protecting Aboriginal Cultural Heritage (2009); Richmond River High Campus—ACHAR—Draft, November 2024.
- Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010).
- Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (2010) (the Due Diligence Code).
- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2010) (the Code of Practice).
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (2011).
- The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 2013 (the Burra Charter).

7.12.2 Assessment

This section outlines the findings of the Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared for the proposed activity, at Appendix 23. The following matters are noted regarding the existing site context and environment:

- The site is situated on the traditional lands of the Widjabul Wia-bal people of the Bundjalung Nation. It is located in a highly important cultural landscape in proximity to several ceremonial and mythological sites, therefore, the study area is in a landform, ecological, and cultural context that is associated with consistent Aboriginal occupation and land use within the region.
- A search of the Heritage NSW AHIMS database identified that there are no prior recorded Aboriginal objects or AHIMS sites within the study area, however, the AHIMS search does suggest that archaeological evidence of these activities would most likely be stone artefact (lithic sites), if present. Refer to Figure 57

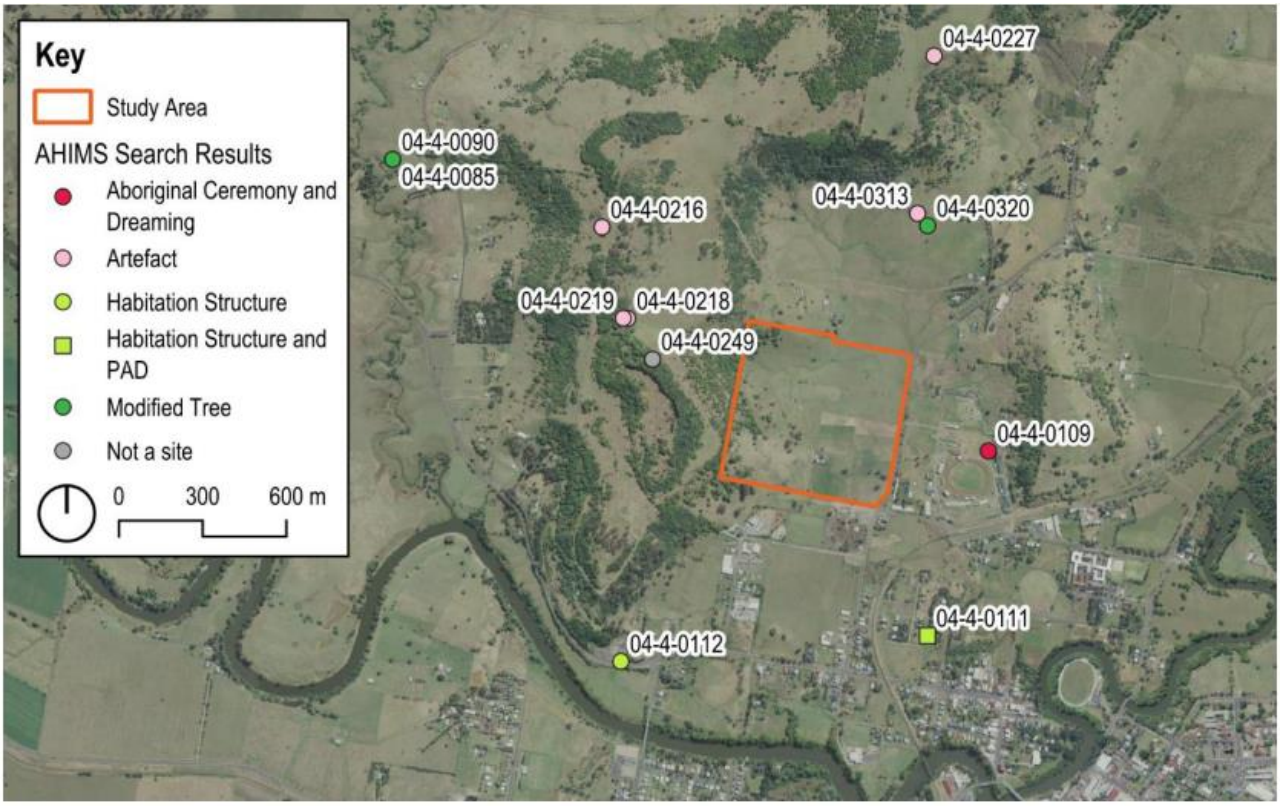


Figure 57 Detail of AHIMS search results (Source: Heritage NSW AHIMS)

- The ACHAR was supported with an archaeological survey that took place 13 September 2024.
- The archaeological survey identified one Aboriginal site, the southern spur landform being an extension of the echidna djurabihl. The echidna djurabihl is a cultural item and is identified across a large cultural landscape extending into parts of the study area, which was provided by Widjabul Wia-bul Gurrumbil Aboriginal Corporation (WWGAC) representatives, detailed further below. This is reflected in the Aboriginal heritage predictive modelling for the site area, refer to Figure 58
- On the basis of the regional archaeological modelling, and an understanding of recent changes and impacts to the study area, the predictive modelling showing archaeological sensitivity was prepared in consultation with WWGAC.

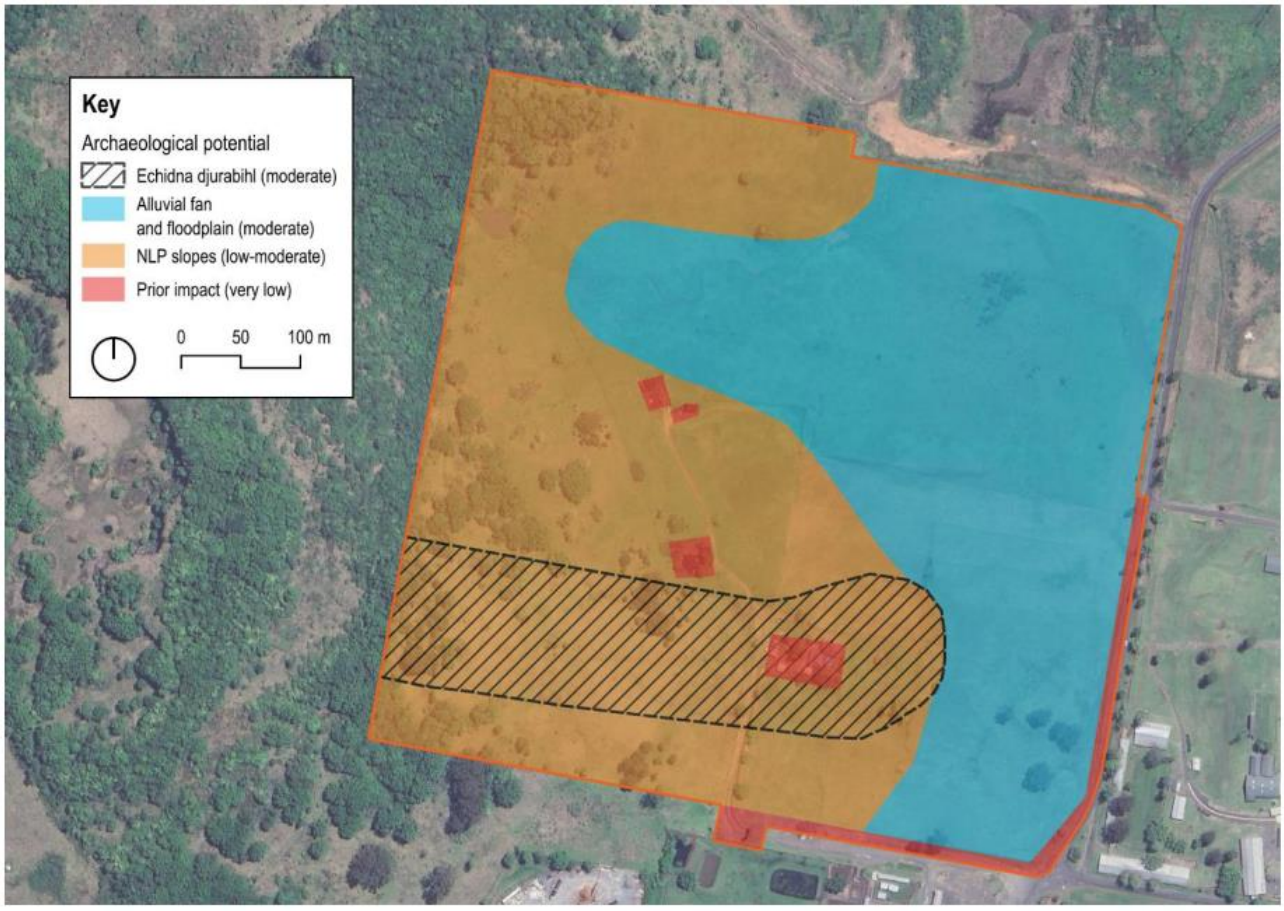


Figure 58 Summary of Aboriginal heritage predictive modelling for the study area (Source: SIX Maps and GML)

- The ACHAR was supported by a number of archaeological test excavations which took place in three phases; 23 September to 15 October 2024, 9 April to 16 April 2025, and 5 May to 8 May 2025. Test excavations were undertaken with WWGAC representatives onsite, and consultation following excavations with the Registered Aboriginal Parties (RAPs).
- Test excavations identified that the study area was highly culturally significant due to its association with nearby ceremonial and significant sites in Widjabul Wia-bul's cultural landscape. The southern spur was noted as the snout of the echidna, associate with the nearby djurabihl site (as seen in Figure 58 above).
- 40 artefacts were recovered during the excavations, and the consensus of this testing confirmed the archaeological nature and extent of Aboriginal objects within the study area, concluding that there are no intact archaeological deposits that required further investigation. Given the recovery of these artefacts, the remainder of the study area has a very low potential to contain Aboriginal objects. It was concluded that no further Aboriginal archaeological excavation was required.
- However, the ACHAR recommends that a whole of the project area AHIP be sought, which provides statutory defence against harm to all known and unknown Aboriginal objects inside the RRHC boundary. The AHIP will also provide approval for the management of lithics recovered during the test archaeological excavation, and collection of lithics from a surface-base context across the RRHC site.
- The Aboriginal heritage significance was assessed in line with the Burra Charter's four principal values; social, historical, scientific, and aesthetic, and in accordance with the NSW Heritage Office's publication Assessing Heritage Significance.
- The development of understanding the key social, historical, scientific, and aesthetic values of the site was a culmination of consultation with the RAPs, investigation of the background history of the study area, and local region, the field inspections, and the test excavations. The study area has no grade of

significance with regard to historic values, but does have low to high significance for social, scientific, and aesthetic values.

- An assessment of the proposed activity with regard to anticipated direct or indirect harm to Aboriginal cultural heritage (in terms of social, historical, scientific, and aesthetic values), assumes a worst case scenario of unmitigated harm to these values, which is noted as ranging between no degree of harm, partial degree of harm, to total degree of harm (related to the social and scientific value of stone artefact sites). The consequence of this could result in a total or partial loss of the value, if not managed.
- However, appropriate management and mitigation measures as outlined below in Table 23 and Appendix 1, will minimise this harm. Further, implementation of these measures will ensure that the proposed activity does not cause any impacts that are considered “significant” under Part 5 of the EP&A Act.

7.12.3 Mitigation Measures

Table 23 Mitigation Measures for Aboriginal Heritage

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
ABMM1	Prior to construction.	Under Section 90 of the *National Parks and Wildlife Act 1974* an application for an Aboriginal Heritage Impact Permit is required for the impact of harm to the identified Aboriginal objects across the entire project area. The AHIP shall also provide approval for management of lithics recovered during the archaeological test program, community collection and any unexpected finds.	To provide a statutory defence against harm to all known and unknown Aboriginal objects inside the site boundary.
ABMM2	Prior to construction.	Community collection by the WWGAC of Aboriginal site ‘RRHC IF 6 (AHIMS ID 04-4-0353)’ shall be undertaken prior to the commencement of construction on site. Community Collection of surface Aboriginal artefacts shall follow the methodology set out in Section 6.3.2 of the ACHAR.	To mitigate the physical harm to Aboriginal stone objects that would occur during construction.
ABMM3	During construction.	Subsurface excavations in the vicinity of the Aboriginal sites identified in the ACHAR shall be monitored by representatives of WWGAC. WWGAC representatives shall be consulted regarding the opportunity to monitor works during construction.	To meet the request of the Widjabul Wia-bul Gurrumbil Aboriginal Corporation.
ABMM4	During demolition and construction.	An Aboriginal cultural heritage induction shall be developed in collaboration with WWGAC. This is to be provided to all employees, contractors and subcontractors, consistent with any AHIP conditions. The induction shall ensure all workers are aware of the Aboriginal cultural heritage values associated with the study area, and the mitigation measures in place to mitigate harm to these values.	To induct all workers on the Aboriginal cultural heritage values and comply with standard AHIP conditions.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
ABMM5	All relevant stages.	The department shall consult with WWGAC regarding the best approach to managing the Aboriginal objects that have been/will be recovered. Management of recovered objects may be done from the following options: • Reburial within the study area with the location registered as a new AHIMS site. This is a long-term management option and would be required to be conducted in accordance with Requirement 23c of the Code of Practice. • Negotiation with WWGAC for the management and care of the assemblage that would allow the assemblage to be accessed in the future by the Aboriginal community and/or archaeologists for teaching and research purposes. • Incorporate finds into a display in the new school for educational purposes. • A combination of these options which may involved reburial within the study area while reserving a teaching assemblage in a keeping place for future generations.	Ensures the objects are returned into the care and management of the WWGAC. Development and implementation of long-term management strategy.

7.13 Visual Impact

7.13.1 Assessment Guidelines

The Visual Impact Assessment (VIA) accompanying this REF has been prepared in accordance with the following reference documents and guidelines:

- Control of the Obtrusive Effects of Outdoor Lighting, Australian/New Zealand Standard (2023).
- Dark Sky Planning Guideline, NSW Govt Planning and Environment (2023).
- Guideline for landscape character and visual impact assessment, TfNSW (2023).
- Guideline for landscape character and visual impact assessment: Version 2.2, TfNSW (2020).
- Guidelines for Landscape and Visual Impact Assessment: Third Edition, Landscape Institute (2013).
- Guidance Note for Landscape and Visual Assessment, AILA (2018).
- Landscape Assessment Guidelines for Professionals Working in Resource Management, New Zealand Institute of Landscape Architects ‘te-tangi-a-te-manu’ (2022).
- Lismore Development Control Plan 2012.
- Lismore Local Environmental Plan 2012.
- Policy: Use of Photomontages and Visualisation Tools, Land and Environment Court of NSW (2024).
- Rural Land Evaluation, Department of Planning (DOP) (1988).
- Scenic Perceptions of Australian Landscapes, Williamson, D, 1978, Landscape Australia, Vol. 2, pp 94-100.
- Section 12, The Mount Arthur North Coal Project Pty Ltd Environmental Impact Statement (2000).
- Social and Economic Impact Assessment (Version 1.1), Think Economics (2023).

- Technical Supplement - Landscape and Visual Impact Assessment, DPE (2022).
- Visual Representation of Development Proposals, Landscape Institute Technical Guidance Note (2019).

7.13.2 Assessment

A visual analysis has been undertaken, given that the site is in North Lismore, within what is (currently) predominantly a rural area. The activity has been thoughtfully sited and designed in a manner that ensures there are no adverse visual impacts on adjoining properties or on the existing streetscape and amenity of the area. Furthermore, the design has also considered future proofing of any visual impact, with regards to what is, and will be, an evolving landscape character, given the NLPURA is located to the north of the site. When evaluated at a larger scale, with inclusion of extensive landscape and architectural integration, the proposal will be compatible with the evolving landscape of the surrounding area.

The VIA assessed a total of ten viewpoints to the site, considering a range of views from south to north along Dunoon Road, and Alexandra Parade and Terrania Street to the south (refer to Figure 59. Other potential viewpoints around the site were also assessed for inclusion in the VIA. Due to local topography, surrounding land use zoning, existing vegetation, access and existing development, views to the site are generally limited to along Dunoon Road.

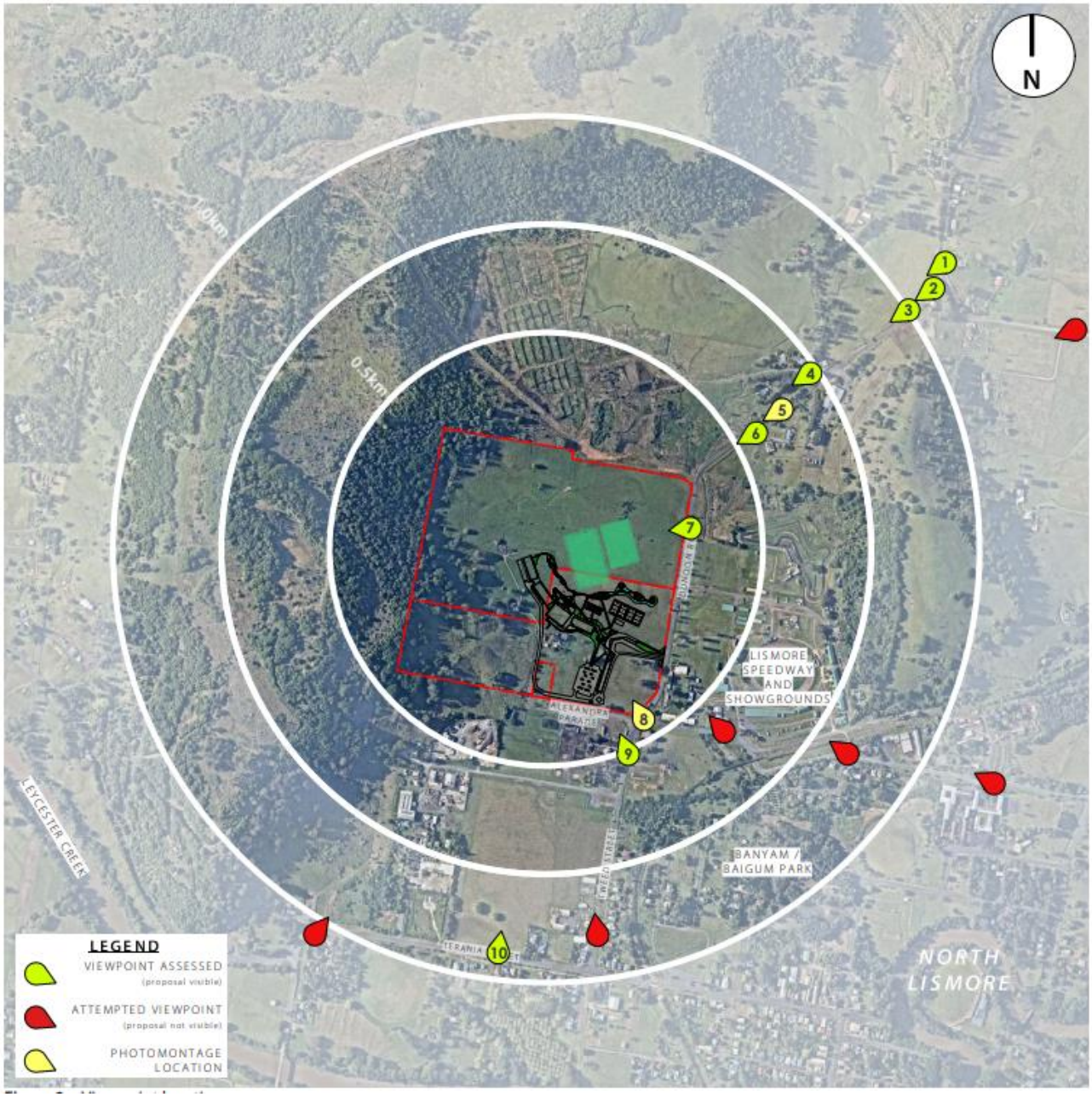


Figure 59 Viewpoint locations (Source: VIA)

Visual impact is assessed against several assessment criteria, as summarised below. The VIA outlines these in detail and provides matrixes of assessment.

- Landscape values: Influence the way in which we identify and connect to self and place, and can range from physical (elements of the landscape that are tangible), associative (elements of the landscape that are protected due to their intrinsic value), and perceptive values (elements of the landscape that are sensory interpreted or have a broader connection to sensory experience).
- Viewer access: Viewer access considers the relative number and types of viewers, distance, viewing duration, and view context.
- Visual quality: Assesses how viewers may respond to designated scenery, with scenes of high quality valued by a community for the enjoyment and improved amenity that they can create.
- Visual sensitivity: Is an estimate of the significance that a change will have on a landscape and to those viewing it and is based on a number of variables. Different land uses carry different sensitivity ratings,

and range from major travel corridors, natural areas such as waterways and national park, to residential areas.

- Magnitude of change: Magnitude of change is an assessment of several factors including the proportion of the view/landscape affected, the size or scale, the geographical extent of the area over which the change occurs, the rate and duration of the change and the level of contrast and compatibility.
- Visual impact: Assesses changes in the appearance of the landscape as the result of some intervention typically man-induced, to the visual quality of an area having regard to visual sensitivity, magnitude of change and the other attributes that these elements embody as discussed above. Visual impact may be positive (i.e. beneficial or an improvement) or negative (i.e. adverse or a detraction).

The viewpoint assessment looked at ten viewpoints as outlined earlier, taking each of the assessment criteria outlined above, and then evaluating the visual criteria to determine a visual impact rating. Overall, the view impact was recorded as a 70% low impact, with three viewpoints (namely Viewpoint 6, Viewpoint 7, and Viewpoint 8) being assessed as resulting in a moderate view impact. A summary is provided below in

VIEWPOINT SUMMARY					
	ACCESS	SENSITIVITY	MAGNITUDE	IMPACT	ASSESSED IMPACT
Viewpoint 1 Dunoon Road, Looking South West	LOW	LOW	LOW	LOW	LOW
Viewpoint 2 Dunoon Road, Looking South West	LOW	LOW	LOW	LOW	LOW
Viewpoint 3 / Photomontage Dunoon Road, Looking South West	LOW	LOW	LOW	LOW	LOW
Viewpoint 4 / Photomontage 1 Sexton Road, Looking South West	LOW	LOW	LOW	LOW	LOW
Viewpoint 5 Dunoon Road, Looking South West	MODERATE	LOW	MODERATE	LOW	LOW
Viewpoint 6 60 Dunoon Road, Looking South West	LOW	MODERATE	MODERATE	MODERATE	MODERATE
Viewpoint 7 Dunoon Road, Looking West	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
Viewpoint 8 Alexandra Parade, Looking West	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
Viewpoint 9 Tweed Street, Looking North	MODERATE	MODERATE	MODERATE	LOW	LOW
Viewpoint 10 Terania Street, Looking North	LOW	LOW	LOW	LOW	LOW

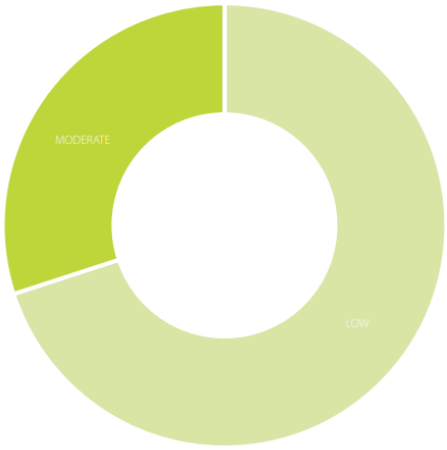


Figure 60 Summary of assessment criteria against each viewpoint (Source: VIA)

Viewpoint 6 is taken from a residential driveway along Dunoon Road. Although the distance from the site is short, the low number of viewers results in a low level of viewer access. The visual sensitivity is assessed as moderate, given that the view is from a residential area. The magnitude of change is considered moderate, as the proposal will occupy a significant portion of the viewshed and alter the dominant character of the landscape from open grassland to developed land. The proposal will not break the ridgeline, and there is minimal foreground screening; however, the visual impact will be further mitigated through the integration of landscape features such as canopy tree planting and the use of appropriate recessive materials and colours to the building's façade. Therefore, the visual impact has been assessed as moderate.

Figure 61 **Viewpoint 6 outlining indicative building frame, with no vegetation or façade treatment shown (Source: VIA)**

Viewpoint 7 is situated directly opposite the activity site. Due to the proximity to the site boundary and moderate viewer numbers, both the viewer access and visual sensitivity are assessed as moderate. The character of the site will transition from open grassland and hill scape to a developed landscape, with a substantial portion of the viewshed affected by the proposal. Integration into the landscape will be implemented; consequently, the visual impact is assessed as moderate

Figure 62 **Viewpoint 7 outlining indicative building frame, with no vegetation or façade treatment shown (Source: VIA)**

Viewpoint 8 is located at the corner of Dunoon Road and Alexandra Parade, providing views to vehicles turning out of Alexandra Parade. Although this view is brief, the close proximity to the site results in moderate viewer access and visual sensitivity. The magnitude of change is moderate, as the proposal will alter the landscape character, with some small-scale rural development already visible within the existing viewshed. Given the minimal foreground screening, the visual impact is assessed as moderate.

Figure 63 **Viewpoint 8 outlining indicative building frame, with no vegetation or façade treatment shown (Source: VIA)**

Visual impact, for those views assessed as moderate, and those assessed as low impact (and outlined in detail in the VIA at Appendix 05), have been carefully considered at concept design stage, and are easily mitigated through a range of measures to ensure that no impact to the visual amenity of the surrounds occurs. Building setbacks have been extended where possible, with consideration of the site's environmental constraints, and a comprehensive landscaping plan has been developed (Appendix 08), that focuses on creating natural landscaped buffers at area of higher visual sensitivity. Natural darkness should be protected where possible, with lighting developed at detailed design stage to prevent obtrusive effects on outdoor lighting, thus reducing impact to adjacent receivers.

With consideration of the mitigation measures outlined below in Table 24 the resulting visual effect is expected to be contained within the immediate vicinity with minimal impact on the surrounding area as a whole. A standard mitigation measure is provided in Appendix 1 relating to the use of materials and colours of the school.

7.13.3 Mitigation Measures

Table 24 **Mitigation Measures for Visual Impact**

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
VAMM2	During construction and operation.	Implementation of vegetation shall be in accordance with the approved landscaping plans at Appendix 08. Early works planting for vegetation should be implemented to ensure that trees are established in the early stages of development.	To ensure that visual landscaped buffers are provided.
VAMM3	During construction and operation.	Light spill control methods are to be in accordance with the recommendations set out in the VIA at Appendix 05 and shall comply with the National Light Pollution Guidelines for Wildlife 2020, AS/NZS 4282:2023 'Control of the obtrusive lighting effects of outdoor lighting', and Crime Prevention Through Environmental Design (CPTED) Principles.	To ensure no adverse impact of light spill on surrounding environmental receivers.

7.14 Social Impact

7.14.1 Assessment Guidelines

The Social Impact Assessment (SIA) has been driven by the following key state and local policies and strategies:

- NSW Government Department of Planning and Environment (DPE) Social Impact Assessment and Guideline 2021.
- Social Impact Assessment Technical Supplement, 2021.
- North Coast Regional Plan 2041.
- NSW Department of Education Strategic Plan 2018-2023.
- Imagine Lismore – Community Strategic Plan 2022-2032.
- Inspire Lismore Local Strategic Planning Statement 2040.
- Lismore Floodplain Risk Management Plan.
- Lismore Growth and Realignment Strategy 2022.

7.14.2 Assessment

This section outlines the findings of the Social Impact Assessment (SIA) accompanying this REF which evaluates the social impacts of the activity, and any residual measures required to mitigate those social impacts. The methodology for the assessment in the SIA was prepared in accordance with the SIA Guideline and the Technical Supplement. The methodology undertaken to assess social impact is as follows:

- Reviewing the proposal to understand potential impacts that could arise.
- Defining the social locality through an observational analysis, including a site visit and aerial mapping, as well as enquiries around the area to identify communities or stakeholders that may be impacted.
- Conducting demographic analysis which helps to understand the existing community and conditions (creating a social baseline), to determine how it may change or be impacted by the proposed activity.
- Reviewing the literature, which includes state and local policy, and academic research that can support the assessment.
- Reviewing the technical reports that accompany the REF, as well as the mitigation measures prescribed by the relevant consultants.
- Conducting the SIA based on information collected and collated in the stages above, potential social impacts are assessed against the corresponding impact categories as outline in the SIA Guideline. These eight categories provide for high level groupings of potential social impacts that are interrogated and that form the basis of the assessment. The level and scope of interrogation of the categories are dependent of the nature of each project. The categories have been established to provide a standard approach to measuring social impact assessments.
- Conducting the residual impact assessment, through the development of mitigation measures which can enhance positive impacts, or, reduce negative ones. Each social impact is then reassessed with any proposed enhancements to determine post-mitigation or residual social risk.

The social locality assessed in the SIA is identified in the figure below. This social locality is made up of the local area who would be directly impacted, the RRHC Community Group (RRHCCG) who would be impacted by several factors related to the new school, and the Lismore LGA who may be impacted indirectly.

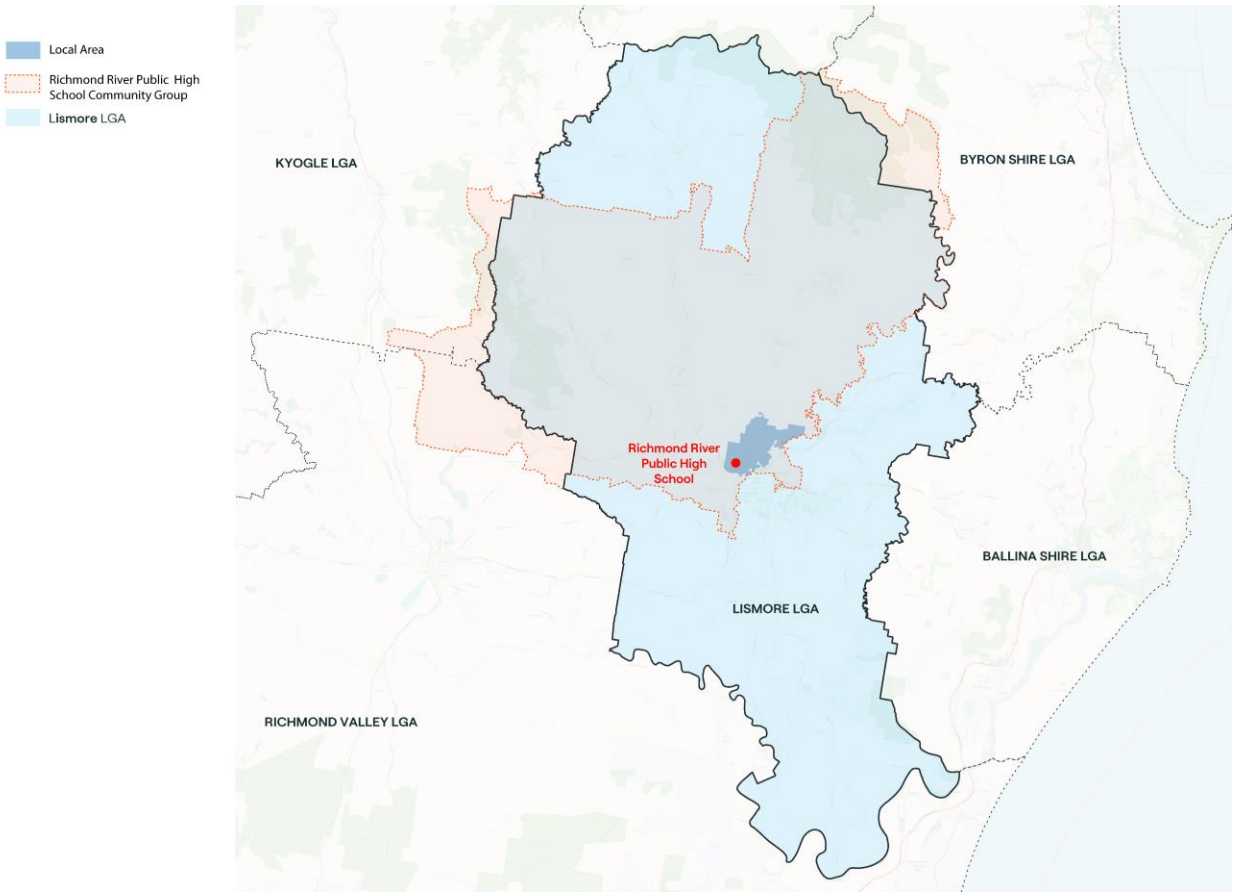


Figure 64 RRHC Social Locality (Source: SIA)

The proposed activity was assessed has having several very high positive impacts, particularly due to the provision of new learning environments, and the resulting broader flow on social benefits. A summary of residual impacts post enhancement is outlined below.

Impacts related to improved education infrastructure

A large body of research has demonstrated that school buildings influence student success as much as any other factor. A healthy school building is one key to student health, student attendance, and student performance.

Commenting on draft designs the school community identified that the Campus provided a range of learning spaces, that can be easily reconfigured to suit different learning styles including collaborative, group, and individual learning.

Responding to these comments, the rebuilt Campus will include indoor and outdoor learning spaces to make the most of the Lismore environment and climate, green school grounds with different scaled open spaces, and place the cultural and community life of the school on display through landscaping and Connecting with Country design inputs.

The rebuild will provide contemporary facilities that create modern learning environments benefiting teachers and students.

Impacts related to improved education infrastructure have been assessed as very high positive.

Impacts related to continuity of local character, social connections and cohesion

Schools help create community connections that contribute to a sense of place and build local character. School sites are increasingly being recognised as valuable assets that can support the education, health and

wellbeing of individuals, families and community groups. Operating as ‘more than schools’ they can have an important role in the development of resilient and connected communities.

During consultations students, staff, parents and carers mentioned the importance of maintaining the rural outlook, similar to the original campus site at Lake Street. They also described the need for RRHC to be safe, happy and inviting; diverse and inclusive; strongly connected to the partner school network; have a strong focus on arts and creativity and farming; acknowledge the resilience of the school community in the face of the floods; and celebrate its sense of history.

Community members also commented through consultations that the school should be embedded in the community. The design of RRHC is in keeping with the surrounding environment and maintains several of the community building provisions identified through community consultation.

Impacts related to continuity of local character, social connections and cohesion have been assessed as very high positive.

Impacts related to school accessibility

There are currently no dedicated footpaths or bicycle paths along Dunoon Road or Alexandra Parade, which reduces travel options in an area that has greater levels of socio-economic disadvantage than most other LGA’s in NSW.

Whie the characteristics of Dunoon Road are likely to discourage use by pedestrians and bicycles, it is likely that students, some by necessity, will use this route as an option to walk or cycle to RRHC. The SIA identifies this as a potential safety risk.

The STP identifies the safety measures that will be implemented around the site, and several programming initiatives that are focused on pedestrian and cycling safety. The STP identifies several ‘transport encouragement programs’ to support student safety, activity and the use of transport options for sustainability. The STP includes the delivery of a road safety education program in the short term.

The SIA notes that critical infrastructure will be progressively introduced to support active travel as the urban release area to the north of the site is developed.

Continued consultation with TfNSW and LCC to work toward enhancements to public transport and active transport infrastructure in the area is recommended. This would benefit the school community group and the broader area as it goes through transition.

Residual impacts related to active transport and school accessibility have been assessed as high (negative). A mitigation measure has been included to reduce impact on safety of the accessibility of the school.

Impacts related to First Nations people

Aboriginal and Torres Strait Islander cultures live in harmony with the world around them, placing great value on Country not just as Aboriginal land but as the foundation of the Aboriginal people, past, present, and future.

The ACHAR shows that Aboriginal objects were identified and were found to have moderate to high social value and are tangible evidence of long-term Aboriginal occupation and land use in and near the study area. The ACHAR also found the study area holds aesthetic value in connection with its topography, which is linked to the Buninj, the echidna djurabihl.

While the Aboriginal objects recovered from the study area hold low scientific significance, the ACHAR notes they may however have value if suitably interpreted as part of a small display or educational collection.

Based on consultation with local Widjabul Wia-bal representatives during the schematic design, responses in the Architectural Design Quality Report and the Landscape Masterplan show how input from this engagement is integrated within the design.

Continuing engagement with Widjabul Wia-bal representatives and the use of an Aboriginal artist as part of the public art and landscape response is recommended.

Residual impacts related to First Nations people have been assessed as very high.

Impacts related to potential future flooding

There is likely to be future flooding in Lismore, and this is likely to be heightened through the impacts of climate change. While additional severe weather events are likely, the rebuild of the school compliant with the relative flooding measures is almost certain to provide a safer environment.

Additionally, the FERP identifies several measures to maximise safety in a flooding event.

Residual impacts related to future flooding have been assessed as very high positive.

Impacts related to amenity

Local amenity can be adversely impacted by a range of factors including increases to the heights of existing buildings, loss of heritage, increased traffic, construction activity and higher population density. A loss of amenity has the potential to negatively impact residents in several ways, including their health.

The site currently features a mix of natural features, residential and mixed-use business areas, resulting in a variety of landscape settings and characters. Vehicular traffic is minimal and pedestrian traffic is dominant.

The rural and bushland character is prominent in the area and a compatible outcome for the site will depend on the capacity to visually integrate with existing key character components. The visual effect is expected to be contained within the immediate vicinity, with minimal impact on the surrounding area.

Landscape materials identified in the Landscape Masterplan are in keeping with the surrounds ensures the proposal sits within the surrounding landscape and reflects the existing character of the area. Extended building setbacks help mitigate any potential disruptions to the existing visual environment and have minimal impact on the surrounding area.

The existing character of the site is also likely to change with the area likely to change significantly because of land releases for residential dwellings.

Impacts related to amenity are likely to be low.

Impacts related to employment activity

The overall economic impact of the flooding in Lismore (2022) resulted in the loss of businesses and employment, which had had acute effects on the local economy. Construction activity and employment associated with the Campus rebuild is likely to have positive flow on benefits for local business.

It is likely that given the negative economic impacts resulting from the 2022 floods, additional employment and economic development activity will be welcome. Overall, the rebuild of the Campus will provide jobs during the construction stage and the operational stage and is likely to continue to stimulate local business recovery.

Impacts related to employment activity have been assessed as high positive.

Conclusion

The SIA finds that overall, the rebuild of RRHC will have a very high positive impact for students, teachers, the school community, and the Lismore LGA in general. Where any potential arises for negative impacts, the mitigation measures recommended below, and in Appendix 1, will result in minimal residual impacts.

7.14.3 Mitigation Measures

Table 25 Mitigation Measures for Social Impact

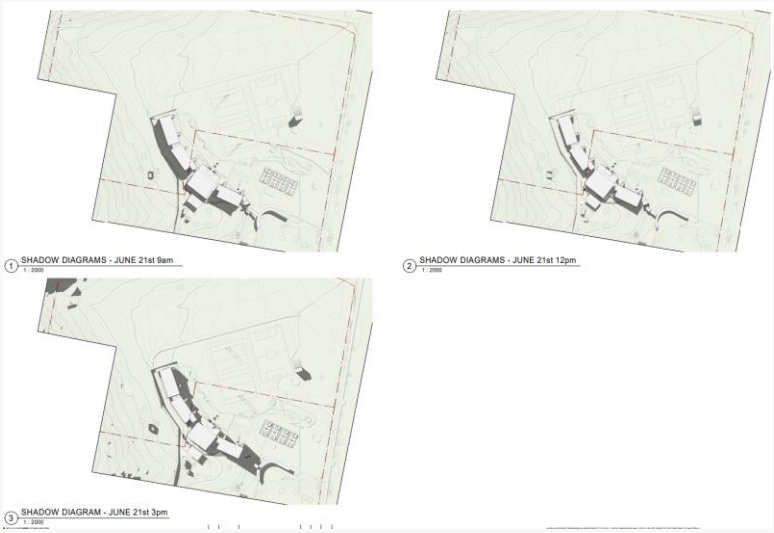
Name	Timing	Mitigation Measure	Reason for Mitigation Measure
SOMM1	All relevant stages.	Maintain engagement with Widjabul Wia-bal Gurrumbil Aboriginal Corporation and Registered Aboriginal Parties (RAP).	To ensure ongoing engagement with the relevant First Nations parties.
SOMM2	Prior to and during construction.	Consider using a local First Nations artist for any public art and integrated landscape projects.	To ensure CwC continues to be embedded in the design of the school.
SOMM3	Prior to and during operation.	The department will continue to consult and collaborate with TfNSW and Council to work towards enhancements to public transport and active transport infrastructure in the area for the benefit of the school community group and the broader area as it goes through transition.	To enhance public transport and active transport infrastructure in the area.

7.15 Other Considerations

7.15.1 Assessment

Table 26 Assessment of Other Environmental Considerations

Issue	Consideration	Mitigation Measures?
Privacy	The proposal has been designed with consideration for privacy. Learning spaces are orientated to provide views over open spaces, and entry walkways. Landscaped buffers are provided around the main areas of the school, particularly along the southern portion of the site along Dunoon Road and Alexandra Parade. Tree and shrub planting provides both visual and acoustic buffers. Surrounding development is generally not residential in nature, therefore, there is limited potential for privacy issues to arise to surrounding uses. Whilst the site is not located within close proximity to any residential properties, the school design has considered how privacy can be maintained when development occurs in surrounding areas, particularly in the NLPURA to the north. No privacy impacts will result from the proposal, therefore, no mitigation measures are required.	N/A
Overshadowing	Due to the large nature of the site, the rural context of the surrounding areas, and the positioning of the school buildings, there are no concerns of overshadowing to neighbouring buildings. The future URA development to the north of the site will not be impacted by overshadowing as the school buildings are located to the south and are a generous distance from any future development.	N/A

Issue	Consideration	Mitigation Measures?
	Overshadowing falls to the rear of the school buildings between 9:00am and 12:00pm, noting that the rear of the school buildings are less trafficable areas. The overshadowing plans prepared by EJE Architecture show that the building siting does allow for some protection from sunlight to the open play areas at 3:00pm.  **Figure 65 Mid-winter Overshadowing plans (Source: EJE)** No impacts will result; therefore, no mitigation measures are required.	
Wind	The proposed buildings do not exceed three storeys, and the surrounding area does not comprise of tall buildings or a high-density environment. The site is not in a location that is anticipated to experience high winds or wind tunnelling. Therefore, there is not considered to be any adverse wind impacts experienced internally within the site or any wind impact on the surrounding environment. Design features such as canopies and awnings, and the provision of tree planting throughout the school will ensure there is a good level of pedestrian level amenity within the outdoor spaces of the site. No wind impacts will result; therefore, no mitigation measures are required.	N/A

Issue	Consideration	Mitigation Measures?
Aviation	**Helicopter Landing Sites** There are two helicopter landing sites within the Lismore area: • Lismore Base Hospital, located 2.52km southeast of the site. • Lismore Airport, located 4.34km south of the site. A review of online data and Nearmap indicates that these are the only two helicopter landing sites within proximity to the site. The proposal will not impact on those sites due to the generous separation distance between each helicopter landing site and the subject site. **Obstacle Limitation Surface** The site is within the OLS mapped area set of RL 54.5, AHD OLS. Therefore, the development restrictions set out in LDCP would ordinarily apply to the site. It is subject to the inner horizontal surface classification and a maximum height of RL 54.5m AHD before the airspace is 'penetrated'. The proposed activity consists of a maximum height of RL 30.776 AHD (for Building A). Therefore, the activity will not penetrate the airspace, and the proposal will comply with Cl. 6.5 Airspace operations of the LLEP. **Australian Noise Exposure Forecast (ANEF) Contours** The site is not affected by any ANEF contours for the airport. Therefore, no further assessment is required. **4km Buffer** The site is located within the 4km Obstacle Aircraft Buffer for Lismore Airport. The LDCP states: *Air space "protection" around an aerodrome is an important factor in maintaining the continued safe operation of an aerodrome. The Civil Aviation Safety Authority (CASA) defines a set OLS designed to provide a safe, efficient and predictable environment for aeroplanes in which to approach, land and takeoff. The objective of the OLS Standards is to define the air space around the aerodrome which is to be kept free of obstacles so as to enable aeroplane operations to be conducted safely. No structure or installation is to be erected within the air space nominated without specific approval of the CASA:* *1. Above RL 54.5 metres AHD (45 metres above ground level of the airport) within an area of 4,000 metres radius from the runway as indicated in Figure 1.* *2. Within the runway approach surfaces as indicated in Figures 1 and 2.* Approval from CASA is not required as the development will not be above RL 54.5 metres. However, as it is located within the 4km buffer, it means that consultation with CASA may be required, if for any reason the airspace is proposed to be penetrated. A precautionary mitigation measure has been outlined for any potential intrusion that may occur during the construction stage if cranes or other similar measures are required to be used.	Refer to mitigation measure OLS1 in Table 27 and Appendix 1.
Utilities and Infrastructure	The site must be confirmed to be adequately serviceable prior to operation. Details of such are to be submitted to the Crown Certifier prior to operation. Relevant approvals from respective utility and service providers will be required.	Refer to mitigation measures UIMM6 and UIMM7 in

Issue	Consideration	Mitigation Measures?
	The Building Services – Infrastructure Report prepared by LCI (Appendix 10) outlines the required services and utilities for the proposed activity. Any connections to services must comply with relevant technical specifications, procedures, and standards, including Essential Energy standards, NBN requirements, relevant Australian Standards, and LCC records and guidelines. Initial engagement with the relevant utility providers has occurred, and there appears to be adequate connections that can be made, with sufficient capacity for the activity. Engagement has also occurred with LCC as to connecting to the existing water and sewer mains, which are required prior to construction under the Local Government Act 1993. LCI confirm that the required servicing and infrastructure modifications proposed to service the site will not have a significant impact on the environment. Mitigation measures outlined by LCI will ensure that the necessary authority approvals are acquired prior to issue of a Crown Certificate.	Table 27 and Appendix 1.
Ecologically Sustainable Development	The proposed measures in the ESD Report and Net Zero Statement (both found under Appendix 14) reflect a comprehensive approach to the environmental responsibility, addressing key principles and aligning with regulatory standards. The project has been designed in accordance with: • The four ESD principles as defined in Clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2021. • The Educational Facilities Standards and Guidelines (EFSG) principles and targets as developed by the department. • National Construction Code – Section J – Energy Efficiency. • State Environmental Planning Policy (Sustainable Buildings) 2022. • NSW Government Resource Efficiency Policy 2019. The project will achieve a 4 Star Green Star Building Ratings, as registered with the Green Building Council of Australia, exceeding the minimum requirement of 15 points. The Net Zero Statement confirms compliance with Section 35C of the Environmental Planning and Assessment Regulation 2021 which outlines a clear pathway to becoming fossil fuel-free and achieving operational Net Zero emissions. With consideration of the ESD principles outlined above, practices to achieve a net zero outcome, and the mitigation measures provided, impacts that arise from the activity will be positive.	Refer to mitigation measures SCMM2 to SCMM11 in Table 27 and Appendix 1.
Accessibility and BCA	This REF includes reports prepared to address the BCA compliance and accessibility requirements (Appendix 11 and 12 respectively). There are matters to be resolved during detailed design phases to ensure that the activity complies with all relevant Building Code of Australia, Access, and National Construction Code standards. Relevant performance solutions may be required in order to issue a Crown Certificate. Standard mitigation measures have been prescribed by the department to ensure compliance with all relevant codes and Australian Standards.	Refer to mitigation measures ACMM1 and BCAMM1 in Table 27 and Appendix 1.

Issue	Consideration	Mitigation Measures?
Non-Aboriginal Heritage and Archaeology	A Statement of Heritage Impact (SoHI) was prepared due to the site's proximity to the following heritage-listed items: • Lismore Railway Underbridges (SHR #01044). Also listed as an Archaeological Site, Railway Viaduct, Alexandra Parade (LLEP A7, State Significance). • Richmond River High School (LLEP #I92, Local Significance). Also listed as Richmond River High School (S170 #4640357). • Richmond River High School Grounds (LLEP #I30186, Local Significance). To support the SoHI, a Historical Archaeological Assessment was prepared (appended to the SoHI at Appendix 25) which assessed the potential for historical archaeological relics within the proposed activity footprint in accordance with the Heritage Act 1977. The site is not listed as a heritage item under the LLEP, however, due to its proximity to the above, the schools' former site being heritage listed, and two existing farmhouses on site due for demolition to accommodate the school activity, a SoHI was prepared as part of the REF package (Appendix 25). The SoHI was prepared in accordance with Heritage NSW Guidelines and all other relevant guidelines and standards where applicable. The proposed activity to rebuild the RRHC at the site includes demolition of all existing structures, including Farmhouse 1 and Farmhouse 2. As these domestic spaces link to 20th century occupation, exposure of archaeological relics is not expected to occur among these locations. Although there is low potential for known archaeological remains and material relating to the late 19th and 20th century use of the site for agricultural activities, the assessment of heritage significance has concluded that these remains are not considered a relic under the Heritage Act 1977. The expected archaeological remains are not considered to be locally or State significant and thus redevelopment of the site will not impact on any known historical archaeological relics. The proposed activity will not have a significant effect on the environment with respect to historical archaeology. The site and the farmhouses hold connections to the Murray family, dating back to the early 1900's, with the site remaining in the Murray family until its sale to the Minister for Education and Early Learning in August 2024. The assessment of potential heritage value against Farmhouse 1 was carried out as part of the SoHI, which concluded that whilst there is potential value for its familial connection (in terms of (b)historical association, and (d)social cultural, and spiritual association), it does not meet the thresholds for heritage listing in its own right. The assessment of heritage impacts discusses impact on a scale from Major, Moderate, Minor, Negligible, Neutral and Positive, based on the ICOMOS Guidelines on Heritage Impact Assessments (2011) and is in accordance with Heritage NSW guidelines for Statements of Heritage Impact. The heritage impact ranges from positive and neutral, with some minor impacts caused, mainly in a visual sense. No moderate of major impacts are proposed. The proposed activity ensures the continued operation of the RRHC in North Lismore and will have minimal visual impact on the heritage	Refer to mitigation measures HMM4 and HMM5, in Table 27 and Appendix 1.

Issue	Consideration	Mitigation Measures?
	items on Alexandra Parade and on the rural character of the surrounding area. The proposal will not substantively alter the character of the Dunoon Road and is generally consistent with the desired future character of the adjacent NLPURA. The proposed landscaping and increase in tree canopy cover on the site, will provide a buffer and screening to break up the bulk of the buildings, and will have a positive heritage impact, resulting in a minor visual impact on the adjacent railway underbridge and viaduct. The mitigation measures outlined in Table 27 and Appendix 1, are recommended to minimise any potential impacts associated with the proposed activity. The need for an unexpected finds protocol is noted within the standard mitigation measures prescribed by the department provided within Appendix 1.	

7.15.2 Mitigation Measures

Table 27 Mitigation Measures for Other Considerations outlined in Section 7.14

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
OLSMM1	Prior to construction.	If cranes or other construction measures or machinery are required to be used during construction which involve intrusion into the prescribed airspace for Lismore Airport, the appropriate controlled activity approval is to be obtained through the relevant approval (aviation) authority prior to works commencing on site.	To protect the operations of the Lismore Airport airspace.
UIMM5	Prior to construction.	The Accredited Service Provider shall obtain separate approval (in the form of a REF) for the electrical infrastructure works to be determined by Essential Energy under Part 3 of the EP&A Act. The REF is to address risk and mitigation measures under the Essential Energy Process.	To obtain necessary approvals required by Essential Energy.
UIMM6	Prior to construction of the relevant elements	Prior to issue of the Crown Construction Certificate, the contractor shall coordinate the necessary actions for new utility connections under Section 68 of the Local Government Act 1993 for water supply and sewerage. The contractor shall be responsible for management and application for obtaining approval to Lismore City Council for both sewer and water connections.	To obtain the necessary approvals required under the Local Government Act 1993.
SCMM2	During detailed design.	The building design incorporates a Finished Floor Level (FFL) of 500mm above the Probable Maximum Flood level. Additional climate-related challenges, such as high temperatures, drought, and storms, will be addressed during the detailed design phase.	To ensure climate change resilience and building longevity.

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
SCMM3	During construction.	Onsite solar photovoltaic (PV) arrays shall be installed on roof surfaces, to assist in the reduction of the building's energy consumption 10% compared to a National Construction Code (NCC) 2022 compliant reference building.	To reduce greenhouse gas emissions.
SCMM3	During construction.	Provisions shall be made for the future integration of battery systems, enabling energy storage and enhancing operational resilience.	To reduce greenhouse gas emissions.
SCMM4	During construction.	The contractor shall be responsible to ensure that a minimum of 80% of construction and demolition waste (excluding hazardous and contaminated materials) are to be diverted from landfill.	To reduce waste.
SCMM5	During construction and operation.	Measures shall be taken to minimise the negative impacts of light pollution on the surrounding natural environment.	To avoid illumination of natural land and neighbouring spaces.
SCMM6	During construction.	To combat the urban heat island effect, vegetation and roofing materials with a high solar reflective index shall be used onsite.	To combat the urban heat island effect and reduce energy consumption.
SCMM7	During construction.	Low flow-rate fixtures are to be installed throughout the building to minimise unnecessary water wastage, particularly for sanitary purposes. Rainwater tank shall be installed and used for irrigation purposes.	Resilience in times of drought, community resilience allowing more fresh water to be available during times of drought.
SCMM8	During operation.	Indoor environmental quality strategies will be implemented to enhance occupant comfort and wellbeing, addressing visual, thermal, and acoustic comfort, as well as indoor air quality.	To ensure the health of student and staff is not harmed and to support a high quality learning environment.
SCMM9	During construction.	Materials will be carefully selected with a focus on reuse, recycling, reduced embodied energy, and transparency.	To reduce greenhouse gases.
SCMM10	Prior to operation.	The design and construction team shall be required to prepare and deliver operations	To ensure the school can be

Name	Timing	Mitigation Measure	Reason for Mitigation Measure
		and maintenance information to the facilities management team at the time of handover.	operated as efficiently as possible.
SCMM11	Prior to construction.	All building work is to be designed and undertaken in accordance with the National Construction Code Series, Building Code of Australia, Volume 1 and 2, as relevant.	To ensure the activity complies with relevant BCA standards and guidelines.
ACMM1	Prior to construction.	All building work is to be designed and undertaken in accordance with the Building Code of Australia 2022 Volume 1, the Disability (Access to Premises - Buildings) Amendment Standards 2010 and 2020 (Premises Standards), relevant Australian Standards (AS), and the intent of the Disability Discrimination Act 1992 (DDA).	To ensure the activity complies with relevant access standards and guidelines.
HMM3	Prior to construction of the relevant elements.	Preparation of a Heritage Interpretation Strategy will be prepared for the site. This document will identify the relevant historic themes and opportunities to interpret the European history of the subject site, the Murray family ownership between 1874 and 2024, and its connection to Richmond River High Campus at Lake Street. This shall be prepared in accordance with Heritage NSW guidelines and prepared by a suitably qualified heritage consultant. Opportunities for interpretive artwork are to be incorporated into the detailed design of the lift shafts and at the base of the stairs for each building, where possible.	To strengthen and sustain the relationship between the community and its local heritage.
HMM4	During construction.	The head contractor and/ or site foreman is responsible for ensuring the Unexpected Finds Protocol is adhered to during all excavation works on site.	To protect any undocumented or unexpected archaeological relics found onsite.

7.16 Cumulative Impact

7.16.1 Assessment

Gyde has undertaken a detailed review of Council's DA tracker, the DPHI major projects register, and the Sydney and Regional Planning Panels register. Gyde has also contacted Council to determine if there are any relevant projects in the vicinity of the site (such as Part 5 approvals) that would be a relevant consideration in undertaking a cumulative impact assessment for the activity. We note the following:

- The primary development approvals that have the potential to have an overlap in construction or operational activities with the subject project are located within the URA to the north.

- The majority of other DAs relate to alterations and additions to existing uses in the vicinity of the site (such as the speedway/go kart club). These are not likely to have any adverse cumulative impacts with the proposal.
- There are no major projects identified within close proximity of the site. There are a number of active state significant developments (SSDs) applying to the Lismore Base Hospital, however, noting this is some 3km southeast of the site, and no cumulative impact is expected.

With respect to the URA approvals, the entire URA will continue to develop over time, with some overlap in construction activities and then ultimately, an overlap in occupation/operation. Consideration of the URA that is expected to be developed to the north has been given in relevant technical assessments, including traffic, flooding, noise, and visual impact. A summary is provided below. Whilst it is acknowledged that cumulative impact has been assessed based on the overarching masterplan for the URA to the north, a comprehensive assessment has not been carried out at this stage as future development has not yet occurred and the development of this area is still largely unknown.

Traffic and transport

As the URA is within the local school catchment, it can be reasonably expected that a portion of future residents will generate additional school-related trips. The impact of this subdivision on Dunoon Road and the surrounding transport network will be influenced by

- The timing and staging of subdivision delivery relative to the site's opening.
- The completion of transport infrastructure upgrades, including the Dunoon Road upgrade, Dunoon Road shared path and Secondary Road new road connection.
- Modal share trends, particularly the availability of active and public transport options to reduce reliance on private vehicles.

The land to the north has been rezoned, and subdivision approvals have been granted for Stages 1 and 2. However, any future development applications for the construction of dwellings or further stages will need to be submitted separately. The developments potential cumulative impact on the broader road network will need to be considered by the respective developers. No adverse impacts on the surrounding road network are anticipated under the 2027 forecasted traffic conditions.

Flooding

Cumulative flood impacts to developments outside of the subject site has been undertaken as part of the FIRA (Appendix 29). The FIRA demonstrates that the proposal will have no adverse effects upon flood levels or flood behaviours of adjacent sites, with no increase in flood affectation outside the school boundary proposed.

Visual impact

The Visual Impact Assessment was undertaken with consideration of the future URA to the north and the potential impacts this would have on the overall visual context of the school and the surrounding area, if this development ever eventuates as it is planned to. When evaluated at a larger spatial scale, with the inclusion of extensive landscape and architectural integration, and the current rezoning application the proposal is expected to be consistent with the evolving landscape character of a rural township. The overall cumulative visual impact is rated as low to moderate. The extensive landscaping proposal positively enhance its compatibility with the surrounding environment.

Servicing

Noise

The NVAR (Appendix 21) addresses cumulative impact in the case of industrial nose sources located adjacent to the school site, noting that this does not include road, rail, or community noise. Cumulative noise impact for future residential development to the north of the site has been assessed, with the existing ambient noise levels expected to increase once these developments are delivered. This area has been

categorised as a suburban residence, and the NVAR outlines the applicable criteria being no greater than 53 dBA during the daytime.

Events held at Lismore Kart Club and Lismore Speedway were considered, given that these events are conducted outside school operational hours, noise intrusion impacts from these events were not assessed as part of the NVAR.

7.16.2 Mitigation Measures

There are no further measures required to mitigate potential cumulative effects from the project and those within the adjacent URA. Any mitigation measures required to mitigate any potential cumulative impact have been noted individually in the preceding sections.

7.17 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 applies to activities in some catchment areas. The site is within a drinking water catchment area, however, not within a regulated catchment area. Refer to Table 29.

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 Section 7 and where mitigation measures have been proposed in response to the factor, these have been identified.

Table 28 Factors for Consideration under section 171 of the EP&A Regulation 2021

Environmental Factor	Impact Assessment	Mitigation Measure Reference
171 Review of environmental factors—the Act, s 5.10(a)		
(1) If there are no environmental factors guidelines in force, the determining authority must take into account the following environmental factors—		
(a) the environmental impact on the community,	Short term impacts may arise during the demolition and construction process including traffic, noise, access and dust. However, suitable mitigation measures have been included to ensure potential impacts are minimised during the demolition and construction process. Environmental impacts have been assessed as part of this REF and subject to the implementation of the proposed mitigation measures, the activity will not result in unacceptable environmental impacts. The proposed activity has been designed in accordance with the recommendations of the consultant team and with consideration of the feedback provided by Council and State government agencies regarding flood and bushfire resilience of the design and operations. Long-term, the proposed activity will have a beneficial impact for the community by providing modern and fit-for-purpose secondary school facilities that have been designed to be resilient to impacts from flood, bushfire and climate change. Students will be able to attend high school in	Refer to Appendix 1 and all bespoke mitigation measures provided.

Environmental Factor	Impact Assessment	Mitigation Measure Reference
	Lismore, in a location that is within proximity to the old school campus, prior to its damage from the 2022 floods and 2025 fire.	
(b) the transformation of the locality,	The proposed activity includes the construction of new school on a largely vacant site. There will be short term impacts during construction which will be subject to suitable mitigation measures. The proposed activity will change the locality, but in a positive way, through provision of new educational options for secondary school attendees. The design of the buildings and landscape outcome will ensure a positive visual outcome when viewed from the site's two street frontages. Significant vegetation on the site will be retained so as to not impact the biodiversity value of the site.	Refer to Appendix 1.
(c) the environmental impact on the ecosystems of the locality,	The activity is unlikely to significantly affect threatened species, ecological communities or their habitats, within the meaning of the BC Act, and therefore a Species Impact Statement (SIS) or BDAR is not required. No significant impacts to any Commonwealth land or matters of national environmental significance (MNES) under the EPBC Act will be likely to result from the activity. The proposed activity is not expected to have a significant impact on the biodiversity values present at the site, given the location of protected and/or threatened species outside of the activity footprint.	Refer to Appendix 1 and mitigation measures provided in Section 7.4.3 (ecology and biodiversity).
(d) reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality,	There will be a short-term impact on the aesthetic qualities of the site during the construction work. Mitigation measures have been identified to address construction noise, vibration and traffic impacts. In addition, measures are in place to mitigate environmental impacts of the school's operations. Accordingly, the proposed activity will not reduce aesthetic, recreational, scientific or other qualities of the locality.	Refer to mitigation measures provided in Section 7.6.3 (Noise and Vibration), Section 7.5.3 (Traffic), and Appendix 1 for standard mitigation measures prescribed by the department for school operational management.
(e) the effect on any locality, place or building that has *(i) aesthetic, anthropological, archaeological, architectural, cultural,*	There will be no impact on Aboriginal heritage items (built, landscape or archaeological). The proposal requests that an AHIP be sought, which provides statutory defence against harm to all known and unknown Aboriginal objects inside the RRHC boundary. The AHIP will also provide approval for the	Refer to Appendix 1 and mitigation measures provided in Section 7.12.3

Environmental Factor	Impact Assessment	Mitigation Measure Reference
historical, scientific or social significance or *(ii) other special value for present or future generations,*	management of lithics recovered during the test archaeological excavation, and collection of lithics from a surface-base context across the RRHC site. The site is also not within any heritage conservation areas or items. With regard to the design, as detailed in this REF and accompanying landscape and architectural documentation, the proposed buildings and landscape have been designed to connect with Country. Further opportunities have been identified to enable Country to be incorporated into the design, in consultation with the local Aboriginal community, with respect to educational opportunities, the development of signage and selection of landscaping for the site.	(Aboriginal Heritage), and Mitigation SOMM1 that requires continued consultation with the WWGAC and RAPs.
(f) the impact on the habitat of protected animals (within the meaning of the Biodiversity Conservation Act 2016),	The works do not impact on the habitat of any protected animals, within the meaning of the Biodiversity Conservation Act 2016. As the activity is unlikely to have a significant impact on any of the protected species, a Species Impact Statement under the BC Act is not required. Mitigation measures have been identified in the Biodiversity Assessment Report to mitigate any indirect impacts.	Refer to Appendix 1 and mitigation measures provided in Section 7.4.3.
(g) the endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air,	The proposed activity will not result in the endangering of any species of animal, plant or other form of life.	Refer to Appendix 1 and mitigation measures provided in Section 7.4.3.
(h) long-term effects on the environment,	The proposed activity has been designed to ensure there will be no unacceptable long-term impacts on the environment. The activity will have a positive social benefit on the locality and environment as outlined in the SIA.	Refer to Appendix 1 and mitigation measures provided in Section 7.14.3..
(i) degradation of the quality of the environment,	Appropriate mitigation measures have been recommended to ensure that the activity will not reduce the quality of the natural environment, including ecology, landscape, stormwater management, noise and waste management.	Refer to Appendix 1 and mitigation measures provided in Section 7.4.3 (Ecology), Section 7.8.3 (stormwater management), and Section 7.6.3 (Noise and Vibration).
(j) risk to the safety of the environment,	The proposed activity has been designed in accordance with the environmental constraints of the site, with particular focus on mitigating flood and bushfire risks. The flood and bushfire design and management response for the activity has been	Refer to Appendix 1 and mitigation measures provided in

Environmental Factor	Impact Assessment	Mitigation Measure Reference
	developed having regard to the risk profile of the site and surrounds (including access roads) and following feedback from the SES (for flooding), the RFS (for bushfire) and Council.	Section 7.2.3 (Flooding) and Section 7.3.3 (Bushfire).
(k) reduction in the range of beneficial uses of the environment,	The proposed activity will not result in a reduction in the range of beneficial uses of the environment.	N/A
(l) pollution of the environment,	The activity will not result in pollution of the environment. Stormwater and sewage management has been considered in the assessment of potential polluting impacts of the activity and appropriate mitigation measures have been provided to protect the environment.	Refer to Appendix 1 and Section 7.8.3.
(m) environmental problems associated with the disposal of waste,	Construction and operational waste management plans have been prepared which set out all management practices required to reduce, minimise or avoid adverse impacts arising from the disposal of waste. In addition, a Hazardous Building Materials report has set out waste management procedures for the removal of hazardous materials. All outcomes and recommendations of these reports have been captured in the mitigation measures for the activity.	Refer to Appendix 1 and Section 7.10.3 (Hazardous Building Materials) and 7.11.3 (Demolition, Construction, and Operational Waste Management).
(n) increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply,	The activity is unlikely to result in increased demands on resources that are, or are likely to become, in short supply. Measures to reduce the consumption of materials, energy and water over the lifetime of the building have been incorporated into the building's design and so will be implemented through the terms of the activity, once approved.	Refer to Appendix 1 and mitigation measures SCMM2 to SCMM11 provided in Section 7.15. 2..
(o) the cumulative environmental effect with other existing or likely future activities,	As set out in this REF, there are likely to be some cumulative environmental effects of the activity with regard to the future development potential of the URA. Consideration of impacts, including traffic, noise, visual, and flood, has been given in the design of the school. Whilst the timing and delivery of the extent of the development to the north is unknown, the design of the school responds to any potential cumulative impact, and mitigation measures have been outlined to ensure that any impacts are managed appropriately.	Refer to Section 7.16.2. No bespoke mitigation measures required.
(p) the impact on coastal processes and coastal hazards, including those under projected climate change conditions,	The site is not in a coastal location. Therefore, further consideration of this is not required.	N/A

Environmental Factor	Impact Assessment	Mitigation Measure Reference
(q) *applicable local planning statements, regional strategic plans made under the Act, Division 3.1,*	The proposed activity is consistent with the aims, objectives, planning priorities of the relevant strategic plans as set out in this REF.	N/A
(r) *other relevant environmental factors.*	There are no further environmental factors that need to be considered in the assessment of the activity.	N/A

Table 29 Factors for Consideration under section 171A of the EP&A Regulation 2021

Environmental Factor	Impact Assessment	Mitigation Measure Reference
171A Activities in catchments—the Act, s 5.10(a)		
(1) When considering the likely impact on the environment of an activity proposed to be carried out in a regulated catchment, a determining authority must take into account— *(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 State Environmental Planning Policy (Biodiversity and Conservation) 2021, sections 6.6(2), 6.7(2), 6.8(2) and 6.9(2).*	As set out in 171A(1)(6), **regulated catchment** has the same meaning as in State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 6. ***regulated catchment** means the following—* *(a) the Sydney Drinking Water Catchment,* *(b) the Sydney Harbour Catchment,* *(c) the Georges River Catchment,* *(d) the Hawkesbury-Nepean Catchment.* The site is is in a dr Therefore, 171A(1) is not applicable.	N/A
(2) However, the determining authority is not required to take into account the matters specified in State Environmental Planning Policy (Biodiversity and Conservation) 2021, section 6.9(1) or (2) if the activity is proposed to be carried out in a special area under the Water NSW Act 2014.	Under the Water NSW Act 2014, a ***special area** means an area of land for the time being declared under this Act to be a special area.* Section 6.9(1) and (2) of the Biodiversity SEPP relates to recreation and public access. The site is located within a drinking water catchment, however, is not located within a regulated catchment. Therefore, 171A(2) is not applicable.	N/A

Environmental Factor	Impact Assessment	Mitigation Measure Reference
(3) When considering the likely impact on the environment of an activity proposed to be carried out in the Sydney Drinking Water Catchment, the determining authority— *(a) must, in addition to the matters referred to in subsection (1), take into account whether the activity—* *(i) will have a neutral or beneficial effect on water quality, and* *(ii) is consistent with the NorBE Guideline within the meaning of State Environmental Planning Policy (Biodiversity and Conservation) 2021, Part 6.5, and* *(b) is not required to take into account the matters specified in State Environmental Planning Policy (Biodiversity and Conservation) 2021, section 6.6(1)(a) or (2)(a).*	The site is not located within the Sydney Drinking Water Catchment. Therefore, 171A(3) is not applicable.	N/A
(4) When considering the likely impact on the environment of an activity proposed to be carried out in the Sydney Harbour Catchment, the determining authority must, in addition to the matters referred to in subsection (1), take into account the matters a consent authority must consider under State Environmental Planning Policy (Biodiversity and Conservation) 2021, section 6.28(1).	The site is not located within the Sydney Harbour Catchment. Therefore, 171A(4) is not applicable.	N/A
(5) The requirements of this section are in addition to the requirements specified in section 171.	Section 171 has been addressed above.	N/A
(6) In this section— ***regulated catchment** has the same meaning as in State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 6.* ***Sydney Drinking Water Catchment** has the same meaning as in State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 6.* ***Sydney Harbour Catchment** has the same meaning as in State Environmental Planning Policy (Biodiversity and Conservation) 2021, Chapter 6.*	Noted.	N/A

8. Conclusion

This REF relates to the proposed flood recovery rebuild for RRHC, which will be determined via a Ministerial Authorisation under Section 68 of the RA Act. The REF has been prepared to inform the determination by the RA, on the suitability of the site and project with respect to all matters affecting, or likely to affect, the environment by reason of the proposal.

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

- It responds to an existing need within the community and importantly, direct feedback from the community that preference is for the school to return permanent operations from the current site.
- It generally complies with, or is consistent with all relevant legislation, plans and policies.
- It has minimal environmental impacts.
- Adequate mitigation measures have been proposed to address these impacts.

With respect to the key constraint relevant to the site, being flooding, a robust risk-based assessment has been undertaken to inform the FIRA and FERP. This assessment has also been informed by cross-agency risk workshops, experiences and outcomes on other Northern Rivers Flood Recovery projects and input from key stakeholders. The strategy responds to the risk profile of the site and provides for a conservative response for flood management.

As evidenced in this REF, 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, on an individual or cumulative basis.

On this basis, it is recommended that the RA seek a Ministerial Authorisation to the proposed activity in accordance with subject to the implementation of mitigation measures identified within this REF at Appendix 1.