

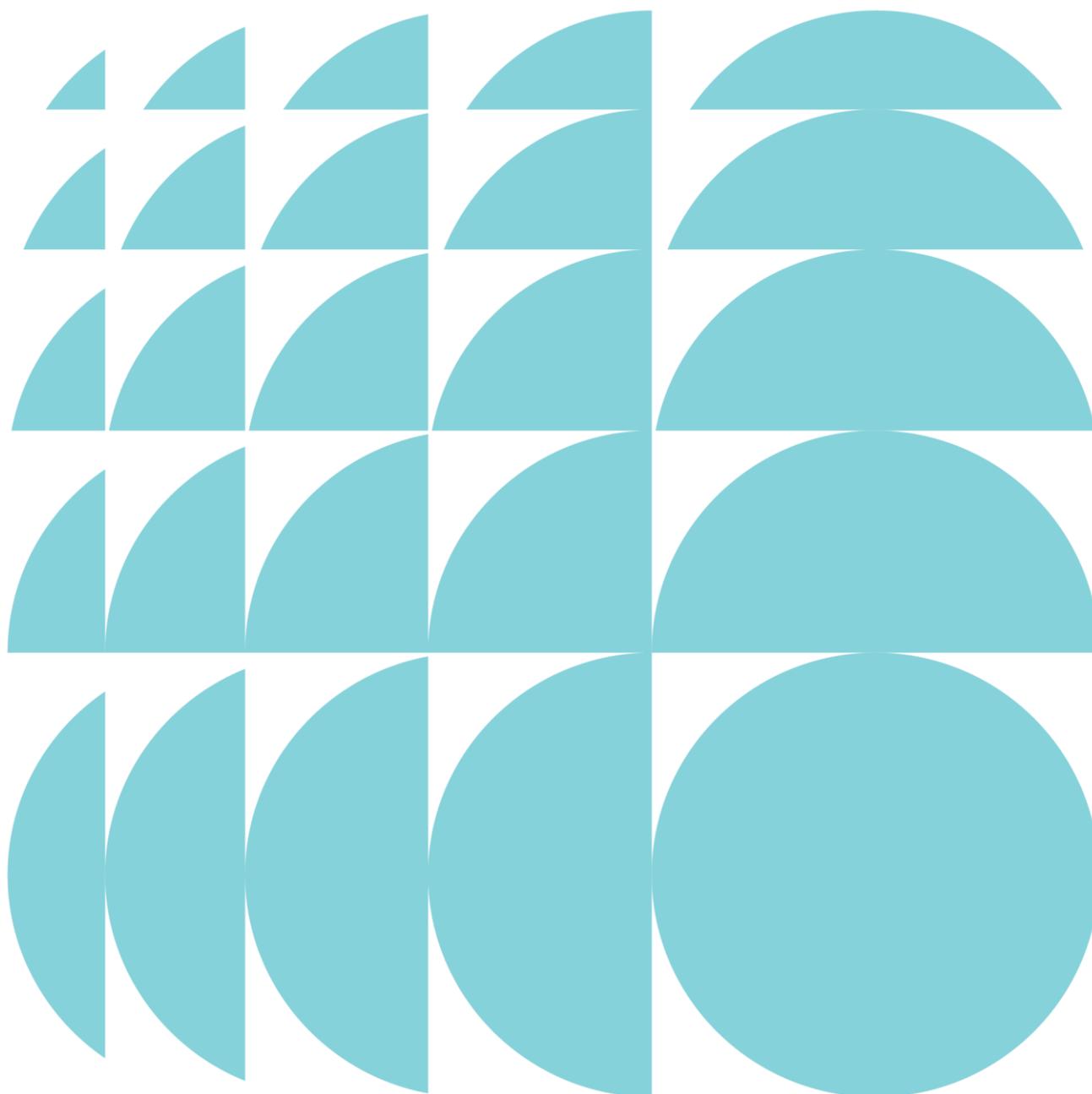
ETHOS URBAN

Environmental Impact Statement

New Wee Waa High School
105-107 Mitchell Street, Wee Waa

Submitted to NSW Department of Planning,
Industry and Environment
On behalf of NSW Department of Education

8 November 2021 | 2210246



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18 October 2021

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18 October 2021

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Contents

Statement of Validity	7
Executive Summary	8
1.0 Introduction	11
1.1 Overview of Proposed Development	11
1.2 Need for the Project	12
1.3 Objectives of the Development	15
1.4 Analysis of Alternatives	15
1.5 Secretary's Requirements	17

2.0 Site Analysis	29
2.1 Site Location and Context	29
2.2 Site Description	30
2.3 Surrounding Development	36
2.4 New Wee Waa High School Intake Area	38

3.0 Description of the Development	39
3.1 Development/Urban Design Principles	41
3.2 Numerical Overview	41
3.3 Built Form	42
3.4 External Materials and Finishes	46
3.5 Proposed Uses	47
3.6 Landscaping and Public Domain	47
3.7 Connecting with Country	50
3.8 Site Preparation, Civil Infrastructure and Earthworks	50
3.9 Tree Removal	50
3.10 Pedestrian Access and Circulation	51
3.11 Vehicular Access and Parking	51
3.12 Building Services	52
3.13 Environmentally Sustainable Development	53
3.14 Infrastructure and Utilities	54
3.15 Signage	55
3.16 Lighting	56
3.17 Construction	57
3.18 Operation	57

4.0 Consultation	58
5.0 Environmental Assessment	65
5.1 Relevant EPIs, Policies and Guidelines	65
5.2 Built Form and Urban Design	71
5.3 Environmental Amenity	74
5.4 Transport and Accessibility	77
5.5 Social Impacts	83
5.6 Built Heritage and Archaeology	84
5.7 Aboriginal Heritage	84
5.8 Noise and Vibration	85
5.9 Biodiversity	87
5.10 Construction Management	90

Contents

5.11	Stormwater, Drainage and, Sediment and Erosion Control	91
5.12	Flooding	92
5.13	Contamination	95
5.14	Cumulative Impact Assessment	96
5.15	Air Quality	97
5.16	Ecological Sustainable Development	98
5.17	Operational Waste	99
5.18	Other Assessment Issues	100
5.19	Development Contributions	100
5.20	Site Suitability	101
5.21	Public Interest and Economic Impacts	101
<hr/>		
6.0	Environmental Risk Assessment	102
7.0	Mitigation Measures	104
8.0	Conclusion and Justification	109

Figures

Figure 1	Artistic Rendering of Proposed Development	12
Figure 2	Flood Mitigation Works Under Separate Planning Pathway: Site Layout	13
Figure 3	Flood Mitigation Works Under Separate Planning Pathway: On-Site and Surrounding Works	14
Figure 4	Flood Mitigation Works Under Separate Planning Pathway: Downstream Works	14
Figure 5	Alternative Design Options	16
Figure 6	Proposed Site Layout	17
Figure 7	Site Context NSW (left) and local (right)	29
Figure 8	Site Context in Relation to the Township	30
Figure 9	Aerial photography of Site	31
Figure 10	Photographs of Existing Site (Clockwise from top): Aerial looking north-east, looking west from George/Mitchell St intersection, northern portion of site (cleared for contamination investigation), looking west from George Street	32
Figure 11	Biodiversity Value Mapping	33
Figure 12	Key Flood Features and Infrastructure in and Surrounding Wee Waa	34
Figure 13	Existing Site Flood Inundation Levels for Riverine Flooding: 1% AEP (left), Extreme (right)	34
Figure 14	Existing Site Flood Inundation Levels for Localised Flooding: 20% AEP (left), 1% (right)	35
Figure 15	Localised Area of Contamination Shown in Yellow (left), Detailed Site Investigations (right)	36
Figure 16	Photographs of Surrounding Development (clockwise from top): Residential dwelling to the north at 41 George Street, residential dwellings to	

Contents

	the east, public school to the south from Mitchell Street, residential dwellings to the west	37
Figure 17	Existing Wee Waa Public School (temporary high school classrooms shaded in red)	37
Figure 18	School Catchment Area	38
Figure 19	Photomontage of Main Entrance - Eastern Elevation (George Street)	39
Figure 20	Photomontage of Proposed Development (Looking North West from the Corner of George and Mitchell Streets)	40
Figure 21	Photomontage Aerial Overlooking Indigenous Centre, Community Circle and Main Courtyard (Looking South from Northern Boundary)	40
Figure 22	Proposed Site Layout	41
Figure 23	Artistic Rendering of Proposed Development (Looking North from across Mitchell Street)	43
Figure 24	Site Layout Design Exploration	43
Figure 25	Proposed Main School Ground Level Layout	44
Figure 26	Proposed Main School Building Level 1 Layout	45
Figure 27	Agricultural and Environment Learning Centre: Floor Plan (left), Elevation (right)	45
Figure 28	Indigenous Cultural Centre (Binaalbaa): Floor Plan (left), Artistic Render (right)	46
Figure 29	Indicative Schedule of Materials and Finishes	47
Figure 30	Landscaping Zones	48
Figure 31	View of School Entry - Natural and Cultural Landscape Zone	49
Figure 32	Proposed Landscape Site Plan	49
Figure 33	Pedestrian Access, Security and Circulation Strategy	51
Figure 34	Indicative Ground Floor Services Locations (Amenities Shown in Blue)	53
Figure 35	Indicative Level One Building Services Locations (Amenities Shown in Blue)	53
Figure 36	Proposed School Pylon Sign – Elevation Drawing	55
Figure 37	Proposed School Identification Signs – Building Elevations	56
Figure 38	Concept External Lighting Strategy Plan	56
Figure 39	Main School Building Elevations: South (top) and North (bottom)	71
Figure 40	Height and Scale Precedents Throughout the Wee Waa Township	72
Figure 41	Diagrammatic Representation of the Elements of Environmental Amenity	75
Figure 42	Photomontage Showing Visual Impact of Proposal – Looking North Down Church Street	75
Figure 43	Photomontage Showing Visual Impact of Proposal – Looking west Down Mitchell Street	76
Figure 44	Photomontage Showing Visual Impact of Proposal – Looking From George/Mitchell Street	76

Contents

Figure 45	Proposed Construction Vehicle Routes and Site Access	82
Figure 46	Location of loggers (left) and surrounding residential receivers likely to be most impacted by the proposed development (right)	85
Figure 47	Biodiversity Impacts Requiring Offset Due to the Proposed Development	88
Figure 48	Modelled Depth of Inundation – 20% AEP Event	93
Figure 49	Modelled Depth of Inundation – 1% AEP Event	94
Figure 50	Modelled Afflux and Land rendered flood free (pink) compared to existing condition – 1% AEP event	94
Figure 51	Risk Assessment Matrix	102

Tables

Table 1	Secretary's Requirements	18
Table 2	Legal Description of the Site	30
Table 3	Key development information	41
Table 4	Proposed School Identification Signage	55
Table 5	Summary of Issues Raised and Response	58
Table 6	Summary of Agency Consultation	59
Table 7	Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines	65
Table 8	Assessment against Schedule 1, SEPP 64	69
Table 9	Consistency with CPTED Principles	76
Table 10	Existing Student Travel Mode Split	78
Table 11	Peak Vehicle Turning Volumes	79
Table 12	Comparison of Level of Service and Delate Times at Key Intersections	79
Table 13	Green Travel Plan Target Mode Share	81
Table 14	Recommended safe working distances for vibration generation plant	86
Table 15	Ecosystem Biodiversity Offset Credits	89
Table 16	Species Biodiversity Offset Credits	89
Table 17	Other Assessment Issues	100
Table 18	Mitigation Measures	104

Appendices

- A** Site Survey
Barnson
- B** Secretary's Environmental Assessment Requirements
Department of Planning, Industry and Environment
- C** Architectural Drawings
SHAC
- D** Architectural Design Report
SHAC

Contents

- E** Landscape Design Report
Moir Landscape
- F** Landscape Plans
Moir Landscape
- G** Arborist Report
McArdle and Sons
- H** Civil Engineering Plans
MDE
- I** Traffic and Accessibility Impact Assessment
TTW
- J** Flood Impact Assessment
Lyll and Associates
- K** Stormwater Management Plan
MDE
- L** Ecologically Sustainable Development Report
Aurecon
- M** Social Impact Assessment
Ethos Urban
- N** Aboriginal Cultural Heritage Assessment Report
Ozark Environment & Heritage
- O** Consultation Outcomes Report
Ethos Urban
- P** Infrastructure and Utilities Management Plan
Marline
- Q** Biodiversity Development Assessment Report
EcoLogical
- R** Acoustic Assessment Report
Day Design
- S** Preliminary Site Investigation
Barnson
- T** Detailed Site Investigation
Barnson
- U** Soil and Water Quality Report
SMK Consultants
- V** Geotechnical Report
Pacific Geotech
- W** Structural Report
Engineered

Contents

- X** Heritage Impact Statement
Ozark Environment & Heritage
- Y** Waste Management Plan (Construction and Operation)
MDE
- Z** Air Quality Assessment
EMM
- AA** Operational Management Plan
Ontoit and SINSW
- BB** Preliminary Construction Management Plan
Ontoit
- CC** Building Code of Australia Capability Statement
Group DLA
- DD** Accessibility Assessment
Group DLA
- EE** Section 10.7 Certificates
Narrabri Shire Council
- FF** Lighting Strategy Report
Marline
- GG** Remediation Action Plan
EMM

Under separate Cover:

- *CIV Report*
- *Lot Consolidation Plan*

Statement of Validity

Development Application Details	
Applicant name	NSW Department of Education
Applicant address	Level 8, 259 George Street, Sydney
Land to be developed	105-107 Mitchell Street, Wee Waa
Proposed development	Construction and operation of a new High School in Wee Waa as described in Section 3.0 of this Environmental Impact Statement
Prepared by	
Name	Jacob Dwyer / Daniel West
Qualifications	Master City Planning (Hons) / Bachelor of Environmental Planning, PIA
Address	173 Sussex Street, Sydney
In respect of	State Significant Development - Development Application
Certification	

I certify that I have prepared the content of this EIS and to the best of my knowledge:

it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;

all available information that is relevant to the environmental assessment of the development to which the statement relates; and

the information contained in the statement is neither false nor misleading.

Signature



Name

Jacob Dwyer and Daniel West

Date

4/11/2021

Executive Summary

Purpose of this Report

This submission to the Department of Planning and Environment (DPIE) comprises an Environmental Impact Statement (EIS) for a Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It relates to the development and operation of the new Wee Waa High School, a new high school with capacity for 200 students (and up to 300 future expansion, subject to funding and service need).

Development of a new school, regardless of the Capital Investment Value is identified in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) as *State Significant Development* (SSD) for the purpose of the EP&A Act. As the proposed development is for the purpose of a new school, it is identified as SSD.

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on 7 June 2021. Accordingly, the SEARs were issued on 6 July 2021 (SSD-21854025). A request for amended SEARs was made in September 2021, to which DPIE advised an amendment to the SEARs was not required (29 September 2021 by email). This submission is in accordance with DPIE's guidelines for SSD applications lodged under Part 4 of the EP&A Act, and addresses the issues raised in the SEARs.

Overview of the Project

Students and staff were evacuated from the current Wee Waa High School site due to ongoing health issues in late 2020. Students are currently co-located within Wee Waa's primary school in a site that is now overcrowded. A Ministerial announcement made on 3 June 2021 committed to the construction of a new high school at Wee Waa on existing Department of Education owned land and Crown Land, as an urgent priority. The Crown Land is in the process of being acquired.

The SSD Application (SSDA) seeks consent for the construction of a new two-stream high school for 200 students with capacity to grow to 300 students subject to further funding and service need. Specifically, the SSDA seeks approval for the following development:

- Site preparation, earthworks and remediation as required.
- Construction of the following:
 - A new two-storey school building arranged in a U-shape courtyard typology, including teaching spaces, library/administration, staff facilities, and a multi-purpose gymnasium/hall.
 - A Covered Outdoor Learning Area (COLA).
 - One grass sporting field with a perimeter running track and asphalt playing courts.
 - A standalone single-storey Agricultural and Environment Centre building.
 - A standalone single-storey Indigenous Cultural Centre.
 - Internal vehicular access from George Street running east-west through the site.
 - Two at-grade car parking areas with a total of 40 parking spaces.
- Augmentations to the road network as required to ensure road safety, including a dedicated drop off/pickup area and bus bay along George Street and a pedestrian crossing on Mitchell Street.
- Removal of trees as required and retention where possible.
- Installation of landscaping, additional tree planting and fencing to integrate with the design of the new school.
- Installation of signage and public art.
- Installation and augmentation of associated services infrastructure to service the new school.

Early works will be completed in relation to flood management works, infrastructure services (electricity network augmentation) and upgrades to the former school agricultural plot via separate planning pathways.

The Site

The site is located centrally in the township of Wee Waa, within Narrabri Local Government Area (LGA). The site is approximately 6.03 hectares in area and is roughly L-shaped. It is undeveloped with several natural, open stormwater drainage channels running through it. The site has a frontage to Mitchell Street along the southern boundary, Charles Street along the western boundary and George Street along the eastern boundary and residential lots to the north. The site is made up of four allotments, three of which are Crown Land and one owned by the NSW Department of Education. The NSW Department of Education currently own a lease over the Crown Land, expiring in February 2022, that allows for site investigation works to be undertaken. NSW Department of Education are in the process of acquiring the Crown Land allotments.

Planning Context

Section 5.0 of the EIS considers all applicable legislation in detail. The proposal is consistent with the requirements of all relevant State Environmental Planning Policies (SEPPs). The site is zoned R1 General Residential under the *Narrabri Local Environmental Plan 2012* (NLEP 2012). Clause 35(1) of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (ESEPP) states that “Development for the purpose of a school may be carried out by any person with development consent on land in a prescribed zone”. Zone R1 is a ‘prescribed zone’ under the ESEPP. The proposal is permissible with consent and meets the objectives of the subject zone.

Environmental Impacts and Mitigation Measures

This EIS provides an assessment of the environmental impacts of the project in accordance with the SEARs and sets out the undertakings made by School Infrastructure NSW (SINSW) to manage and minimise potential impacts arising from the development.

Consultation

Section 4.0 of the EIS details the consultation that has been undertaken with various project stakeholders including Narrabri Shire Council, Wee Waa High School and Public School staff and community, the local community, Government Architect NSW, Transport for NSW, NSW Health, DPIE – Water and the Natural Resources Access Regulator, Heritage NSW - Aboriginal Cultural Heritage, Crown Lands and Essential Energy. The outcomes of the consultation process have been considered in the design of the project.

Conclusion and Justification

The EIS addresses the SEARs, and the proposal provides for the development of the new Wee Waa High School. The potential impacts of the development are acceptable and are able to be managed. Given the planning merits of the proposal, the proposed development warrants approval by the Minister for Planning and Public Spaces.

Having regard to biophysical, economic, and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the development will not generate any environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.
- The development will provide a significant new piece of social and educational infrastructure, providing a new school with permanent teaching spaces to accommodate up to 200 students (with future growth capacity to accommodate 300 students, subject to funding and service need). The new school is an urgent need for the community and will support and strengthen the availability of educational facilities in the region.
- The proposal is consistent with the principles of ecologically sustainable development as defined by Schedule 2(7)(4) of the *Environmental Planning & Assessment Regulation 2000*.
- The proposal has a high need to be delivered urgently and is undoubtedly in the public interest.
- The area and shape of the site allows for the provision of new teaching and educational facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on surrounding uses.
- The proposal will alleviate pressure from the existing Wee Waa Public School and provide new open space assets that can be used by the high school and public school populations as well as the wider community.

- The proposed development is anticipated to create an additional 11 full-time equivalent positions at the school. This is anticipated to have additional social benefits for the region in terms of providing additional employment. The development will also create 150 direct and indirect jobs during construction.
- Transport and access impacts associated with the proposed development can be appropriately managed and active transport will be promoted and encouraged.
- The proposal has significant social benefit and will contribute positively to the township and broader region.

1.0 Introduction

This EIS is submitted to DPIE pursuant to Part 4 of the EP&A Act in support of an SSD Application for the development of a new high school in Wee Waa.

Development for new schools, regardless of the Capital Investment Value, is identified in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) as SSD for the purposes of the EP&A Act. As the proposed development is for the purposes of a new school, it is identified as SSD.

The report has been prepared by Ethos Urban SINSW on behalf of the NSW Department of Education and is based on the Architectural Plans provided by SHAC (see **Appendix C**) and other supporting technical information appended to the report (see Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included at **Appendix B**. This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

1.1 Overview of Proposed Development

The SSDA seeks consent for the construction of a new two-stream high school with a capacity of 200 students (with future growth potential for up to 300 students, subject to funding and service need). Specifically, the SSDA seeks approval for the following development:

- Site preparation, earthworks and remediation as required.
- Construction of the following:
 - A new two-storey school building arranged in a U-shape courtyard typology, including teaching spaces, library/administration, staff facilities, and a multi-purpose gymnasium/hall.
 - A Covered Outdoor Learning Area (COLA).
 - One grass sport field with a perimeter running track and asphalt playing courts.
 - A standalone single-storey Agricultural and Environment Centre building.
 - A standalone single-storey Indigenous Cultural Centre.
 - Internal vehicular access from George Street running east-west through the site.
 - Two at-grade car parking areas with a total of 40 parking spaces.
- Augmentations to the road network as required to ensure road safety, including a dedicated drop off/pickup area and bus bay along George Street and a new pedestrian crossing on Mitchell Street.
- Removal of trees as required and retention where possible.
- Installation of landscaping, additional tree planting and fencing to integrate with the design of the new school.
- Installation of signage and public art.
- Installation and augmentation of associated services infrastructure to service the new school.



Figure 1 Artistic Rendering of Proposed Development

Source: SHAC

1.2 Need for the Project

A commitment was made to build a new high school at Wee Waa on vacant land adjacent to the Wee Waa Public School after students and staff were evacuated from the current Wee Waa High School site due to ongoing health issues in late 2020. Since then, high school students have been attending school in temporary facilities co-located with the public school on an overcrowded site. The new school is considered an urgent priority for the students, staff, the Minister for Education, as well as for the town.

This proposed high school is required to replace the existing Wee Waa High School, which is located at the north-eastern periphery of the township, on the southern side of the Kamilaroi Highway. The existing school's buildings are unfit for occupation or upgrade works as they are being investigated in relation to health and hazard concerns.

The existing high school's agricultural plot will be upgraded and utilised by the proposed new high school. The upgrade works to the existing agricultural plot are subject to a separate planning pathway.

SINSW are anticipating operation of the new school to commence in late 2022.

1.2.1 Other Applications

Other separate but related works will be delivered by via Part 5 of the EP&A Act as 'Development without Consent' under the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) and Exempt and Complying Development under the ESEPP. The works include:

- Flood mitigation works.
- Upgrades to electricity distribution network.
- Upgrades to the existing school agricultural plot.

The works are described below. Mitigation measures are provided in **Section 7.0** requiring these works to be approved prior to the determination of the SSDA.

Flood Mitigation Works

Flood mitigation works are being undertaken in accordance with Division 7 of the ISEPP as development without consent. The flood mitigation works comprise on-site and off-site works and will render the site mostly flood-free for future development as well as reducing flood impacts to residents and business throughout the township of Wee



Figure 3 Flood Mitigation Works Under Separate Planning Pathway: On-Site and Surrounding Works

Source: Lyall & Associates



Figure 4 Flood Mitigation Works Under Separate Planning Pathway: Downstream Works

Source: Lyall & Associates

Upgrades to Electricity Distribution Network

Upgrades to the electricity distribution network are being undertaken in accordance with Division 5 of the ISEPP as development without consent. The works include the installation of a new pole-mounted substation in the Mitchell Street road reserve, along the southern frontage of the site. The determining authority is Essential Energy.

Works on the Existing High School Site

Investigative works and demolition of buildings on the existing school site at 1 Purcell Avenue do not form part of this or any related application and will be undertaken as a separate project. This is due to the buildings on the site believed to be causing health issues for staff and students. The priority is to construct a new school to get students out of the temporary arrangement into a safe school, with detailed health and safety investigations of the existing school site to be undertaken separately.

Upgrades to the agricultural plot on the existing school site will be undertaken separately as Exempt and Complying Development under the ESEPP. The existing agricultural plot is currently operational and being used by the school. The new school will continue to use the existing, and upgraded, facilities.

1.3 Objectives of the Development

The objectives of the new Wee Waa High School development are to:

- Provide a suitable education facility for the high school staff and students that are currently collocated in an overcrowded site at Wee Waa Public School.
- Improve the learning environment for teachers and students through the provision of contemporary facilities which are fit for future focused learning and experiences.
- Maximise the opportunities provided by the proposed development to create new horizons for students and improve their pathways into knowledge-based careers with the future economy of Narrabri and beyond.
- Enable the school to become a central place in the community and provide a focal point for the community by acting as a hub and conduit for services that will support their education and overall health and wellbeing.
- Enable connections to the Aboriginal community and encourage cultural learning for all.

1.4 Analysis of Alternatives

Strategic need for the proposal

Since the closure of the existing high school in 2020, a commitment was made to build a new high school at Wee Waa on vacant land adjacent to the Wee Waa Public School. The high school staff and students have temporarily been relocated to the site of the Wee Waa Public School. The new High School is required to relieve the primary school of the high school students, ensure high school students have safe access to high-class facilities and have adequate space to accommodate their learning, health and social needs.

Furthermore, Planning Priority 12 *Education and Research* and Planning Priority 15 *Coordinate Infrastructure Delivery* of the Narrabri Local Strategic Planning Statement 2040 support the provision of a new high school to accommodate for the current and future population and provide high-quality facilities.

1.4.1 Alternative Options

Four broad options were considered by SINSW in responding to the identified need for the development of the new Wee Waa High School. These options are described below.

Option 1 – Do Nothing

Under the 'do nothing' scenario, the existing high school population would remain on the site of the Public School since they cannot return to the existing school which is not fit for purpose. This is an unacceptable outcome that would not adequately respond to current or future education needs and would potentially lead to a decline in education outcomes. Not undertaking the work would be an inappropriate outcome for a project of this nature, which will facilitate the development of much need education infrastructure in the region.

Option 2 – Alternative Sites

As part of the initial planning stages for the project, as well as in response to detailed flood studies, a range of alternative sites were considered for the new school. This included:

- The existing school site, which is not fit for use or redevelopment involving school classrooms due to health and safety concerns.
- A range of other sites within the Wee Waa township (including land zoned RE1 Public Recreation where school development is prohibited).

The subject site was deemed the most appropriate due to its unimproved state, location centrally within the town and adjacent to the existing public school, ownership structure and dedication for future education use.

Option 3 – Alternative Designs

SINSW and project architects SHAC explored a number of different design options at the selected site before arriving at the proposed development. The options considered were assessed against the key site planning parameters, including retention of existing open space, public access, traffic mitigation measures and relationship with the surrounding natural environment. The designs were also discussed in collaboration with the school user group to ensure an appropriate functional outcome for the site was proposed. A selection of the primary design options investigated by the team are shown at **Figure 5**.



Masterplan Option

Option A – On-site, north-south track with flood mitigation

Option B – Acquisition of neighbouring property

Figure 5 Alternative Design Options

Source: SHAC

Option 4 – The Proposal

The proposed design involves undertaking the proposed development as outlined in this SSDA (as described in **Section 3.0**). The SSDA captures a superior design that conforms to the natural environment and site opportunities/constraints at a greater level than what the alternative option provided. The proposal will facilitate the efficient construction of a high-quality design that responds to the strategic need identified above, whilst providing a

high level of amenity to the future high school students and responding to the surrounding residential context and neighbouring public school.

The proposal is shown in **Figure 6** and allows for the following key benefits:

- An east-west oriented grass track and playing field that will stay dry most of the year in frequent flood events.
- Co-location with the public school and the centre of town, facilitating a true placemaking opportunity.
- Appropriate response to the flooding constraints on the site.
- Allows for a two-storey courtyard typology for the main buildings (as envisaged by the master plan), with main entrance and drop off from George Street.
- Key vehicular and pedestrian connections to the civic buildings and facilities that will be used by the community outside of school hours.
- Utilisation of an off-site agricultural plot (at the existing school site), which means a significantly larger agricultural area than if it was accommodated on-site, and no amenity impact to the surrounding residents of the school due to livestock being kept on site.

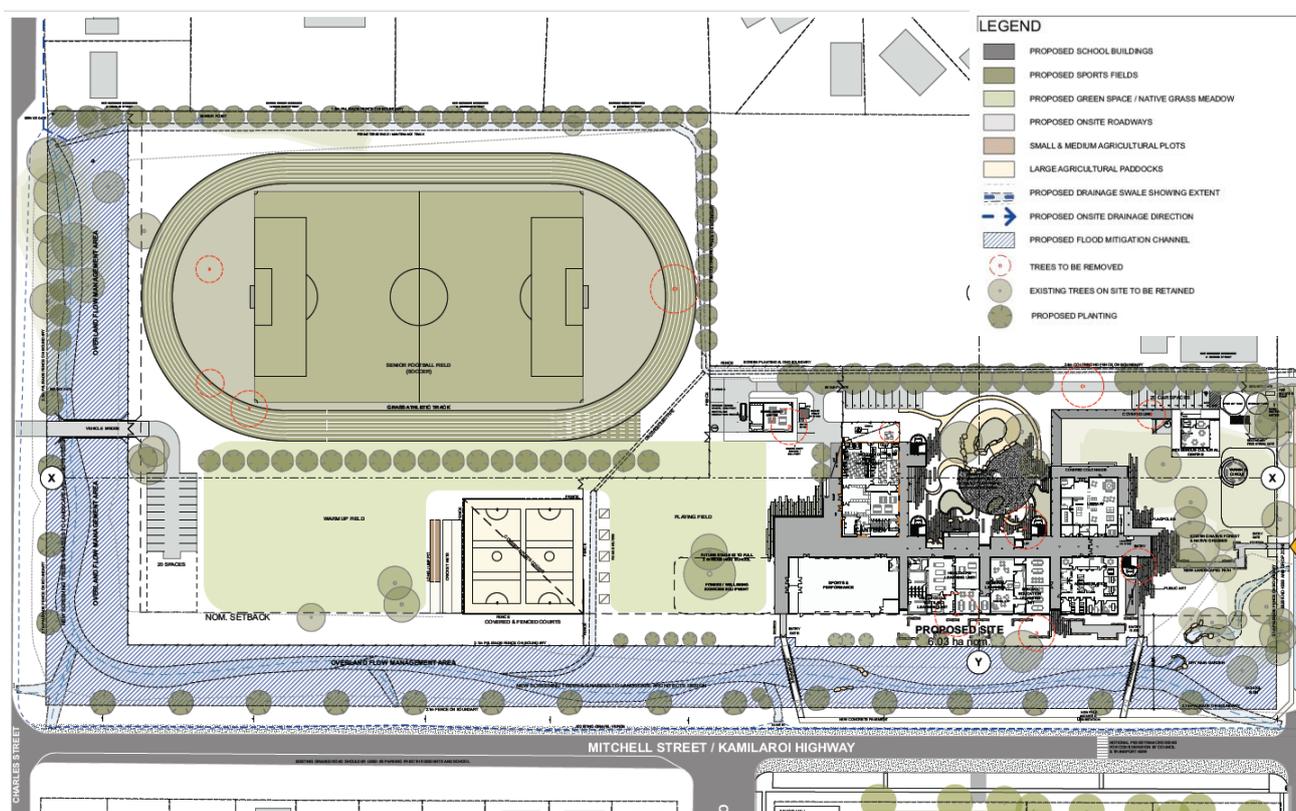


Figure 6 Proposed Site Layout

Source: SHAC

1.5 Secretary’s Requirements

In accordance with section 4.39 of the EP&A Act, the Secretary of DPIE issued the requirements for the preparation of the EIS on 6 July 2021. A copy of the Secretary’s Environmental Assessment Requirements (SEARs) is included at **Appendix B**. A request for amended SEARs was made in September 2021, to which DPIE advised an amendment to the SEARs was not required (29 September 2021 by email).

Table 1 provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 1 Secretary's Requirements

Requirement	Location in Environmental Assessment
General	
The Environmental Impact Statement (EIS) must address the <i>Environmental Planning and Assessment Act 1979</i> and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.	Environmental Impact Statement
Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development	Section 6.0 All appendices
In addition, the EIS must include:	See above (Executive Summary)
<ul style="list-style-type: none"> • An executive Summary 	See above (Executive Summary)
<ul style="list-style-type: none"> • A complete description of the development including: 	Section 3.0
<ul style="list-style-type: none"> - The need for the development 	Section 1.2
<ul style="list-style-type: none"> - Justification for the development and rationale for not including demolition of the disused, existing high school 	Section 1.2
<ul style="list-style-type: none"> - Suitability of the site 	Section 5.20
<ul style="list-style-type: none"> - Land ownership arrangements, including detail of any registered or pending Native Title Claims 	Section 2.2
<ul style="list-style-type: none"> - Alternatives to the proposal, including consideration of alternative sites 	Section 1.4
<ul style="list-style-type: none"> - Likely interactions between the development and existing, approved and proposed operations in the vicinity of the site. This should include consideration of any potential impacts associated with raising the site 	Section 5.14
<ul style="list-style-type: none"> - A description of any proposed building works 	Section 3.0
<ul style="list-style-type: none"> - a description of proposed operations, including staff and student numbers, hours of operation, and details of any proposed before/after school care services and/or community use of school facilities 	Section 3.3 Section 3.5
<ul style="list-style-type: none"> - Site survey plan, showing existing levels, locations and height of existing and adjacent structures / buildings and site boundaries 	Appendix A
<ul style="list-style-type: none"> - A detailed constraint map identifying the key environmental and other land use constraints that have informed the final design of the development 	Appendix C Appendix D
<ul style="list-style-type: none"> - Plans, elevations and sections of the proposed development 	Appendix C Appendix D
<ul style="list-style-type: none"> - Cladding, windows and floor details, including external materials 	Appendix C Appendix D
<ul style="list-style-type: none"> - A site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but subject of a separate approvals process) 	Appendix C Appendix D
<ul style="list-style-type: none"> - Plans and details of any advertising/business identification signs to be installed, including size, location and finishes 	Appendix D
<ul style="list-style-type: none"> - A description of any proposed construction or operational staging including relevant timing and dependencies 	Section 3.17
<ul style="list-style-type: none"> - Details of construction and decommissioning including timing 	Section 3.17
<ul style="list-style-type: none"> - An estimate of the retained and new jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided 	Section 3.17 Section 3.18 CIV Report (Separate Cover)
<ul style="list-style-type: none"> • A detailed assessment of the key issues identified below, and any other significant issues identified in the risk assessment, including: 	Section 5.0

Requirement	Location in Environmental Assessment	
- A description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions	Section 2.0	
- An assessment of the potential impacts of all stages of the development on all potential impacted environments sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines	Section 5.0	
- Consideration of the cumulative impacts due to other related development proposed or underway on the site, including development progressed under other assessment pathways and all other developments in the vicinity (completed, underway or proposed)	Section 5.14	
- identification of all proposed monitoring or required changes to existing monitoring programs.	Section 7.0	
- Measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action	Section 7.0	
- Details of alternative measures considered	Section 1.4 Section 5.0	
• A consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments including the EIS.	Section 7.0	
• The reasons why the development should be approved and a detailed evaluation of the merits of the development, including consequences of not carrying out the development	Section 8.0 Section 1.4	
The EIS must be accompanied by a report from a qualified quantity surveyor providing a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the regulations) of the proposal, including details of all assumptions and components from which the CIV calculated is derived	Provided under separate cover	
Key Issues	Report/EIS	Technical Study
The EIS must address the following specific matters:	-	-
1. Statutory Context, Strategic Context and Policies Address the statutory provisions contained in all relevant legislated and draft environmental planning instruments, including but not limited to:	Section 5.1	-
• State Environmental Planning Policy (State and Regional Development) 2011.	Section 5.1	-
• State Environmental Planning Policy (Infrastructure) 2007.	Section 5.1	Appendix I
• State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017.	Section 5.1	Appendix D
• State Environmental Planning Policy No 64 – Advertising and Signage.	Section 5.1	Appendix D
• State Environmental Planning Policy No 55 – Remediation of Land.	Section 5.1	Appendix S Appendix T
• Draft State Environmental Planning Policy (Remediation of Land).	Section 5.1	Appendix S Appendix T
• Draft State Environmental Planning Policy (Environment).	Section 5.1	Appendix S Appendix T
• Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities).	Section 5.1	-
• Narrabri Local Environmental Plan 2012.	Section 5.1	-
Having regard to the relevant environmental planning instruments:	-	-
• address the permissibility of the development, including the nature and extent of any prohibitions.	Section 5.1	-
• identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.	Section 5.1	-
• adequately demonstrate and document how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents.	Section 5.1	-

Requirement	Location in Environmental Assessment	
Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following:	Section 5.1	-
• NSW State Priorities.	Section 5.1	-
• State Infrastructure Strategy 2018 – 2038 Building the Momentum.	Section 5.1	-
• Future Transport Strategy 2056	Section 5.1	Appendix I
• Crime Prevention through Environmental Design (CPTED) Principles	Section 5.1	Appendix D
• Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017).	Section 5.1	Appendix D
• Healthy Urban Development Checklist (NSW Health, 2009).	Section 5.1	-
• Draft Greener Places Design Guide (GANSW).	Section 5.1	Appendix E
• Koala Habitat Protection Guideline (DPIE, 2020).	Section 5.1	Appendix Q
• New England/North West Regional Plan.	Section 5.1	-
• Narrabri Development Control Plans.	Section 5.1	-
• Narrabri Special Activation Precincts.	Section 5.1	-
2. Built Form and Urban Design	-	-
• Address:		
– the height, density, bulk and scale, setbacks and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces.	Section 5.2	Appendix D
– design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette.	Section 3.3 Section 5.2	Appendix D
– how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.	Section 5.3.6	Appendix D
– how good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.	Section 5.3	Appendix D
– how design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018).	Section 5.2.1	Appendix D
– how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Section 3.12 Section 5.4.6	Appendix D
• Provide:	-	-
– a detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.	Section 2.0 Section 3.0	Appendix D
– a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.	Section 5.3.4	Appendix D
3. Trees and Landscaping	-	-
• Provide:		
– where relevant, an arboricultural impact assessment prepared by a Level 5 (Australian Qualifications Framework) Arborist, which details the number, location and condition of trees to be removed and retained, includes detailed justification for each tree to be removed and details the existing canopy coverage on-site.	-	Appendix G
– a detailed site-wide landscape strategy, that:	-	Appendix E Appendix F
details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage.	-	Appendix E Appendix F

Requirement	Location in Environmental Assessment	
provides evidence that opportunities to retain significant trees have been explored and/or informs the plan.	-	Appendix E
considers equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation	Section 5.2 Section 5.3	Appendix D Appendix E
demonstrates how the proposed development would: a) contribute to long term landscape setting in respect of the site and the streetscape. b) ensure appropriate comfort levels on-site. c) contribute to objectives to increase urban tree canopy cover	Section 5.2 Section 5.3	Appendix D Appendix E
<ul style="list-style-type: none"> a detailed landscape plan prepared by a suitably qualified person. <p><i>Relevant Policies and Guidelines</i></p> <ul style="list-style-type: none"> Australian Standard 4970 Protection of trees on development sites. Draft Greener Places Design Guide (GANSW). Technical Guidelines for Urban Green Cover in NSW (Office of Environment and Heritage (OEH), 2015). <p>4. Environmental Amenity</p>	Section 3.6 -	Appendix E Appendix F Appendix E
<ul style="list-style-type: none"> Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated 	Section 5.2 Section 5.3	Appendix D Appendix E
<ul style="list-style-type: none"> Provide: <ul style="list-style-type: none"> shadow diagrams. a view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development. an analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts. 	- Section 5.3.3 Section 3.16	Appendix D Appendix D Appendix FF
<p><i>Relevant Policies and Guidelines:</i></p> <ul style="list-style-type: none"> Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008) <p>5. Transport and Accessibility</p>	-	Appendix I Appendix R
<p>Provide a transport and accessibility impact assessment, which includes, but is not limited to the following:</p> <ul style="list-style-type: none"> analysis of the existing transport network to at least the existing or proposed enrolment boundary, including <ul style="list-style-type: none"> road hierarchy. 	- - Section 5.4	Appendix I Appendix I Appendix I
<ul style="list-style-type: none"> pedestrian, cycle and public transport infrastructure. 	-	Appendix I
<ul style="list-style-type: none"> details of current daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality. 	-	Appendix I
<ul style="list-style-type: none"> existing transport operation for 1hr before and after (existing or proposed) bell times such as span of service, frequency for public transport and school buses, pedestrian phasing for signals. 	-	Appendix I
<ul style="list-style-type: none"> existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling). 	Section 5.4	Appendix I
<ul style="list-style-type: none"> details of the proposed development, including <ul style="list-style-type: none"> a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways. 	Section 5.4 -	Appendix I Appendix I

Requirement	Location in Environmental Assessment	
<ul style="list-style-type: none"> - pedestrian site access and vehicular access arrangements, including forservice and emergency vehicles and loading/unloading, including sweptpath analysis demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections alongthe proposed transport routes. 	Section 5.4	Appendix I
<ul style="list-style-type: none"> - car and motorcycle parking, bicycle parking and end-of-trip facilities. 	Section 5.4	Appendix I
<ul style="list-style-type: none"> - drop-off / pick-zone(s) and arrival/departure bus bay(s), including consideration of designing these aspects within the site boundary. 	-	Appendix I
<ul style="list-style-type: none"> - pedestrian, public transport or road infrastructure improvements or safety measures. 	-	Appendix I
<ul style="list-style-type: none"> • analysis of the impacts due to the operation of the proposed development,including: 	-	Appendix I
<ul style="list-style-type: none"> - proposed modal split for all users of the development including vehicle,pedestrian, bicycle riders, public transport, school buses and other sustainable travel modes. 	Section 5.4	Appendix I
<ul style="list-style-type: none"> - estimated total daily and peak hour vehicular trip generation. 	Section 5.4	Appendix I
<ul style="list-style-type: none"> - a clear explanation and justification of the: 	-	Appendix I
<ul style="list-style-type: none"> assumed growth rate applied. 	-	Appendix I
<ul style="list-style-type: none"> volume and distribution of proposed trips to be generated. 	-	Appendix I
<ul style="list-style-type: none"> type and frequency of design vehicles accessing the site. 	-	Appendix I
<ul style="list-style-type: none"> - details of performance of nearby intersections with the additional trafficgenerated by the development both at the commencement of operationand in a 10-year time period (using SIDRA network modelling). 	-	Appendix I
<ul style="list-style-type: none"> - cumulative traffic impacts from any surrounding approved development(s). 	-	Appendix I
<ul style="list-style-type: none"> - adequacy of pedestrian, bicycle and public transport infrastructure andoperations to accommodate the development. 	Section 5.4	Appendix I
<ul style="list-style-type: none"> - adequacy of car and motorcycle parking and bicycle parking provisionswhen assessed against the relevant car / bicycle parking codes and standards. 	-	Appendix I
<ul style="list-style-type: none"> - adequacy of the drop-off / pick-up zone(s) and bus bay(s), includingassessment of any related queuing during peak-hour access. 	-	Appendix I
<ul style="list-style-type: none"> - details of proposed school bus routes on travel lanes of 3.5m minimum)and infrastructure (bus stops, bus layovers etc.). 	-	Appendix I
<ul style="list-style-type: none"> - adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users, including foremergency vehicles and service vehicles (loading/unloading). 	-	Appendix I
<ul style="list-style-type: none"> • measures to ameliorate any adverse traffic and transport impacts due to thedevelopment based on the above analysis, including: 	-	Appendix I
<ul style="list-style-type: none"> - travel demand management programs to increase sustainable transport(such as a Green Travel Plan / School Transport Plan). 	Section 5.4	Appendix I
<ul style="list-style-type: none"> - arrangements for the Travel Coordinator roles. 	-	Appendix I
<ul style="list-style-type: none"> - governance arrangements or relationships with state and local governmenttransport providers to update roads safety. 	-	Appendix I
<ul style="list-style-type: none"> - infrastructure improvements or protection measures, including details oftiming and method of delivery. 	-	Appendix I
<ul style="list-style-type: none"> • a preliminary school transport plan detailing a operational traffic and access management plan for the site, pedestrian entries, the drop-off / pick-up zone(s)and bus bay(s). 	-	Appendix I
<ul style="list-style-type: none"> • analysis of the impacts of the traffic generated during construction of theproposed development, including: 	Section 5.4	Appendix I Appendix BB
<ul style="list-style-type: none"> - construction vehicle routes, types and volumes. 	-	Appendix I

Requirement	Location in Environmental Assessment	
- construction program (duration and milestones).	-	Appendix I
- on-site car parking and access arrangements for construction, emergency and construction worker vehicles.	-	Appendix I
- cumulative impacts associated with other construction activities in the locality (if any).	-	Appendix I
- road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.	-	Appendix I
- measures to mitigate impacts, including to ensure the safety of pedestrians and cyclists during construction.	-	Appendix I
• a preliminary Construction Traffic and Pedestrian Management Plan.	-	Appendix I
Note: Further guidance is provided in the TfNSW advice attached to the SEARs.		
<u>Relevant Policies and Guidelines:</u>	-	Appendix I
• Guide to Traffic Generating Developments (Roads and Maritime Services, 2002).		
• EIS Guidelines - Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996).		
• Cycling Aspects of Austroads Guides.		
• NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004).		
• Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020) including all supplements.		
• Guide to Road Design (Austroads, 2021) and relevant TfNSW supplements, including safe intersection sight distance (SISD).		
• Australian Standard 2890.3 Parking facilities, Part 3: Bicycle parking (AS2890.3).		
6. Ecologically Sustainable Development (ESD)		
• Identify:		
- how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development.	Section 5.16	Appendix L
- proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy.	Section 5.16	Appendix L
- how the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy.	Section 5.16	Appendix L
- how environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual (GANSW, 2018).	-	Appendix D Appendix L
• Provide:	-	-
○ an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level.	Section 5.16	Appendix L
○ a statement regarding how the design of the development is responsive to the NARClIM projected impacts of climate change.	-	Appendix L
○ an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.	-	Appendix L
<u>Relevant Policies and Guidelines:</u>	-	Appendix J Appendix L
• NSW and ACT Government Regional Climate Modelling (NARClIM) climate change projections.		

Requirement	Location in Environmental Assessment	
7. Heritage	-	-
<ul style="list-style-type: none"> Identify any archaeological potential or archaeological significance on and adjacent to the site and the impacts the development may have on this significance. 	Section 5.6	Appendix X
<ul style="list-style-type: none"> Provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on and adjacent to the site in accordance with the guidelines in the NSW Heritage Manual (Heritage Office and DUAP, 1996) and Assessing Heritage Significance (OEH, 2015). 	-	Appendix X
8. Aboriginal Cultural Heritage	-	-
<ul style="list-style-type: none"> Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that: 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> identifies and describes the Aboriginal cultural heritage values that exist across the site. 	Section 5.7	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> includes surface surveys and test excavations where necessary. 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010). 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010). 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land. 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> identifies, assesses and documents all impacts on the Aboriginal cultural heritage values. 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. 	-	Appendix N
<ul style="list-style-type: none"> <ul style="list-style-type: none"> demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development. 	-	Appendix N
<p>Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.</p>	-	Appendix N
9. Social Impacts		
<ul style="list-style-type: none"> Provide a Social Impact Assessment prepared in accordance with the Social Impact Assessment Guideline. 	Section 5.5	Appendix M
<p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> Social Impact Assessment Guideline (Department of Planning, Industry and Environment) 	-	Appendix M
10. Noise and Vibration	-	-
<ul style="list-style-type: none"> Provide a noise and vibration impact assessment that: 	-	Appendix R
<ul style="list-style-type: none"> <ul style="list-style-type: none"> includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction. 	Section 5.8	Appendix R
<ul style="list-style-type: none"> <ul style="list-style-type: none"> details the proposed construction hours and provide details of, and justification for, instances where it is expected that works would be carried out outside standard construction hours. 	Section 5.8	Appendix R
<ul style="list-style-type: none"> <ul style="list-style-type: none"> includes a quantitative assessment of the main sources of operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities. 	Section 5.8	Appendix R
<ul style="list-style-type: none"> <ul style="list-style-type: none"> outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers. 	Section 5.8	Appendix R

Requirement	Location in Environmental Assessment	
<ul style="list-style-type: none"> - considers sources of external noise intrusion in proximity to the site (including, road rail and aviation operations) and identifies building performance requirements for the proposed development to achieve appropriate internal amenity standards. 	Section 5.8	Appendix R
<ul style="list-style-type: none"> - demonstrates that the assessment has been prepared in accordance with policies and guidelines relevant to the context of the site and the nature of the proposed development. 	-	Appendix R
<p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA). • Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). • Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006). • Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008). • Australian Standard 2363 Acoustics - Measurement of noise from helicopter operations (AS 2363). 		Appendix R
<p>11. Biodiversity</p> <ul style="list-style-type: none"> • Provide a Biodiversity Development Assessment Report (BDAR), that assesses the biodiversity impacts of the proposed development in accordance with the requirements of the <i>Biodiversity Conservation Act 2016</i>, Biodiversity Conservation Regulation 2017 and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development or the development is located on biodiversity certified land. <p><i>Note: Further guidance is provided in the Biodiversity and Conservation Division Standard Environmental Assessment Requirements attached to the SEARs.</i></p>	Section 5.9	Appendix Q
<p>12. Air quality and odour</p> <ul style="list-style-type: none"> • Provide an air quality impact assessment that considers dust, odour generation and airborne particulate matter concentration at residential receptors, including existing levels and impacts of construction and operation. This should include all reasonable and feasible control measures to minimise and monitor particulate matter and dust emissions on the surrounding residences, landscapes and the nearby public school. <p><u>Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Approved methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016). 	Section 5.15	Appendix Z
<p>13. Contributions</p> <ul style="list-style-type: none"> • Identify: 	-	-
<ul style="list-style-type: none"> - any Section 7.11/7.12 Contribution Plans, Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type. 	Section 5.19	-
<ul style="list-style-type: none"> - any contributions applicable to the proposed development under the identified plans and/or agreements. Justification is to be provided where it is considered that the proposed development is exempt from making a contribution. 	Section 5.19	-
<ul style="list-style-type: none"> - any actions required by a Voluntary Planning Agreement or draft Voluntary Planning Agreement affecting the site or amendments required to a Voluntary Planning Agreement affected by the proposed development. 	Section 5.19	-
<p>14. Staging</p>	-	-
<ul style="list-style-type: none"> • Assess impacts of staging where it is proposed and detail how construction works, and operations would be managed to ensure public safety and amenity on and surrounding the site. 	Section 3.16	Appendix BB
<p>15. Utilities</p> <ul style="list-style-type: none"> • In consultation with relevant service providers: <ul style="list-style-type: none"> - assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. 	Section 3.14	Appendix P
	Section 3.14	Appendix P

Requirement	Location in Environmental Assessment	
<ul style="list-style-type: none"> - identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. 	Section 3.14	Appendix P
<ul style="list-style-type: none"> - provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development. 	Section 3.14	Appendix L Appendix P Appendix U
<p>16. Stormwater Drainage</p> <ul style="list-style-type: none"> • Provide: 	-	-
<ul style="list-style-type: none"> - a preliminary stormwater management plan for the development that: 	-	Appendix K
<ul style="list-style-type: none"> - is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority. 	-	Appendix K
<ul style="list-style-type: none"> - details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point. 	-	Appendix K
<ul style="list-style-type: none"> - demonstrates compliance with Council or other drainage authority requirements. 	-	Appendix K
<ul style="list-style-type: none"> - stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties. 	-	Appendix K
<ul style="list-style-type: none"> • Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared in consultation with Council and comply with Council's relevant standards. 	-	Appendix K
<p><u>Relevant Policies and Guidelines:</u></p>	-	Appendix K
<ul style="list-style-type: none"> • Guidelines for developments adjoining land managed by the Office of Environment and Heritage (OEH, 2013). 	-	
<p>17. Flooding</p>	-	-
<ul style="list-style-type: none"> • Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the development area and the potential effects of climate change, sea level rise and an increase in rainfall intensity. 	Section 2.2.3 Section 5.12	Appendix J
<ul style="list-style-type: none"> • Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions to mitigate flood risk where required. 	Section 2.2.3 Section 5.12	Appendix J
<p><u>Relevant Policies and Guidelines:</u></p>	-	Appendix J
<ul style="list-style-type: none"> • NSW Floodplain Development Manual (DIPNR, 2005). 	-	
<p>18. Soil and Water</p>	-	-
<ul style="list-style-type: none"> • Provide: 	-	
<ul style="list-style-type: none"> - detail of an adequate and secure water supply for the life of the project, including confirmation water can be sourced from an appropriately authorised and reliable supply. This must also include an assessment of the current market depth where market entitlement is required to be purchased. 	-	Appendix U
<ul style="list-style-type: none"> - a detailed site water balance. 	-	Appendix U
<ul style="list-style-type: none"> - an assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant. 	-	Appendix U
<ul style="list-style-type: none"> - details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles into water bodies. 	-	Appendix U
<ul style="list-style-type: none"> - an assessment of salinity and acid sulphate soil impacts, including a Salinity Management Plan and/or Acid Sulphate Soils Management Plan, where relevant. 	-	Appendix U
<p><u>Relevant Policies and Guidelines:</u></p>	-	Appendix U
<ul style="list-style-type: none"> • Managing Urban Stormwater - Soils and Construction Volume 1 (Landcom, 2004). 		
<ul style="list-style-type: none"> • Water Quality Objectives within Guidelines for Fresh and Marine Water Quality (ANZECC, 2018). 		

Requirement	Location in Environmental Assessment	
<ul style="list-style-type: none"> Approved methods for the Sampling and Analysis of Water Pollutants in NSW(EPA, 2004). NSW Aquifer Interference Policy (DPIE - Office of Water, 2012). Guidelines for Controlled Activities on Waterfront Land (2018). Water Sharing Plans (available at: https://www.industry.nsw.gov.au/water). Acid Sulfate Soil Manual, (NSW Acid Sulfate Soil Management Advisory Committee, 1998). Acid Sulfate Soils Assessment Guidelines (DoP, 2008). Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008). Guidelines for development adjoining land managed by the Office of Environment and Heritage (OEH, 2013). 		
19. Waste	-	-
<ul style="list-style-type: none"> Identify, quantify and classify the likely waste streams to be generated during construction and operation. 	Section 5.10 Section 5.17	Appendix Y Appendix AA
<ul style="list-style-type: none"> Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. 	Section 5.10 Section 5.17	Appendix Y
<ul style="list-style-type: none"> Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. 	Section 3.11	Appendix D Appendix I Appendix Y
<ul style="list-style-type: none"> Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered. 	N/A	N/A
<u>Relevant Policies and Guidelines:</u> <ul style="list-style-type: none"> Waste Classification Guidelines (EPA, 2014). 	-	Appendix Y
20. Contamination	-	-
<ul style="list-style-type: none"> Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following prepared by certified consultants recognised by the NSW Environment Protection Authority: <ul style="list-style-type: none"> Preliminary Site Investigation (PSI). 		Appendix S Appendix T Appendix U
<ul style="list-style-type: none"> - Detailed Site Investigation (DSI) where recommended in the PSI. 	-	Appendix T
<ul style="list-style-type: none"> - Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy. 	-	Appendix GG
<ul style="list-style-type: none"> - Preliminary Long-term Environmental Management Plan (LEMP) where containment is proposed on-site. 	-	-
<u>Relevant Policies and Guidelines:</u> <ul style="list-style-type: none"> Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998). Sampling Design Guidelines (EPA, 1995). Consultants Reporting on Contaminated land – Contaminated Land Guidelines (EPA, 2020). Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015). Guidelines for the NSW Site Auditor Scheme (3rd edition) (EPA, 2017). National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013). 	-	Appendix S Appendix T Appendix U
Plans and Documents		
<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.</p>	-	Appendix C

Requirement	Location in Environmental Assessment	
In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following:	-	-
<ul style="list-style-type: none"> Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate). 	-	Appendix EE
<ul style="list-style-type: none"> Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including: 	-	Appendix D
<ul style="list-style-type: none"> architectural design statement. 	-	Appendix D
<ul style="list-style-type: none"> diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal. 	-	Appendix D
<ul style="list-style-type: none"> detailed site and context analysis. 	-	Appendix D
<ul style="list-style-type: none"> analysis of options considered to justify the proposed site planning and design approach. 	-	Appendix D
<ul style="list-style-type: none"> summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice. 	-	Appendix D
<ul style="list-style-type: none"> summary report of consultation with the community and response to any feedback provided. 	-	Appendix D
<ul style="list-style-type: none"> Geotechnical and Structural Report. 	-	Appendix V, Appendix W
<ul style="list-style-type: none"> Accessibility Report. 	-	Appendix DD
Consultation		
<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, local community members and groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> The relevant Council Government Architect NSW (through the NSW SDRP process). Transport for NSW. NSW Health. DPIE – Water and the Natural Resources Access Regulator (NRAR). Heritage NSW – Aboriginal Cultural Heritage. Crown Lands. Essential Energy. <p>Consultation should commence as soon as practicable to inform the scope of investigation and progression of the proposed development.</p> <p>The EIS must describe and include evidence of the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p> <p>Targeted consultation in accordance with the draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment) must also occur where there is a requirement to prepare and submit a Social Impact Assessment.</p>	Section 4.0	Appendix O

2.0 Site Analysis

2.1 Site Location and Context

The site is located at 105-107 Mitchell Street, Wee Waa within the Narrabri Shire Council LGA. Wee Waa is located in the New England Region of Upper Central NSW and sits adjacent to the Namoi River, approximately 42km north-west of Narrabri and 570km north-west of Sydney.

The site is adjacent to the Kamilaroi Highway which is a key transport connection to the town and runs north-east through the centre of Wee Waa, providing connection to western NSW and Narrabri in the east. The site's regional locational context is shown at **Figure 7** and its context in the township is shown at **Figure 8**.



Figure 7 Site Context NSW (left) and local (right)

Source: SHAC



Figure 8 Site Context in Relation to the Township

Source: SHAC

2.2 Site Description

A legal description of the lots and land ownership of the site is provided in **Table 2**. Three of the four allotments are Crown Land, with the fourth owned by the NSW Department of Education. A lease currently exists over the Crown Land to permit site investigation works to be undertaken, expiring in February 2022. SINSW are currently in the process of acquiring the Crown Land parcels.

Table 2 Legal Description of the Site

Allotment	Owner
Lot 2 DP 550633	NSW Department of Education
Lot 1 DP 577294	Crown Land
Lot 124 DP757125	Crown Land
Lot 125 DP757125	Crown Land

The site is an L-shape and has an approximate area of 6.03 hectares. The site has a frontage of approximately 390m to Mitchell Street along the southern boundary (which is part of the Kamilaroi Highway), a 190m frontage to Charles Street along the western boundary and a 100m frontage to George Street along the eastern boundary. Mitchell Street, as part of Kamilaroi Highway, is a key movement corridor, particularly during the harvest season, when B-Double trucks and combine harvesters move along the road and pass-through Wee Waa and past the site. A detailed site survey has been provided at **Appendix A**.

An aerial photography of the site, allotments and surrounding development is shown at **Figure 9**.

Native Title Claim

The land selected for the new high school includes the acquisition of Crown Land lots. It is acknowledged that the Crown land falls within a more extensive native title claim. SINSW is engaged in ongoing discussions with the representatives of the land claimants, the Kamilaroi/Gamiloroi people and continues to seek guidance from the Wee Waa Local Aboriginal Land Council to ensure all due process and consultation is followed in relation to any future claims made.



Figure 9 Aerial photography of Site

Source: Ethos Urban

2.2.1 Existing Development

The site is currently undeveloped with a range of sparsely scattered trees and grassland throughout the site. There is an established stand of mature Eucalypt trees in the north-east portion and small dense trees along the north-western corner of the site. The remainder of the site is flat grassland. The site contains existing natural, open stormwater drainage channels which convey storm and flood water across the site. The primary channel is located through the centre of the site and runs from a box culvert on George Street to Charles Street. This primary channel is fed by three smaller channels from Mitchell Street which is at a higher level than the site itself. Photographs of the existing site are shown at **Figure 10**.



Figure 10 Photographs of Existing Site (Clockwise from top): Aerial looking north-east, looking west from George/Mitchell St intersection, northern portion of site (cleared for contamination investigation), looking west from George Street

Source: McArdle and Sons, Barnson

2.2.2 Vegetation and Ecology

A Tree Survey is provided at **Appendix A** and an Arborist Report has been provided at **Appendix G**. There are 98 trees on site and along the street frontage, most of which are Eucalyptus Coolibah of varying maturity and condition. No trees of heritage significance or value have been identified on site. There is approximately 3,069sqm of existing tree canopy coverage on the site, or approximately 5% of the site area.

A Biodiversity Development Assessment Report (BDAR) provided at **Appendix M** confirms that the site contains Plant Community Type (PCT) 40: “Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains”, which is associated with the threatened species “Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains” under the *Biodiversity Conservation Act 2016*. This ecological community is also listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), but only small parcels of the site (denoted Vegetation Zone 2) meet the key diagnostics required to be considered part of the Commonwealth-listed ecological community. Several hollow-bearing trees also exist on site. The BDAR also includes targeted species surveys that were undertaken on-site and identified no species that meet the credit species definition (refer to **Figure 11**).

The study area for the BDAR is limited to the portion of Lot 1 DP577294 and Lot 2 DP550633 outside of the flood mitigation works overland flow channel (the eastern portion of the site which will contain the school buildings), since vegetation removal on the remainder of the site will be undertaken as part of the separate flood mitigation works (and associated fill stockpiling). The corresponding Review of Environmental Factors will provide a Flora and Fauna assessment (and Species Impact Statement if required) to assess the biodiversity impacts on the remainder of the site. Refer to **Figure 11** for the extent of the BDAR study area and community mapping.

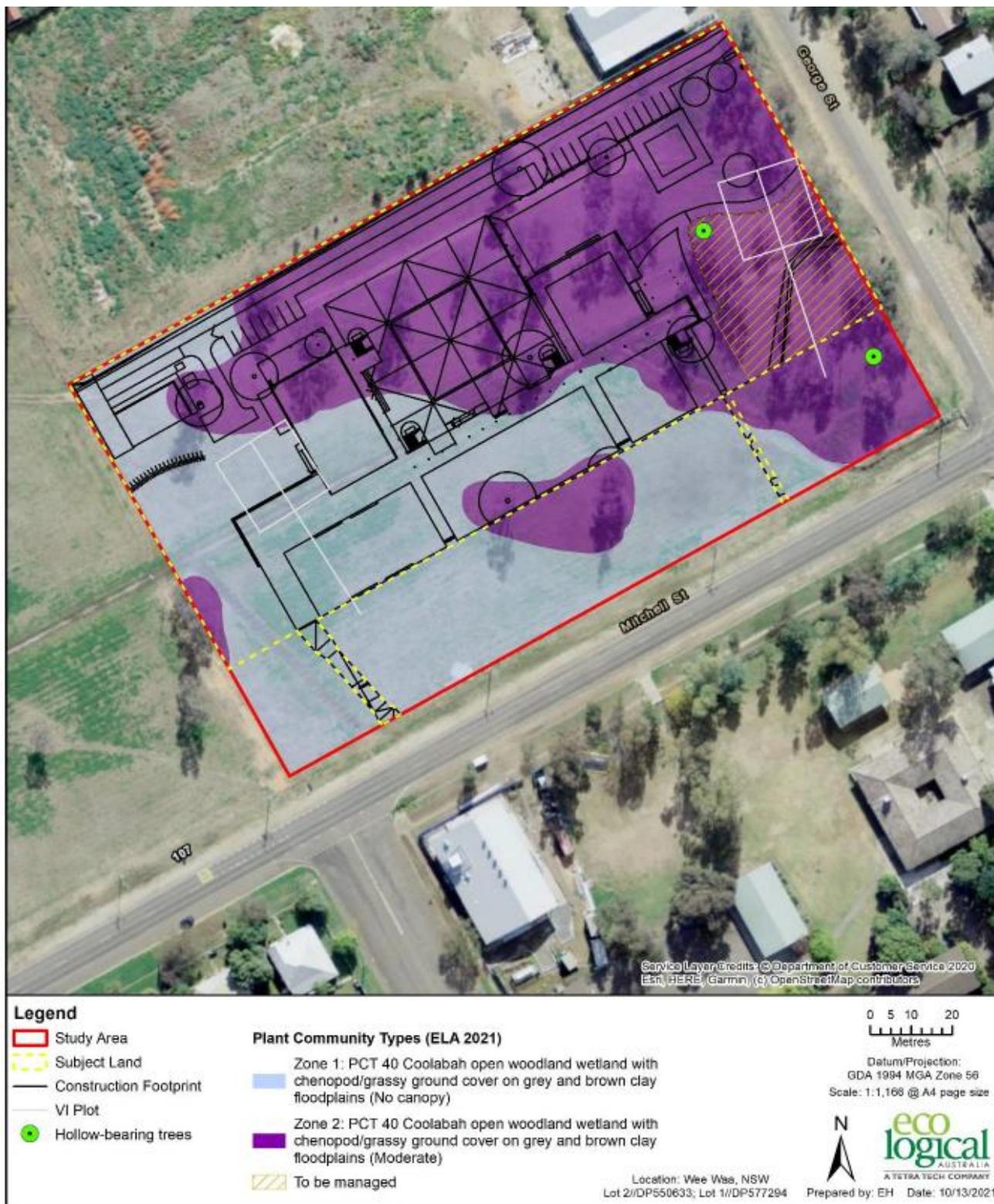


Figure 11 Biodiversity Value Mapping

Source: EcoLogical

2.2.3 Flooding

Wee Waa is located within the lower Namoi River floodplain with the Namoi River located to the north of the town and sweeping around to the west of the town. The Namoi River flows in a general southwest direction. Floodwater flows in a westerly direction. Wee Waa Gully flows along the southern side of the town area and sweeps around the southwest part of the town to link with the Namoi River on the western side of the town area. Wee Waa Lagoon is located along the south-southeast side of the town. Refer to **Figure 12** which shows these features in aerial view.

The township of Wee Waa is encircled by an earthen ring levee which protects the site from more frequent riverine flood events (see **Figure 12**). For extreme flood events where the levy is breached, Wee Waa generally has several days warning and sufficient time to engage emergency procedures. The site therefore has the potential to be affected by riverine flooding from the Namoi River during extreme events as well as local catchment flooding from rainfall within the ring levee on a more frequent basis.

A Flood Impact Assessment prepared by Lyall & Associates is provided at **Appendix J** and describes the flood characteristics and risks associated with the site in detail. Existing modelled depths of inundation for a variety of flood events are shown at **Figure 13** and **Figure 14**. As shown, the site is mostly unaffected by riverine flooding (apart from the extreme flood where the levee is breached) but is affected by frequent flood events caused by localised rainfall internal to the ring levee.



Figure 12 Key Flood Features and Infrastructure in and Surrounding Wee Waa

Source: Lyall & Associates



Figure 13 Existing Site Flood Inundation Levels for Riverine Flooding: 1% AEP (left), Extreme (right)

Source: Lyall & Associates

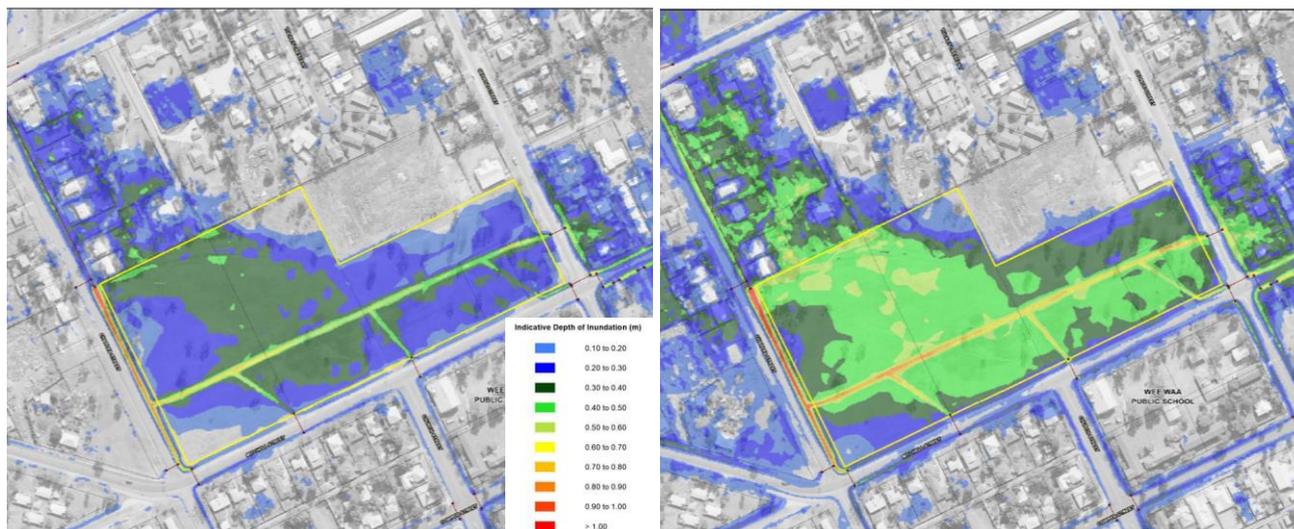


Figure 14 Existing Site Flood Inundation Levels for Localised Flooding: 20% AEP (left), 1% (right)

Source: Lyall & Associates

2.2.4 Heritage

Aboriginal Heritage and Archaeology

An Aboriginal Cultural Heritage Assessment Report provided at **Appendix N** has assessed the site for Aboriginal Heritage Significance and Archaeological Potential. The assessment finds that no Aboriginal cultural heritage values or objects were identified within the study area during field survey or through consultation with the Aboriginal community.

It is acknowledged that part of the site falls within a more extensive native title claim. SINSW is engaged in ongoing discussions with the representatives of the land claimants, the Kamilaroi/Gamilaroi people and continues to seek guidance from the Wee Waa Local Aboriginal Land Council to ensure all due process and consultation is followed in relation to any future claims made.

Built and European Heritage

The site is not listed as an item of heritage significance under any Environmental Planning Instrument, nor is it located within a heritage conservation area. It does not appear to be subject to any interim heritage listings or nominations. The “Pioneer Tree” of local significance is located at the corner of George Street and Cowper Street, approximately 150m south-east of the site. The site has a low potential for any built or European archaeological heritage significance. A Heritage Impact Statement is provided at **Appendix N**.

2.2.5 Soil, Water Quality and Topography

The site is very flat with almost no slope (approximately 0.1% grade across the site). The surface soil of the site is a thin layer (approx. 0.2m thick) of sandy silty clay, underlain by several meters of high plasticity clay (approximately 4m), the depth of ground water is estimated at more than 10m below ground level. The region is known for its highly water reactive “black soils” which expand and contract with inundation. The structural design of the school buildings has accounted for this movement. Refer to the Geotechnical Report (**Appendix V**) and Soil and Water Quality Report (**Appendix U**) for further detail.

Two options for water supply to the school exist, including integration with the municipal primary water supply, with guarantees of remaining potable water, or transferring the existing school bore license to the site and re-instating a former bore at the north-western corner of the site. Refer to the Soil and Water Quality Report (**Appendix U**) for further detail.

2.2.6 Contamination

A site inspection and investigative sampling were undertaken as part of a Preliminary Site Contamination Assessment (refer to **Appendix S**). The site investigation revealed no contamination was discovered on the site

besides the discovery of heavy metals confirmed to the north-eastern corner of Lot 124 DP757125 from historical land use (see **Figure 15**). As such, the remaining three lots and southern half of Lot 124 DP757125 are considered suitable for the proposed development use of land as educational and training purposes. A Detailed Site Investigation (refer to **Appendix T**) was undertaken for the contaminated portion of the site which found heavy metals, hydrocarbon compounds and identifying concentrations of lead (Pb) and zinc exceeding the screening levels used in the assessment. Removal of the fibre-block fill in this portion of the site will be subject to a Remediation Action Plan. Contamination is further discussed in **Section 5.13**.

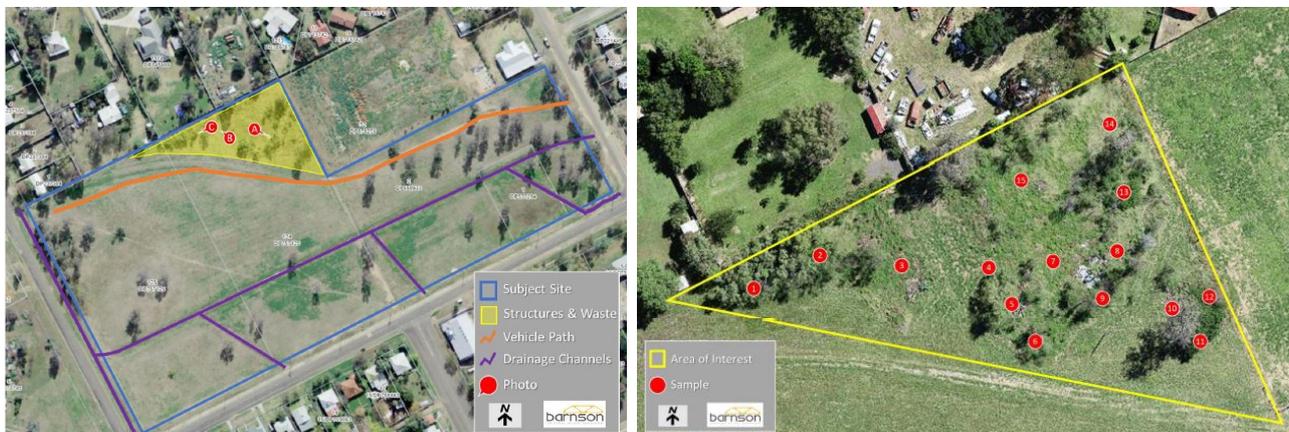


Figure 15 Localised Area of Contamination Shown in Yellow (left), Detailed Site Investigations (right)

Source: Barnson

2.3 Surrounding Development

The site is surrounded by the following development (shown at **Figure 16**):

- **To the north:** A large 1.3 hectare privately owned residential property adjoins the site in the north-east, with a residence fronting George Street and open space in the west of the site. Otherwise to the north of the site is generally low-density, single-storey residential dwellings to Boundary Street.
- **To the east:** Across George Street are low-density, single-storey residential dwellings. Across the George Street/Mitchell Street intersection is Dangar Park, Wee Waa’s primary public open space.
- **To the south:** Directly across Mitchell Street is Wee Waa Public School (the site of the current temporary high school – see **Figure 17**). Also across Mitchell Street are several blocks of low-density, single-storey residential dwellings. The Wee Waa commercial centre is located approximately 250m from the site on Church Street to the south-east.
- **To the west:** Across Charles Street are several low-density, single-storey residential dwellings. A tractor and agricultural machinery sales centre is also located in the adjacent block across Charles Street.



Figure 16 Photographs of Surrounding Development (clockwise from top): Residential dwelling to the north at 41 George Street, residential dwellings to the east, public school to the south from Mitchell Street, residential dwellings to the west



Figure 17 Existing Wee Waa Public School (temporary high school classrooms shaded in red)
Source: SINSW

2.4 New Wee Waa High School Intake Area

The SINSW intake area for the new school is show in **Figure 18**. This area is roughly bound by Cryon to the west, the Pilliga Nature Reserve to the south, Yarrie Lake to the east and Nowley to the north.

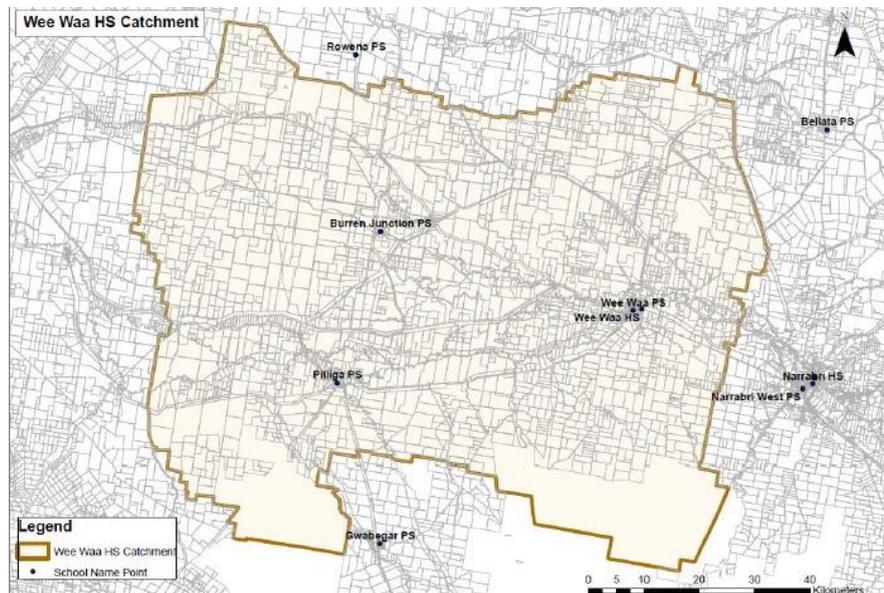


Figure 18 School Catchment Area

Source: NSW Department of Education

3.0 Description of the Development

This chapter of the report provides a detailed description of the proposed development. Architectural drawings prepared by SHAC are included at **Appendix C** and a Design Report is provided at **Appendix D**.

The SSD Application seeks consent for the construction of a new two-stream high school with a capacity of 200 students (with future growth potential for up to 300 students, subject to funding and service need). Specifically, the SSD Application seeks approval for the following development:

- Site preparation, earthworks and remediation as required.
- Construction of the following:
 - A new two-storey school building arranged in a U-shape courtyard typology, including teaching spaces, library/administration, staff facilities, and a multi-purpose gymnasium/hall.
 - A Covered Outdoor Learning Area (COLA).
 - One grass sport field with a perimeter running track and asphalt playing courts.
 - A standalone single-storey Agricultural and Environment Centre building.
 - A standalone single-storey Indigenous Cultural Centre.
 - Internal vehicular access from George Street running east-west through the site.
 - Two at-grade car parking areas with a total of 40 parking spaces.
- Augmentations to the road network as required to ensure road safety, including a dedicated drop off/pickup area and bus bay along George Street and a new pedestrian crossing on Mitchell Street.
- Removal of trees as required and retention where possible.
- Installation of landscaping, additional tree planting and fencing to integrate with the design of the new school.
- Installation of signage and public art.
- Installation and augmentation of associated services infrastructure to service the new school.

Artistic renderings of the proposal are provided at **Figure 19**, **Figure 20** and **Figure 21**. The proposed Site Layout plan is provided at **Figure 22**.



Figure 19 Photomontage of Main Entrance - Eastern Elevation (George Street)

Source: SHAC



Figure 20 Photomontage of Proposed Development (Looking North West from the Corner of George and Mitchell Streets)

Source: SHAC



Figure 21 Photomontage Aerial Overlooking Indigenous Centre, Community Circle and Main Courtyard (Looking South from Northern Boundary)

Source: SHAC

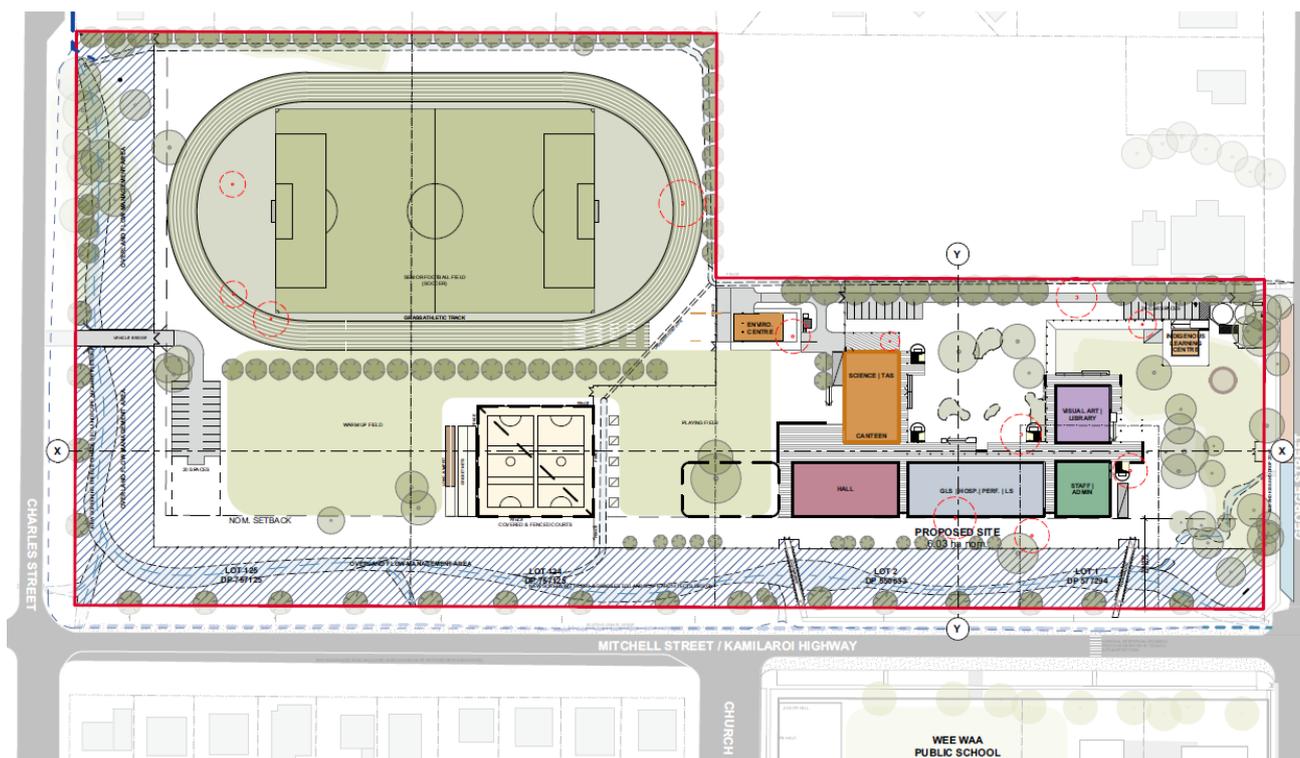


Figure 22 Proposed Site Layout

Source: Architectural Drawings - SHAC

3.1 Development/Urban Design Principles

A set of development and urban design principles have been prepared by SHAC to guide development at the site. The principles have considered the Design Quality Principles of the ESEPP and the requirements of the Department of Education’s *Educational Facilities Standards and Guidelines*. The planning and design principles adopted for the proposed development of the site are as follows:

- **Learning is valued** through excellence in teaching and learning, including high expectations.
- **Learning is agile and responsive** in supporting students to succeed in a continually and rapidly changing world.
- **Learning is collaborative** for both teaching and students.
- **Learning is inclusive** of all cultures and values, including student’s personal experiences.
- **Learning is relevant** to students, valuing both their academic and social/emotional success.
- **Learning is supportive** of students making and valuing connections between school based learning and post school vocations.

3.2 Numerical Overview

The key numeric development information is summarised in **Table 3**.

Table 3 Key development information

Component	Proposal
Site area	6.03 ha
Outdoor play area	22,250sqm
Amount of open space per student	74sqm
Maximum Height	
• Main building	• 12.3m
• Agricultural and Environment Centre	• 7.3m

Component	Proposal
<ul style="list-style-type: none"> Indigenous Cultural Centre (Binaalbaa) 	<ul style="list-style-type: none"> 6.8m
Boundary Setbacks <ul style="list-style-type: none"> Main School Building <ul style="list-style-type: none"> North South East West Agricultural and Environment Centre <ul style="list-style-type: none"> North South East West Indigenous Cultural Centre (Binaalbaa) <ul style="list-style-type: none"> North South East West 	<ul style="list-style-type: none"> Main School Building <ul style="list-style-type: none"> 17.5m 30m 35m 232m Agricultural and Environment Centre <ul style="list-style-type: none"> 11.5m 88m 155m 224m Indigenous Cultural Centre (Binaalbaa) <ul style="list-style-type: none"> 13.5m 81m 18.5m 359m
Car spaces	40 car spaces
Kiss and drop spaces	7 car spaces
Bus pick up drop off spaces	2 bus spaces
Number of staff	61
Number of students	200 300 growth capacity
Core hours of operation	7:30am – 16:30pm Mon-Fri
Bell times	8:15am – 14:15pm Mon-Fri
After hours and community use	7am – 10pm
After school hours care	No

3.3 Built Form

3.3.1 Site Layout

As shown in **Figure 23**, the entire school site is required to be setback 30m from Mitchell Street and Charles Street to accommodate the flood mitigation channel along the southern and western boundaries. The remaining area of the site is then divided into three spatial precincts (**Figure 24**). The western portion of the site contains two precincts: the sports precinct comprising athletics track and sports field, and the active and wellness precinct comprising warm up/casual outdoor play and covered ball sports courts. The civic precinct lies in the eastern portion of the site, with buildings running parallel to Mitchell Street. The main entrance, pick up and drop off are located off George Street, with the entry way through the retained native landscape.

The proposal includes three primary built form elements:

- Main School Buildings.
- Agricultural and Environment Centre.
- Indigenous Cultural Centre (Binaalbaa, which means place of learning).

Each element is described below.



Figure 23 Artistic Rendering of Proposed Development (Looking North from across Mitchell Street)

Source: SHAC

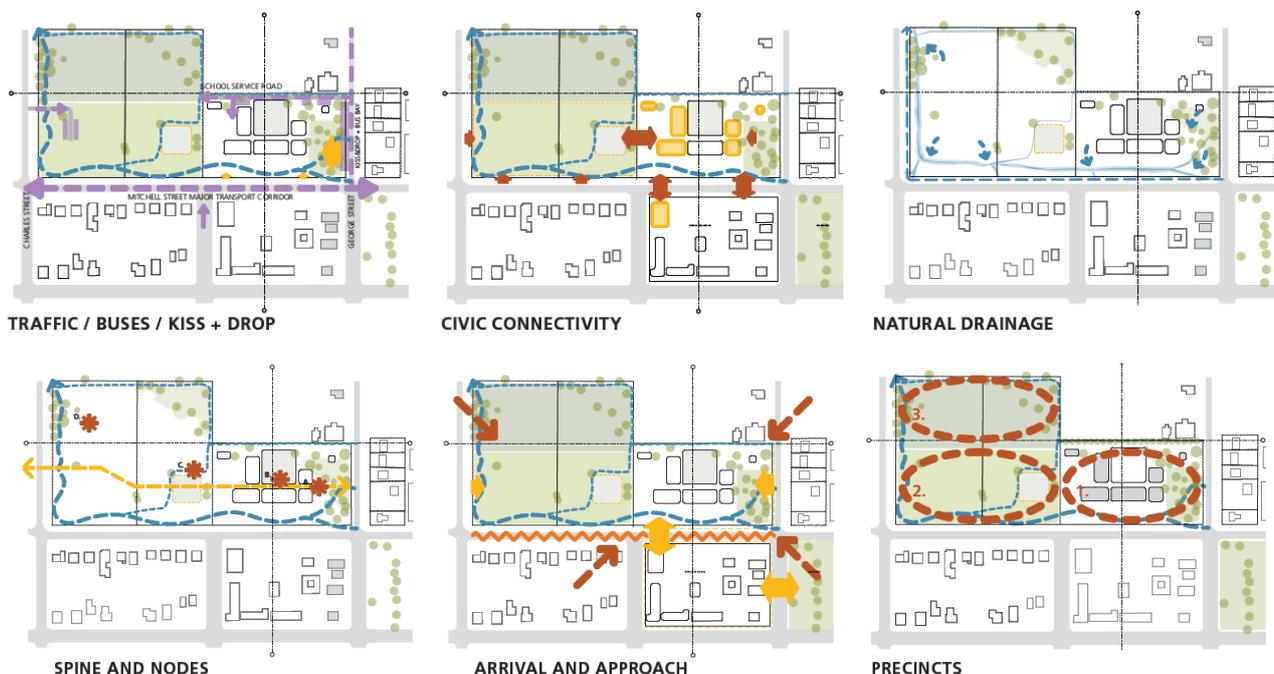


Figure 24 Site Layout Design Exploration

Source: SHAC

3.3.2 Main School Building

The proposed main school building is arranged in a U-shape positioned around a central courtyard, open to the north to allow solar access, wind flow and for the built form to address Mitchell Street. This approach provides passive observation and active participation whilst creating a sense of community around a central shared space. It also provides protection of the courtyard to any high volume traffic on Mitchell Street during harvest time. The school buildings respond to the surrounding residential and educational context and have strong points of connectivity, in terms of visual connection to landscape and internal movement among the circulation spines.

The main school building will be constructed using the NSW Department of Education’s Modern Methods of Construction (MMoC). To successfully enable a MMoC approach, a standardised grid design is required to provide a consistent size and theme for the design to fit into. This grid works as “train tracks” for all elements of the design

to work with, meaning the dimensions of teaching spaces, amenities, etc will all “slot into” the grid dimensions. It is therefore essential that this exact grid projects up to each level through the building to ensure the structural system of the MMOc is consistent.

As such, the form of the main building is split into orthogonal elements, defined by the size of the MMOc element grids. In between these grid elements are covered breezeways, which provide dual aspects to most teaching spaces and allow for shading during the summer months, as well as outdoor breakout spaces for teaching activities such as art drying or outdoor learning. The open breezeways provide visual connections through the school and break up the main built form element. They assist in providing natural ventilation and sunlight from multiple aspects to the teaching areas.

As shown in **Figure 25**, the Ground Level comprises library and administration uses at the civic entrance fronting George Street, general learning and cooking/hospitality training in the central area, a double-height multi-purpose centre/gym/hall, and Technological and Science (TAS) in the northern portion of the building. All buildings are raised above the ground level due to flood planning levels and structural design to accommodate the site’s black soils. The breezeway corridors step down to the central courtyard. The school building has a 10m setback from the boundary fence along the southern boundary, providing an opportunity for outdoor learning and integration with the hall for community and event uses.

As shown in **Figure 26**, the eastern end of Level 1 comprises art teaching spaces and a staff hub above the administration block below. Centrally located on Level 1 are the bulk of the general learning spaces, which have multiple aspects and internal sliding doors that enable integration between classes. The second storey void of the hall marks the south-western corner, and the photography and science teaching spaces are located on the north-western corner. As previously mentioned, breezeways connect the teaching spaces and provide an opportunity for outdoor learning.

The roof of the main school building has an allocation to accommodate an array of approximately 200 photovoltaic panels.

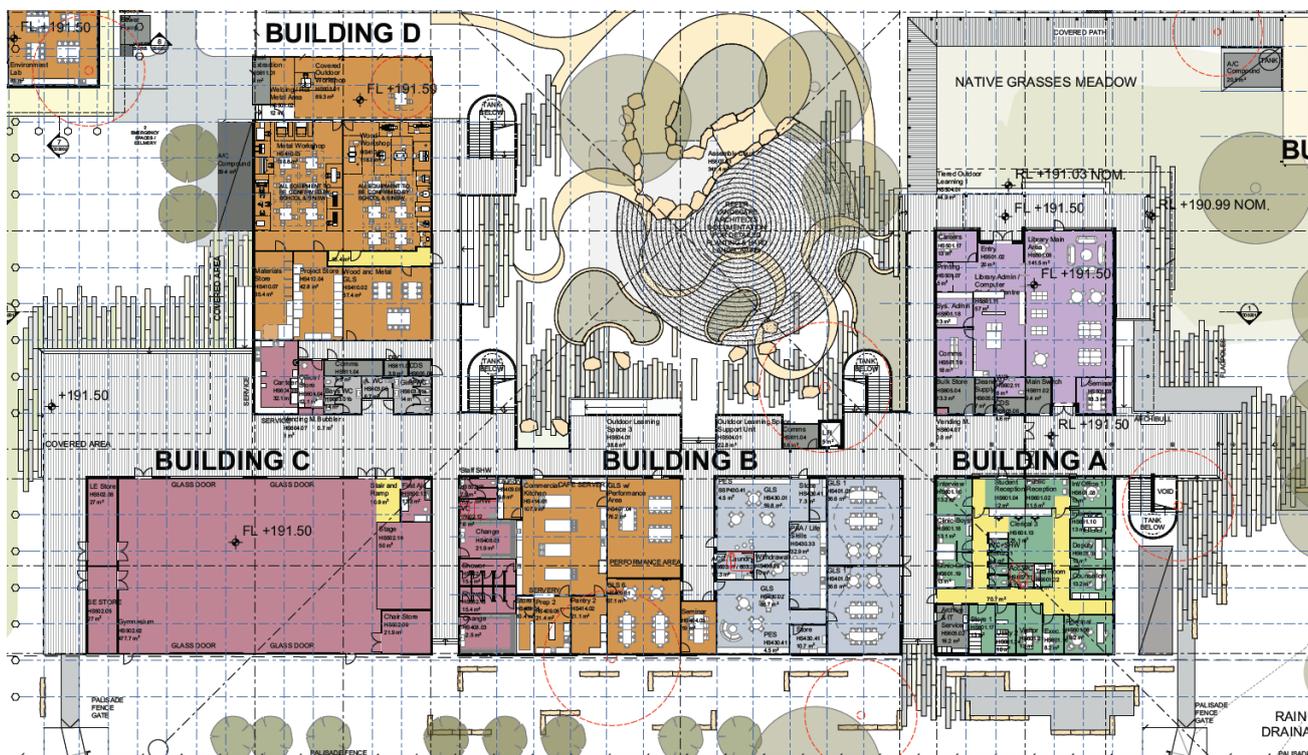


Figure 25 Proposed Main School Ground Level Layout

Source: SHAC

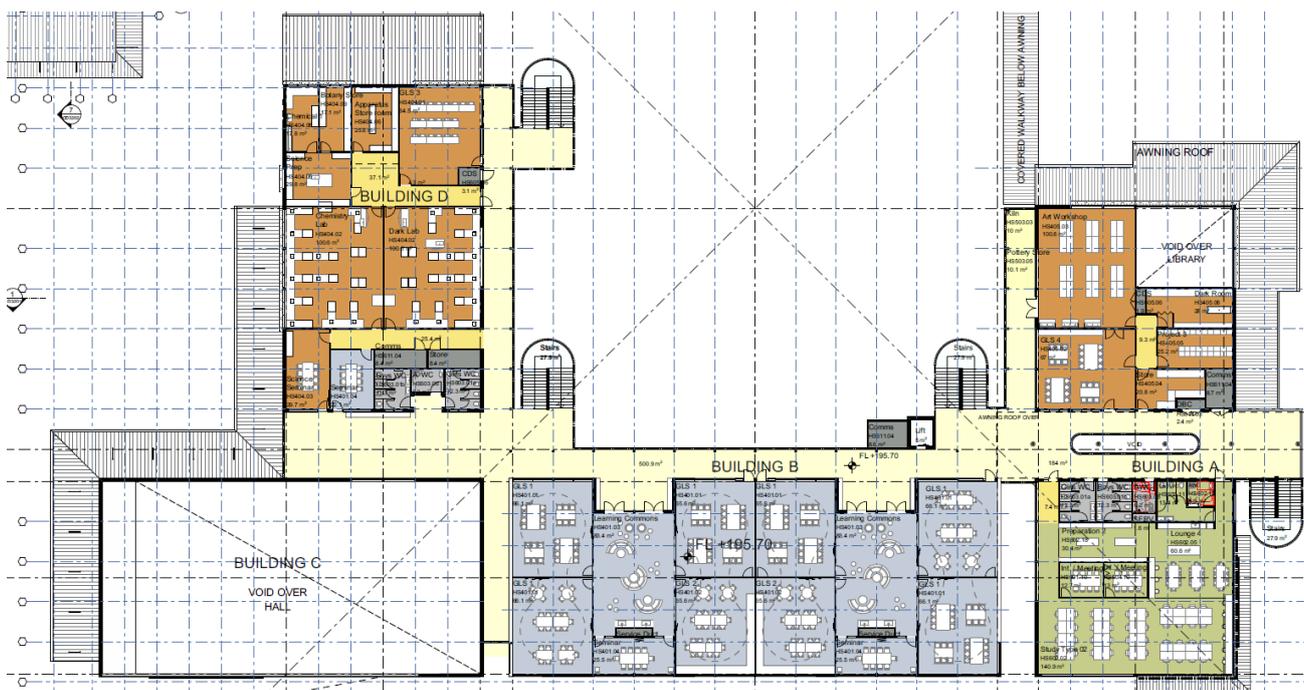


Figure 26 Proposed Main School Building Level 1 Layout

Source: SHAC

3.3.3 Agricultural and Environment Building

In collaboration with school staff and the user group, a dedicated Agricultural and Environment Learning Building is also proposed to accommodate specialist learning activities. Activities may interface with the off-site agricultural plots for practical learning. The building is a separate form to the main school buildings and is located to the north-west of the TAS workshops. The building is single storey with a pitched roof and has been sited so it has direct vehicular access from the proposed internal service road off George Street for loading and resource/equipment loading and unloading. The building follows the architectural language of the main school building and includes awnings/overhang surrounding for sun protection. A floor plan and elevation are shown at **Figure 27**.

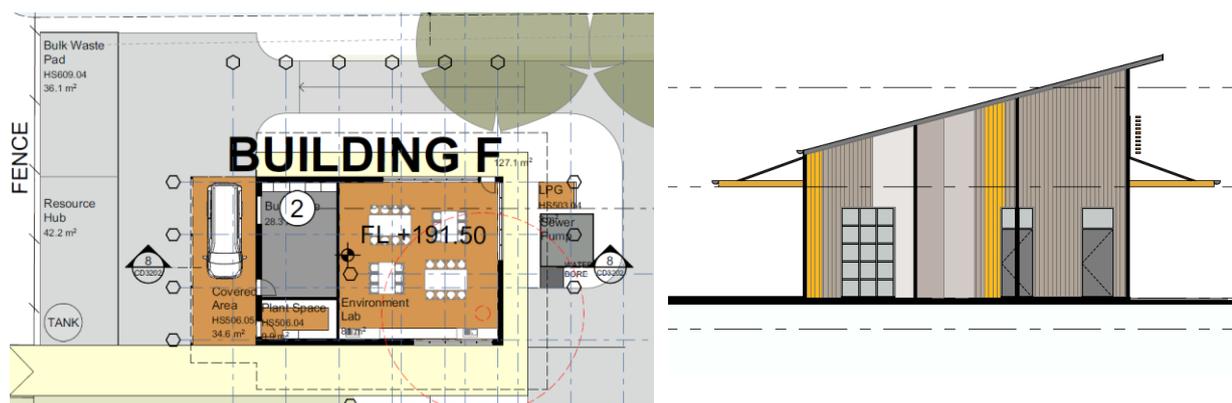


Figure 27 Agricultural and Environment Learning Centre: Floor Plan (left), Elevation (right)

Source: SHAC

3.3.4 Indigenous Cultural Centre – Binaalbaa

A new Indigenous Cultural Centre is proposed to upgrade the existing school centre. The centre is known as “binaalbaa” which means place of learning. It is a single storey building that has been designed to meet the requirements of the school’s Aboriginal Education Officer. It is located near the library to have a connection to the main school building but is a distinctly separate element. The centre has covered awnings on all sides and has direct access to the retained natural landscape and story-telling circle, to enable opportunities for outdoor learning.

The centre is legible from the main school entrance and is located next to the car park off George Street so users can access the centre without having to navigate the civic entry of the main school building. The materiality and form of the centre take reference from the main school building so it reads as a connected but separate element of the school. A floor plan and artistic rendering of the centre are shown at **Figure 28**.



Figure 28 Indigenous Cultural Centre (Binaalbaa): Floor Plan (left), Artistic Render (right)

Source: SHAC

3.4 External Materials and Finishes

A Schedule of Materials and Finishes prepared by SHAC is provided in the Design Report at **Appendix D**. The proposed materials and finishes are designed to tie in with the landscape and wayfinding strategy, to create a coherent language that will define the school. The chosen colour palette reflects those found in the nearby Pilliga National Park, including greys and glimpses of yellow wattle, and the flight of the cockatoo and native grasses in the sunlight. It creates a rhythm of colour and texture across the street façade to the Kamilaroi Highway, creating pride and street presence within the community. Refer to **Figure 29** for an indicative materials and finishes schedule.

INDICATIVE COLOUR / MATERIAL PALETTE:



INDICATIVE MATERIAL PROFILES

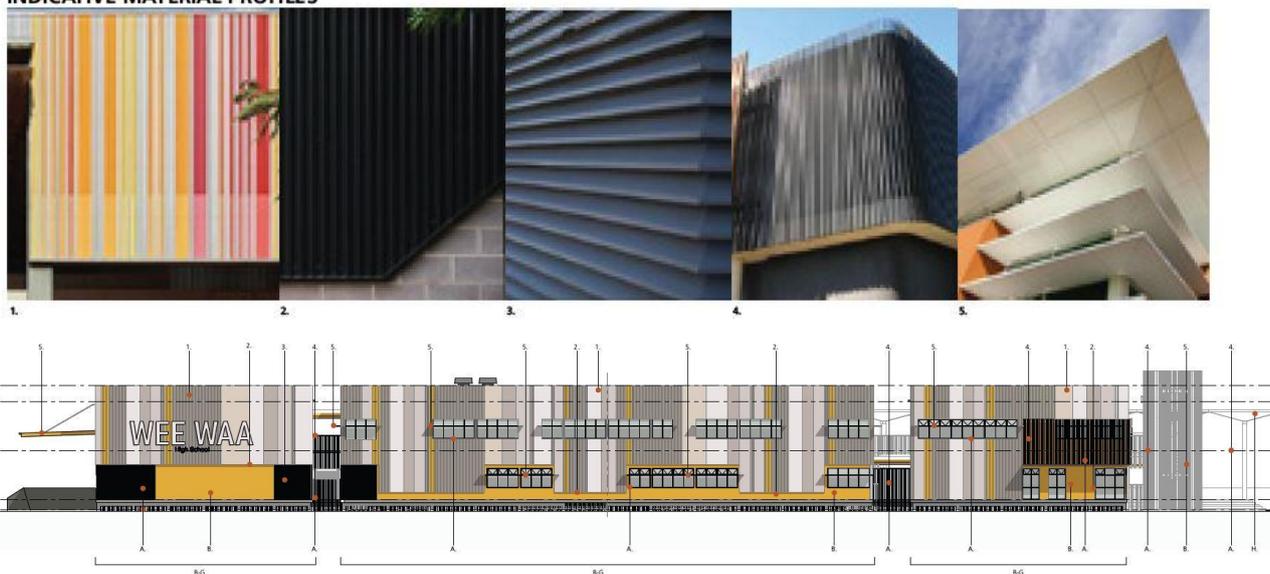


Figure 29 Indicative Schedule of Materials and Finishes

Source: SHAC

3.5 Proposed Uses

As detailed above, the following key uses associated with the school are proposed:

- Administration.
- COLA.
- General and specialist teaching units including metal/woodwork, food and textiles and visual arts.
- Canteen.
- Library.
- Multi-purpose hall.
- Special education unit.
- Assembly court.
- Sports and PE.
- Storage and servicing.
- Dedicated Agricultural and Environment Centre.
- Indigenous Cultural Centre.
- After hours community use.

3.6 Landscaping and Public Domain

A Landscape Report (**Appendix E**) and Landscape Plans (**Appendix F**) have been prepared by Moir Landscape. The concept seeks to create five distinct landscape zones within the site. This includes the natural and cultural landscape, central courtyard, active play area, playing field and water management corridor (subject to a separate planning approval). These spaces are illustrated in **Figure 30**. The proposed landscape site plan is shown at **Figure 32**.

The following landscaping principles have been integrated to provide a high-quality exterior environment for the school community that reflects the current values and policies of the Department of Education:

- **Context, built form and landscape:** integrate the natural and extant landscape with the new design and contribute to the overall town landscape through site improvements and planting.

- **Sustainable, efficient and durable:** Inclusive of durable and hard wearing surfaces such as concrete for pathways and paving. Landscape areas will focus on sustainability with water uses.
- **Accessible and inclusive:** Paths and access ways through the landscape links will allow for appropriate levels of access for all abilities.
- **Health and safety:** Allow for the central school to be void of all cars to mitigate pedestrian-vehicle conflict.
- **Amenity:** Shaded social spaces complement open sections in providing thermal comfort.
- **Whole of life, flexibility and adaptive:** Design that recognises asset management and resource renewal for when operations are limited. Materiality selected to be robust to minimise damage and wear over time.
- **Aesthetics:** Aesthetics complements the space between the modern architectural form, and fabric of the existing township and the surrounding natural environment.

The trees, shrubs, groundcover and grasses have been selected based on the local growing conditions and character of the site, in line with the species endemic to the area to provide a colourful, textural and sensory planting features that act as both a natural and functional edge. The Landscape Report also detailed the extent and heights of fencing around the site. In summary, a 2.1m security fence encircles the civic teaching precinct where all school buildings are located. A 1.2m fence runs along the southern and western boundaries of the sports and wellness precincts in the west of the site. Refer to **Appendix E** and **Appendix F** for further detail and a description of the proposed planting species and locations.

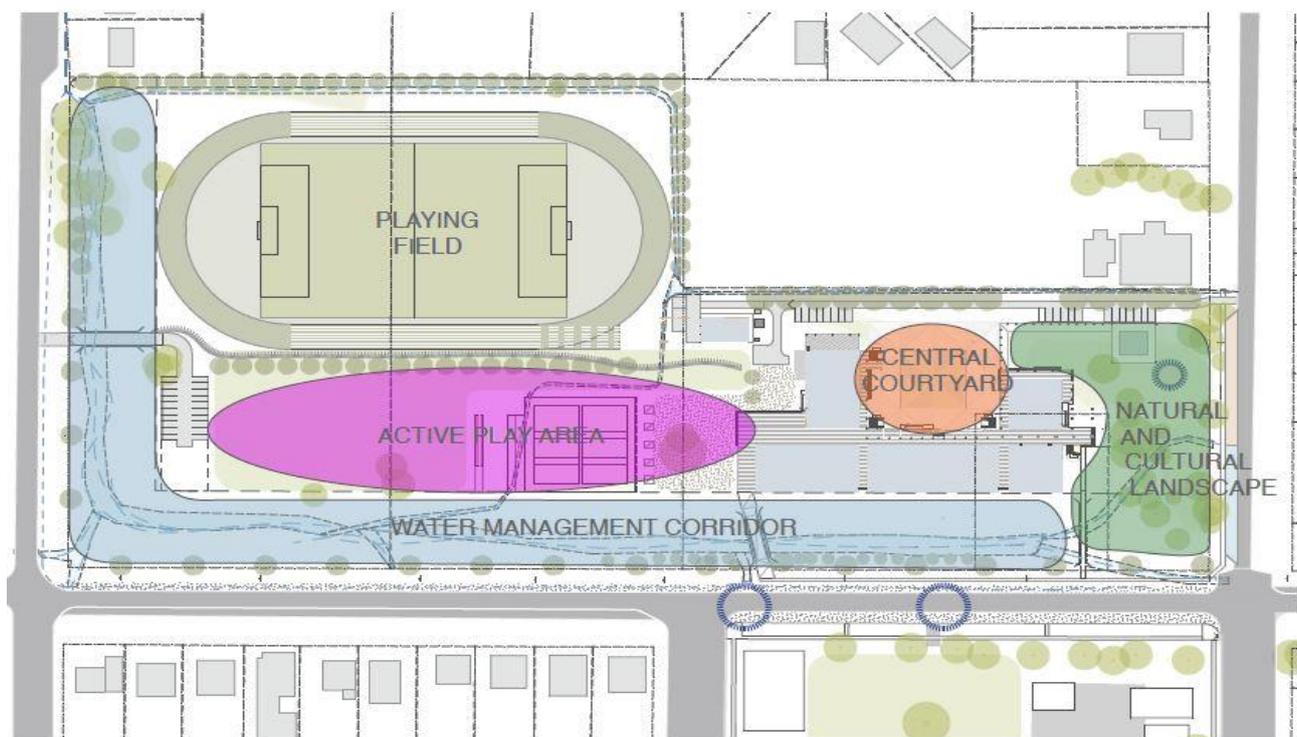


Figure 30 Landscaping Zones

Source: Moir Landscaping



Figure 31 View of School Entry - Natural and Cultural Landscape Zone

Source: Moir Landscaping



Figure 32 Proposed Landscape Site Plan

Source: Moir Landscape

3.7 Connecting with Country

A key driver to the development of the school is to focus on the site's macro and micro indigenous connections that acknowledge the importance of a rural NSW environment that has an enduring connection and ancient indigenous history. The "Masterplan Motifs" of water, harvest and gathering were adopted when considering the early site layout for the school, developed in conjunction with the school's Aboriginal Education Officer.

As a result of design development with these motifs and in consultation with the school and representatives of the Local Aboriginal Land Council, the following design elements have been incorporated in the proposal:

- **Wayfinding and Signage:** Signs are to include native language and include the text "we are on Gamilaraay lands".
- **Totems and Murals:** Incorporate a range of totems and murals to recognise indigenous identity within the Kamilaroi nation.
- **Teaching Facilities:** The school has a stand alone Indigenous cultural centre known as "Binaalbaa" (meaning "A learning place") as well as a community circle / yarning circle.
- **Landscape:** The planting chosen for the school landscape are a blend of locally indigenous species and species that carry post-settlement cultural associations. This balances the range of plant characteristics being inclusive of culturally relevant species that provides for landscape design with thermal comfort.

Consultation with representatives of the Aboriginal community will be ongoing, as described in the Connecting with Country Engagement Framework provided at **Appendix O**. In particular and as raised during the NSW State Design Review Panel process, the ongoing development of the school's landscape design will be subject to consultation with members of the Aboriginal community.

3.8 Site Preparation, Civil Infrastructure and Earthworks

To facilitate delivery of the new school, civil works are proposed as shown in the Civil Engineering Drawings at **Appendix H**. The works associated with the SSDA include bulk cut and fill, grading and crowning of the outdoor fields, raising of a building pad for the school buildings, grading to form localised stormwater and flooding channels within the school, construction of stormwater pipes and culverts within the school, and grading, construction and finishing of the service road, car parking areas and road widening to accommodate kiss and drop/bus pickup and drop off area (within the road reserve).

Note that civil works associated with the separate Flood Mitigation Works approval will be undertaken separately and do not form part of the scope of this SSD Application. This includes the overland flow channel along the southern and western boundaries of the site, relating stockpiling and the off-site upgrades to civil, stormwater and flooding infrastructure.

3.9 Tree Removal

Tree removal is required to construct the sports fields and school buildings. Trees are to be retained where possible. Some trees that exist on the site will be removed under the separate Flood Mitigation Works approval. As such, it is expected that 19 trees will be removed as part of this SSD Application to enable the new school development. As described in **Section 2.2.2**, the study area for tree removal is restricted to the eastern portion of the site outside of the flood mitigation works overland flow channel. This is since vegetation clearing associated with the remainder of the site will be undertaken under a separate planning pathway in accordance with the flood mitigation works and associated fill stockpiling.

It is noted that the proposal results in a significant increase in the number of trees and amount of canopy on the site. The proposal includes approximately 12,200sqm of canopy coverage, or more than three times the existing coverage on the site at present.

A complete assessment of trees and their maturity and retention values has been provided in the Arborist Report at **Appendix S**.

3.10 Pedestrian Access and Circulation

The main school entry and administration is located along George Street, away from the Kamilaroi Highway. This allows for an accessible and approachable entry for users, while mitigating conflict with large road trains and heavy vehicles during harvest season. An access spine is provided running east-west along the side of the school. The main spine's presence is reinforced with a heightened entrance to ensure clear wayfinding. Beyond the Administration Block, the spine forms part of the U-shape system joining each block.

Secondary public access points into the site are located along the southern boundary to connect to the Wee Waa Public School and the broader town community in a controlled manner. These access points are accessible by bridges over the flood conveyance channel and lead to the administration block and the hall. A new pedestrian crossing on Mitchell Street is proposed to connect with the public school across the road.

The school predominately provides external covered circulation such as verandas and breezeways that have clear identifiable entry, circulation spines and an external streetscape with multiple entry points from playgrounds. The pedestrian access and circulation strategy is provided in **Figure 33**.

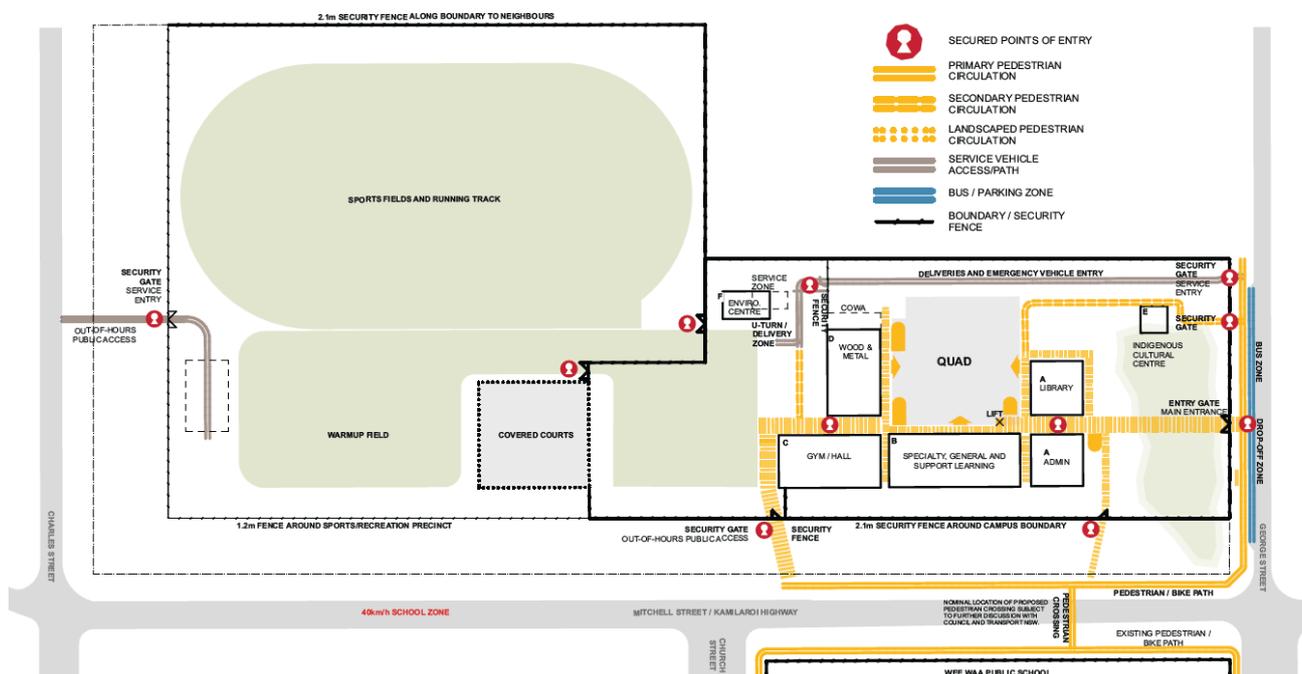


Figure 33 Pedestrian Access, Security and Circulation Strategy

Source: SHAC

3.11 Vehicular Access and Parking

A Traffic and Accessibility Impact Assessment has been prepared by TTW and is provided at **Appendix I** which details the proposed vehicular access and parking arrangements, also reflected in the Architectural Drawings (**Appendix C**) and Civil Engineering Plans (**Appendix H**). A summary of the proposed vehicular access and parking proposal is provided below.

Vehicle Access

Vehicle access is provided along the northern service road off George Street, separated from students, teachers and the general public. This road provides vehicle access for staff, visitors, agricultural, deliveries, rubbish collection and emergency services. The road connects to the Indigenous cultural centre (Building E) and the Agricultural and Environment Centre further in the site (Building F).

Secondary vehicular access is provided from Charles Street to the secondary car park. It is envisaged that this access will be used for staff and for community members when the sports fields are being used for community events.

Car Parking

The proposal involves two on-site, at-grade carparks. Both carparks will comprise 20 spaces each (40 spaces total) and will be reserved for staff or employee parking only. The amount of parking provided on site is as requested by Narrabri Shire Council. Access is provided from George Street and Charles Street to each parking area, separately.

Pick up and drop off

Pick up and drop off will be provided along George Street, which will feature road widening within the road reserve to allow parents to pull into the bays and not impair traffic flows. At any one time, 7 vehicles can use the dedicated space, with allowance given to the queuing of 12 vehicles. A length of 42m is required for the pick up and drop off zone, while 48.5m is required for the bus zone. A physical kerb will be provided to delineate the two zones.

Bus Zone

Provision for two buses to queue at any one time is provided in the widened road reserve along George Street. School bus services are to be rerouted so as to service the proposed new bus zone located adjacent to the development site on George Street. Road widening works will allow for a kerb layover that will service both public transport as well as pick up and drop off travel modes. Bus zones are to service the school only and therefore will only be in operation during peak school morning and afternoon hours.

Service Vehicle Access

Service, waste and loading vehicles will also utilise the vehicle access point from George Street. Waste facilities on site are located to the north-west of the Agricultural and Environment Centre (at the end of the service road). The largest anticipated vehicle is a heavy rigid vehicle.

Emergency Vehicle Access

Emergency vehicle access will be located from the vehicular entry point along George Street. Emergency protocols for the school would include on-site staff assisting with emergency access. Any vehicles located in and around the on-site carpark or access route should be cleared, and any planned vehicle movements should be temporarily suspended.

Bicycle Parking

A secure bicycle enclosure is provided on site adjacent to the car parking off the internal access road, to allow for the safe storage of bicycles and equipment during school hours. End of trip facilities are included throughout the development amenities, including the main change rooms located adjacent to the hall.

3.12 Building Services

Building services are indicated at **Figure 34** and **Figure 35**. The services are generally placed and collected along the external walls of the buildings to ensure ease of access from outdoors and from the breezeways. Wet areas are consolidated into blocks across both floors. Refer to **Appendix D** for further information.

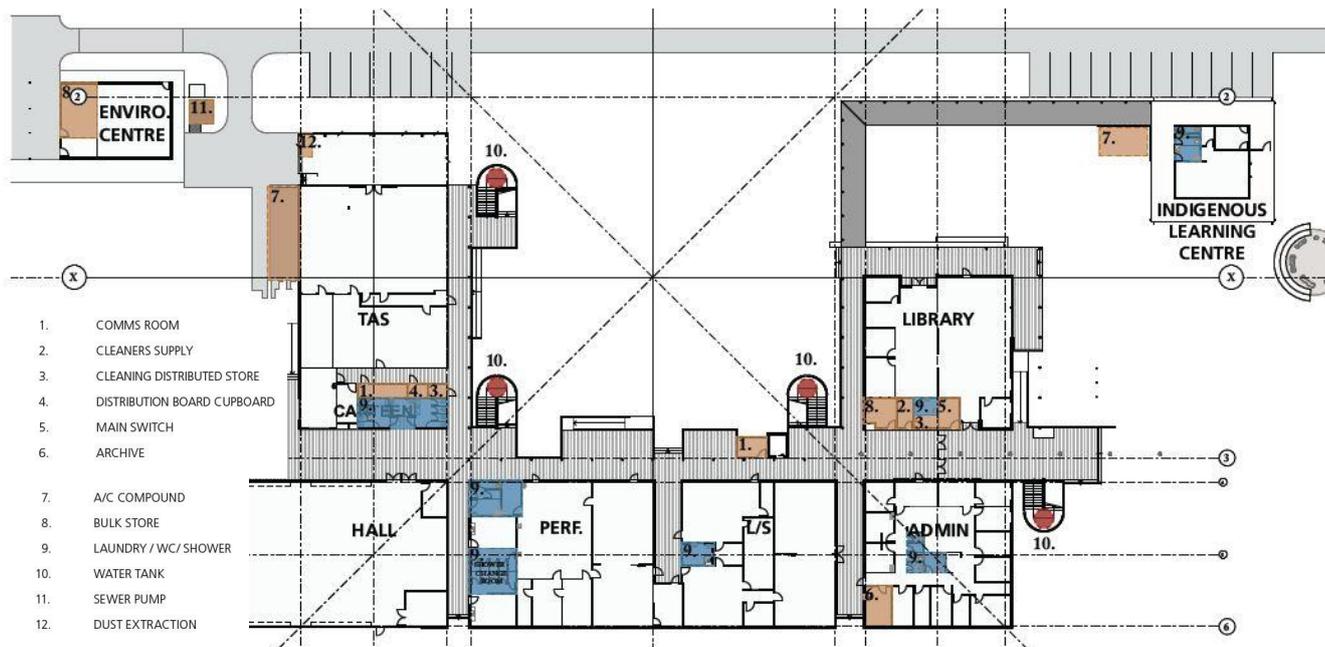


Figure 34 Indicative Ground Floor Services Locations (Amenities Shown in Blue)

Source: SHAC

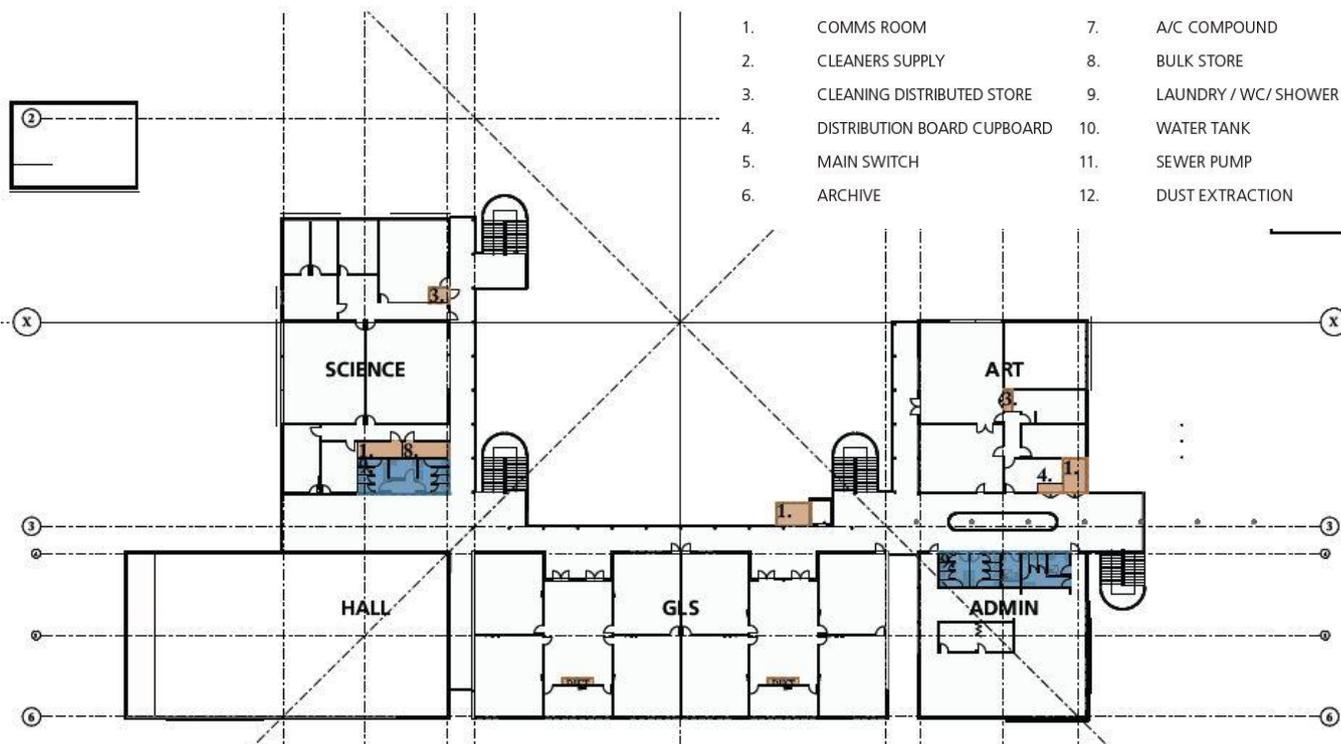


Figure 35 Indicative Level One Building Services Locations (Amenities Shown in Blue)

Source: SHAC

3.13 Environmentally Sustainable Development

The proposed development is targeting a 4 Star Green Star Design and As Built v1.3 rating. This commitment will see the school implement sustainable design and construction throughout the delivery process, which will be validated through a third party assessment post completion. The 4 Star target exceeds the requirements of Section J of the National Construction Code and addresses the Government Architect NSW Standards of Environmental

Design in Schools, Better Placed Design Guide and the Education Facilities Standards and Guidelines (EFSG). The key sustainability themes for the proposed development are as follows:

- Energy and Carbon:
 - Design to promote operational efficiency through fabric and services.
 - On-site renewables including rooftop Solar PV.
- Water:
 - Management of stormwater and flooding risk.
 - Water efficiency through design.
 - Capture rainwater for re-use.
- Health and wellbeing:
 - Indoor environment quality and productive learning spaces.
 - Passive and active play spaces.
- Connecting to Country:
 - Celebrating Kamilaroi culture through design principles.
 - Delivery of Indigenous cultural centre.
- Resources:
 - Create circularity for waste streams through the Agricultural and Environment Centre.
 - Sourcing responsible materials.
- Place:
 - Managing climate risks through site adaptation strategies.
 - Connection to nature and regional environment,

A detailed description of how these themes will be implemented in the design is provided in the ESD Report (**Appendix L**) and Section 2.15 of the Design Report (**Appendix D**).

3.14 Infrastructure and Utilities

An Infrastructure Services Report has been prepared by Marline and is provided at **Appendix P**. The report describes the availability of surrounding infrastructure services and utilities and the proposed uses and required augmentations to connect and service the school. Underground service trenches will be co-located and run between each building through the landscaped central courtyard. The ESD Report (**Appendix L**) and Soil and Water Quality Report (**Appendix U**) provide further detail relating to the use of water on the site. A summary of the utilities and services works is provided below.

Electrical

The requirements for electricity network augmentations have been discussed with the energy provider Essential Energy. A new pole mount substation is being installed along the southern frontage of the site, within the Mitchell Street Road Reserve (under a separate planning process as described in **Section 1.2.1**). The proposed development will be serviced by a single service, direct from the supply authority network to match the minimum load requirement for the proposed development (including capacity for future growth). A dedicated main switchboard room will be provided to house the building's main switchboard and all-supply authority metering.

Water

The school has two options for water supply that it will utilise. Primary potable water will be obtained via a connection to the municipal water supply via the existing main located on Mitchell Street. The municipal water supply meets all required standards for domestic consumption. The existing school has a water bore licence and the new school site has a historic bore located in the north-western corner of the site. The licence will be transferred at a future date, the bore will be reinstated and bore water used for limited activities such as watering the playing fields. Rainwater will be captured from the main school buildings and re-used on site for non-consumption activities.

Sewer

The site currently has access to the Narrabri Shire Council sewer infrastructure. The school will utilise the closest connection point for the existing infrastructure, which is located off Charles Street near the north-western corner of the site. A sewer pumping station will be required to transport sewer water from the main school buildings to the Charles Street connection point.

Gas

Natural gas is not available to this property. If required for cooking uses, LPG can be installed.

3.15 Signage

Five school identification signs are proposed as described in **Table 4** and shown at **Figure 36** and **Figure 37**. The identification signs are scaled to integrate with the school façade, its setbacks from the street and the flood mitigation channel. Wayfinding signage within the school and construction signage will be installed as required and as described in the Design Report (**Appendix D**) and the detailed Construction Environmental Management Plan to be prepared by the contractor.

Table 4 Proposed School Identification Signage

Sign	Location	Dimensions (h x w)	Description
High School Frontage School Name Sign	Southern elevation of main school building, fronting Kamilaroi Highway	2.4m x 8.3m	Individual cut lettering displaying "WEE WAA High School" affixed to building façade.
East Elevation/Main Entry School Name Sign	East elevation of main building adjacent to school entrance	2.4m x 8.3m	Individual cut lettering displaying "WEE WAA High School" affixed to building façade.
Agricultural and Environmental Centre Identification Sign	Southern elevation of Agricultural and Environment Centre	0.85m x 3.4m	Individual cut lettering displaying "Energy" affixed to building façade.
Binaalbaa Identification Sign	Eastern elevation of Binaalbaa Centre	0.85m x 4.7m	Individual cut lettering displaying "Binaalbaa" affixed to building façade.
School Pylon Sign	George Street and Mitchell Street corner, 5m within each site boundary.	2.4m x 1.2m (total pylon size)	Freestanding pylon sign displaying school logo, name (including indigenous name), partnership information.

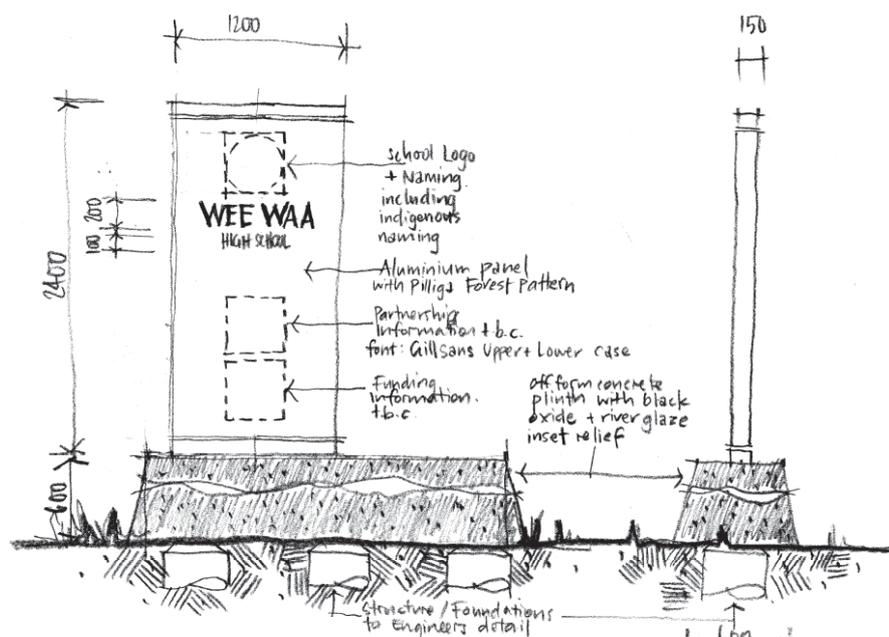


Figure 36 Proposed School Pylon Sign – Elevation Drawing

Source: SHAC



Figure 37 Proposed School Identification Signs – Building Elevations

Source: SHAC

3.16 Lighting

A Lighting Strategy Report has been prepared by Marline and is provided at **Appendix FF**. The external lighting design includes concealed feature luminaires integrated within the school buildings, building mounted floodlights to the central courtyard, walkway luminaires integrated with the building structure to the external walkways surrounding the buildings, pole-mounted LED luminaires with shielding along the internal access road, and low-level bollard and in ground luminaires to highlight specific pathways through the school for wayfinding. A concept diagram of the lighting strategy is provided at **Figure 38**. The lighting has been designed and will choose materials and components so that obtrusive light spill to any surrounding neighbours is minimised. The design will comply with the requirements of AS/NZS 1158.3.1, AS 4282, and all other applicable standards.

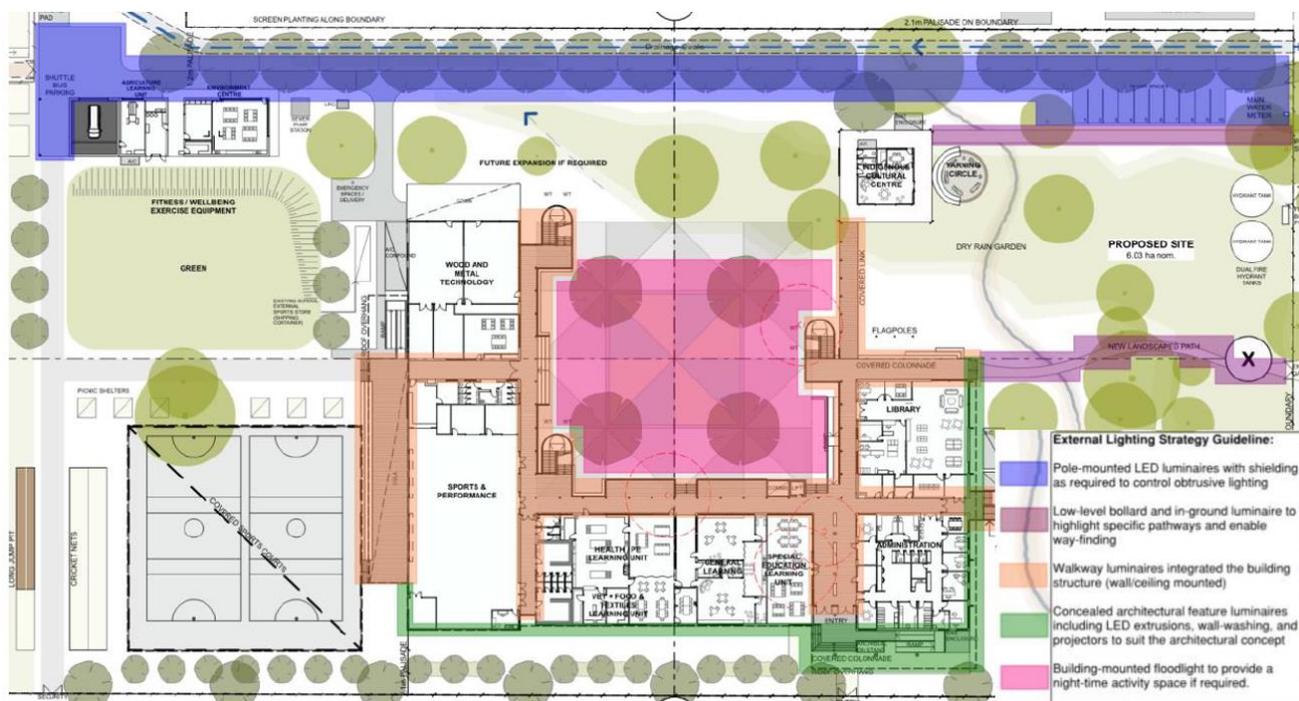


Figure 38 Concept External Lighting Strategy Plan

Source: Marline

3.17 Construction

Construction Staging

The SSDA works are expected to occur in one stage. It is anticipated that construction will commence March 2022 (subject to determination) with completion and commencement of operation to occur October 2022.

Construction Hours

Construction will be undertaken in accordance with the Preliminary Construction Management Plan provided at **Appendix BB**, which are standard hours (as specified in the NSW Interim Construction Noise Guideline):

- Monday to Friday: 7:00am to 6:00pm
- Saturday: 7:00am to 1:00pm
- Sundays and Public Holidays: No works

If required, approval for construction works outside of the above hours will be sought from the relevant authorities.

Construction Jobs

The proposed development will result in approximately 150 direct and indirect construction jobs.

3.18 Operation

School Operation

The school will operate as per the following hours:

- Core/bell hours: 8:15am – 2:15pm Monday-Friday
- Extra-curricular programs: 7:30am – 4:30pm Monday-Friday

Student and Staff Numbers

The proposed development will accommodate a maximum capacity of 200 students (with potential for future expansion up to 300 students, subject to funding and service need) and 61 staff.

Joint Community Use

The following school spaces will be utilised by local community groups in accordance with agreed operational requirements:

- Sports fields and open space.
- School Hall.
- Two learning support spaces.
- Environment Centre.
- Indigenous Cultural Centre.

It is anticipated that these uses will occur several times a week.

4.0 Consultation

In accordance with the SEARs issued for this project, consultation was undertaken with relevant public authorities, the community and Council.

A Consultation Outcomes Report prepared by Ethos Urban is provided at **Appendix O** and provides details of the consultation undertaken, feedback received and responses made by the team. Several consultants have undertaken additional consultation with relevant parties during the preparation of their reports. A summary of key consultation elements and the project responses to issues raised is provided below.

Community Consultation

Targeted community consultation was undertaken for the project.

- Regular project updates.
- Project factsheet.
- Information boards.
- Project website.
- Project email and phone number.
- Community survey.
- Planned community session (replaced with online material due to COVID-19 restrictions).

A summary of the key issues raised and the project response to each issue is provided in **Table 5**.

Table 5 Summary of Issues Raised and Response

Key Issue	Description	Response
Agriculture	A fit for purpose agricultural facility is an important element to the new high school.	The new school will utilise upgraded agricultural plots at the existing school site, with new dedicated agricultural and environmental teaching facilities at the new school site. To accommodate agriculture on the new site, the size of the agricultural plot would be significantly less than the existing site and would impact the amenity of surrounding residents.
Community access	Sharing new facilities with the wider community was identified as an important element of the new high school.	The site layout has been designed to locate community accessible facilities near the public access points. New sports fields and outdoor ball courts in the west of the site can be used by the public and are accessible by car from Charles Street and by foot from Mitchell Street. The hall has been located and designed so that it is legible and directly accessible from Mitchell Street. Amenities and change rooms are located with the hall for community use. The hall will be available to operate from 7am to 10pm for community use (outside of school hours).
Sustainability and site location	Long term sustainability is a key factor for the new school and the community supports the proposed site location.	The proposal is targeting a 4 Star Green Star sustainability rating and will implement a range of sustainability measures in its design and ongoing operation. Refer to Section 3.13 and Section 5.16 for further detail on the proposal.
Local Aboriginal representation	The indigenous heritage of the town is important and that it should be reflected throughout the new school design	The school has been designed in collaboration with the School's Aboriginal Education Officer and includes a dedicated indigenous cultural centre for use by the school, local community, and local Aboriginal people. Aboriginal learning will be encouraged and facilitated at the centre. The school design also incorporates elements that seek to Connect with Country, including wayfinding signage in native language, public art depicting totems and murals, dedicated Aboriginal learning areas and indigenous planting throughout the landscape design.
Learning spaces	Flexible learning spaces are important in the new high school.	General learning spaces have sliding doors and useable outdoor areas within the breezeways. Specialist learning spaces are also provided for technical studies.
Timeline	The most important factor for construction was the timeline due to temporary location of existing students at the public school.	The project team is committed to delivering the project as quickly as possible and have tried to resolve as many potential issues as possible prior to lodgement of the EIS. Early Contractor Involvement with SINSW means the planning, design and delivery stages run in parallel, saving overall time.

Planning Focus Meeting

As part of streamlining the EIS preparation and assessment periods for this urgent project, a Planning Focus meeting was held during the SEARs referral period to brief interested agencies on the project and receive preliminary feedback, as well as provide clarifications on certain aspects of the project to feed into each agency's SEARs response. The meeting was held virtually on 23 June 2021 and was attended by the project team and the following agencies:

- NSW Department of Planning, Industry and Environment
 - Metropolitan Sydney
 - Regional NSW
- Narrabri Shire Council
- Transport for NSW
- NSW Environment, Energy and Science Group

Feedback raised at the Planning Focus Meeting was included in the SEARs and has been responded to as part of the design and this EIS package.

School Community and User Group

The project has been designed to make sure it meets the needs of its key user group. Regular meetings with the high school and public school principals' was undertaken, as well as a project reference group. Consultation was also undertaken with the high school's Aboriginal Education Officer.

Aboriginal People

The proposal has consulted with the Aboriginal community throughout the design process. Key elements of consultation include with the school's Aboriginal Education Officer, the Wee Waa Local Aboriginal Land Council, representatives of the Kamilaroi people who are associated with the Native Title claim applying to the site, as well as consultation undertaken in accordance with the Aboriginal Cultural Heritage Report (**Appendix N**), including notification to the Registered Aboriginal Parties. Future consultation regarding the design of the project will continue in accordance with the Connecting with Country Engagement Framework provided at **Appendix O**.

Summary of Other Agency Consultation

Agency consultation has been undertaken in accordance with the SEARs, as well as on an as-needs basis during development of the design. A summary of the key agency consultation meetings is provided in **Table 6**.

Table 6 Summary of Agency Consultation

Stakeholder	Key Dates	Key Issues Discussed	Outcomes
Narrabri Shire Council	14/12/2020	<ul style="list-style-type: none"> • Project team introduction • Project Briefing • WWHS current status • NSW Health response • Recent school consultation • Project scope • Next steps 	Project briefing. Further consultation ongoing.
	8/2/2021	<ul style="list-style-type: none"> • Project update <ul style="list-style-type: none"> – Business case development – Options assessment: Mitchell Street and Dangar Park – Consultant procurement: core team engaged, Masterplan first draft due within month • Recent school consultation • Next steps 	Project briefing. Further consultation ongoing.
	11/02/21	<ul style="list-style-type: none"> • Narrabri Shire Council planning team introduction • Planning Snapshot 	Project Update. Further consultation ongoing

Stakeholder	Key Dates	Key Issues Discussed	Outcomes
	3/3/21	<ul style="list-style-type: none"> Project Update <ul style="list-style-type: none"> Strategic Investment Paper submitted in Feb Value Management Session conducted 3 March Proposed program Draft Masterplan presented Traffic & Transport – Mitchell Street/Kamilaroi Hwy Bypass roads – Cotton Lane 	Project Update. Further consultation ongoing
	19/3/21	Transport and Traffic Strategy presentation	Project Update. Further consultation ongoing
	30/3/21	<ul style="list-style-type: none"> Project Update <ul style="list-style-type: none"> Business Case in preparation Transport and traffic feedback Planning Pathway – Opportunity exists for the assessment and approval of the application to be deferred to the Narrabri Shire Council Masterplan Update 	Project Update. Further consultation ongoing
	31/3/21	<ul style="list-style-type: none"> Wee Waa High School Planning Pathway - Narrabri Shire Council & DPIE Discussion of possibility to become the consent authority for project 	Project Update. Further consultation ongoing
	23/4/21	<ul style="list-style-type: none"> Project Update <ul style="list-style-type: none"> Masterplan update Traffic and transport Planning pathway Civil and structural design 	Project Update. Further consultation ongoing
	27/4/21	<ul style="list-style-type: none"> Project Update <ul style="list-style-type: none"> Masterplan update Traffic and transport Planning pathway Civil and structural design 	Project Update. Further consultation ongoing
	5/5/21	Presentation of Mitchell Street civil design to NSC Infrastructure Director	Project Update. Further consultation ongoing
	31/5/21	<ul style="list-style-type: none"> Project Update <ul style="list-style-type: none"> Final business case submitted SEARs ready for submission. Awaiting project announcement Preliminary contamination testing shows small hotspot. Further testing will be conducted Electrical Infrastructure Upgrade – New pole-mount substation on Mitchell Street 	<p>Project Update. Further consultation ongoing</p> <p>NSC advised that SINSW may have problems sourcing fill and with accommodation in town during construction.</p>
	29/6/21	<ul style="list-style-type: none"> Project Update <ul style="list-style-type: none"> SEARs submitted 7 June ECI tender approved for release 29 June Civil design peer review underway Community information session rescheduled Planning Focus Meeting Follow-up <ul style="list-style-type: none"> SINSW noted Mitchell Street as preferred site following site selection analysis Council will not hold position on site, focus on engineering solutions around stormwater, drainage, water runoff, traffic Stakeholder engagement to increase 	<ul style="list-style-type: none"> NSC noted that the Council won't be holding a position in relation to the site. Council acknowledges that the subject site has been chosen by SINSW to progress to SSDA. NSC stated that Council will continue to focus on the engineering solutions particularly stormwater, drainage, water runoff, and traffic at the preferred site NSC noted that traffic calming measures on Mitchell Street could be put in place sooner to assist with

Stakeholder	Key Dates	Key Issues Discussed	Outcomes
		<ul style="list-style-type: none"> - Open relationship and dialogue between project team and Council will be key going forward 	the management of the current situation
	29/7/21	<ul style="list-style-type: none"> • Design update <ul style="list-style-type: none"> - Responds to needs outlined in Education Rationale - Three precincts: buildings, sports recreation and wellbeing, agriculture • Transport update <ul style="list-style-type: none"> - Pick up and drop off moved to George Street - Council concern around safety of Mitchell Road, with temporary and permanent measures proposed - Car spaces increased to 20 in line with existing provision - Suitable locations for overflow parking 	<ul style="list-style-type: none"> • NSC noted more than 20 parking spaces will be required • NSC raised key issues including location, parking and flooding • NSC and project team to meet on site
	17/9/21	<ul style="list-style-type: none"> • Project update <ul style="list-style-type: none"> - Flood management - Options assessment • High school in support for Option 2 • Council want alternative sites looked at • Traffic issues yet to be addressed • Upcoming council briefing on 5th Oct 	<ul style="list-style-type: none"> • NSC would like alternative sites to be considered • Traffic issues are not fully addressed
	30/9/21	<ul style="list-style-type: none"> • Preparation for Council briefing <ul style="list-style-type: none"> - Deputy mayor election has shifted dynamic - Councillors want to understand assessment of alternative sites - Transport and biodiversity consultants, architect, flood engineer will be present to answer specific questions 	<ul style="list-style-type: none"> • The Councillor's want SINSW to clearly articulate why other sites have not been considered appropriate.
	5/10/21	<p>Councillor briefing</p> <ul style="list-style-type: none"> • Background and need for the High School • School and education requirements • Presentation of solution <ul style="list-style-type: none"> - Flood mitigation strategy - Traffic management - School site plan, including 3D imagery - Agricultural plot - Benefits 	Council advised they are generally supportive of the alternative design including the flood mitigation, transport and place making opportunities.
	6/10/21	<p>Transport update</p> <ul style="list-style-type: none"> • Update provided regarding the change to pick up and drop off, bus movements and car parking numbers. 	Council endorse final transport design.
Government Architect NSW (SDRP)	28/7/21	The following aspects of the presentation were supported:	<ul style="list-style-type: none"> • A detailed response to all feedback provided by GANSW is outlined in the Design Report in Section 2.18, page 110. • Further landscape feedback is captured in the Landscape Report.
	13/10/21	<ul style="list-style-type: none"> • The intent and approach to Aboriginal culture and heritage. • The integration of water, harvest and gathering themes into the masterplan. • The plan to rectify existing flooding issues and previous damage to the site. <p><i>Key themes of further commentary included:</i></p> <ul style="list-style-type: none"> • Connecting with Country • Landscape • Architecture 	

Stakeholder	Key Dates	Key Issues Discussed	Outcomes
		<ul style="list-style-type: none"> A full copy of GANSW Advice can be found in Appendix 2 to the Consultation Outcomes Report. 	
Transport for NSW	21/06/2021	<ul style="list-style-type: none"> Crossings must be supervised Provide more onsite parking Kiss and drop off location preferred not on Mitchell Street 	Noted. Submitted design address these comments.
	7/10/2021	<p>Update was provided regarding the relocation of pick up and drop off to be away from Mitchell Street.</p> <ul style="list-style-type: none"> It was requested that separation be provided between the pick up and drop off location to prevent overflow of pick up and drop off movements into the bus layover area. It was also requested that bus layover be relocated to Charles Street to separate these movements. It was stated that a pedestrian crossing at Mitchell Street would not be supported on the basis of delays to through vehicle movements. It was requested that traffic modelling be conducted of a potential future midblock crossing to ensure no impact to the surrounding intersections. 	<p>Further considerations to be made in the Transport strategy</p> <p>Comments are considered in the Transport and Accessibility Impact Assessment</p>
NSW Health	11/10/2021	<p>Letter issued to NSW Health including:</p> <ul style="list-style-type: none"> Update on minor amendments to proposed development New flood mitigation strategy has been proposed including landscaped overland flow in combination with off-site upgrades to the existing floodwater discharge system Changes to footprint of the school Minor redesign of the school Offer to meet with the project team to discuss above matters 	<p>No response has been received from NSW Health</p> <p>However, the matters raised in NSW Health's letter to the SEARs are addressed in the EIS in relation to relevant SEARs requirements for Air Quality, Noise and Vibration, Land Contamination, Surface Water, Ground Water and Flooding, Waste Management and Consultation Outcomes.</p>
DPIE - Water and the Natural Resource Regulator (NRAR)	11/10/2021	<p>Letter issued to NRAR including:</p> <ul style="list-style-type: none"> Update on minor amendments to proposed development New flood mitigation strategy has been proposed including landscaped overland flow in combination with off-site upgrades to the existing floodwater discharge system Changes to footprint of the school Minor redesign of the school Offer to meet with the project team to discuss above matters 	<p>No response has been received from NRAR</p> <p>However, the matters raised in NSW NRAR's letter to the SEARs are addressed in the EIS in relation to the Soil and Water SEAR (No. 18).</p>
	12/10/2021	Bore water license enquiry	Transfer of license from existing school possible. For future consideration separate to this application.
Crown Lands	15/01/2021	Licence application	Application granted
	25/04/21	Land search enquiry	Detailed report provided by Crown Lands
	11/10/2021	<p>Letter issued to Crown Lands including:</p> <ul style="list-style-type: none"> Update on minor amendments to proposed development New flood mitigation strategy has been proposed including landscaped overland flow in combination with off-site upgrades to the existing floodwater discharge system Changes to footprint of the school Minor redesign of the school 	<p>No response has been received from Crown Lands</p> <ul style="list-style-type: none"> No further action required SINSW is liaising with Crown lands on the land acquisition matters and has their 'in principle' support to lodge the EIS. Appropriate evidence of the progress of the land

Stakeholder	Key Dates	Key Issues Discussed	Outcomes
		<ul style="list-style-type: none"> Offer to meet with the project team to discuss above matters 	acquisition arrangements will be provided to DPIE.
	15/10/2021	Land owner's consent.	Consent granted.
Essential Energy	04/07/2021	Request for a low voltage connection or connection alternation as submitted by SINSW to Essential Energy	Certification provided by Essential Energy
	08/07/2021	<p>Essential Energy have provided certification of the project. This included an expedited contract. Advice from Essential Energy included:</p> <ul style="list-style-type: none"> Lot1/DP577294 has been used for this project's electrical application (where MSB will be located) – Application 55443883 is to be provided to the building works electrical contractor + electrical engineer Standard Offer Approval – 559679 is to be provided to the building works electrical contractor + electrical engineer 	-
EPA	11/10/2021	<p>Letter issued to EPA including:</p> <ul style="list-style-type: none"> Update on minor amendments to proposed development New flood mitigation strategy has been proposed including landscaped overland flow in combination with off-site upgrades to the existing floodwater discharge system Changes to footprint of the school Minor redesign of the school Offer to meet with the project team to discuss above matters 	<p>No response has been received from EPA</p> <p>The matters raised in NSW EPA's letter to the SEARs are addressed in the EIS in relation to relevant SEARs requirements for Air Quality, Noise and Vibration, Land Contamination, Water and Soils, and Waste Management.</p>
Heritage NSW - Aboriginal Cultural Heritage	11/10/2021	<p>Letter issued to Heritage NSW including:</p> <ul style="list-style-type: none"> Update on minor amendments to proposed development New flood mitigation strategy has been proposed including landscaped overland flow in combination with off-site upgrades to the existing floodwater discharge system Changes to footprint of the school Minor redesign of the school Offer to meet with the project team to discuss above matters 	<p>No response has been received from Aboriginal Cultural Heritage</p> <p>However, the project has completed an Aboriginal Cultural Heritage Assessment.</p>
Water NSW	11/10/2021	<p>Letter issued to Water NSW including:</p> <ul style="list-style-type: none"> Update on minor amendments to proposed development New flood mitigation strategy has been proposed including landscaped overland flow in combination with off-site upgrades to the existing floodwater discharge system Changes to footprint of the school Minor redesign of the school Offer to meet with the project team to discuss above matters 	<p>No response has been received from Water NSW</p> <p>However, Water NSW provided feedback to DPIE for the SEARs that: the subject site is not located in close proximity to any WaterNSW land or assets, and as an SSD any flood works or licensing approvals will be assessed by others, the risk to water quality is considered to be low and WaterNSW has no comments or particular requirements.</p>
NSW SES	07/10/2021	<p>Project overview</p> <ul style="list-style-type: none"> Flood mitigation Civil works Stormwater solution 	<p>The recommended flood and stormwater solution for the high school project involves:</p> <ul style="list-style-type: none"> Preparation of the high school site including building a drainage channel through the site and lifting the site to provide adequate drainage Enlarging of existing Stormwater drainage works in Boundary and

Stakeholder	Key Dates	Key Issues Discussed	Outcomes
			<p>Charles Streets, north-west of the school site.</p> <ul style="list-style-type: none"> Widening of the drainage channel to the Namoi River, including new pumps at the levee north-west of the town.

5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposed SSDA. It addresses the matters for consideration set out in the SEARs (see **Section 1.5**). The Mitigation Measures at **Section 7.0** complement the findings of this section.

5.1 Relevant EPIs, Policies and Guidelines

The relevant strategies, environmental planning instruments, policies and guidelines as set out in the SEARs are addressed in **Table 7**.

Table 7 Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Instrument/Strategy	Comments
Strategic Plans	
NSW State Priorities	<p>NSW State Priorities are twelve high-level priorities for the State, being:</p> <ul style="list-style-type: none"> • Creating jobs • Delivering infrastructure • Driving public sector diversity • Improving education results • Improving government services • Improving service levels in hospitals • Keeping our environment clean • Making houses more affordable • Protecting our kids • Reducing domestic violence reoffending • Reducing youth homelessness • Tackling childhood obesity <p>The proposal seeks to develop a new high school on a site in a more central location in the town of Wee Waa, replacing the current abandoned school at the north-eastern periphery of the town. This intends to create a new future-focussed educational institution in the New England region. The proposal will therefore contribute to the provision of infrastructure, as well as jobs and education, thereby contributing to strengthening the local and regional economy in accordance with the NSW State Priorities.</p>
State Infrastructure Strategy 2018 – 2038 Building the Momentum	<p>The proposal is consistent with the State Infrastructure Strategy by:</p> <ul style="list-style-type: none"> • Delivering school infrastructure to keep pace with demand and needs of the existing community. • Providing modern, digitally enabled learning environments.
Future Transport Strategy 2056	<p>The Future Transport Strategy 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. This plan aims to place the customer at the centre and with feedback, harness the rapid advancement of technology and innovation across the transport system to transform customer experience, improve communities and boost economic performance (TfNSW 2017).</p> <p>The proposal is consistent with the Strategy by delivering increased educational capacity in Wee Waa in a highly accessible location closer to the centre of town. The proposal does not prevent the objectives of the Strategy from being achieved.</p>
Crime Prevention through Environmental Design (CPTED) Principles.	Refer to Section 5.3.6 and Design Report at Appendix D .
Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017).	The objectives and design principles of Better Placed have been considered and responded to in the proposed design. The Architectural Design Report (Appendix D) and Section 5.2.1 provides a detailed explanation of how the design has evolved and responded to the principles of Better Placed.
Healthy Urban Development Checklist (NSW Health, 2009).	The Healthy Urban Development Checklist has been prepared by NSW Health to assist professionals in the industry in providing advice on urban development to ensure that considerations are made with regard to health effects of urban development on policies and proposals and how they can be improved to provide better health outcomes.

Instrument/Strategy	Comments
	<p>The proposed development will deliver substantial open space for students and will provide significant trees and landscaping to improve the urban form. Active transport methods will be facilitated through the provision of bicycle parking and end of trip facilities for staff. New teaching facilities will have a high level of environmental amenity. The proposed development will provide a state-of-the-art facility that allows for an improved urban design outcome and encourages active lifestyle for young people and the community through shared sporting and recreation facilities.</p>
<p>Draft Greener Places Design Guide (GANSW).</p>	<p>The draft Greener Places Design Guide has been prepared by the GANSW to guide the design, planning and delivery of green infrastructure across NSW. The aim is to create healthier and more livable cities and towns by improving community access to recreation and exercise, walking and cycling connections and the resilience of urban areas.</p> <p>The proposed development directly aligns with the aims of the Policy through the provision of open, green space and tree retention throughout the high school campus to create a healthier urban environment. The proposal also utilises and enhances existing pedestrian and cycling connections.</p> <p>The proposal includes substantial additional tree planting and will increase the canopy coverage on the site by over three times, to a total of 12,200sqm.</p>
<p>Koala Habitat Protection Guideline (DPIE, 2020).</p>	<p>The Koala Habitat Protection Guideline seeks to address the declining status of Koalas in NSW through better conservation and management of Koala habitat as part of the planning and assessment process.</p> <p>The proposed development aligns with the principles of the Guideline as:</p> <ul style="list-style-type: none"> • Work has progressed to understand the significance of the koala habitat. • A significant patch of Eucalyptus Trees have been retained, particularly fronting George Street. Replanting will be provided to offset the loss of any removed trees. • The built form has been designed as to not fragment koala habitat. • No Koalas were identified during targeted site investigations undertaken for the BDAR provided at Appendix Q.
<p>New England North West Regional Plan 2036</p>	<p>The New England North West Regional Plan sets out a 20 year blueprint through planning priorities and actions to manage growth and change in the district. The Regional Plan informs Local Strategic Planning Statements, the preparation of Local Environmental Plans, the assessment of Planning Proposals, community strategic plans and policies.</p> <p>The proposal supports the Regional Plan in that it:</p> <ul style="list-style-type: none"> • Will deliver a new fit for purpose educational facility to meet the needs of the community. • Promotes development that contributes to the character of Wee Waa and its surrounds. • Will support the economic diversification and strengthening, including upskilling health and education workers in Wee Waa and the broader Narrabri Region.
<p>State Legislation</p>	
<p>EP&A Act</p>	<p>The proposed development is consistent with the objects of the EP&A Act for the following reasons:</p> <ul style="list-style-type: none"> • It promotes the social welfare of the community. • It allows for the orderly and economic development of land. • It is development for public purposes and will facilitate the delivery of community services. • It is of a high level of design quality (having undergone the SDRP process). <p>The proposed development is consistent with Division 4.7 of the EP&A Act, particularly for the following reasons:</p> <ul style="list-style-type: none"> • The development has State Significance. • The development is not prohibited by an environmental planning instrument. • The development has been evaluated and assessed against the relevant heads of consideration under section 4.15(1).
<p>EP&A Regulations</p>	<p>The EIS has addressed the specification criteria within clause 6 and clause 7 of Schedule 2 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations),</p>

Instrument/Strategy	Comments																																		
	<p>which assesses the threats of any serious or irreversible environmental damage (see Section 5.14).</p> <p>As required by clause 7(1)(d)(v) of Schedule 2, the following additional approvals will be required in order to permit the proposed development to occur.</p> <table border="1" data-bbox="523 398 1442 1227"> <thead> <tr> <th data-bbox="523 398 1187 443">Act</th> <th data-bbox="1187 398 1442 443">Approval Required</th> </tr> </thead> <tbody> <tr> <td colspan="2" data-bbox="523 443 1442 488">Legislation that does not apply to State Significant Development</td> </tr> <tr> <td data-bbox="523 488 1187 533">Coastal Protection Act 1979</td> <td data-bbox="1187 488 1442 533">N/A</td> </tr> <tr> <td data-bbox="523 533 1187 577">Fisheries Management Act 1994</td> <td data-bbox="1187 533 1442 577">N/A</td> </tr> <tr> <td data-bbox="523 577 1187 622">Heritage Act 1977</td> <td data-bbox="1187 577 1442 622">N/A</td> </tr> <tr> <td data-bbox="523 622 1187 667">National Parks and Wildlife Act 1974</td> <td data-bbox="1187 622 1442 667">N/A</td> </tr> <tr> <td data-bbox="523 667 1187 712">Native Vegetation Act 2003</td> <td data-bbox="1187 667 1442 712">N/A</td> </tr> <tr> <td data-bbox="523 712 1187 757">Rural Fires Act 1997</td> <td data-bbox="1187 712 1442 757">N/A</td> </tr> <tr> <td data-bbox="523 757 1187 846">Water Management Act 2000</td> <td data-bbox="1187 757 1442 846">Yes (re-instatement of bore)</td> </tr> <tr> <td colspan="2" data-bbox="523 846 1442 891">Legislation that must be applied consistently</td> </tr> <tr> <td data-bbox="523 891 1187 936">Fisheries Management Act 1994</td> <td data-bbox="1187 891 1442 936">No</td> </tr> <tr> <td data-bbox="523 936 1187 981">Mine Subsidence Compensation Act 1961</td> <td data-bbox="1187 936 1442 981">No</td> </tr> <tr> <td data-bbox="523 981 1187 1025">Mining Act 1992</td> <td data-bbox="1187 981 1442 1025">No</td> </tr> <tr> <td data-bbox="523 1025 1187 1070">Petroleum (Onshore) Act 1991</td> <td data-bbox="1187 1025 1442 1070">No</td> </tr> <tr> <td data-bbox="523 1070 1187 1115">Protection of the Environment Operations Act 1997</td> <td data-bbox="1187 1070 1442 1115">No</td> </tr> <tr> <td data-bbox="523 1115 1187 1160">Roads Act 1993</td> <td data-bbox="1187 1115 1442 1160">Yes</td> </tr> <tr> <td data-bbox="523 1160 1187 1227">Pipelines Act 1967</td> <td data-bbox="1187 1160 1442 1227">No</td> </tr> </tbody> </table>	Act	Approval Required	Legislation that does not apply to State Significant Development		Coastal Protection Act 1979	N/A	Fisheries Management Act 1994	N/A	Heritage Act 1977	N/A	National Parks and Wildlife Act 1974	N/A	Native Vegetation Act 2003	N/A	Rural Fires Act 1997	N/A	Water Management Act 2000	Yes (re-instatement of bore)	Legislation that must be applied consistently		Fisheries Management Act 1994	No	Mine Subsidence Compensation Act 1961	No	Mining Act 1992	No	Petroleum (Onshore) Act 1991	No	Protection of the Environment Operations Act 1997	No	Roads Act 1993	Yes	Pipelines Act 1967	No
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State Environmental Planning Policy (State and Regional Development) 2011	Under Schedule 1 clause 15 of SEPP SRD, Development for the purpose of a new school, regardless of the capital investment value is SSD. As the proposed development is for the purpose of a new school, it is defined as SSD.																																		
State Environmental Planning Policy (Infrastructure) 2007	<p>The aim of this SEPP is to facilitate delivery of infrastructure across the State, including providing for consultation with relevant public authorities about certain development during the assessment process.</p> <p>The proposed development does not trigger the requirement for any agency referrals under this SEPP.</p>																																		
State Environmental Planning Policy (Educational Establishment and Child Care Facility) 2017	<p>Under Clause 35(6) of the Education SEPP, the consent authority must take into consideration (a) the design quality of the development when evaluated in accordance with the design quality principles set out in Schedule 4 and (b) whether the development enables the use of school facilities (including recreational facilities) to be shared with the community.</p> <p>In accordance with Clause 35(6)(a), an Architectural Design Report has been prepared by SHAC (Appendix D) which addresses the design quality principles set out in Schedule 4 and the GANSW Design Guideline for Schools. The design has been guided by the Design Quality Principles. Consultation has been undertaken with the SDRP to ensure that these design quality principles have been met. Community use of the school facilities in accordance with Clause 35(6)(b) is described in Section 3.18.</p>																																		
Draft State Environmental Planning Policy (Educational Establishment and Child Care Facility)	The proposed development does not use the exempt and complying development pathways provided by the Draft Education SEPP. The proposed development continues to comply with the draft design quality principles as discussed in Appendix F . Further, the development continues to be classified as SSD in accordance with the new \$20million CIV for new schools, since the CIV for this SSD is greater than \$20 million.																																		

Instrument/Strategy	Comments	
State Environmental Planning Policy No 64- Advertising and Signage	<p>The proposal includes five signs as described in Section 3.15. The proposed signage is consistent with the objectives of SEPP 64 in that it:</p> <ul style="list-style-type: none"> • Is compatible with the amenity and visual character of the surrounding area. • Is integrated with the architecture of the building and provides effective communication of the school use in appropriate locations. • Will be of a high quality design, materiality and finish that matches the design of the new school building. <p>An assessment against Schedule 1 of SEPP 64 is provided at Table 8 below.</p>	
State Environmental Planning Policy No 55- Remediation of Land	<p>Site Contamination Assessments are provided at Appendix S and Appendix T. The investigations find that the site is suitable for the proposed development, with only a small, localised portion in the corner of the site containing contaminants. A Remediation Action Plan will be prepared to manage the removal of the localised contamination. Refer to Section 5.13.</p>	
Draft State Environmental Planning Policy (Remediation of Land)	<p>An ongoing review of SEPPs by DPIE has resulted in the proposed repeal of SEPP 55, retaining some of its elements and adding new provisions to establish a modern approach to the management of contaminated land. In addition to the provisions addressed in SEPP 55 above, new provisions will be added in the new SEPP to:</p> <ul style="list-style-type: none"> • Require all remediation work that is carried out without development consent to be reviewed and certified by a contaminated land consultant. • Categorise remediation work based on the scale, risk and complexity of the work. • Require environmental management plans relating to post-remediation management of sites or ongoing operation, maintenance and management of an on-site remediation measures (such as a containment cell) to be provided to Council. <p>The Site Contamination Assessment provided at Appendix S and Appendix T confirms remediation is not required at the site and it is suitable for the proposed uses.</p>	
Draft State Environmental Planning Policy (Environment)	<p>The site is not identified as being subject to the provisions for waterways, catchments, world heritage and urban bushland under the draft Environment SEPP.</p>	
Local Planning Instruments and Controls		
Narrabri Local Environmental Plan 2012	Clause 2.1 – Land Use Zone	<p>The site is zoned R1 General Residential. R1 is a prescribed zone under the ESEPP and therefore development for the purposes of a school is permissible in the zone.</p> <p>The proposed development is consistent with the objectives of the zone since it:</p> <ul style="list-style-type: none"> • Appropriately responds to the surrounding residential dwellings and preserves their amenity. • Provides a compatible land use/facility that services the day to day needs of the residents of Wee Waa.
	Clause 4.3 – Height of Buildings	<p>There is no maximum height of building control applicable to the site.</p>
	Clause 4.4 – Floor Space Ratio	<p>There is no floor space ratio control applicable to the site.</p>
	Clause 5.10 – Heritage Conversation	<p>The site is not identified as being a heritage item and is not located within a heritage conservation area under an environmental planning instrument. A Heritage Impact Statement has been prepared at Appendix X.</p> <p>An Aboriginal Cultural Heritage Assessment Report (Appendix N) confirms that no Aboriginal objects were recorded during the visual inspection and no Aboriginal objects will be harmed by the proposal.</p>
	Clause 5.21 Flood Planning	<p>The site has been designed to appropriately mitigate flood risks. Flood mitigation works will be completed under a separate planning pathway. Refer to Section 5.12 for detail.</p>

Instrument/Strategy	Comments	
	Clause 6.1- Earthworks	Development consent is sought for bulk earthworks associated with the development as described in Section 3.8 .
	Clause 6.5 – Essential Services	An Infrastructure and Utilities Management Plan has been prepared by Marline and is provided at Appendix P . The plan confirms the adequate services for the supply of water, electricity, disposal of sewage, stormwater drainage and vehicle access is provided on the site.
Narrabri Development Control Plan	It is noted that development control plans are not a matter for consideration in the assessment of SSDAs by virtue of Clause 11 of SEPP SRD, which states that <i>'Development Control Plans...do not apply...to State significant development'</i> . Nonetheless, an assessment against the key provisions of the Narrabri DCP is provided below. Note that there are no specific controls for school developments.	
	Car Parking	The Narrabri DCP adopts the parking rates from the former NSW Roads and Maritime Services Guide to Traffic Generating Development. These rates do not specify parking requirements for school development. As such, the provision of parking within the new school has been developed in consultation with Council and the school community.
	Water supply to buildings	The proposal has been designed to ensure there is appropriate water supply to service the new school. Refer to the appended Soil and Water Quality report and ESD report for further detail.
	Drainage to buildings	The proposed school will utilize rainwater recycling as well as being designed to convey stormwater, drainage, sewerage and waste appropriately. Refer to the attached Stormwater Management Plan, Utilities and Infrastructure Management Plan, and ESD Report for further detail.
	Encroachments onto public roads	The proposed buildings do not in any way encroach onto public roads.
	Building line	Buildings are required to be set back at least 6m from the front boundary. The school has setbacks greater than 6m to all street frontages.
Narrabri Special Activation Precincts	The Narrabri Special Activation Precinct provides a master planning process that supports infrastructure, research and community development, among other matters. Whilst the planning process is still undergoing community consultation, it is anticipated that the proposed new Wee Waa High School will support the development of the masterplan and will not hinder the plan's ability to deliver its outcomes.	

Table 8 Assessment against Schedule 1, SEPP 64

Schedule 1 Assessment Criteria	Comments	Compliance
Character of the area		
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed signage is compatible with the designed character of the local precinct.	Y
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposed development is generally consistent with the nature and siting of the building as a public building providing education services. Accordingly, the signage including type is clear and legible in communicating the use of the building for the public.	Y
Special areas		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposed signage does not detract from any surrounding areas, including heritage conservation areas. The location is not part of any other environmentally sensitive location.	Y
Views and vistas		
Does the proposal obscure or compromise important views?	The proposed signage is integrated with the proposed building and therefore will not result in any obstruction of views, and the location and content of signage will not	Y

Schedule 1 Assessment Criteria	Comments	Compliance
	otherwise compromise important views within the precinct.	
Does the proposal dominate the skyline and reduce the quality of vistas?	The proposed signage is appropriate to the scale of the building and intended use as a building identification sign.	Y
Does the proposal respect the viewing rights of other advertisers?	The proposed signage does not impact upon the viewing rights of other advertisers.	Y
Streetscape, setting or landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The scale, proportion and form of the proposed signage is consistent with the setting of the school within the residential and education neighbourhood.	Y
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The proposed signage contributes to the visual interest of the streetscape by contributing to the identification and recognition of the school.	Y
Does the proposal screen unsightliness?	The proposed signage is integrated with the architecture of the building and will enhance building walls.	Y
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The proposed signage does not protrude above the building.	Y
Does the proposal require ongoing vegetation management?	The proposed signage will not require ongoing vegetation management.	Y
Site and building		
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The proposed signage has been designed to be fully compatible with the building and is compatible with the architecture of the building.	Y
Does the proposal respect important features of the site or building, or both?	The proposed signage has been located in the most architecturally appropriate locations to assist in place identification and wayfinding.	Y
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposed signage has been fully integrated with the building architecture.	Y
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	No safety devices, platforms, lighting devices or logos are incorporated as an integral part of the signage.	Y
Illumination		
Would illumination result in unacceptable glare?	N/A	N/A
Would illumination affect safety for pedestrians, vehicles or aircraft?		N/A
Would illumination detract from the amenity of any residence or other form of accommodation?	N/A	N/A
Can the intensity of the illumination be adjusted, if necessary?	N/A	N/A
Is the illumination subject to a curfew?		N/A
Safety		
Would the proposal reduce the safety for any public road?	The proposed signage has been located in order to avoid any adverse impacts on public roads, and views to building signage will generally be presented to the primary public entrance.	Y
Would the proposal reduce the safety for pedestrians or bicyclists?	The proposed signage will be located above ground level and will not distract from essential sight lines for pedestrian and cyclists.	Y
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The proposed signage will be integrated with the buildings and near the school fence and will not obscure sight lines from public area.	Y

5.2 Built Form and Urban Design

An Architectural Design Report has been prepared by SHAC and is included in **Appendix D**, which provides an assessment of the built form and urban design proposal at the site. A summary of the built form and urban design assessment is provided below.

Building Height

The proposed new buildings are either one or two storeys in height, responding to the heights of the surrounding built form elements throughout the township including the public school (adjacent the site and two-storeys), single and double-storey residential dwellings, the police station, the pub, cotton silos and other industrial buildings (**Figure 40**). The proposed maximum building height is 12.3m (to the top of the staircase element which rises above the main building roof). It is noted that the NLEP 2012 has not adopted maximum building height controls. On account of the context and appropriate design, the proposal is considered to be of an appropriate height and scale.

Setbacks

The proposal is significantly setback from all site boundaries as described in **Table 3**. In particular, the entire site and the main school buildings are setback 30m from the Kamilaroi Highway frontage to accommodate the flood mitigation works overland flow channel. Significant setbacks to the George Street frontage at the main school entry are proposed to allow for the retention of threatened native species including trees and grasses, allowing school arrivals to be experienced through the native vegetation. Due to the flood mitigation constraints, the school buildings are pushed north away from the southern boundary of the site. While significant setbacks are still proposed to the north, buffer planting is provided along the northern boundary to ensure appropriate privacy to the neighbouring residents.

Bulk and Scale

While many residential dwellings are single and double storey throughout the township of Wee Waa, there is a predominant multi-level typology used for civic buildings including the public school (adjacent the site), the original high school, the police station, the main pub and the large scale agricultural elements in the landscape. Wee Waa High School has been designed in two-storey modules to reflect the local civic and agricultural vernacular and to ensure efficient circulation distance between learning areas. Refer to **Figure 39** and **Figure 40**.

The main school buildings are to be construction using the MMoC, which is a prefabricated method of construction with components brought to site and assembled. As such, the main school building has an orthogonal form organised in accordance with the MMoC grids. These forms are articulated by breezeways and open corridors that create sight lines through the school and visual breaks to the form.

The proposed bulk and scale is therefore considered appropriate, particularly when compared to the civic buildings throughout the township and the scale and surrounds of the site itself.



Figure 39 Main School Building Elevations: South (top) and North (bottom)

Source: SHAC



Figure 40 Height and Scale Precedents Throughout the Wee Waa Township

Source: SHAC

5.2.1 Education SEPP Design Principles

The proposed design for Wee Waa High School considers future potential of the site and is informed by the Design Principles identified in the ESEPP. An assessment against the design principles is provided below.

Context, Built Form and Landscape

- The proposed school buildings occupy the south-east boundary, with Wee Waa Public School adjacent forming an important and integral educational precinct within the Wee Waa community. Although disparate from the residential typology to the south-west of the site, the proposed school remains clear of built form, with open playing fields and an athletics track available for after hours and community use, enhancing the quality of the streetscape through activation.
- The project team, including representatives from the school have, and will continue to actively consult with, local Indigenous parties that have registered their interest in the project. SHAC have engaged directly with the Aboriginal Education Officer (AEO) at the school to learn about the cultural heritage of Country the project site is part of, and Aboriginal placenames of Wee Waa and the surrounding landscape.
- Symbols of the Snake, Sand Goanna, and family totem of the Emu that is being incorporated in the design of buildings, public spaces & art.
- The positioning of the proposed school entrance incorporates the existing eucalypt forest and native grass meadow, to promote a strong connection to the surrounding landscape.
- Opportunities for outdoor learning and places to sit, play and engage with the surrounding landscape is enhanced by increasing local native plantings and canopy communities.
- The proposed development considers the opportunity for the community to share the sport and recreation precinct outside of school hours and enhances the green corridor stretching from Dangar Park, through the existing and enhanced eucalypt forest, through the courtyard and out into the fields beyond.
- The proposed development in the centre of the town reflects the importance of being accessible to the broader community and provides opportunities including an enhanced recreation precinct with athletics/running track. The Proposed High School site with the use of a formed path to the Primary School opposite and Dangar Park, will complete the precinct where children gather to learn and play.
- The two-storey built form occupies the south-east portion of the site and is setback 30m from Mitchell Street, respecting the height of the existing 2 storey buildings adjacent on the public school site.

Sustainable, Efficient and Durable

- The climate environment is typically hot to very hot, dry summers and cool, wet winters. The project will explore climate adaptation measures as part of the resilience elements during Green Star consultation & engagement.
- Material selected are durable in the hot to very hot, dry summers and cool, wet winters.

- The landscape design includes extensive planting to provide shade to play spaces and enhance amenity.
- The site has extensive deep soil planting to allow for ongoing groundwater and stormwater management systems.
- Operable glazing allows for natural and cross ventilation alleviating year-round reliance on mechanical systems.

Accessible and Inclusive

- A hierarchy of fence heights indicate precincts that can be shared with the community outside of school hours and securing the school building during these times.
- A balance has been struck between securing the school campus and pedestrian accessibility to ensure access for all to the school and community facilities.
- The landscaping includes outdoor spaces that account for passive and active play.
- The main school entry involves an inviting canopy that stretches out into an outdoor landscaped forecourt that is inviting and provides visual interest.
- Wayfinding is clear with all buildings and paths on site leading to the main entry of the school.

Health and Safety

- Classrooms are located on the perimeter of the building maximising natural daylight.
- Service roads are located along the perimeter of the site so separate pedestrian and vehicular movements.
- Covered circulation to learning spaces accommodate year-round use.
- Local native planting and trees maximise shading in outdoor play areas.
- Student amenities are located adjacent to circulation pathways for the safety, surveillance and protection of students.
- CTPED principles have been incorporated. Refer to **Section 5.3.6**.

Amenity

- The architectural solution integrates the landscape and unique civil spaces of the school.
- Operable glazing allows for natural and cross ventilation as well as ample daylighting to teaching spaces.
- The inclusion of native planting provides an opportunity to learn about the natural environment and can be used as an educational reference.
- Outdoor learning spaces have increased usability and amenity for students such as passive play spaces.
- Buffer planting is provided along property boundaries, particular along the northern boundary to act as both visual and noise barrier for privacy and to minimise development impacts.

Whole of Life, Flexible and Adaptive

- The use of a structure grid allows for flexibility and future adaption of the floor plate.
- The masterplan accounts for potential future growth to a full 2 stream high school. The site's location enhances and contributes to the town centre and adjacent public school.
- A Green Star consultant is engaged which considers and suggests modifications to a project's resilience and climate adaptation capabilities to ensure its relevance to the existing and future community, technologies, environmental factors and place.
- Unimpeded learning spaces with operable glazing walls, that can be flexible and adaptable to a range of teaching and learning modes, community uses and change of use over time.
- Flexibility of the teaching spaces provides the opportunity to cater to a range of learning styles & group sizes.

Aesthetics

- Commitment to the best outcome for the community and students of Wee Waa is demonstrated in the amount of Masterplan options, rigorous research and engagement to understand their needs, heritage, environmental factors and consultation.
- The Aboriginal Education Officer explained in detail the community and family totems of the area. The Kamilaroi totem is a snake with neighbouring totems for the Pilliga Region being the Sand Goanna. An appreciation of these is to be expressed and visually represented in art and public spaces which is explored across the campus.
- The material palette has been carefully chosen to achieve the desired aesthetic while optimising the building's thermal performance.
- Engaging drainage swale contains natural elements including rocks, grasses and adjacent sandstone seating and elements along pedestrian pathways edging the site boundary and within the campus.

5.2.2 Outdoor Play Space

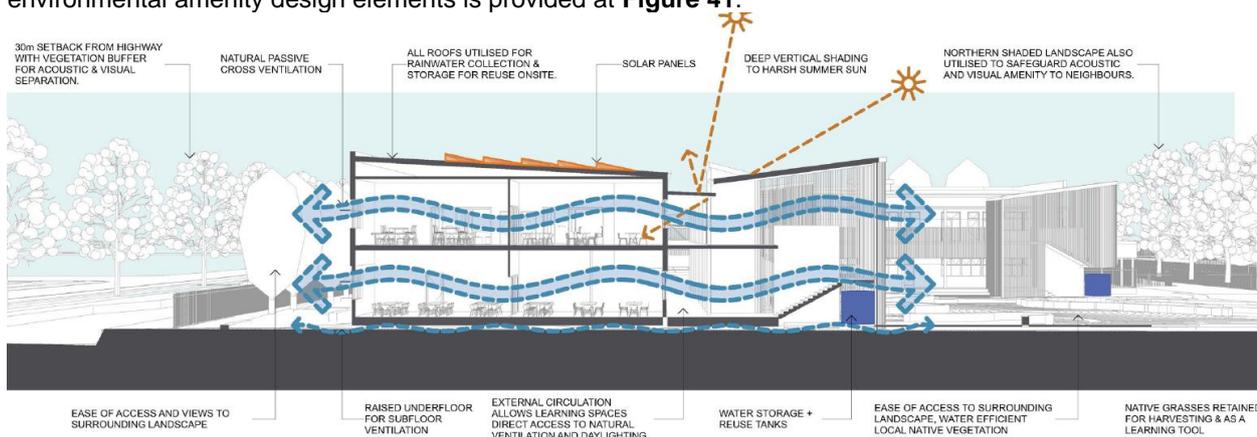
The open play areas exceed the EFSG requirement of 10sqm per student overall. The school provides a total outdoor play space 22,250sqm for 300 students which results in an area of 74sqm per student.

The play space is provided in all three precincts and includes the warm up fields, fenced courts, athletics track and fields and passive open space in the central courtyard. Additionally, the native grass meadow allows for connection to the landscape for recreational and educational purposes.

5.3 Environmental Amenity

5.3.1 Ventilation, Solar Access and Occupant Comfort

The main school building has been designed prioritising occupant comfort and environmental amenity at the fore. External breezeways between the MMoC grid teaching spaces mean that most teaching spaces have at least two aspects with operable windows, allowing for natural cross ventilation and better solar access than a single aspect would provide. The breezeways are wide and also provide opportunities for outdoor learning. All roofs are utilised for rainwater collection and reuse on site, along with an allocation for approximately 200 photovoltaic cells. A landscaped 30m setback from the Kamilaroi Highway (Mitchell Street) creates an acoustic buffer from road noise, while planting along the northern site boundaries and within the courtyard provide shading. Sunshades are also included where appropriate, such as to the high-level library windows. A diagrammatic summary of the key environmental amenity design elements is provided at **Figure 41**.



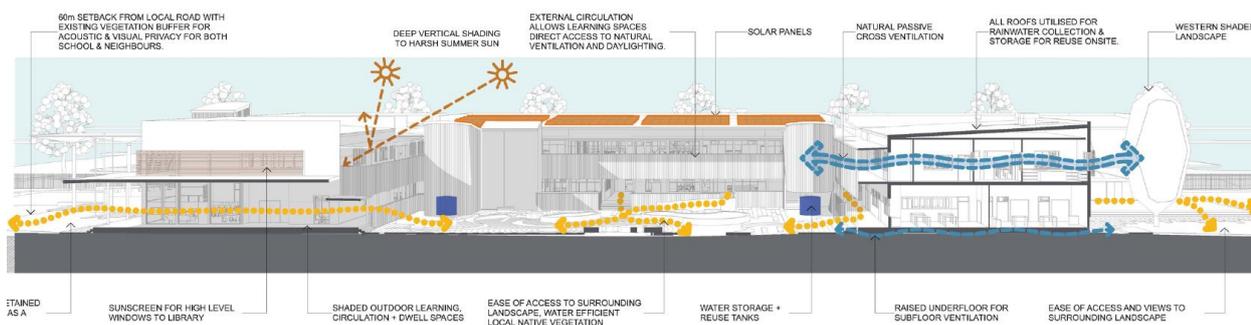


Figure 41 Diagrammatic Representation of the Elements of Environmental Amenity

Source: SHAC

5.3.2 Overshadowing

Shadow diagrams are provided at **Appendix D**. The analysis shows that the proposed school will not overshadow any neighbouring buildings as all shadows fall within the site. A key consideration in the design of the new school has been to provide high levels of shade across the site to shelter students from the harsh summer sun. The landscape design has incorporated canopy trees that also provide shading.

5.3.3 Visual Privacy

While the site is large and the buildings are significantly setback from the street frontages, visual privacy has still been a key consideration in the design. Buffer planting is proposed in the Landscape Plan, to be provided along the property boundaries, particularly to the northern residences adjoining the site. This buffer planting will act as a screen providing visual privacy for residents when children are playing outside.

5.3.4 View Loss and Visual Impact

There are no significant view corridors identified within the vicinity of the site. As discussed above, the bulk of the school buildings sit along the south-eastern boundary of the site with significant setbacks to the street. Further, the proposed landscape strategy includes the retention of trees along Mitchell Street and George Street and additional boundary buffer planting along the northern and western boundaries to further soften the visual impact of the built form. Therefore, it is not anticipated that the proposed school will have any impacts on views and will have an acceptable visual impact.

A View Impact Analysis has been prepared by SHAC (**Appendix D**) demonstrating that the proposed development will have an acceptable visual impact on the town without any further mitigation measures. Photomontages including the proposed development from key public vantage points are provided at **Figure 42** to **Figure 44**.



Figure 42 Photomontage Showing Visual Impact of Proposal – Looking North Down Church Street

Source: SHAC



Figure 43 Photomontage Showing Visual Impact of Proposal – Looking west Down Mitchell Street

Source: SHAC



Figure 44 Photomontage Showing Visual Impact of Proposal – Looking From George/Mitchell Street

Source: SHAC

5.3.5 Wind

The proposed new school buildings are of a scale that is commensurate with the surrounding public school and wider area and is not expected to result in any adverse impacts on the pedestrian wind environment within or surrounding the school. Extensive landscaping and tree planting throughout the site, along with retention of trees will help mitigate the impacts of any strong winds. The central courtyard of the main building opens to the north to help capture prevailing winds during the warmer months to assist with natural ventilation and cooling.

5.3.6 Crime Prevention Through Environmental Design (CPTED)

The development implements the principles of CTPED, as identified in DPIE’s guideline titled Crime Prevention and the Assessment of Development Applications (2001) as outlines in **Table 9** below and in the Architectural Design Report (**Appendix D**).

Table 9 Consistency with CPTED Principles

Principles	Response
Access Control	Natural access control is achieved through the swale feature lining the boundary of the site. Other design measures including pathway configuration, bridges locations and lockable gates assist by providing controlled access points. Signage, colour and lighting further help with orientation and

Principles	Response
	direction. A combination of 2.1m and 1.2m high fencing also provides access control. The school is easily identifiable from George Street.
Territorial Reinforcement	Swale fringe, zoning and fencing act as actual and symbolic boundary markers, helping to delineate space from shared public space to private school land. Meanwhile art displays such as Archibull, indigenous totems and facade treatment, express ownership and pride, consequently putting others on alert that they are coming into an area that is owned and cared for.
Space Management	The placement of Administration and Library offices ensures casual supervision throughout the school during school operating hours. Additionally, the U-shaped orientation of the building ensures interior open spaces are promoted with activities more contained. Management of the school buildings and grounds will be the ongoing responsibility of the NSW Department of Education.
Natural Surveillance	Window outlook to every direction of the site, outdoor and centralised circulation spines and optically permeable fencing/facade design increases the perception of human presence and/or maximised visibility.

5.4 Transport and Accessibility

A Transport and Accessibility Impact Assessment (TAIA) has been prepared by TTW and is included in **Appendix I**. A summary of the assessment and mitigation measures is provided in this section.

5.4.1 Existing Road Network

The TAIA outlines that the existing road is characterised by the following roads:

- **Mitchell Street** forms a connection between the eastern and western sections of the Kamilaroi Highway as it passes through the suburb of Wee Waa. The road is a two-lane roadway providing service in both directions (one lane each). The road is subject to School zones just prior to the intersection with George Street traveling westbound and runs until just after the Church Street Intersection. Due to it serving as an extension of the Kamilaroi Highway, the road is frequent to road train movements and thus harvester and oversize vehicles require access to Mitchell Street. These movements peak during harvest season, but otherwise are relatively evenly spread once every 10-15 minutes during morning peak.
 - Narrabri Shire Council has recently constructed traffic calming measures adjacent to Dangar Park on Mitchell Street to slow vehicles through this area and increase safety to students.
 - Consultation with TfNSW and Council relating to the construction of another crossing between the public school and the new high school was undertaken, with both TfNSW and Council opposing a second crossing in the middle of this stretch of Mitchell Street. However, due to a strong desire of the school community wanting a crossing on Mitchell Street, the proposal includes a new crossing helping link the new school to the existing public school. Importantly, the stretch of road along Mitchell Street is already a 40km/hour zone, so there is minimal impact to the stopping of vehicles on the road, which will already be travelling slowly.
- **Cowper Street** is a two-lane roadway running parallel south of Mitchell Street and services travel in both directions. Parking is limited immediately adjacent to the school on the north end during school hours to service bus and pick up services. Parking on the southern side is unrestricted 45-degree angled to the flow of traffic.
- **Church Street** is a two-lane roadway running perpendicular to and intersecting both Mitchell Street and Cowper Street to the west of the existing site. The roadway services traffic flowing both directions and is divided along the majority of its run by planted median strips. Street parking is available on both sides at 45-degree angles to the flow of traffic south of Cowper Street, or parallel to the kerb north of Cowper Street. The street is wide, reaching upwards of 20m in places.
- **George Street** is a two-lane roadway running perpendicular to and intersecting both Mitchell Street and Cowper Street to the East of the existing and proposed site. The roadway services traffic flow in both directions and contains no lane division markings aside from near traffic control measures such as intersections and the school crossing. A student crossing is present, joining the school to the adjacent Dangar Park. Parking is restricted in proximity to the school crossing during morning and afternoon peak school hours but features unrestricted 45-degree angle parking in the direction of traffic flow outside these zones.

- **Charles Street** is a two-lane roadway running perpendicular to and intersecting Mitchell Street to the west of the proposed site. The roadway services traffic flow in both directions and contains no traffic control measures or line markings north of Mitchell Street.

5.4.2 Travel Mode

A travel survey was produced by TTW and distributed to students, parents/carers of students and staff of the public school and high school in March 2021. Due to the rural nature of the Wee Waa community combined with the age demographic of study subjects, it is expected that the majority of traffic developments will focus on pedestrian, bus, cyclist, private vehicle and carpooling services. The existing student mode share is provided at **Table 10**.

Table 10 Existing Student Travel Mode Split

Travel Mode	Mode Share (%)
Private Vehicle	20%
Pick-up/drop-off (PUDO)	45%
Cycling	0%
Pedestrian	15%
Bus	20%

Source: TTW

Staff travel is dominated by private vehicle use, with no other modes of transport expressed through the survey. This reliance on private travel is likely influenced by travel distance and time.

The TAIA includes a series of management strategies that will assist in promoting sustainable modes of transport.

5.4.3 Parking

The proposed development will provide two separate car parks with 20 spots in each, with a total of 40 spaces. The spaces provided reflect the strategy to encourage other forms of transport besides private vehicle travel. These will be reserved for staff or employee parking only, to be conveyed through signage. Current travel modes indicate that the majority of staff will continue travel via personal vehicle due to large distances and time between home and work.

The provision of 40 spaces is considered appropriate due to on site observations regarding parking requirements, the proposed number of teachers to be accommodated on site and the current vehicle usage and carpooling patterns among staff. 40 spaces were also the recommended number of spaces provided in Narrabri Shire Council’s submission to the SEARs.

5.4.4 Bicycle Parking

It is suggested that secure cyclist facilities are provided on site to allow for the safe storage of vehicles and equipment during school hours. Provisions for bicycle storage are located to the north of main buildings in a bicycle enclosure. Should additional provisions be required, additional bicycle racks may be provided where appropriate. End of trip facilities are located in the east of the main school building adjacent to the hall.

5.4.5 Traffic Generation

Traffic modelling was undertaken by TTW up to the year 2031 assuming 10 years of traffic growth beyond the recorded 2021 conditions. The Australian Bureau of Statistics has not provided a growth rate for Wee Waa between the 2011 and 2016 census surveys, although the total population has dropped by 9 people, suggesting growth in the next 10 years is to be minimal. Regardless, a total growth of 1% per year has been assigned to allow for the possibility of future growth up to the year 2031.

Traffic surveys were undertaken to obtain traffic counts at the two intersections bordering the site along Mitchell Street, those being George Street/Mitchell Street and Charles Street/Mitchell Street. Peak periods have been determined as the 1-hour period where the maximum traffic flow was recorded. These results are provided in **Table 11** below

Table 11 Peak Vehicle Turning Volumes

Time Period	Location		
George Street South			
	<i>Light</i>	<i>Heavy</i>	<i>Total</i>
8:15 to 9:15	33	1	34
14:45 to 15:45	43	4	37
Mitchell Street East			
8:15 to 9:15	78	13	91
14:45 to 15:45	54	11	35
George Street North			
8:15 to 9:15	38	1	39
14:45 to 15:45	19	0	19
Mitchell Street West			
8:15 to 9:15	59	7	66
14:45 to 15:45	82	23	105
Charles Street South			
8:15 to 9:15	22	1	23
14:45 to 15:45	16	0	16
Mitchell Street East			
8:15 to 9:15	80	13	93
14:45 to 15:45	60	14	74
Charles Street North			
8:15 to 9:15	15	0	15
14:45 to 15:45	12	0	12
Kamilaroi Highway West			
8:15 to 9:15	77	8	85
14:45 to 15:45	62	25	87

Source: TTW

Although Wee Waa High School is operating from the Primary School Site and likely influencing the current recorded traffic counts, an additional 150 vehicles have been added to the surrounding road network as a result of this development. This slightly exceeds 65% of current high school students and 94% of teachers utilising private transport modes as reported in the Travel Mode Survey.

Intersection modelling was undertaken using a SIDRA analysis for the surrounding intersections. These results are described in **Table 12**. Both surrounding intersections will continue to perform at the highest level of service and with minimal delay times and queue lengths with the inclusion of the proposed development. Therefore, the traffic impacts associated with the development will be acceptable. Future performance will be comparable to that modelled for present day.

Table 12 Comparison of Level of Service and Delate Times at Key Intersections

Case	AM Peak		PM Peak	
	LOS	Average Delay (seconds)	LOS	Average Delay (seconds)
Existing Conditions with Development				
Charles Street & Mitchell Street	A	1.6	A	1.8

Case	AM Peak		PM Peak	
George Street & Mitchell Street	A	2.5	A	2.3
Future Conditions without Development				
Charles Street & Mitchell Street	A	1.7	A	1.9
George Street & Mitchell Street	A	2.7	A	2.5
Future Conditions with Development				
Charles Street & Mitchell Street	A	2.2	A	2.8
George Street & Mitchell Street	A	3.2	A	3.3

5.4.6 Loading, Servicing and Emergency Vehicles

Service and loading vehicles will also utilise the vehicle access point connection to George Street. Waste facilities on site are to be located to the north-west of the Agricultural and Environment Centre. The largest anticipated vehicle is a heavy rigid vehicle.

Emergency vehicle (e.g. police, fire, ambulance) access will be located at the vehicular entry point along George Street. Emergency protocols for the school would include on-site staff assisting with emergency access. Any vehicles located in and around the on-site carpark or access route should be cleared, and any planned vehicle movements should be temporarily suspended.

5.4.7 Pedestrian Movement

Pedestrian counts were performed in addition to traffic counts at the Mitchell Street/George Street and Mitchell Street/Charles Street intersections to determine the appropriate pedestrian infrastructure to develop across Mitchell Street. It was found that pedestrian movements along Mitchell Street were common, although pedestrian movements crossing Mitchell Street were uncommon. It was determined that pedestrian movements were heavily associated with existing infrastructure as few pedestrians walked along Mitchell Street to the north, opting instead to utilise pedestrian footpaths south of Mitchell Street before crossing when necessary.

It may therefore be assumed that once the appropriate infrastructure is developed north of Mitchell Street that pedestrian crossings are likely to become more frequent. This effect is to be compounded following the development of the high school site and the anticipated movements of staff and students between the high school and public school sites. A new pedestrian crossing will be constructed on Mitchell Street connecting the high school to the existing public school/

It is anticipated that with 150 students at the high school and the current occupation of the primary school, 90 to 100 students will be walking to either the high school or primary school which is likely to exceed warrants required for a marked pedestrian crossing. It is suggested that future monitoring of the kerb blistering be undertaken to determine whether warrants have been met once the high school is in operation at the proposed site.

5.4.8 Sustainable Travel Plan

A Green Travel Plan and Operational Traffic and Access Management Plan have been prepared by TTW and are provided in **Appendix I**. The plans will encourage appropriate and sustainable methods of transport to and from the school.

The objectives of the Green Travel Plan are to:

- Reduce traffic congestion.

- Implement student safety measures.
- Support healthy and active users.
- Provide sustainable travel education.
- Increase public transport usage.
- Reduce emissions.
- Optimise site layout.
- Find cost efficiencies.
- Reduce journey times.
- Improve site accessibility.

The travel plan will be developed, implemented and overseen by a Travel Plan Coordinator, nominated by the NSW Department of Education. The target modes shares for the Green Travel Plan are shown in **Table 13** below

Table 13 Green Travel Plan Target Mode Share

Travel Mode	WWHS Travel Survey	Mode Share Targets
Student Mode Share		
Car	20%	10%
PUDO	45%	40%
Bus	20%	25%
Bicycle	0%	5%
Walk	15%	20%
Staff Mode Share		
Car	94%	90%
Carpooling	6%	10%

The Operational Traffic and Access Management Plan (OTAMP) provides a plan for clear ongoing management of vehicle and pedestrian access requirements of the school. The plan provides an overview of the facilities and connectivity of the site and the surrounding road network. A summary of the anticipated transport demands, and the associated vehicles are included.

The preliminary OTAMP has been prepared to support the future operation of Wee Waa High School. The document is preliminary in nature and is intended to be dynamic and respond to the future operation of the site. It is anticipated that this preliminary OTAMP will be developed into a more comprehensive and final OTAMP prior to commencement of operations of the new development.

For details of the OTAMP, refer to **Appendix I**. The OTAMP sets out operational procedures for managing emergency, service and waste vehicles as well as for kiss and drop, bus PUDO and regular bus movements to off-site facilities (such as the agricultural plot) from the new school site.

5.4.9 Road Safety

Through discussions with Council no previous crash history was identified in the immediate vicinity of the site, this is supported by Transport for New South Wales crash data.

Mitchell Street has been identified as the primary safety concern through a survey conducted amongst staff, students, and parents. School zones are present along Mitchell Street between George Street and Church Street for the existing public school, reducing traffic speeds to 40 kilometres per hour in proximity to the school site during peak times. The school zones will be retained. New school zones will be implement along George Street.

SINSW and the project team propose the construction of a new marked pedestrian crossing on Mitchell Street between the public school and the new high school. We note that during consultation with TfNSW and Council, it

was advised that the pedestrian crossing was undesirable and should be removed, however SINSW considers the crossing essential to improve the safety of students at both the new high school and the existing public school.

5.4.10 Construction Traffic Management

A Construction Traffic and Pedestrian Management Plan has been prepared by TTW and is provided at **Appendix I**. The plan provides preliminary measures for the management of vehicular and pedestrian movements during the construction phase of the project.

Construction vehicle movements will occur within the prescribed working hours being:

- Monday to Friday: 7am to 6pm.
- Saturday: 8am to 1pm.
- Sunday and public holidays: None.

Construction vehicle routes are expected to be along Mitchell Street through the township, with site access off George Street, as shown at **Figure 45**. Construction workers will travel to the site and park in the spare capacity surrounding the site. Management initiatives will be employed to ensure conflicts with the public school pick up and drop off is managed appropriately. It is expected that 10-12 daily construction vehicle movements will occur during the main works, subject to confirmation from the construction contractor.

Delivery and removal trucks are to have a staggered arrival schedule and occur outside general peak hours as well as school peak hours where possible. Avoiding peak hours allows for minimal queueing of construction vehicles and prevents congestion in the neighbouring areas. Any vehicles arriving after the worksite has reached maximum capacity will need to reschedule their delivery and depart, although it is anticipated that enough queueing space will be available.

The relatively low traffic volumes on George Street means vehicles are expected to use suitable traffic gaps to exit. To successfully coordinate and execute these processes, communication between all delivery depots and waste management centres will be maintained.

Since the overall project includes an approximate cut/fill balance, there will not be any significant movement of trucks bringing in or removing fill from the site.

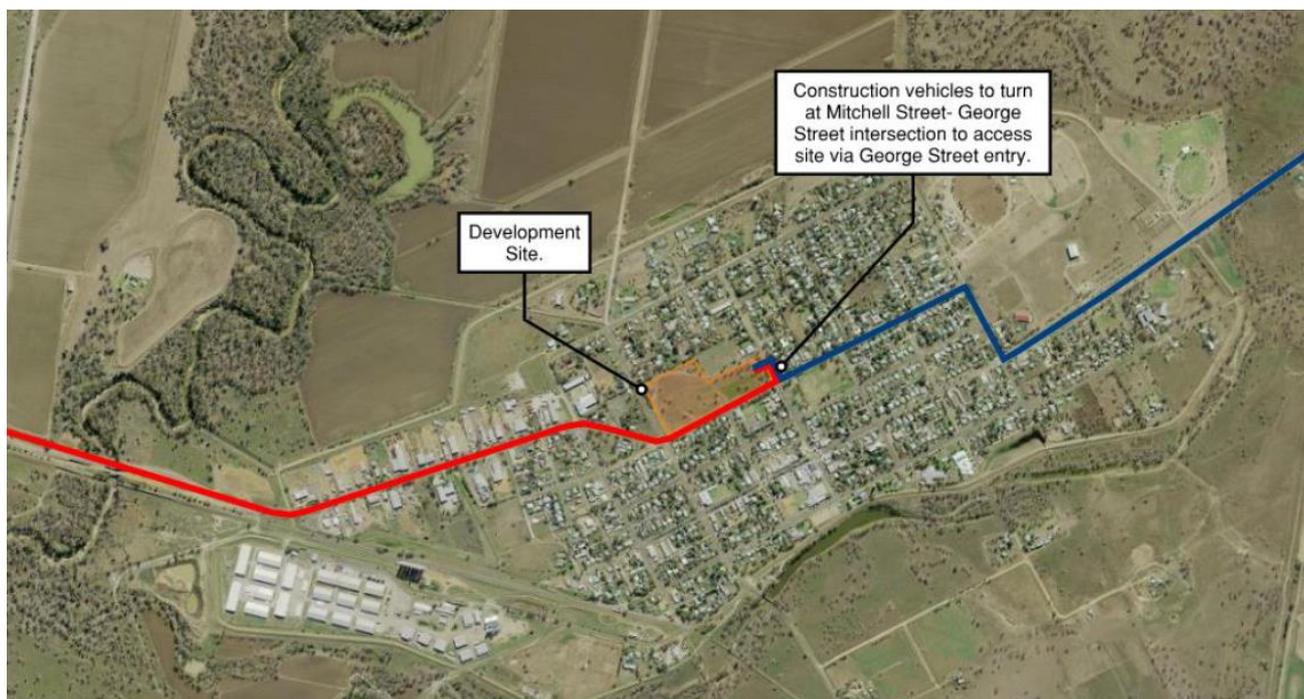


Figure 45 Proposed Construction Vehicle Routes and Site Access

Source: TTW

5.4.11 Mitigation Measures

All mitigation measures described in **Appendix I** will be adopted in the development. This includes:

- Further development of the Green Travel Plan, Operational Traffic and Access Management Plan, and Construction Traffic and Pedestrian Management Plan (or inclusion in the School Transport Plan subject to the relevant conditions of consent).
- Construction of the required pedestrian footpaths to access the school including detailed public domain design, in accordance with the submitted Architectural Drawings as required for the school in this SSDA.
- Construction of required road widening to accommodate the kiss and drop and the bus bay within the road reserve including detailed design, in accordance with the submitted Architectural Drawings as required for the school in this SSDA.
- Future monitoring of the kerb blistering is to be undertaken to determine whether warrants have been met for construction of a marked pedestrian crossing between the public school and the new high school across Mitchell Street once the new high school is in operation.

5.5 Social Impacts

A Social Impact Assessment has been prepared by Ethos Urban and is provided at **Appendix M**. The report has undertaken an assessment of the social impact categories, as defined within the Social Impact Assessment Guideline (DPIE, 2017), with consideration to the issues identified through the baseline analysis. A summary of the assessment mitigation measures is provided below.

Assessment

Key benefits of the proposed development include:

- The proposed development will result in improved health and wellbeing of staff and students of Wee Waa High School, associated with provision of the new school built to contemporary health and safety standards. This impact is particularly significant, and a key benefit of the proposed project, noting the health concerns associated with the vacated former high school site.
- Improvements to way of life, daily routines, and health and wellbeing for students and staff of Wee Waa Public School and Wee Waa High School, as not delivering the proposed development will result in continued overcrowding of the Wee Waa Public School site, and study environment in temporary structures.
- Improvements to way of life and daily routines for students and staff of Wee Waa High School associated with delivery of high quality flexible learning and teaching environments in contemporary purpose-built spaces. The proposed development will contain flexible learning spaces; a library, hall, various outdoor play and sports areas; and modern core facilities. It is noted that the school design, and internal fit out elements have been developed in consultation with the Wee Waa High School staff and stakeholders. These high quality, contemporary spaces, that are considering end-user preferences, are likely support improved teaching and learning outcomes.
- Significant benefits to culture are associated with the Indigenous Learning Centre proposed to be delivered on the school site, and the local heritage and cultural elements embedded in the broader school building and landscape design. This will provide improved opportunities for cultural learning and appreciation of Aboriginal heritage in Wee Waa, noting the significant proportion of Aboriginal students attending Wee Waa HS and community living in the study area.
- Improved accessibility of community facilities in Wee Waa from proposed shared community uses on this site. The proposed development has been designed to enable community access to the school hall, library and sports uses. A community survey has identified that sharing new facilities with the wider community is a key element of the new school of importance to the local community.

Key challenges of the proposed development relate to:

- Temporary impacts to surroundings and amenity during the construction phase of new Wee Waa High School. Changes to amenity may relate to environmental factors such as noise, traffic and parking, vibration, views and air quality. As the site is adjacent to Wee Waa Public School, and a residential neighbourhood, there are a number of users within the immediate vicinity of the site who may be sensitive to changes to amenity in this area. For example, school-aged children may be more sensitive to changes to routine.

- As the Wee Waa locality more broadly is proposed to undergo extensive flood mitigation works, residents and users of the area may become sensitive to cumulative impacts to surroundings.

Mitigation Measures

- A detailed Construction Management Plan will be prepared by the contractor to manage and mitigate where possible the impacts associated with the construction of the development.
- The proposed development is to be designed and constructed utilizing the MMoC process, in order to reduce construction duration and impacts.

5.6 Built Heritage and Archaeology

A Historic Heritage Assessment has been prepared by OzArk Environment and Heritage (OzArk) and is provided at **Appendix X**. A summary of the assessment and proposed mitigation measures is provided below.

Assessment

The assessment by OzArk provides the following conclusions:

- The site does not contain any heritage items, nor are there any listed structures or buildings within the vicinity or visual catchment of the site. The site does not contain any heritage values.
- The site is not identified as being likely to contain historical archaeological potential.
- The existing structures on the site are identified as containing no heritage fabric.
- The proposal will have no impact on the surrounding heritage items within the larger township.

Therefore, the assessment concludes that there is a low likelihood that the proposed work will adversely harm historic heritage items or sites.

Mitigation Measures

Following determination of the development, a Heritage Management Plan is to be prepared to provide policies to manage unanticipated finds of historic heritage significance, should any be found during the construction of the proposal.

5.7 Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared by OzArk and is provided at **Appendix N**. A summary of the assessment and proposed mitigation measures is provided below.

Assessment

The ACHAR identifies the site as having low sensitivity due to the high amount of disturbance and accumulated urban impacts having occurred on site. Further, the study area has been subject to numerous floods throughout history, likely dispersing any archaeological artefacts on the site into isolated areas. Therefore, the assessment concludes the following:

- No identified Aboriginal cultural heritage values will be impacted by the proposed development
- The proposed work associated with the proposal may proceed without further archaeological investigation, with the implementation of the relevant mitigation measures.

The ACHAR has been notified to the Registered Aboriginal Parties, with consultation closing on 11 November 2021. Any comments received will be considered and incorporated into the ACHAR and the broader project as required.

Mitigation Measures

- Should development consent for the proposal be gained, the proponent will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) which is to be agreed to by the Registered Aboriginal Parties and the Department of Education. The ACHMP will also include an unanticipated finds protocol, unanticipated skeletal remains protocol and protocols for the long-term management of any artefacts should they be discovered during construction and operation of the proposal

- All staff and contractors involved in the proposed work will be made aware of the legislative protection requirements for all Aboriginal sites and objects. The procedures to conserve Aboriginal cultural heritage values in the ACHMP will also be made clear to all personnel involved with ground disturbing activities.

5.8 Noise and Vibration

An Acoustic Assessment Report has been prepared by Day Design and is provided at **Appendix R**. A summary of the assessment and proposed mitigation measures is provided below. The report assesses the noise and vibration impacts for key surrounding sensitive receivers, being adjoining residential neighbours, during the construction and operational stages of the project.

The location of the loggers used to measure noise and vibration impacts, and the surrounding sensitive residential receivers is shown in **Figure 46** below. The ambient noise levels captured at the loggers in relation to these receivers has been utilised to inform the noise and vibration assessment of the proposed development.



Figure 46 Location of loggers (left) and surrounding residential receivers likely to be most impacted by the proposed development (right)

Source: Day Design Pty Ltd

5.8.1 Construction Noise Impacts

Assessment

Sources of construction noise expected during the construction stage are expected from various vehicular and tool operation during the site preparation and construction phase. This includes construction noise from heavy machinery such as excavators, trucks, hand-held pneumatic and electric power tools, generator motors, hand tools and jackhammers.

Unmitigated noise is expected to exceed the noise management levels for all surrounding sensitive receivers, based on the calculated sound pressure levels and likely noise levels expected to result from construction. Appropriate mitigation measures are outlined below to minimise these impacts as much as possible. It should be noted that once the school buildings are erected, prior to completion, they will act as a noise barrier and reduce the level of construction noise as construction progresses.

Mitigation Measures

The following work practices are recommended to be implemented where necessary and practicable, to reduce noise emission as far as reasonably practicable. These are discussed further in **Appendix R**:

- Engineering and practical noise controls, including distancing of machinery, enclosing mobile plant when being used for long periods of time, screening of construction site and silencing any mobile plant where possible. It is noted that a temporary sound barrier is recommended to be erected up to a height of 2.4 metres around the site.
- All equipment is to comply with the requirements of AS IEC 61672.1:2004 *Electroacoustic – Sound Level Meters-Specifications*. The noise emission levels for all critical items is to be checked by the site environmental officer for compliance with noise limits in the instance of a complaint.
- In the instance of a noise complaint, any attended noise measurements to be carried out are to be in accordance with the procedures outlined in the Australian Standard AS1055 *Acoustic – Description and measurement of environmental noise*.
- All construction shall take place within the hours proposed in **Section 3.17**, to provide periods of respite from construction noise.
- Measures will be implemented to reduce noise from plant and equipment, including the use of alternatives to diesel and petrol engines and comparison of machinery.
- Appropriate work practices will be implemented, including ensuring all workers and contractors are trained in work practices to minimise noise emissions.
- Appropriate construction management measures will be implemented as per a detailed construction management plan to manage the use and direction of vehicles entering and exiting the site and surrounding streets.
- A Community Liaison Officer will be appointed by the contractor to provide a point of contact for surrounding residents. This person will receive and manage noise complaints and implement a Construction Complaints Management System.

5.8.2 Construction Vibration Impacts

Assessment

Day Design identify numerous construction methods and tools that may cause vibrational impacts during construction, including various hydraulic hammers, pile drivers, boring and jackhammering. The safe working distance for each of these plant items is outlined in **Table 14**.

Table 14 Recommended safe working distances for vibration generation plant

Plant Item	Safe Working Distance	
	Cosmetic Damage	Human response
Small hydraulic hammer	2 metres	7 metres
Medium hydraulic hammer	7 metres	23 metres
Vibratory Pile Driver	2 to 20 metres	20 metres
Pile Boring	2 metres	N/A
Jackhammer	1 metre	Avoid contact with structure

Several mitigation measures discussed below will assist in the minimisation of any vibrational impacts for surrounding residential receivers.

Mitigation Measures

The following work practices are recommended to be implemented where necessary and practicable, to reduce noise emission as far as reasonably practicable. These are discussed further in **Appendix R**:

- Compliance monitoring of ground borne vibration is to be carried out at the nearest residence when vibratory machinery is likely to be used on site.

- Installation of unattended vibration monitors shall be installed at each residential location where an exceedance of the Peak Particle Velocity vibration criteria is exceeded. These monitors will have the capability to trigger an alert to the site manager or similar aware of the vibration impact.

5.8.3 Operational Noise Impacts

Assessment

Day Design have also assessed the likely impacts of the operation of the school on surrounding residential receivers. The key operation activities likely to have an acoustic impact are from outdoor student play, the school bell and announcements, amplified music and speech in the school hall and noise generated from the mechanical plant.

Generally, in the majority of residential receivers, compliance with the noise criteria is met during the noisiest activities, including sports games and fitness classes. Everyday outdoor play and mechanical plant is expected to meet the noise criteria in all locations. School related concerts, discos and functions are expected to generally exceed the noise criteria for most residential receivers, however these are likely to occur infrequently, and therefore, the noise impact is considered to be acceptable.

Mitigation measures to address the noise exceedances outlined above are discussed below.

Mitigation Measures

The following mitigation measures are to be incorporated to minimise the acoustic impact of the school on the surrounding sensitive receivers.

- **Mechanical Plant:** A detailed assessment will be carried out once the plant selection is nearing completion to ensure the acceptable noise criteria is able to be met.
- **Noise emissions from internal road to adjacent residential dwelling:** An exceedance of the noise criteria at the residential dwelling at 41 George Street may be considered acceptable without additional mitigation if an agreement can be made with the affected residential neighbour. Written confirmation of the agreement will be required.
- **PA Speaker System:** Speakers are to face inwards towards the school, generally in a downwards direction ground no closer than 40m from the nearby residences.
- **Waste Collection and Grounds Maintenance:** Waste collection and maintenance is to be restricted to daytime hours of between 7:00am and 6:00pm Monday to Friday.
- **School Hall Materiality:** Materials used for external walls, ceiling and roof systems and glazing and glazed doors are to be chosen to restrict noise emissions where possible.

5.9 Biodiversity

A Biodiversity Development Assessment Report (BDAR) has been prepared by EcoLogical Australia and is provided at **Appendix Q**. A summary of the assessment and proposed mitigation measures is provided below.

Assessment

The proposed development will result in the clearing of approximately 1.47ha of native vegetation identified as Plant Community Type (PCT) 40: "Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains" which is associated with the threatened ecological community "Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains" under the *Biodiversity Conservation Act 2016*. This ecological community is also listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), however only a portion of the identified community within the subject land met the key diagnostics required to be considered part of the Commonwealth-listed ecological community. Targeted species surveys were also undertaken on site.

Since vegetation removal in the western portion of the site (Lot 124-125 DP757125) is being undertaken as part of the Flood Mitigation Works under a separate approval, the BDAR has assessed biodiversity impacts for the remainder of the site (in which the school building and most significant vegetation is located). The separate Flood Mitigation Works approval will assess biodiversity impacts as required.

A summary of the ecosystem and species credits related to the impacts of the proposed vegetation removal is provided in **Table 15** and **Table 16**. Four species were “assumed present” for calculating species credits since timing constraints did not allow appropriate target surveys to be undertaken for them. **Figure 47** shows the impacts requiring offsets due to the proposed development.

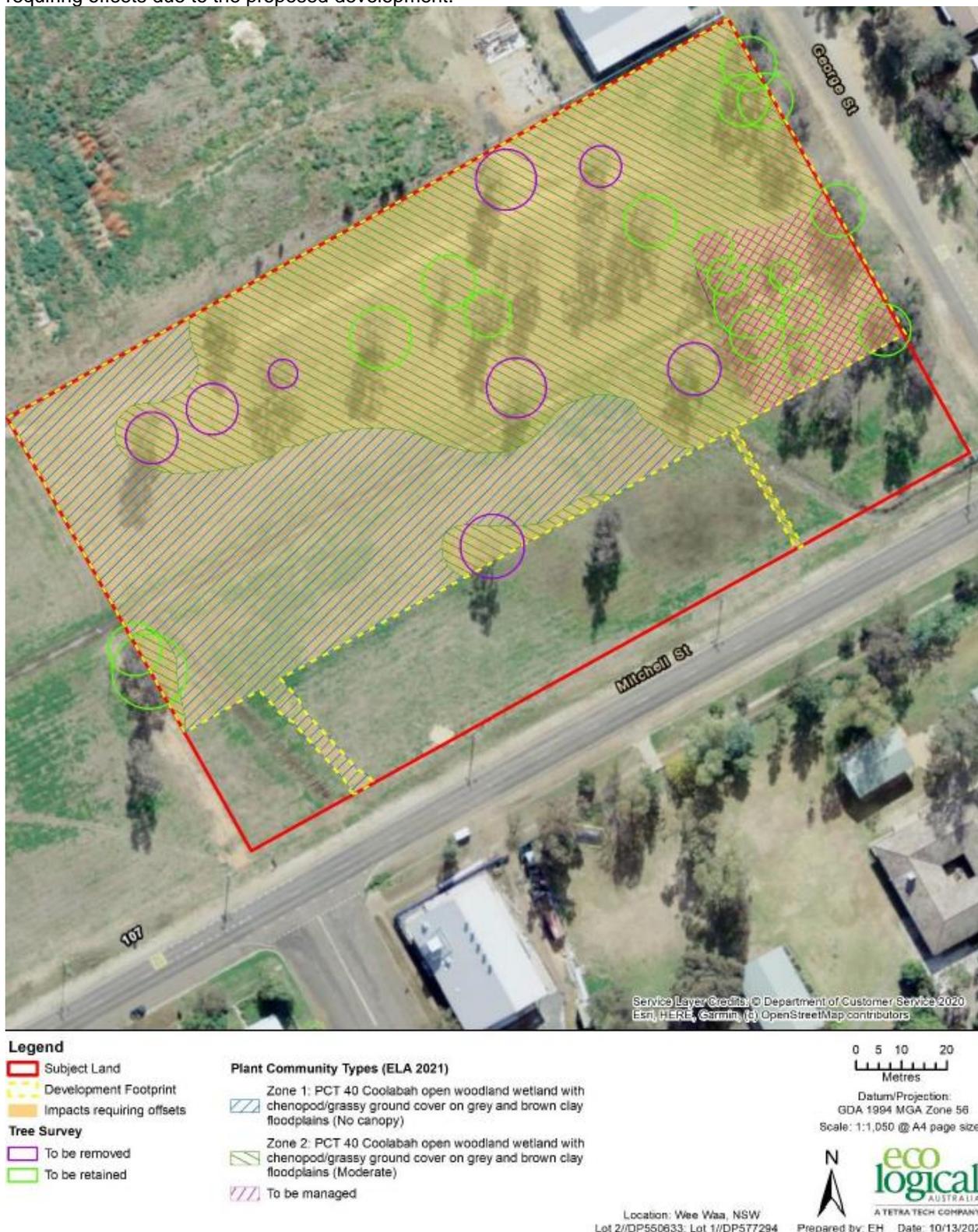


Figure 47 Biodiversity Impacts Requiring Offset Due to the Proposed Development

Source: EcoLogical

Table 15 Ecosystem Biodiversity Offset Credits

Vegetation Zone	Management Zone	PCT ID	PCT Name	Credit Class	Direct Impact (ha)	Credits Required
1	-	40	Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains	Ecosystem Credits (No HBT Cr, TEC)	0.53	9
2	A	40	Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains	Ecosystem Credits (No HBT Cr, TEC)	0.81	25
2	B	40	Coolibah open woodland wetland with chenopod/grassy ground cover on grey and brown clay floodplains	Ecosystem Credits (No HBT Cr, TEC)	0.13	
TOTAL:					1.47	34

Table 16 Species Biodiversity Offset Credits

Species	Common Name	Direct Impact (ha)	Credits Required
Desmodium campylocaulon	Creeping Tick-trefoil	1.47	34
Digitaria porrecta	Finger Panic Grass	1.47	34
Homopholis belsonii	Belson's Panic	1.47	34
Lepidium monoplacoides	Winged Peppergrass	1.47	34

Mitigation Measures

A complete list of mitigation measures to be adopted is included in Section 7.6 of the BDAR at **Appendix I**. A summary of the mitigation measures is provided as follows:

- No hollow bearing trees are expected to be cleared for the project, however hollow bearing trees occur within the subject land. A pre-clearance survey of trees across the subject land and identification/location of habitat trees (e.g. trees with nests or to identify trees with any new hollows) by a suitably qualified ecologist is required. Supervision by a qualified ecologist/licensed wildlife handler during tree removal in accordance with best practice methods. Prior to and during clearing work.
- Should any trees be removed that have hollows/hollow trunks/fissures, they should be retained as ground fauna habitat and/or used as replacement hollows and attached to trees within the within the development site. If it is impractical to use salvaged hollows as replacement tree hollows, compensatory nest boxes should be installed where practical at a ratio of one nest box installed per hollow removed (if applicable). Prior to and during clearing work.
- Appropriate controls will be utilised and maintained to manage exposed soil surfaces and stockpiles to prevent sediment discharge into waterways. Soil and erosion measures such as sediment fencing, clean water diversion must be in place prior the commencement of the construction work to apply for the duration of construction works.
- Daily timing of construction activities is recommended in accordance with Table 1 of Interim Noise Guidelines (2009)
- Dust suppression measures will be implemented during construction works to limit dust on site
- Vehicles, machinery and building refuse associated with the development construction should remain only within construction footprint areas, avoiding weed or pathogen related impacts to vegetation outside of the development site
- Waste bins to be present on site. Covers to be used to prevent blown litter and the entry of pest animals or rain. Removal and appropriate disposal of general waste generated during the works.
- All staff working on the development will undertake an environmental induction as part of their site familiarisation. This induction will include items such as:

- Site environmental procedures (vegetation management, sediment and erosion control, exclusion fencing and weeds).
- What to do in case of environmental emergency (chemical spills, fire, injured fauna).
- Key contacts in case of environmental emergency.
- Unexpected finds protocols.
- The retained vegetation would be managed as part of the broader school grounds maintenance. Weeds should be managed and controlled within the adjacent vegetation to be retained.

5.10 Construction Management

A Preliminary Construction Management Plan (CMP) has been prepared by Ontoit and is provided at **Appendix BB**. The CMP outlines the key principles and considerations for the management of the construction program and will be for the basis of the detailed Site Environment Management Plan to be prepared by the contractor; these are outlined below.

5.10.1 Environmental Management

The contractor will be responsible for managing and mitigating the following items:

Public Safety

- Produce signage and fencing to restrict access to the site.
- Work will be in accordance with the requirements of Workcover NSW and all relevant standards and codes of practice.
- Contractors will be required to undertake site induction prior to entering the site. On-site safety briefings will be held as the site works proceed.

Dust Control

- An Air Quality Management Plan will be implemented to minimise dust emissions during construction works.

Stormwater

- An erosion and sediment control plan will be implemented on site. This will include establishing stormwater drainage systems to divert clean stormwater around cleared areas and construction of temporary berms to prevent excess stormwater run-off to adjacent residential sites.

Noise and Vibration

- A Construction Noise Management Plan will be implemented on site in accordance with the findings and recommendations of the Acoustic Assessment Report prepared by Day Design (refer to **Section 5.8** above and **Appendix R**).

5.10.2 Construction Waste Management

All actions will be in accordance with the Waste Management Plan (Construction and Operation) prepared by MDE (refer to **Appendix Y**). Waste generated will be managed and minimised through a mixture of waste planning and on-site controls. These include:

- Waste planning controls, including:
 - Designing buildings to minimise on site cutting of components and maximising on site assembly tasks, as per the MMoC model.
 - Careful ordering of materials such as sand and building products to match quantities with amounts required, and on time ordering rather than having materials stored on site for months before being used.
 - Segregating materials and providing weather protection for stored materials to maximise their fitness for use

- Bringing in material such as sand in large bags rather than as bulk loads, to enable excess materials to be easily picked up and used at other sites.
- Encouraging bulk handling and use of reusable and returnable containers.
- At the time of tendering, advise contractors and sub-contractors and suppliers of the requirements to minimise waste on site.
- Include provision in the tender documentation for the client to monitor the use of waste and recycling bins on site.
- Development of a Construction Waste Management Plan by the main site contractor, which includes details of the above elements.
- On site controls, including:
 - Implementation by the main site contractor of a Construction Waste Management Plan.
 - Segregating wastes generated on site, using different skip bins for recycling and waste, with separate bins for different recyclable materials.
 - Discussion about the site's waste management and recycling policies and practices with employees and subcontractors during site inductions and toolbox talks.
 - Ensuring all waste disposal bins are clearly marked
 - Keeping records of quantities of waste and recycled materials disposed of, and the destinations of these materials
 - Ensuring that wastes are only disposed to licensed facilities.

5.10.3 Traffic Management

A detailed Construction Traffic Management Plan will be prepared by the contractor once appointed to identify the proposed vehicular routes, points of access/egress and vehicular and pedestrian controls. This plan will be in accordance with the recommendations provided by TTW (refer to **Appendix I**).

5.11 Stormwater, Drainage and, Sediment and Erosion Control

A Stormwater Management Plan and Erosion and Sediment Control Plans have been prepared by MDE, and are provided at **Appendix K** and **Appendix H** respectively. The report includes a description and assessment of the proposed stormwater, drainage, flooding and sediment/erosion control measures to be implemented in the proposed design.

5.11.1 Stormwater and Drainage

An on-site stormwater detention tank (OSD) is required to limit the stormwater flows post development. An OSD tank of approximately 37.3m³ is required, which will be delivered in the form of six rainwater tanks. This will improve the post development discharge rate from 231 litres per second to 173 litres per second, which provides a buffer for the driveway and other impermeable areas.

Stormwater quality objectives are proposed to be achieved primarily through the provision of vegetated swales/channels, with additional water quality measures being utilised via stormwater pit inserts and first flush devices on rainwater tanks across the development.

Mitigation Measures

The design of the development has been coordinated with the stormwater requirements provided by MDE and is therefore capable of meeting the relevant stormwater needs and guidelines, subject to detailed design. No further mitigation measures have been proposed by MDE.

5.11.2 Sediment and Erosion Control

Sediment and erosion control plans have been prepared as part of the Civil Engineering Drawings at **Appendix H**. The below mitigation measures are recommended as part of construction.

Mitigation Measures

- Prior to construction start:
 - Erect site signage and construct entry and exit points as indicated on plans.
 - Construct vehicle washdown area and associated silt management devices.
 - Construct site office and storage compound area.
 - Erect silt fence at low points of the site as demonstrated on the plans.
 - Erect temporary 3 strand wire fence around existing trees to be retained.
 - Construct rock check dams and silt fences downstream of basin.
- Clearing and bulk earthworks
 - Silt fence, sand bags and earth rills to be erected as indicated or required during clearing.
 - Superintendent to confirm extent of stripping to contractor prior to commencement of works each day, based on predicted rainfalls.
 - Silt fences and earth rills within roads to be erected as indicated or required during earthworks.
- Construction – stockpiling
 - Temporary silt fence to be erected 3m from toe of batter on low side of stockpiling.
 - Stockpile site to be clear of adjacent property boundaries so as not to cause a nuisance to adjoining properties.
- Maintenance (pre to post construction)
 - The silt fences are to be inspected weekly.
 - Any repairs required are to be effected immediately.
 - Silt after rain is to be cleaned from streets and allotments immediately and corrective action taken to avoid a re-occurrence of the failure.

5.12 Flooding

A Flood Impact Assessment prepared by Lyall & Associates is provided at **Appendix J**. A summary of the assessment and mitigation measures are provided below.

Assessment

As described in **Section 2.2.3**, the site becomes inundated with water during relatively frequent floods, due to localised rainfall within the ring levee. Detailed flood modelling has been undertaken throughout the design process since the issue of SEARs and the design has been co-ordinated to specifically respond to the flood characteristics of the site and to manage flood waters at the site and throughout the broader township.

The flood strategy for the school has been designed to integrate with the Flood Mitigation Works being undertaken separately as described in **Section 1.2.1**. This includes raising and grading of the site as well as localised swales and culverts throughout the site to convey any water that falls onto the site into the overland flow channel which will run along the southern and western boundaries of the school, conveying water to the Namoi River.

The following assessment was carried out:

- Review of available data including existing flood studies and associated hydrologic and hydraulic models (collectively referred to as ‘flood models’) for Wee Waa.
- Update of the existing flood models where required to more accurately define flooding and drainage behaviour in the vicinity of the proposal.
- Preparation of exhibits showing flood behaviour under present day conditions for design floods with AEPs of 20%, 5% and 1%, as well as the Probable Maximum Flood (PMF).
- Assessment of the potential impact the proposal in combination with the separate Flood Mitigation Works would have on flood behaviour during the formers’ construction and operation.

- Assessment of the impact future climate change would have on flood behaviour under operational conditions.
- Assessment of the impact a partial blockage of the trunk drainage system downstream of the proposal site would have on flood behaviour under operational conditions.
- Assessment of potential measures which are aimed at mitigating the risk of flooding to the proposal and its impact on existing flood behaviour.
- Assessment of potential measures which are aimed at mitigating the risk of scour in the receiving drainage lines and the Namoi River.

TUFLOW modelling in accordance with the above was undertaken for the proposed development (inclusive of the separate Flood Mitigation Works). The analysis finds that almost the entire site, including the field and school buildings, remains flood-free for the 20% AEP event, meaning the site is appropriate for use during and directly after frequent flood events (**Figure 48**). The native grassland fronting George Street is inundated deliberately during these events, to add to the natural water conveyance patterns through the ecosystem. The athletics track and school buildings also remain flood free during the 1% AEP event, meaning the school and field can be used during and directly after this less frequent event (**Figure 49**).

As shown at **Figure 50**, the sports field and school buildings, as well as significant areas of the surrounding township, will be rendered flood free during the 1% AEP event with the construction of the proposal and separate Flood Mitigation Works.

The modelling has also considered a partial pipe blockage and a 30% increase in rainfall to simulate future conditions impacted by climate change. The site remains suitable for use in the 1% AEP event in these test cases.

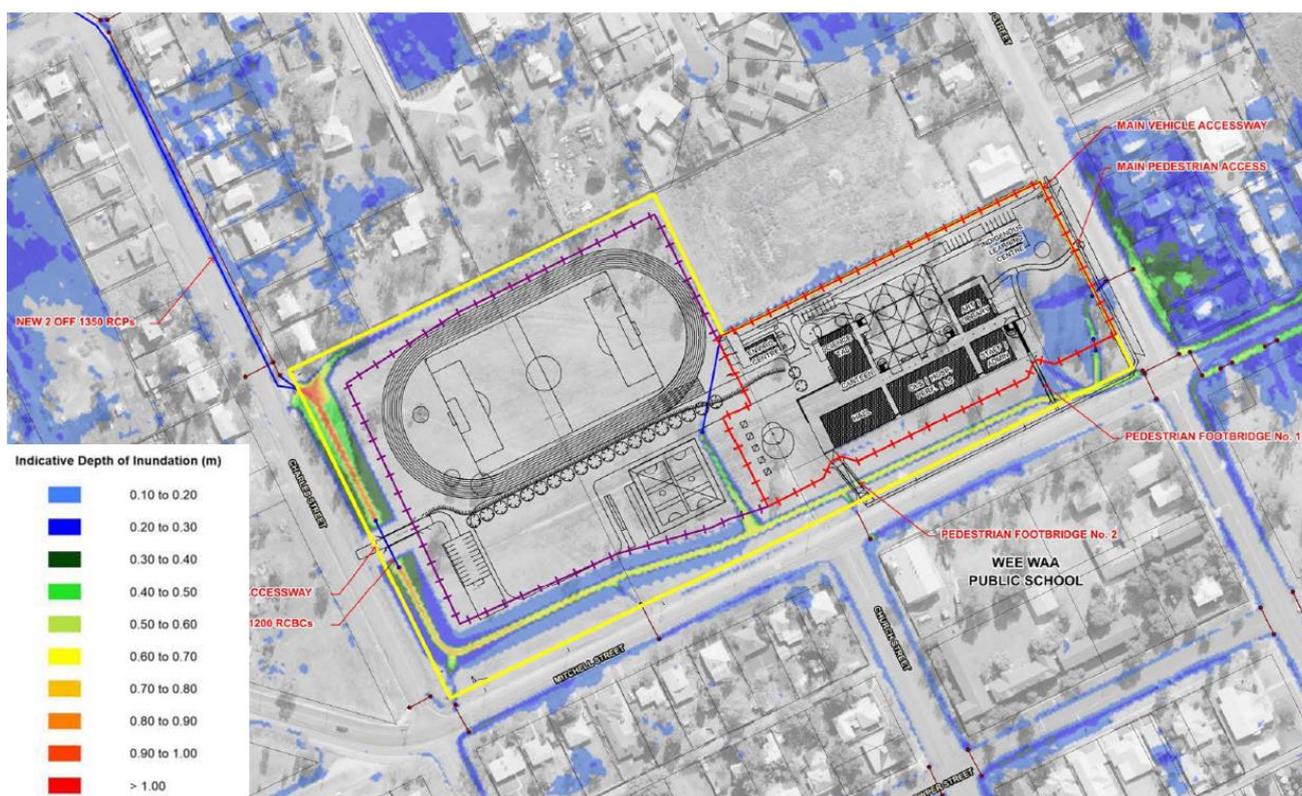


Figure 48 Modelled Depth of Inundation – 20% AEP Event

Source: Lyall & Associates

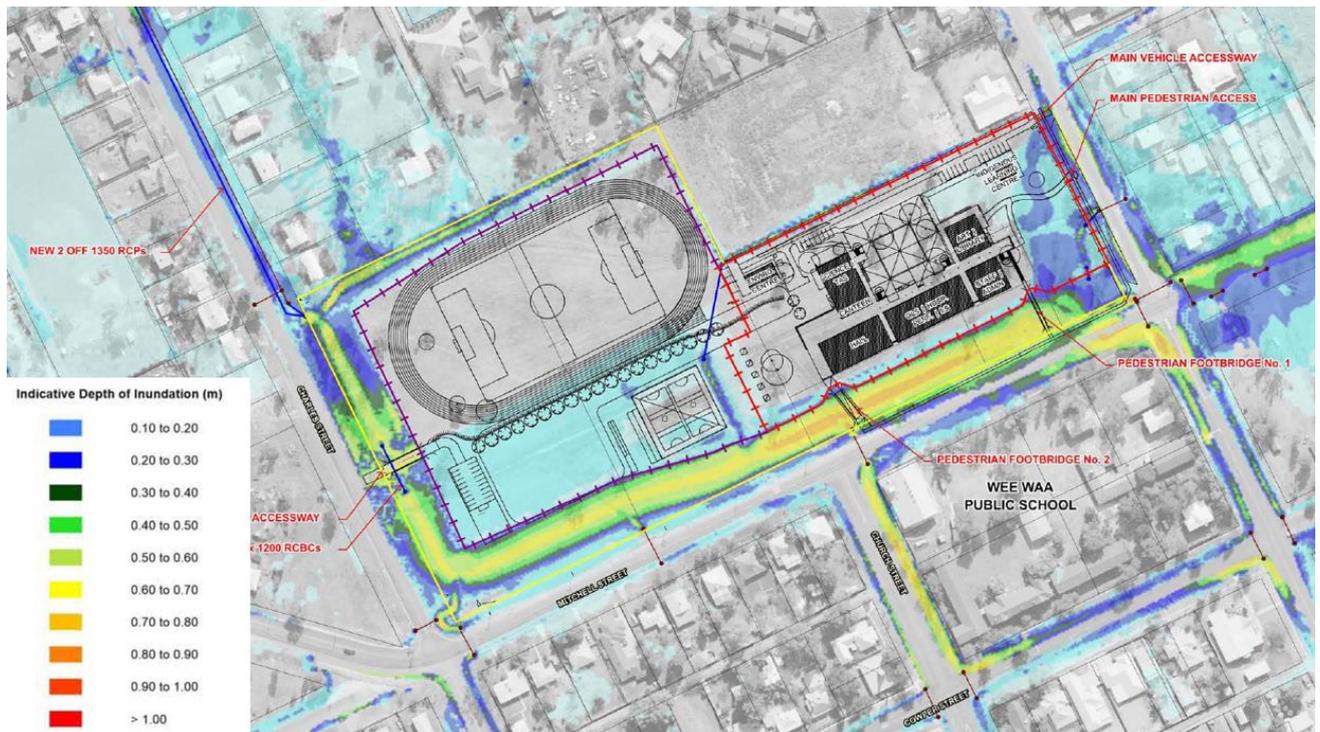


Figure 49 Modelled Depth of Inundation – 1% AEP Event

Source: Lyall & Associates

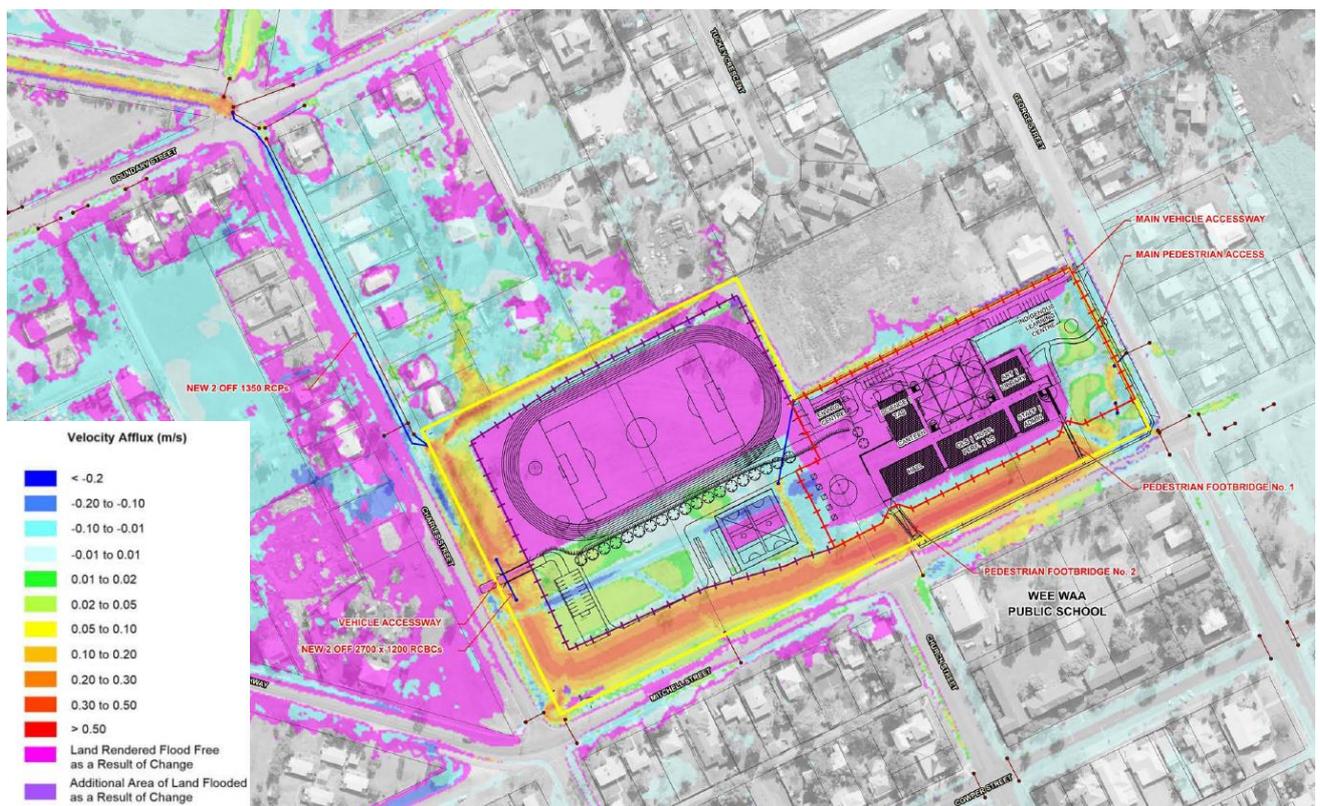


Figure 50 Modelled Afflux and Land rendered flood free (pink) compared to existing condition – 1% AEP event

Source: Lyall & Associates

Mitigation Measures

The following mitigation measures are proposed to manage potential flood impacts during construction and operation of the development (see Section 8 of **Appendix J** for detail):

- It is recommended that a “Construction Soil and Water Management Plan” (or similar) be developed as part of a Construction Environmental Management Plan for the proposal. The former document would set out the measures that are to be implemented to manage erosion and sediment, as well as stormwater runoff during the construction of the proposal, while the latter would identify the existing flood risk on the proposal site and include measures that are aimed at mitigating the impact that flooding would otherwise have on site personnel, equipment and work areas.
- While flooding of the proposal site is generally of a low hazard nature, it will be important to locate site sheds in areas that lie above an elevation of RL 191.0 m AHD. Access off George Street will also be raised in order to prevent the frequent and potentially prolonged inundation of the access road into the proposal site. As this will require the filling of a portion of the proposal site, it is recommended that construction activities commence in its north-eastern corner, as this corresponds with the location of the proposed main vehicular entrance.
- If not already incorporated in the construction of the FMW, it is recommended that temporary earth bunding be provided along the northern and eastern sides of the High Flow Conveyance / Flood Storage Area, as well as along the eastern side of the proposed fill platform upon which the school buildings would be constructed, as this will reduce the frequency floodwater impacts the remainder of the proposal site, and hence reduce the impact that flooding has on construction activities.
- Spoil stockpiles will be located in areas which are not subject to frequent inundation by floodwater, ideally outside the 5% AEP flood extent. The exact level of flood risk accepted at stockpile sites will depend on the duration of stockpiling operations and the type of material stored.
- Minimum habitable floor levels to be set no lower than RL 191.5 metres AHD, noting that this would provide 0.5 metres freeboard to the peak 1% AEP local catchment flood level.
- The underside of Pedestrian Footbridge No. 1 and Pedestrian Footbridge No. 2 to be set no lower than RL 191.0 metres AHD (i.e. no lower than the peak 1% AEP local catchment flood level).
- The northern abutments of Pedestrian Footbridge No. 1 and Pedestrian Footbridge No. 2 are to be set no further south than 4 metres off the southern face of the proposed buildings, while the southern abutments are to be set as close as practical to the road reserve boundary.
- Flood emergency management measures for construction and operation of the proposal will be incorporated into relevant environmental and/or safety management documentation.
- Materials and heavy machinery should not be stored on George Street where it borders the proposal site as during very intense storm events there is the potential for floodwater to surcharge the road, with any obstruction of this flow potentially exacerbating flooding conditions in existing residential development that is located on its eastern (upstream) side.

5.13 Contamination

A Detailed Site Investigation report has been prepared by Barnson and is made available in **Appendix T** and a Remediation Action Plan is provided at **Appendix GG**. A summary of the assessment and proposed mitigation measures is provided below.

Assessment

A review of the available historical information (including contaminated sites databases and aerial photographs) and the findings of the Preliminary Site Investigation (**Appendix S**) conclude that the potential for significant environmental contamination to be present at the site is low.

A site inspection, supplemented with confirmatory sampling and analysis, was conducted to identify the source of the contamination, determine the average concentrations of lead and zinc in the study area and identify and delineate any hot spot areas. Results of the chemical analysis of the surface soil samples confirm the findings of the preliminary site investigation, finding measurable concentrations of heavy metals, and hydrocarbon compounds and identifying concentrations of lead (Pb) and zinc exceeded the screening levels used in the assessment in a localised area along the northern boundary as shown at **Figure 15**.

A Detailed Site Investigation was undertaken within the target area (**Appendix T**). Analysis and refinement indicated the most likely sources of the observed contamination to be lead based paint and galvanised metal that formed part of structures that previously occupied the area, or demolition waste that was subsequently disposed of at the site.

The main routes of exposure to these contaminants are through inhalation and ingestion. Surface soil is the only media likely to be contaminated with lead and secondary pathways that have the potential to expose humans to the contaminants include ingestion of contaminated garden crops and animal products. Exposure to elevated concentrations of zinc was assessed as presenting no risk to the health of humans visiting the area. The risks associated with the elevated zinc concentrations relate mainly to impacts to aquatic species and the location and physical properties of the Primary Investigation Area limit any possibility of risk to ecology.

The most likely receptors identified for the Primary Investigation Area are visitors to the Subject Site, including students, teachers and parents. Evaluation of the potential for sensitive receptors to be exposed to contaminated soil at the Investigation Area concludes that exposure is possible but does not pose an immediate health risk as exposure to the contaminated soil can be appropriately managed. However, lowering the concentration of hazardous contaminants present in the soil is preferable as the dispersion of the contamination to uncontaminated areas of the Subject Site or even off-site is a concern.

Based on the findings of the Detailed Site Investigation, it is concluded that the site is suitable for the proposed development subject to the implementation of the Remediation Action Plan provided at **Appendix GG**. The remediation relates only to the removal of fibre cement fragments from the surface in the north-eastern corner of the proposed grass athletics track. Once remediation is complete, verification of the soil contamination will be undertaken and a Long-Term Environmental Management Plan will be considered and implemented if deemed necessary.

Mitigation Measures

- It is recommended that access to the contaminated area be restricted and that procedures be put in place to prevent the dispersion of contaminated soil to other areas of the site.
- Based on the findings of the further site investigation it is concluded that the site is suitable for the proposed development, as there are no contaminants present at the site which are likely to present an immediate risk of impact to the health of humans or the environment from the proposed activities.
- Development of the Investigation Area as part of a playing field is subject to the removal of fibre cement fragments from the surface of the site.
- The Remediation Action Plan (RAP) is to be implemented in the removal of the fibre cement fragments from the surface of the site.
- Once remediation is complete, a Long-term Environmental Management Plan (LEMP) will be developed to provide recommendations for the long-term management of the containment, if required.
- A Construction Environmental Management Plan is recommended to be prepared prior to any earth works being commenced. The purpose of the CEMP is for the management of contaminated soil as well as for the management of any excavated soils (which could include contaminated soils) and should include procedures for the classification of the soils as well as for the implementation of sediment and erosion controls for stockpiling of excavated soils.

5.14 Cumulative Impact Assessment

This section considers the cumulative impact that concurrent developments may have on an area. There are no other large scale, significant development applications approved in the township of Wee Waa or in surrounding areas in proximity of the site. It is noted that a SEARs request was issued for the development of a solar farm in Wee Waa on 6 December 2017, however no further development has occurred in relation to this project.

It is noted that the Inland Rail Narrabri to North Star (SSI-9487) and Internal Rail Narramine to Narrabri (SSI-10054) are both significant projects nearby Wee Waa. However, neither of these projects involve work in Wee Waa or the directly surrounding area and thus it is not anticipated that any cumulative impacts will result from the development of the Wee Waa High School.

5.15 Air Quality

An Air Quality Assessment has been prepared by EMM and is provided at **Appendix Z**. A summary of the assessment and proposed mitigation measures is provided below.

Assessment

Air Quality impacts arising from construction activities were assessed in detail. The assessment procedure included four types of construction activities: demolition (not relevant to this project), earthworks, construction and track-out. A risk-based methodology was then used to consider amenity impacts due to dust soiling, health effects due to an increase in exposure to PM₁₀, and harm to ecological receptors.

In relation to dust soiling impacts, the risk associated with track-out was determined to be high, and that associated with earthworks was determined to be medium. Construction was determined to be low-risk. For human health and ecological impacts the risks were determined to be either negligible or low.

The Construction Environmental Management Plan (CEMP) for the project will include measures to manage dust. As track-out was determined to be high-risk activity for dust soiling impacts, the CEMP should pay particular attention to the dust generated from this activity.

During operation of the development there is expected to be negligible potential for the generation of air pollutant emissions or associated impacts from the operation of the project. Air quality impacts during operation are expected to be limited to emissions from infrequent vehicle movements associated with staff and contractors entering and exiting the site. The school buildings and teaching areas are significantly set back from all street frontages and roads, with landscaped buffering and operable windows to control airflow. Furthermore, there will not be any significant sources of odorous air pollutants associated with the operation of the project, particularly since the agricultural plot original proposed to be included at the new site is to remain on the existing high school site (1 Purcell Ave) and be upgraded. As such, a detailed assessment of operational air quality impacts has not been carried out.

Mitigation Measures

The following general mitigation measures are recommended:

- Prior to commencement of construction activities, develop appropriate communications to notify the potentially impacted residences of the project (duration, types of works, etc), relevant contact details for environmental complaints reporting.
- A complaints logbook will be maintained throughout the construction phase which should include any complaints related to dust; where a dust complaint is received, the response actions should be detailed in the logbook.
- Record any exceptional incidents that cause dust and/or air emissions, either on or off site, and the action taken to resolve the situation in the logbook.
- Carry out regular site inspections, record inspection results, and make the logbook available for review as requested.
- Erect shade cloth barriers to site fences around potentially dusty activities such as trench excavations and material stockpiles where practicable.
- Keep site fencing and barriers clean using wet methods.
- Impose a maximum-speed-limit of 20 km/h on all internal roads and work areas during construction.
- Ensure proper maintenance and tuning of all equipment engines.
- Deploy water carts to ensure that exposed areas and topsoils/subsoil are kept moist.
- Provide an adequate water supply on the construction site for effective dust/particulate matter suppression/mitigation.
- Modify working practices by limiting activity during periods of adverse weather (hot, dry and windy conditions) and when dust is seen leaving the site.

- Limit the extent of clearing of vegetation and topsoil to the designated footprint required for construction and appropriate staging of any clearing.
- Minimise drop heights from loading or handling equipment.
- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.

With respect to managing track-out, the following measures are recommended:

- Access gates to be located at least 10 m from receptors where possible.
- Use water-assisted dust sweeper(s), to remove, as necessary, any material tracked out of the site onto public roads.
- Avoid dry sweeping of large areas.
- Ensure vehicle loads entering and leaving sites are covered to prevent escape of materials during transport.
- Trips and trip distances should be controlled and reduced where possible, for example by coordinating delivery and removal of materials to avoid unnecessary trips.

Visual monitoring by construction personnel will represent an effective means of dust monitoring during construction. Visual monitoring should comprise of the following:

- Undertaking daily on-site and off-site inspections, where receptors are nearby, to monitor dust. The inspection results should be recorded in a specific log. Inspection should include regular dust soiling checks of surfaces such as street furniture and cars.
- At the commencement of each day's activities, the local meteorological forecast should be reviewed, including the timing of notable increases in wind speed and/or temperature. Appropriate increased intensity or additional mitigation measures should be planned for the day based on this forecast review. The likely meteorological conditions and implications for dust emissions and impacts should be discussed at the morning toolbox meeting.
- Increasing the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. Should notable visual dust emissions be observed leaving the site boundary, increased intensity or additional mitigation measures should be deployed.

5.16 Ecological Sustainable Development

The environmental performance of the development has been assessed by using clause 7(4) of Schedule 2 of the EP&A Regulations and the EIS is accompanied by an ESD Report prepared by Aurecon (**Appendix L**). The initiatives and targets relate to the following aspects of the proposed development:

- ESD principles outlined by Aurecon align with the national best practice sustainable building principles to improve environmental performance and reduce ecological impact.
- Targeting certification with the Green Building Council of Australia's – 'Green Star' framework noting that this is considered the 'national best practice building principle,' by achieving a 4 Star Green Star Rating.
- The design measures as discussed in the ESD Report demonstrate the way in which ESD is entrenched into the design proposal. Through the incorporation of these ESD measures, the proposal will be designed in accordance with recognised best practice principles, which are capable of being applied throughout the design and ongoing operation phases of the development.

Furthermore, the proposed development is consistent with the four accepted principles of ESD. The Regulation lists four principles of ecologically sustainable development to be considered in assessing a project. They are:

- The precautionary principle.
- Intergenerational equity.
- Conservation of biological diversity and ecological integrity.
- Improved valuation and pricing of environmental resources.

Precautionary Principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

From the early schematic design phase, the project has considered environmental and social impacts decision making processes. This includes a strategy to mitigate climate change through energy efficiency and renewable energy. Furthermore, the project has considered projected climate risks for the region and a Climate Change Adaption Strategy has been prepared (refer to the ESD Report at **Appendix L**).

Intergenerational Equity

Inter-generational equity is concerned with ensuring that the health, diversity, and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposal has been designed to benefit both the existing and future generations by:

- Implementing safeguards and management measures to protect environmental values.
- Facilitating education opportunities including, additional future school capacity, in close proximity to homes.
- Improving the social infrastructure that will improve educational infrastructure outcomes.
- Considering the impact of climate change and other future considerations in various technical assessments.

The design of the proposal will seek to optimize environmental, social and cultural performance. The school will create comfortable and productive learning spaces for the next generation of students and seek to showcase any sustainability initiative to promote learning. The proposal is for a new high school that is designed to create a modern learning environment for high school aged students in Wee Waa and the surrounding area. It will serve the community of Wee Waa for generations to come. The proposal has a significant positive impact on intergenerational equity.

Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration.

The BDAR provided at **Appendix Q** outlines the measures taken to avoid, minimise and mitigate impacts to the vegetation and species habitat present within the development site and methodologies to minimise impacts during construction of the development.

Improved valuation, pricing and incentive mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things.

The design of the school acknowledges the expenditure in sustainability initiatives will provide return on investment over the life of the building. The expected payback will be factored into final sizing for PV system and rainwater tanks.

5.17 Operational Waste

An Operational Waste Management Plan has been provided at **Appendix Y**. Waste will be stored locally in teaching spaces and transferred to the central waste storage area twice per day by contracted cleaners. The waste storage area is located adjacent to the Agricultural and Environment Centre at the end of the internal service road. Recyclables will be separated and disposed of in a proper manner. Separate receptacles for the safe disposal of hazardous waste types (i.e. light bulbs, batteries, etc) will also be provided where applicable.

Where possible, additional bins will be provided in common areas for the collection of commingled recyclables such as beverage containers (glass, plastic, aluminium), paper products, recyclables food containers, and other office waste.

The school is expected to generate 377 litres of general waste per day and 377 litres of recycling per day. Waste will be disposed of in 2x 240L general waste bins, 2x240L recycling bins and 1x240L green organics bin. Waste will be collected daily by a private waste contractor from the kerb.

Specialised waste and resource recovery from the Agricultural and Environment centre will also be generated, which is to be co-ordinated with the CSIRO and any other partners as required.

5.18 Other Assessment Issues

An assessment of the other impacts of the development has been undertaken by the relevant specialist consultants and are appended to this EIS. A brief description of each other assessment issue is provided in **Table 17** below.

Table 17 Other Assessment Issues

Issue	Consultant	Summary	Reference
Accessibility	Group DLA	The design of the school has been co-ordinated with accessibility requirements throughout its development. A statement of capability is provided that shows the design is capable of complying with the relevant standards, subject to detailed design development.	Appendix DD
BCA Compliance	Group DLA	The design of the school has been co-ordinated with the requirements of the BCA throughout its development. A statement of capability is provided that shows the design is capable of complying with the relevant provisions of the BCA, subject to detailed design development.	Appendix CC
Geotechnical	Pacific Geotech	The site has poor soil conditions including water-reactive black soil that moves and shifts with changing moisture levels. It is recommended that 200mm of topsoil be stripped and the structure be piled and buildings elevated above the soil.	Appendix V
Structural	Engineered	A conceptual structural design has been prepared, which suggests the main school buildings should be piled with screw piers and elevated 500mm above the flood level, supported by steel columns.	Appendix W
Tree Removal	McArdle and Sons	An Arborist Report lists the trees to be removed and includes tree protection measures to be adopted during construction and operation of the development.	Appendix G
Bushfire	N/A	The site is not located in or near any bushfire prone land.	N/A

5.19 Development Contributions

The relevant contribution plan applying to the site is *Narrabri Shire Council Section 7.12 Fixed Development Consent Levies Contribution Plan 2011* (the Contribution Plan). The proposed new high school is not implicitly categorised as exempt from the Contribution Plan but consideration can be given to request development be exempt for the purposes of:

- Public infrastructure for or on behalf of the NSW Government including but not limited to hospitals, public transport, police and fire stations and **education facilities**.
- Public community infrastructure such as but not limited to libraries, community facilities, child care facilities, recreational areas, recreational facilities or car parks.

Therefore, it is requested that the proposed development be exempt under the Contribution Plan as the proposed development will deliver public infrastructure (an education facility) and public community infrastructure (recreational areas and joint community use spaces).

The NSW Department of Education is a government agency which relies on government grants to provide new facilities for the local community. The levying of a development contribution would divert a portion of these public funds, which have been specifically provided to fund a school redevelopment, to local services without any direct nexus to the impact on those services.

The inherent public character of the proposed development contrasts with a strictly commercial development where a full levy might be considered reasonable. The nature of the development means that the infrastructure which Council typically seeks to levy for will in part be provided by the school for use by students, staff and the public, including the sports fields and recreational areas area which are available for community use as outlined above.

In addition, the school has served as a catalyst for the government to improve the surrounding infrastructure through separate planning pathways, including flood mitigation works and augmentation of the electricity network.

For the reasons outlined above, exemption from the payment of development contributions is considered appropriate for the development.

5.20 Site Suitability

The site is considered suitable for the proposed development as outlined below:

- It was the result of a site selection process where it emerged as the best site to deliver a new school in a rapid timeframe over other competing sites.
- It will allow for the development of a new, high-quality secondary educational use on the currently underutilised site.
- The site is co-located with the Wee Waa Public School which allows for educational collaboration in the centre of the township.
- Development for the purposes of a school is permissible in the site's R1 General Residential Zoning and the proposal is consistent with the objectives of the zone.
- The environmental impacts associated with the redevelopment can be appropriately mitigated as described throughout **Section 5.0**.
- The school site will be appropriately serviced by transport and civil infrastructure.

5.21 Public Interest and Economic Impacts

The proposed development is undoubtedly in the public interest as it:

- Will provide students who have been in temporary teaching facilities on an overcrowded site with a brand new, safe and fit-for-purpose school. The proposal will alleviate pressure from the existing Wee Waa Public School, which is currently housing both public school and high school students.
- Supports the educational, social and cultural development of the region.
- Will provide high-quality facilities and open space, including a new athletics track, sports field and ball courts to be used by the community.
- The proposal will contribute to intergenerational equity by meeting the education needs of Wee Waa and the region for generations to come.
- Will generate 150 construction jobs and support 61 teaching jobs.
- Will result in a development that improves the management of flood waters for the Wee Waa township.
- The proposal will result in the following positive economic benefits:
 - The creation of temporary jobs opportunities in manufacturing, construction, and construction management.
 - The creation of ongoing jobs in teaching and administration.
 - Provide high-quality educational facilities that will contribute to higher rates of education and training across the region, strengthening the local and regional economy.
 - Will bring students to Wee Waa from the broader region, as well as encouraging students and families to stay in Wee Waa, therefore strengthening the town's economy.
 - Places the school more centrally within the town, which has collocation benefits with the rest of the local economy.

6.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the New Wee Waa High School has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

In accordance with the SEARs, the ERA addresses the following significant risk issues:

- The adequacy of baseline data.
- The potential cumulative impacts arising from other developments in the vicinity of the Site.
- Measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Figure 51 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

- The receiving environment.
- The level of understanding of the type and extent of impacts.
- The likely community response to the environmental consequence of the project.

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- The complexity of mitigation measures.
- The known level of performance of the safeguards proposed.
- The opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 51 Risk Assessment Matrix

Risk Assessment						
Item	Phase	Potential Environmental Impact	Proposed Mitigation Measures and / or Comment	Significance of Impact	Manageability of Impact	Residual Impact
Key: C – Construction O – Operation						
Transport and Access	C / O	<ul style="list-style-type: none"> Increase in traffic on surrounding road network during construction activities Increase in traffic on surrounding road network during school operation 	<ul style="list-style-type: none"> Development to be carried out in accordance with the recommendations of the Preliminary Construction Traffic and Pedestrian Management Plan. Development to be carried out and operated in accordance with the recommendations of the Traffic Impact Assessment, including future Student Travel Plan. 	C = 3 O = 3	C = 2 O = 1	C = 5 (low/medium) O = 4 (low/medium)
Visual and Built Form	O	<ul style="list-style-type: none"> Visual impact of the development when viewed from the public domain 	<ul style="list-style-type: none"> Development to be undertaken in accordance with the Architectural Drawings and Landscape Plans 	O = 2	O = 1	O = 3 (low)
Noise and Vibration	C / O	<ul style="list-style-type: none"> Increase in noise and vibration levels during construction activities Increase in noise levels during the operation of the school 	<ul style="list-style-type: none"> Development to be carried out in accordance with the recommendations contained in the Acoustic Assessment. 	C = 3 O = 2	C = 3 O = 2	C = 6 (medium) O = 4 (low/medium)
Flooding	C / O	<ul style="list-style-type: none"> Flooding during construction activities Flooding during school operation 	<ul style="list-style-type: none"> Development be carried out in accordance with the recommendations of the Flood Impact Assessment. 	C = 3 O = 4	C = 4 O = 2	C = 7 (medium/high) O = 6 (medium)
Geotechnical and Structural	O	<ul style="list-style-type: none"> Health of students, staff and visitors due to poor design that does not respond to site soil and water characteristics 	<ul style="list-style-type: none"> Development will be carried out in accordance with the recommendations of the Flood Impact Assessment, Geotechnical and Structural reports. Structural design to include piles and raising the building off the ground. 	O = 3	O = 1	O = 4 (low/medium)
Air Quality	C	<ul style="list-style-type: none"> Potential for reduced air quality during construction 	<ul style="list-style-type: none"> Undertake construction activities in accordance with the recommendations of the Air Quality Assessment. A detailed Construction Environmental Management Plan will be developed once a contractor has been appointed. 	C = 2	C = 1	C = 3 (low)
Waste Generation	C / O	<ul style="list-style-type: none"> Generation and disposal of waste into landfill during construction Generation and disposal of waste into landfill during school operation 	<ul style="list-style-type: none"> Undertake construction activities in accordance with the recommendations of the Waste Management Plan. Encourage waste minimisation and recycling practises. 	C = 2 O = 1	C = 1 O = 2	C = 3 (low) O = 3 (low)

7.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 18** below. These measures have been derived from the previous assessment in **Section 5.0** and those detailed in appended consultants' reports.

Table 18 Mitigation Measures

Mitigation Measures
<p>Aboriginal Heritage</p> <ul style="list-style-type: none"> Should development consent for the proposal be gained, the proponent will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) which is to be agreed to by the Registered Aboriginal Parties and the Department of Education. The ACHMP will also include an unanticipated finds protocol, unanticipated skeletal remains protocol and protocols for the long-term management of any artefacts should they be discovered during construction and operation of the proposal All staff and contractors involved in the proposed work will be made aware of the legislative protection requirements for all Aboriginal sites and objects. The procedures to conserve Aboriginal cultural heritage values in the ACHMP will also be made clear to all personnel involved with ground disturbing activities.
<p>Air Quality</p> <ul style="list-style-type: none"> Prior to commencement of construction activities, develop appropriate communications to notify the potentially impacted residences of the project (duration, types of works, etc), relevant contact details for environmental complaints reporting. A complaints logbook will be maintained throughout the construction phase which should include any complaints related to dust; where a dust complaint is received, the response actions should be detailed in the logbook. Record any exceptional incidents that cause dust and/or air emissions, either on or off site, and the action taken to resolve the situation in the logbook. Carry out regular site inspections, record inspection results, and make the logbook available for review as requested. Erect shade cloth barriers to site fences around potentially dusty activities such as trench excavations and material stockpiles where practicable. Keep site fencing and barriers clean using wet methods. Impose a maximum-speed-limit of 20 km/h on all internal roads and work areas during construction. Ensure proper maintenance and tuning of all equipment engines. Deploy water carts to ensure that exposed areas and topsoils/subsoil are kept moist. Provide an adequate water supply on the construction site for effective dust/particulate matter suppression/mitigation. Modify working practices by limiting activity during periods of adverse weather (hot, dry and windy conditions) and when dust is seen leaving the site. Minimise drop heights from loading or handling equipment. Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. <p>With respect to managing track-out, the following measures are recommended:</p> <ul style="list-style-type: none"> Access gates to be located at least 10 m from receptors where possible. Use water-assisted dust sweeper(s), to remove, as necessary, any material tracked out of the site onto public roads. Avoid dry sweeping of large areas. Ensure vehicle loads entering and leaving sites are covered to prevent escape of materials during transport. Trips and trip distances should be controlled and reduced where possible, for example by coordinating delivery and removal of materials to avoid unnecessary trips. <p>Visual monitoring by construction personnel will represent an effective means of dust monitoring during construction. Visual monitoring should comprise of the following:</p> <ul style="list-style-type: none"> Undertaking daily on-site and off-site inspections, where receptors are nearby, to monitor dust. The inspection results should be recorded in a specific log. Inspection should include regular dust soiling checks of surfaces such as street furniture and cars. At the commencement of each day's activities, the local meteorological forecast should be reviewed, including the timing of notable increases in wind speed and/or temperature. Appropriate increased intensity or additional mitigation measures should be planned for the day based on this forecast review. The likely meteorological conditions and implications for dust emissions and impacts should be discussed at the morning toolbox meeting. Increasing the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. Should notable visual dust emissions be observed leaving the site boundary, increased intensity or additional mitigation measures should be deployed.
<p>Biodiversity</p>

Mitigation Measures

- No hollow bearing trees are expected to be cleared for the project, however hollow bearing trees occur within the subject land. A pre-clearance survey of trees across the subject land and identification/location of habitat trees (e.g. trees with nests or to identify trees with any new hollows) by a suitably qualified ecologist is required. Supervision by a qualified ecologist/licensed wildlife handler during tree removal in accordance with best practice methods. Prior to and during clearing work.
- Should any trees removed that have hollows/hollow trunks/fissures, they should be retained as ground fauna habitat and/or used as replacement hollows and attached to trees within the within the development site. If it is impractical to use salvaged hollows as replacement tree hollows, compensatory nest boxes should be installed where practical at a ratio of one nest box installed per hollow removed (if applicable). Prior to and during clearing work.
- Appropriate controls will be utilised and maintained to manage exposed soil surfaces and stockpiles to prevent sediment discharge into waterways. Soil and erosion measures such as sediment fencing, clean water diversion must be in place prior the commencement of the construction work to apply for the duration of construction works.
- Daily timing of construction activities is recommended in accordance with Table 1 of Interim Noise Guidelines (2009)
- Dust suppression measures will be implemented during construction works to limit dust on site.
- Vehicles, machinery and building refuse associated with the development construction should remain only within construction footprint areas, avoiding weed or pathogen related impacts to vegetation outside of the development site.
- Waste bins to be present on site. Covers to be used to prevent blown litter and the entry of pest animals or rain. Removal and appropriate disposal of general waste generated during the works.
- All staff working on the development will undertake an environmental induction as part of their site familiarisation. This induction will include items such as:
 - Site environmental procedures (vegetation management, sediment and erosion control, exclusion fencing and weeds).
 - What to do in case of environmental emergency (chemical spills, fire, injured fauna).
 - Key contacts in case of environmental emergency.
 - Unexpected finds protocols.
- The retained vegetation would be managed as part of the broader school grounds maintenance. Weeds should be managed and controlled within the adjacent vegetation to be retained.

Built Heritage and Archaeology

- Following determination of the development, a Heritage Management Plan is to be prepared to provide policies to manage unanticipated finds of historic heritage significance, should any be found during the construction of the proposal.

Noise and Vibration

Construction impacts:

- Engineering and practical noise controls, including distancing of machinery, enclosing mobile plant when being used for long periods of time, screening of construction site and silencing any mobile plant where possible. It is noted that a temporary sound barrier is recommended to be erected up to a height of 2.4 metres around the site.
- All equipment is to comply with the requirements of AS IEC 61672.1:2004 Electroacoustic – Sound Level Meters- Specifications. The noise emission levels for all critical items is to be checked by the site environmental officer for compliance with noise limits in the instance of a complaint.
- In the instance of a noise complaint, any attended noise measurements to be carried out are to be in accordance with the procedures outlined in the Australian Standard AS1055 Acoustic – Description and measurement of environmental noise.
- All construction shall take place within the hours proposed in Section 3.16, to provide periods of respite from construction noise.
- Measures will be implemented to reduce noise from plant and equipment, including the use of alternatives to diesel and petrol engines and comparison of machinery.
- Appropriate work practices will be implemented, including ensuring all workers and contractors are trained in work practices to minimise noise emissions.
- Appropriate construction management measures will be implemented as per a detailed construction management plan to manage the use and direction of vehicles entering and exiting the site and surrounding streets.
- A Community Liaison Officer will be appointed by the contractor to provide a point of contact for surrounding residents. This person will receive and manage noise complaints and implement a Construction Complaints Management System.
- Compliance monitoring of ground borne vibration is to be carried out at the nearest residence when vibratory machinery is likely to be used on site.
- Installation of unattended vibration monitors shall be installed at each residential location where an exceedance of the Peak Particle Velocity vibration criteria is exceeded. These monitors will have the capability to trigger an alert to the site manager or similar aware of the vibration impact.

Operational impacts:

- Mechanical Plant: A detailed assessment will be carried out once the plant selection is nearing completion to ensure the acceptable noise criteria is able to be met.

Mitigation Measures

- Noise emissions from internal road to adjacent residential dwelling: An exceedance of the noise criteria at the residential dwelling at 41 George Street may be considered acceptable without additional mitigation if an agreement can be made with the affected residential neighbour. Written confirmation of the agreement will be required.
- PA Speaker System: Speakers are to face inwards towards the school, generally in a downwards direction ground no closer than 40m from the nearby residences.
- Waste Collection and Grounds Maintenance: Waste collection and maintenance is to be restricted to daytime hours of between 7:00am and 6:00pm Monday to Friday.
- School Hall Materiality: Materials used for external walls, ceiling and roof systems and glazing and glazed doors are to be chosen to restrict noise emissions where possible.

Construction Impacts

- Prepare and implement a detailed Construction Environmental Management Plan as detailed in the Preliminary Construction Management Plan.

Contamination

- It is recommended that access to the contaminated area be restricted and that procedures be put in place to prevent the dispersion of contaminated soil to other areas of the site.
- Based on the findings of the further site investigation it is concluded that the site is suitable for the proposed development, as there are no contaminants present at the site which are likely to present an immediate risk of impact to the health of humans or the environment from the proposed activities.
- Development of the Investigation Area as part of a playing field is subject to the removal of fibre cement fragments from the surface of the site.
- The Remediation Action Plan (RAP) is to be implemented in the removal of the fibre cement fragments from the surface of the site.
- Once remediation is complete, a Long-term Environmental Management Plan (LEMP) will be developed to provide recommendations for the long-term management of the containment, if required.
- A Construction Environmental Management Plan is recommended to be prepared prior to any earth works being commenced. The purpose of the CEMP is for the management of contaminated soil as well as for the management of any excavated soils (which could include contaminated soils) and should include procedures for the classification of the soils as well as for the implementation of sediment and erosion controls for stockpiling of excavated soils.

Flooding

- It is recommended that a "Construction Soil and Water Management Plan" (or similar) be developed as part of a Construction Environmental Management Plan for the proposal. The former document would set out the measures that are to be implemented to manage erosion and sediment, as well as stormwater runoff during the construction of the proposal, while the latter would identify the existing flood risk on the proposal site and include measures that are aimed at mitigating the impact that flooding would otherwise have on site personnel, equipment and work areas.
- While flooding of the proposal site is generally of a low hazard nature, it will be important to locate site sheds in areas that lie above an elevation of RL 191.0 m AHD. Access off George Street will also be raised in order to prevent the frequent and potentially prolonged inundation of the access road into the proposal site. As this will require the filling of a portion of the proposal site, it is recommended that construction activities commence in its north-eastern corner, as this corresponds with the location of the proposed main vehicular entrance.
- If not already incorporated in the construction of the FMW, it is recommended that temporary earth bunding be provided along the northern and eastern sides of the High Flow Conveyance / Flood Storage Area, as well as along the eastern side of the proposed fill platform upon which the school buildings would be constructed, as this will reduce the frequency floodwater impacts to the remainder of the proposal site, and hence reduce the impact that flooding has on construction activities.
- Spoil stockpiles will be located in areas which are not subject to frequent inundation by floodwater, ideally outside the 5% AEP flood extent. The exact level of flood risk accepted at stockpile sites will depend on the duration of stockpiling operations and the type of material stored.
- Minimum habitable floor levels to be set no lower than RL 191.5 metres AHD, noting that this would provide 0.5 metres freeboard to the peak 1% AEP local catchment flood level.
- The underside of Pedestrian Footbridge No. 1 and Pedestrian Footbridge No. 2 to be set no lower than RL 191.0 metres AHD (i.e. no lower than the peak 1% AEP local catchment flood level).
- The northern abutments of Pedestrian Footbridge No. 1 and Pedestrian Footbridge No. 2 are to be set no further south than 4 metres off the southern face of the proposed buildings, while the southern abutments are to be set as close as practical to the road reserve boundary
- Flood emergency management measures for construction and operation of the proposal will be incorporated into relevant environmental and/or safety management documentation
- Materials and heavy machinery should not be stored on George Street where it borders the proposal site as during very intense storm events there is the potential for floodwater to surcharge the road, with any obstruction of this flow potentially exacerbating flooding conditions in existing residential development that is located on its eastern (upstream) side.

Mitigation Measures

Transport and Accessibility

- Further development of the Green Travel Plan, Operational Traffic and Access Management Plan, and Construction Traffic and Pedestrian Management Plan (or inclusion in the School Transport Plan subject to the relevant conditions of consent)
- Construction of the required pedestrian footpaths to access the school including detailed public domain design, in accordance with the submitted Architectural Drawings as required for the school in this SSD Application.
- Construction of required road widening to accommodate the kiss and drop and the bus bay within the road reserve including detailed design, in accordance with the submitted Architectural Drawings as required for the school in this SSD Application.
- Future monitoring of the kerb blistering is to be undertaken to determine whether warrants have been met for construction of a marked pedestrian crossing between the public school and the new high school across Mitchell Street once the new high school is in operation.

Tree Removal

- Engage a Project Arborist to oversee the site prior to site activity and for the duration of the works.
- The trees retained require tree protection fencing, to be installed at the TPZ measurement given in the Tree Survey Table prior to any construction activity. All fencing must comply with AS 4970 2009 (Protection of Tree on Development Sites) and AS 4687 (Temporary fencing and hoarding). Displayed on each assembly a sign with the wording "TREE PROTECTION ZONE NO ACCESS" and a contact number of the Project Arborist. The fencing must remain in place and maintained for the duration of the proposed works.
- Remove only the trees specified in the Tree Survey Table that will be impacted by the development footpad.
- A suitable qualified licenced AQF 3 Arborist contractor must be engaged to complete the works and all pruning work to the Australia Standards AS 4373 2007 Pruning of Amenity Trees. Also see Safe work NSW engaging a contractor.
- All tree waste can be mulched and stockpiled on site as per Environment Protection Authority (EPA) Raw Mulch Order 2016. The generated mulch is to be used on site.
- Excavations or entry within the tree protection must be undertaken with the AQF 5 Consulting Arborist on site and or consult with the AQF 5 Arborist prior to any attempt to enter the enclosed TPZ's.
- The development approval must include a tree planting programme to replace the trees of the same species that are being removed being removed to maintain the biodiversity of the site. (This excludes Tree 39C which is an invasive species).
- Habitat trees that are identified on site require an ecologist to verify activity and species of animal so relocation or intervention can be appropriate.

Waste

Construction impacts:

- Waste planning controls, including:
 - Designing buildings to minimise on site cutting of components and maximising on site assembly tasks, as per the DFMA model.
 - Careful ordering of materials such as sand and building products to match quantities with amounts required, and on time ordering rather than having materials stored on site for months before being used.
 - Segregating materials and providing weather protection for stored materials to maximise their fitness for use
 - Bringing in material such as sand in large bags rather than as bulk loads, to enable excess materials to be easily picked up and used at other sites.
 - Encouraging bulk handling and use of reusable and returnable containers.
 - At the time of tendering, advise contractors and sub-contractors and suppliers of the requirements to minimise waste on site.
 - Include provision in the tender documentation for the client to monitor the use of waste and recycling bins on site.
 - Development of a Construction Waste Management Plan by the main site contractor, which includes details of the above elements.
- On site controls, including:
 - Implementation by the main site contractor of a Construction Waste Management Plan.
 - Segregating wastes generated on site, using different skip bins for recycling and waste, with separate bins for different recyclable materials.
 - Discussion about the site's waste management and recycling policies and practices with employees and subcontractors during site inductions and toolbox talks.
 - Ensuring all waste disposal bins are clearly marked
 - Keeping records of quantities of waste and recycled materials disposed of, and the destinations of these materials
 - Ensuring that wastes are only disposed to licensed facilities.

Sediment and Erosion Control

- Prior to construction start:
 - Erect site signage and construct entry and exit points as indicated on plans.

Mitigation Measures

- Construct vehicle washdown area and associated silt management devices.
- Construct site office and storage compound area.
- Erect silt fence at low points of the site as demonstrated on the plans.
- Erect temporary 3 strand wire fence around existing trees to be retained.
- Construct rock check dams and silt fences downstream of basin.
- Clearing and bulk earthworks
 - Silt fence, sandbags, and earth rills to be erected as indicated or required during clearing.
 - Superintendent to confirm extent of stripping to contractor prior to commencement of works each day, based on predicted rainfalls.
 - Silt fences and earth rills within roads to be erected as indicated or required during earthworks.
- Construction – stockpiling
 - Temporary silt fence to be erected 3m from toe of batter on low side of stockpiling.
 - Stockpile site to be clear of adjacent property boundaries so as not to cause a nuisance to adjoining properties.
- Maintenance (pre to post construction)
 - The silt fences are to be inspected weekly.
 - Any repairs required are to be affected immediately.
 - Silt after rain is to be cleaned from streets and allotments immediately and corrective action taken to avoid a re-occurrence of the failure.

Social Impacts

- A detailed Construction Management Plan will be prepared by the contractor to manage and mitigate where possible the impacts associated with the construction of the development.
 - The proposed development is to be designed and constructed utilizing the MMoC process, in order to reduce construction duration and impacts.
-

8.0 Conclusion and Justification

The Environmental Impact Statement (EIS) has been prepared to consider the environmental, social, and economic impacts of the proposed New Wee Waa High School. The EIS has addressed the issues outlined in the SEARs (**Appendix B**) and accords with Schedule 2 of the EP&A Regulation with regards to consideration of relevant environmental planning instruments, built form, social and environmental impacts including traffic, heritage, and construction impacts.

Students and staff were evacuated from the current Wee Waa High School site due to ongoing health issues in late 2020. Students have been attending school in temporary buildings that are co-located within the town's primary school on an overcrowded site. Provision of this new school is considered an urgent priority for the community.

Having regard to biophysical, economic, and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the development will not generate any environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.
- The development will provide a significant new piece of social and educational infrastructure, providing a new school with permanent teaching spaces to accommodate up to 200 students (with future growth capacity to accommodate 300 students, subject to funding and service need). The new school is an urgent need for the community and will support and strengthen the availability of educational facilities in the region.
- The proposal is consistent with the principles of ecologically sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000.
- The proposal has a high need to be delivered urgently and is undoubtedly in the public interest.
- The area and shape of the site allows for the provision of new teaching and educational facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on surrounding uses.
- The proposal will alleviate pressure from the existing Wee Waa Public School and provide a surplus of open space that can be used by the high school and public school populations as well as the wider community.
- The proposed development is anticipated to create an addition 11 full-time equivalent positions at the school. This is anticipated to have additional social benefits for the region in terms of providing additional employment. The development will also create 150 direct and indirect jobs during construction.
- Transport and access impacts associated with the proposed development can be appropriately managed and active transport will be promoted and encouraged.

The proposal has significant social benefit and will contribute positively to the township and broader region. Given the merits described above it is requested that the application be approved.