View east showing the 1870 Wallerawang Rail Bridge over Coxs River.

HISTORIC HERITAGE ASSESSMENT AND STATEMENT OF HERITAGE IMPACT REPORT

MOUNT PIPER TO WALLERAWANG TRANSMISSION LINE UPGRADE PROJECT

LITHGOW LOCAL GOVERNMENT AREA

AUGUST 2025

Report prepared by

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OzArk acknowledge the Wiradjuri people, the traditional custodians of the area on which this assessment took place and pay respect to their beliefs, cultural heritage, and continuing connection with the land. We also acknowledge and pay respect to the post-contact experiences of Aboriginal people with attachment to the area and to the Elders, past and present, as the next generation of role models and vessels for memories, traditions, culture and hopes of local Aboriginal people.

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ABBREVIATIONS AND GLOSSARY

CEMP	Construction Environmental Management Plan
CRN	Country Regional Network. A section of the NSW rail network now managed by UGL Regional Linx, including the Section 170 Register of heritage items.
CSSI	Critical State Significant Infrastructure
DCCEEW (Cth)	Commonwealth Department of Climate Change, Energy, the Environment and Water. Department responsible for administering the EPBC Act.
DCCEEW (NSW)	NSW Department of Climate Change, Energy, the Environment and Water. DCCEEW contains the Environment and Heritage Group which, in turn, contains Heritage NSW and AHIMS.
DPHI	NSW Department of Planning, Housing and Infrastructure. DPHI contains the Planning agency.
EIS	Environmental Impact Statement. A required document for major projects documenting all potential impacts to the environment, including heritage, that may arise due to the development.
Heritage Act	*Heritage Act 1977*. Primary legislation governing historic cultural heritage within NSW.
Heritage NSW	Government department tasked with ensuring compliance with the NPW Act.
Heritage Council	Government body established under the Heritage Act that advises the Minister for Environment and Heritage on heritage matters in NSW and makes recommendations for the listing of items on the State Heritage Register.
HHAR	Historic Heritage Assessment Report
HHMP	Historic Heritage Management Plan
LEP	*Local Environmental Plan*. Outlines development controls with an LGA.
LGA	Local Government Area
PAD	Potential archaeological deposit. Indicates that a particular location has potential to contain subsurface archaeological deposits, although no Aboriginal objects are visible.
Project footprint	Area that is to be directly affected by the construction and operation of the project.
SCA	State Conservation Area. Sections of the project footprint are within the Gardens of Stone SCA.

SEARs	Secretary's Environmental Assessment Requirements issued by DPHI.
SHI	State Heritage Inventory. Includes locally significant items either listed in LEPs or on state agency Heritage and Conservation Registers. Also includes the SHR.
SHR	State Heritage Register. Heritage list maintained by Heritage NSW that lists all state significant places. Is part of the SHI.
Study area	Areas used for this assessment which consists of a 400 m buffer of the project footprint.

EXECUTIVE SUMMARY

OzArk Environment & Heritage (OzArk) has been engaged by GHD on behalf of Transgrid (the proponent) to complete a *Historic Heritage Assessment and Statement of Heritage Impact Report* (the report) for the proposed Mount Piper to Wallerawang Transmission Line Upgrade Project (the project). The project is in the City of Lithgow Local Government Area.

Transgrid proposes to upgrade the transmission line network between the Mount Piper and Wallerawang 330 kV substations. The project is required to provide increased transmission capacity between renewable energy generators in the Central-West Orana Renewable Energy Zone and the Greater Sydney region. The project will include a new 330 kilovolt (kV) transmission line and double circuit transmission structures, and incorporate sections of the existing, single circuit 132kV transmission line (known as Line 94E), where the two transmission lines will share a widened easement and transmission structures.

The project has been classified as Critical State Significant Infrastructure (CSSI) and this report has been prepared for inclusion in the *Environmental Impact Statement* (EIS). This report has been undertaken to meet the Secretary's Environmental Assessment Requirements (SEARs).

There are three historic heritage items within or in close proximity to the project footprint. These include Wallerawang Rail Bridges over Cox's River (SHR #01064), St. John the Evangelist Church (SHR #01702), and Old Wallerawang School House (LEP #I113). There are a further nine heritage items within 400 m of the project footprint that are considered in this assessment.

This assessment has identified that the project will have an inconsequential impact on the heritage items within or adjacent to the project footprint. No previously unrecorded items with heritage values were identified during the assessment of the project footprint.

At the Wallerawang Rail Bridges over Cox's River (SHR #01064), an existing access track within the curtilage of the item will continue to be used by light vehicles without any impact to the heritage fabric or values of the bridges. The addition of transmission structures adjacent to the item in the existing industrial landscape will not further harm the heritage values of this item.

The St John the Evangelist Church (SHR #01702) heritage curtilage is 29 m from the edge of the project footprint. While the curtilage extends closer to the edge of the project footprint, the church itself is 50 m from the project footprint and outside of the vibration minimum working distance for the heritage building. As recommended in Technical Report 10 - Noise and Vibration Assessment, the Noise and Vibration Management Plan would recognise the church as a sensitive receptor (heritage building) and outline procedures for vibratory works to ensure the identified minimum working distances are achieved.

Proposed works within the heritage curtilage for the Old Wallerawang School House (former National School) (LEP #I113) will not adversely affect the integrity of the heritage item. The

heritage item is securely fenced, and the project footprint is separated from the school house by a screen of trees on both banks of Coxs River and by approximately 140 m of grassed paddock. The north-eastern portion of heritage curtilage of item LEP #I113 is within the project footprint, however, the potential for this area to contain archaeological deposits associated with the Old Wallerawang School House is low. It is therefore concluded that the works will have an inconsequential impact on the heritage values of the Old Wallerawang School House.

The project footprint is approximately 10 km south-west of the World Heritage Listed Greater Blue Mountains Area (Place ID 105127). The construction and operation of the project is highly unlikely to harm the identified natural and cultural values associated with this listing due to its distance from the project footprint.

This report has not identified significant historical archaeological deposits within the project footprint. However, an archaeological stop works procedure will be prepared and included as part of a Historic Heritage Management Plan in the unlikely event that historical archaeological relics of potential significance are identified during works. The procedure would detail what to look for and who to contact in the event that an unexpected find is encountered.

Recommendations and actions concerning the historic values within the project footprint are as follows.

1. All the proposed works will remain within the project footprint as shown on **Figure 1-2**. In the event that the project design changes, additional assessment may be required.
2. A Historic Heritage Management Plan (HHMP) will be prepared in consultation with Council and Heritage NSW, as required. The HHMP will include:
    - an unanticipated finds protocol and heritage induction/ toolbox requirements (refer to Appendix 1 for an example)
    - the location and curtilage extents of Wallerawang Rail Bridges, St. John the Evangelist Church and the Old Wallerawang School House on mapping. This includes details of the exclusion zone over a portion of the Old Wallerawang School House (LEP #I113) curtilage to the south-west of the project footprint.
    - requirements for inductions and toolbox talks to include a summary of the significance of heritage items, legislative responsibilities and appropriate mitigation measures.
3. Use of the existing access track within the heritage curtilage for Wallerawang rail bridges over Coxs River (SHR #01064) will be limited to light vehicles to avoid impact on the bridge underside. Signage will be erected and maintained during construction advising of the height limitations. No upgrades to this track are to occur within the curtilage area of the item.

1 INTRODUCTION

OzArk Environment & Heritage (OzArk) has been engaged by GHD on behalf of Transgrid (the proponent) to complete a *Historic Heritage Assessment and Statement of Historic Impact Report* (the report) for the proposed Mount Piper to Wallerawang Transmission Line Upgrade Project (the project). The project has been classified as Critical State Significant Infrastructure (CSSI) and this report has been prepared for inclusion in the *Environmental Impact Statement* (EIS), to be submitted by the proponent.

1.1 BACKGROUND

The Australian and NSW governments have both established targets to achieve net-zero emissions by 2050. Achieving these targets requires low emissions technologies to be deployed at scale across all sectors of the economy, including the electricity generation sector, currently Australia's largest source of greenhouse gas emissions.

The NSW Transmission Infrastructure Strategy (DPE 2018) aims to engage the private sector to invest in priority energy infrastructure projects, which can deliver low-cost, clean and reliable energy to consumers

As part of the Transmission Infrastructure Strategy, the NSW Government has developed a plan to establish five Renewable Energy Zones (REZs) to increase renewable energy generation, reduce carbon emissions, and help deliver lower wholesale electricity costs to consumers. The Central-West Orana REZ (CWO REZ), being the first REZ established, is planned to generate at least 4.5 gigawatt by the late-2020s.

The NSW Government's Electricity Infrastructure Roadmap (DPIE 2020) identifies that the expansion of renewable generation must be accompanied by increased transmission capacity to transfer power from REZs in inland NSW to key demand centres. Interest in new energy generation projects in the CWO REZ is forecasted to exceed the existing transmission network capacity in several locations. The existing infrastructure located between the Mount Piper 550/330 kilovolt (kV) substation (Mount Piper 330 kV substation) and the Wallerawang 330/132 kV substation (Wallerawang 330 kV substation) has been identified in the NSW Network Infrastructure Strategy (EnergyCo 2023) as requiring upgrades. The Mount Piper to Wallerawang Transmission Line Upgrade Project (the project) would provide the additional capacity required to reliably transmit power from the CWO REZ to the Greater Sydney region.

1.2 LOCATION

The project is located within the Central West region of NSW within the Lithgow City Local Government Area (LGA). It is located approximately 14 kilometres (km) north-west of Lithgow situated on the western fringes of the Blue Mountains (**Figure 1-1**).

The area that is to be directly affected by the construction and operation of the project, is referred to as the project footprint and is shown in **Figure 1-1**. The project footprint is approximately 86.5 hectares in size and is generally bounded by the following:

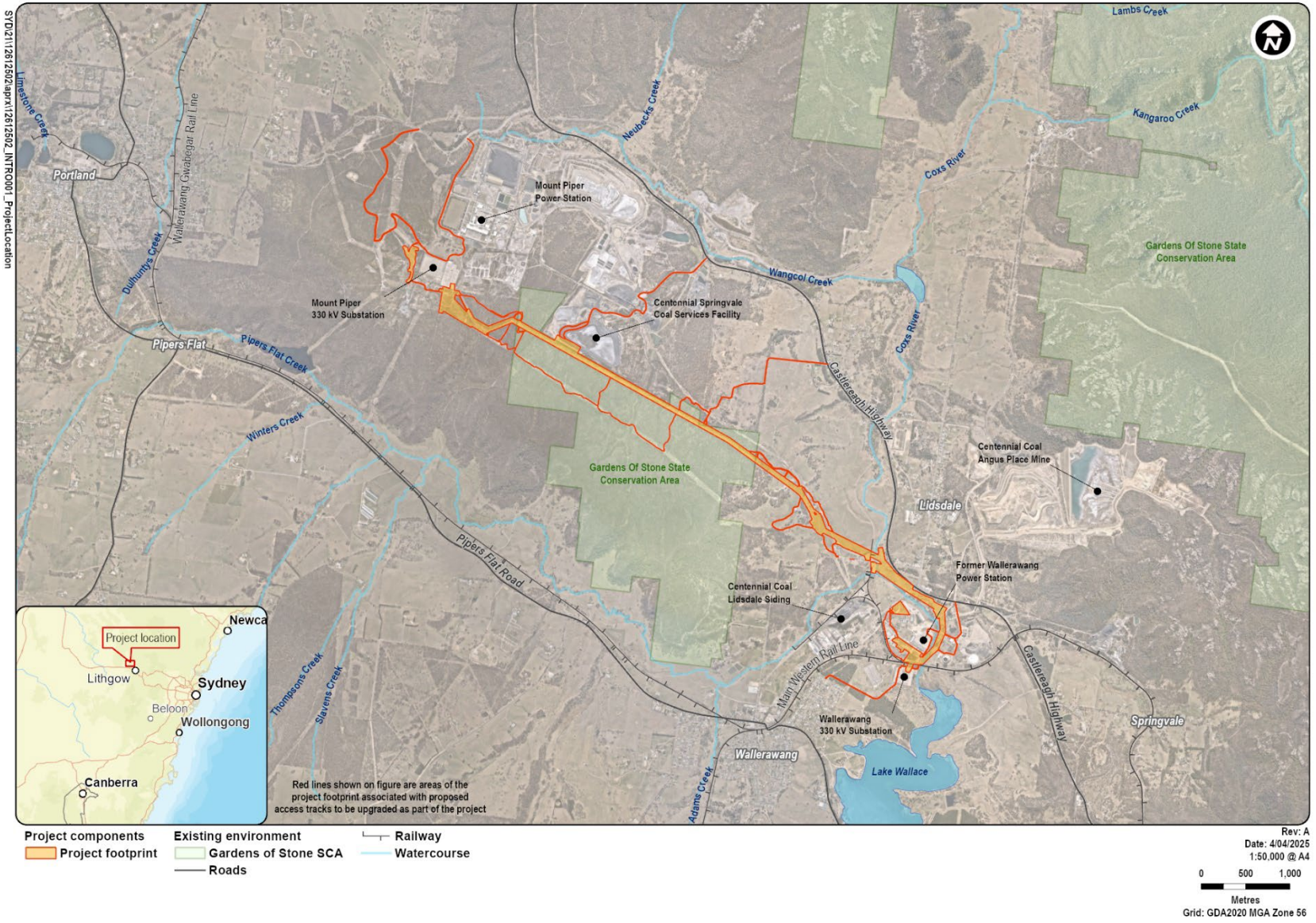
- Castlereagh Highway to the north
- Former Wallerawang Power Station site to the east
- Gardens of Stone State Conservation Area (SCA) to the south
- Mount Piper Power Station to the north-west.

Land uses within and adjacent to the project footprint include:

- Electricity generation at Mount Piper Power Station
- Electricity transmission, including the Mount Piper and Wallerawang 330 kV substations, and associated transmission lines
- Mining activities, with several Centennial Coal operations including the former Ivanhoe Coal Mine and Springvale Coal Services overlapping the project footprint
- Agriculture, primarily livestock grazing
- Conservation, notably the Gardens of Stone SCA
- State and local road reserves including the Castlereagh Highway, Boulder Road and Brays Lane
- Rail corridors including the Main Western Rail Line and a disused railway line near Brays Lane.

A mixture of land uses is proposed at the former Wallerawang Power Station site. This may include commercial and industrial land use. Development of a Battery Energy Storage System is also proposed by others at the site.

Figure 1-1: Project location and regional context.

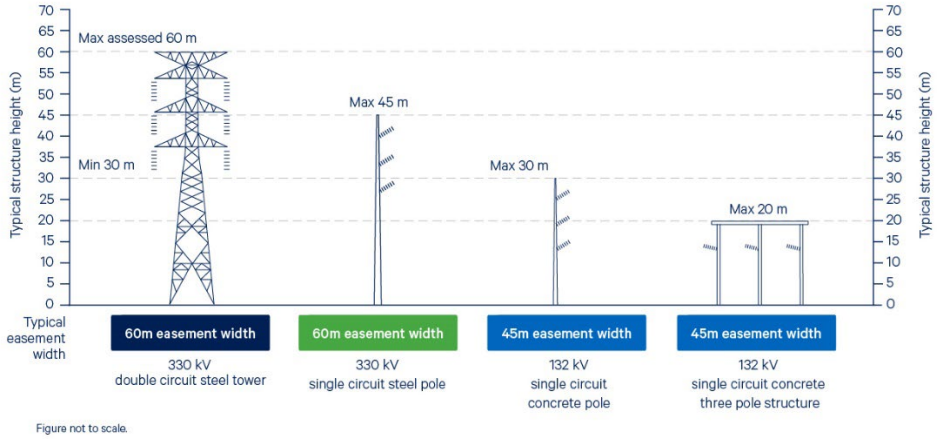


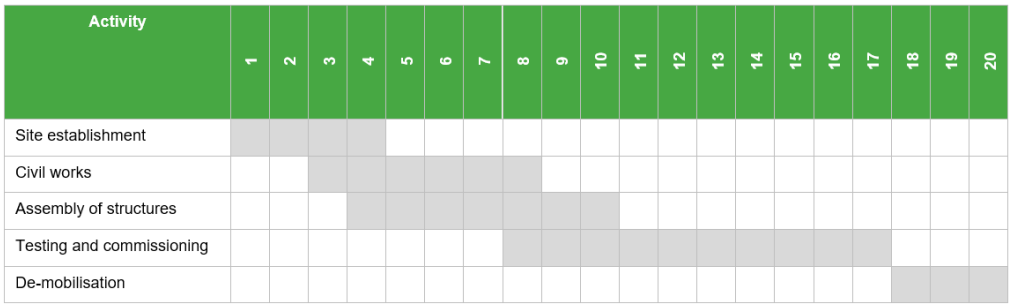
1.3 THE PROJECT

The project would involve construction and operation of approximately 8 km of new 330 kV transmission line between the Mount Piper and Wallerawang 330 kV substations as shown in **Figure 1-2**. The project would also include the replacement of transmission structures, partial adjustment of existing transmission lines, permanent and temporary access tracks, construction compounds and laydown areas.

Table 1-1 outlines the key features of the project. The description of the project in **Table 1-1** is based on the current concept design. Further detail is provided in Chapter 3 of the Environmental Impact Statement (EIS). The project will continue to be refined as part of detailed design.

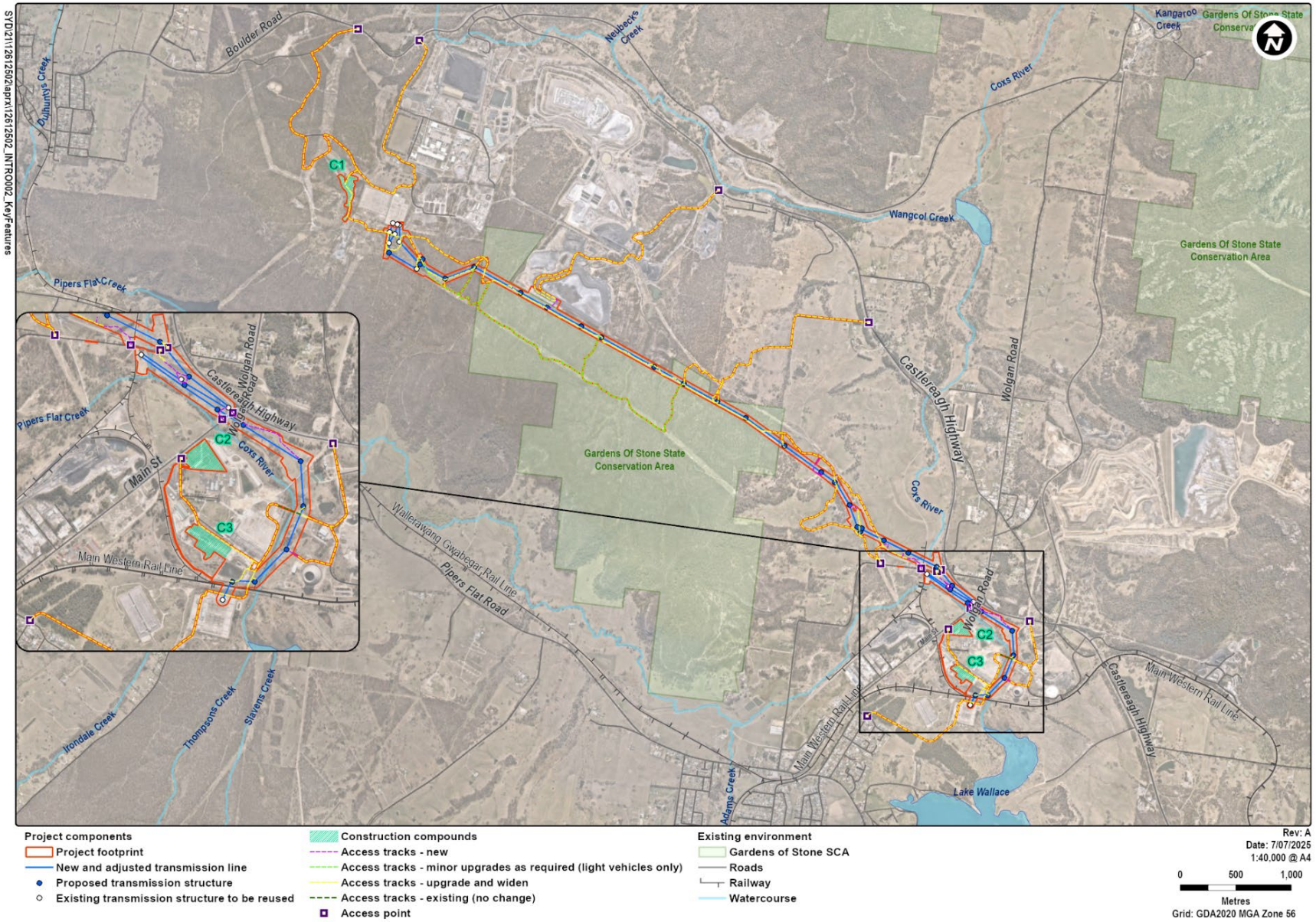
Table 1-1: The project.

Aspect	Description
	Design
Transmission line and easement	• Approximately 8 km of new 330 kV transmission line between the existing Mount Piper 330 kV and Wallerawang 330 kV substations that would include (from west to east): • widening of approximately 0.5 km of existing easements in the vicinity of the Mount Piper 330 kV substation by up to 40 m to accommodate the new 330 kV transmission line and adjustments to existing 132 kV and 330 kV transmission lines • widening of the existing 132 kV easement from 45 m to 60 m for 4.8 km to accommodate double circuit transmission structures for the existing 132 kV transmission line and the new 330 kV transmission line • installation of two 132 kV pole structures where the existing 132 kV transmission line is restrung onto the new double circuit transmission structures • construction of 1.2 km of new 330 kV transmission line from the existing 132 kV transmission line south-east to the intersection of Main Street and the Castlereagh Highway on a 60 m easement • construction of 1.5 km of new 330 kV transmission line on a 40 m easement running parallel to existing 330 kV transmission lines for approximately 1.1 km and then diverging and widening to 60 m for the remaining 0.4 km to the Wallerawang 330 kV substation. • The standard easement widths for 132 kV and 330 kV transmission lines are 45 m and 60 m respectively. However, easements may vary in width where multiple transmission lines converge/ diverge or where they overlap with an existing easement.
Transmission structures	Transmission structures for the project include approximately 28 new steel lattice towers and four steel and/or concrete pole structures. Transmission structures would range in height from approximately 14 to up to 60 m, however these heights would be subject to detailed design. The image below presents an indicative illustration of the types of structures proposed for the project and their maximum heights.  • The steel transmission structures would generally be spaced between 100 m to 550 m apart and the pole structures about 30 m to 50 m apart. • New conductors, earth wires and optical ground wire (OPGW) would be installed on the new transmission structures for the new 330 kV and existing 132 kV lines.

<table>
<tr><th>Aspect</th><th>Description</th></tr>
<tr><td></td><td>• Local adjustment of existing transmission structures would be required in the vicinity of the Mount Piper 330 kV substation to minimise crossover of transmission lines.
• Redundant transmission structures, including the gantry immediately north of the Main Western Rail Line, would be removed and recycled, where possible.</td></tr>
<tr><td colspan="2">Construction</td></tr>
<tr><td>Program</td><td>• Construction of the project would commence once all necessary approvals are obtained. It is anticipated that construction would commence in late 2026.
• Construction would be undertaken in stages over a period of approximately 20 months. The key activities and their indicative durations shown in the below table.
 
</td></tr>
<tr><td>Construction methodology</td><td>Construction of the project would include:
• site establishment including vegetation removal, construction compound establishment, access track construction and upgrade
• removal of existing transmission structures where required
• civil works involving earthworks and establishment of construction benches for each transmission structure, and establishment of brake and winch sites
• construction of footings and foundation work for the new transmission structures
• assembly and erection of new transmission structures
• stringing of conductors.</td></tr>
<tr><td>Construction hours</td><td>The proposed construction working hours for the project are 7 am to 7 pm Monday to Sunday.
Out-of-hours construction work will likely be required between 7 pm to 7 am Monday to Sunday and public holidays, to align with scheduled outages.
Justification for the out-of-hours works includes:
• proximity to live transmission lines requiring the work to be completed under a scheduled outage for network and personnel and contractor safety
• the need to complete works within a limited time window to meet a timeframe to re-energise the transmission line to avoid disruption to customers
• minimising disruptions to the use of the Main Western Rail Line during stringing.</td></tr>
<tr><td>Construction workforce</td><td>Expected to peak at about 150 personnel and contractor, with an average workforce of about 60 personnel and contractor.</td></tr>
<tr><td>Construction compounds and laydown areas</td><td>A total of three construction compounds would support the construction of the project. One would be located at the western end of the project near the Mount Piper 330 kV substation and two located at the eastern end of the project within the former Wallerawang Power Station site. The locations of these compounds are shown in Figure 1-2.
Laydown of materials (e.g. poles, cable drums, other large equipment, etc.) would also occur at specified locations along the easement within the project footprint, particularly at transmission structure locations.</td></tr>
<tr><td>Access</td><td>To facilitate efficient construction access, the following is required:
• upgrading and widening of approximately 25 km of existing access tracks to at least 6 m, with some sections widened up to 10 m due to local topography
• construction of approximately 2 km of new 6 m wide access tracks.
• In addition to those tracks, approximately 4 km of existing track would be used only by light vehicles. The light vehicle tracks may require minor repairs (for example, filling potholes), but would not be graded or widened.
The project footprint would be accessed from public roads at 13 access points, with the majority of these being existing property access points.
Existing access tracks would be used in preference to new tracks whe0 rever possible. Access track upgrades and widening would include required drainage.
Access points and access tracks established for the construction of the project that are not required for future operation and maintenance activities would be returned to pre-project conditions, subject to agreement with landowners.</td></tr>
</table>

Aspect	Description
Utility adjustments and infrastructure crossings	The new transmission line would need to cross the following utilities and infrastructure: • water pipeline operated by WaterNSW • distribution lines operated by Endeavour Energy • rail signal power supply • council drainage and other assets • public roads at Brays Lane and Main Street • rail lines at the Main Western Rail Line and the disused rail line travelling north of Brays Lane. It is not currently anticipated that the project would require the adjustment of any nearby utilities. Further investigations and consultation with asset owners would be undertaken during detailed design.
Vegetation clearing	The project would require the clearance of vegetation for a number of activities including but not limited to building new access tracks and widening existing ones, establishment of construction compounds, laydown areas, and brake and winch sites, construction of the transmission structures, and establishing and maintaining the vegetation clearance requirement for the transmission lines. Vegetation clearing would be undertaken either with the use of machinery or manually, where it is unsafe to operate machinery, or when access is limited. Root balls would be retained where possible. Clearing methods would be determined with consideration to vegetation type or structure, slope and terrain, and environmental and ecological constraints. Removed vegetation, which is weed free, would be mulched for beneficial reuse, where appropriate. Areas cleared for construction, that are not needed for operation of the project, would be rehabilitated to a stable and weed free condition.
Testing and commissioning	Testing and structure checks would form part of the final construction and installation work. These activities would ensure the project has been installed in accordance with the design and statutory standards and is safe to proceed to commissioning which would include, but not be limited to: • transmission line cut-in and connection to the electrical network • protection, control and metering checks • high voltage equipment operation and energisation • post commissioning testing and verification.
Demobilisation and rehabilitation	Upon completion of the construction works, all construction equipment, temporary fencing and waste would be removed. All disturbed areas would be rehabilitated to a stable, weed-free condition, unless designated as a permanent access track. This would include spreading topsoil, cleared and stockpiled at the beginning of construction, across the disturbed area to stabilise it to a state where natural regrowth can occur.
Operation	
Design life	About 50 years.
Maintenance	All project infrastructure would require regular maintenance to maintain serviceability and maximise its operational life. Maintenance activities would include: • transmission structure monitoring • annual aerial inspection • routine vegetation management on the easement and in the hazard tree zone • access tracks would be maintained in a trafficable condition. Should any irregularities be identified following routine inspections, a work crew would be dispatched from existing Transgrid maintenance depots to rectify any defects found. Periodic inspection and maintenance work would be managed by Transgrid as part of existing operations, with no additional personnel requirements.

Figure 1-2: Key features of the project



1.3.1 Project footprint

The project footprint is generally undulating, with an elevation difference of up to 150 m between the highest and lowest points. Land within the immediate vicinity of the proposed transmission line is mostly cleared and part of existing transmission line easements.

The project footprint traverses a portion of the Gardens of Stone SCA. The SCA includes areas of undisturbed and disturbed vegetation and existing infrastructure such as existing transmission lines and access tracks. The project footprint is approximately 86.5 ha in area, comprising the new and widened easements along with access tracks that will require upgrade works.

The Coxs River flows from the north-east into the project footprint, passing directly adjacent to the former Wallerawang Power Station and the Wallerawang 330 kV substation before flowing into Lake Wallace south of the project footprint. The project footprint is intersected by Lamberts Creek and unnamed tributaries in the north-west.

1.4 ENVIRONMENTAL ASSESSMENT REQUIREMENTS

This historic heritage assessment has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) which were issued on 22 May 2025. **Table 1-2** outlines the requirements relevant to this assessment.

Table 1-2: Relevant Secretary's Environmental Assessment Requirements – historic heritage.

Requirement	Where addressed in this report
Assess the impact to historic heritage having regard to the *Assessing heritage significance* guidelines. (DCCEEW 2025).	The report adheres to the principles of the DCCEEW 2025 guidelines. It is noted that the report structure follows the *Guidelines for preparing a statement of heritage impact* (DPE 2023) in accordance with the earlier versions of the SEARs for the project. The principles of significance assessment and impact assessment are consistent between the DPE 2023 and DEECCW 2025 documents and are addressed in this report. The impact assessment presented in **Section 4** includes the specific questions posed in the DPE 2023 guidelines

1.5 PURPOSE AND STRUCTURE OF THIS REPORT

This report has been prepared by OzArk as part of the Environmental Impact Statement (EIS) for the project. The report structure follows the *Guidelines for preparing a statement of heritage impact* (DPE 2023) and the *Assessing heritage significance* (DEECCW 2025) guidelines with the addition of detailed project information (Section 1) and the introduction to the heritage assessment process (Section 2).

The purpose of this report is to assess potential historic heritage issues from the construction and operation of the project, and where required, identify feasible and reasonable mitigation and management measures.

The report is structured as follows:

- Section 1 – introduces the project and the assessment
- Section 2 – describes the methodology for the assessment
- Section 3 – describes the existing conditions
- Section 4 – assesses the impacts of the construction and operation of the project
- Section 5 – provides mitigation measures for the impacts identified
- Section 6 – conclusion and recommendations.

2 HISTORIC HERITAGE ASSESSMENT: INTRODUCTION

2.1 RELEVANT LEGISLATION

2.1.1 Commonwealth legislation

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water, provides a framework to protect nationally significant flora, fauna, ecological communities, and heritage places. The EPBC Act establishes both a National Heritage List and Commonwealth Heritage List of protected places. These lists may include Aboriginal cultural sites or sites in which Aboriginal people have interests. The assessment and permitting processes of the EPBC Act are triggered when a proposed activity or development could potentially have an impact on one of the matters of national environment significance listed by the Act. Ministerial approval is required under the EPBC Act for proposals involving significant impacts to national/commonwealth heritage places.

Applicability to the project

It is noted that there are no Commonwealth or National heritage listed places within the project footprint, and as such, the heritage provisions of the EPBC Act do not apply. The Greater Blue Mountains World Heritage Area is located approximately 10 km to the north-east of the project footprint.

2.1.2 State legislation

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) established requirements relating to land use and planning. The main parts of the EP&A Act that relate to development assessment and approval are Part 4 (development assessment) and Part 5 (environmental assessment). The purpose of the Part 5 assessment system (Division 5.1) is to ensure public authorities fully consider environmental issues before they undertake or approve activities that do not require development consent from a council or the Minister. Division 5.2 outlines activities that require approval from the Minister. The Minister responsible for the Act is the Minister for Planning and Public Spaces.

The EP&A Act currently provides the primary legislative basis for planning and environmental assessment in NSW.

The EP&A Act includes provisions to ensure that the potential environmental impacts of a development or activity are rigorously assessed and considered in the decision-making process.

The framework governing environmental and heritage assessment in NSW for the project is contained within the following parts of the EP&A Act:

- Part 5: Environmental impact assessment on any heritage items which may be impacted by activities undertaken by a state government authority or a local government acting as a self-determining authority
    - Division 5.2: Approvals process for state significant infrastructure.

Applicability to the project

The current project has been declared as Critical State Significant Infrastructure (CSSI) and will be assessed under Division 5.2 of the EP&A Act.

2.1.3 Heritage Act 1977

The NSW *Heritage Act 1977* (Heritage Act) is applicable to the current assessment. This Act established the Heritage Council of NSW. The Heritage Council's role is to advise the government on the protection of heritage assets, make listing recommendations to the Minister in relation to the State Heritage Register (SHR), and assess/approve/decline proposals involving modification to heritage items or places listed on the SHR. Most proposals involving modification are assessed under Section 60 of the Heritage Act.

Automatic protection is afforded to 'relics', defined as 'any deposit or material evidence relating to the settlement of the area that comprised New South Wales, not being Aboriginal settlement, and which holds state or local significance' (note: formerly the Act protected any 'relic' that was more than 50 years old. Now the age determination has been dropped from the Act and relics are protected according to their heritage significance assessment rather than purely on their age). Excavation of land on which it is known or where there is reasonable cause to suspect that 'relics' will be exposed, moved, destroyed, discovered, or damaged is prohibited unless ordered under an excavation permit.

Applicability to the project

There is one historic heritage item listed on the SHR within the project footprint; Wallerawang Rail Bridges over Cox's River (SHR #01064) and there is one listed item adjacent to the project footprint, St John the Evangelist Church (SHR #01702). The details of these items are presented in **Section 3.5**.

2.1.1 Local legislation

2.1.1.1 Local Environmental Plans

The *Lithgow Local Environmental Plan 2014* (LEP) includes a schedule of heritage conservation areas and items. The objectives for heritage conservation set out in Section 5.10 of the LEP are:

a) To conserve the environmental heritage of the Lithgow City Council area

b) To conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings, and views

c) To conserve archaeological sites

d) To conserve Aboriginal objects and Aboriginal places of heritage significance.

Applicability to the project

The curtilage of one LEP listed item overlaps with the project footprint; the Old Wallerawang School House (LEP #I113). Details of this item are presented in **Section 3.4.3**.

2.2 ASSESSMENT APPROACH

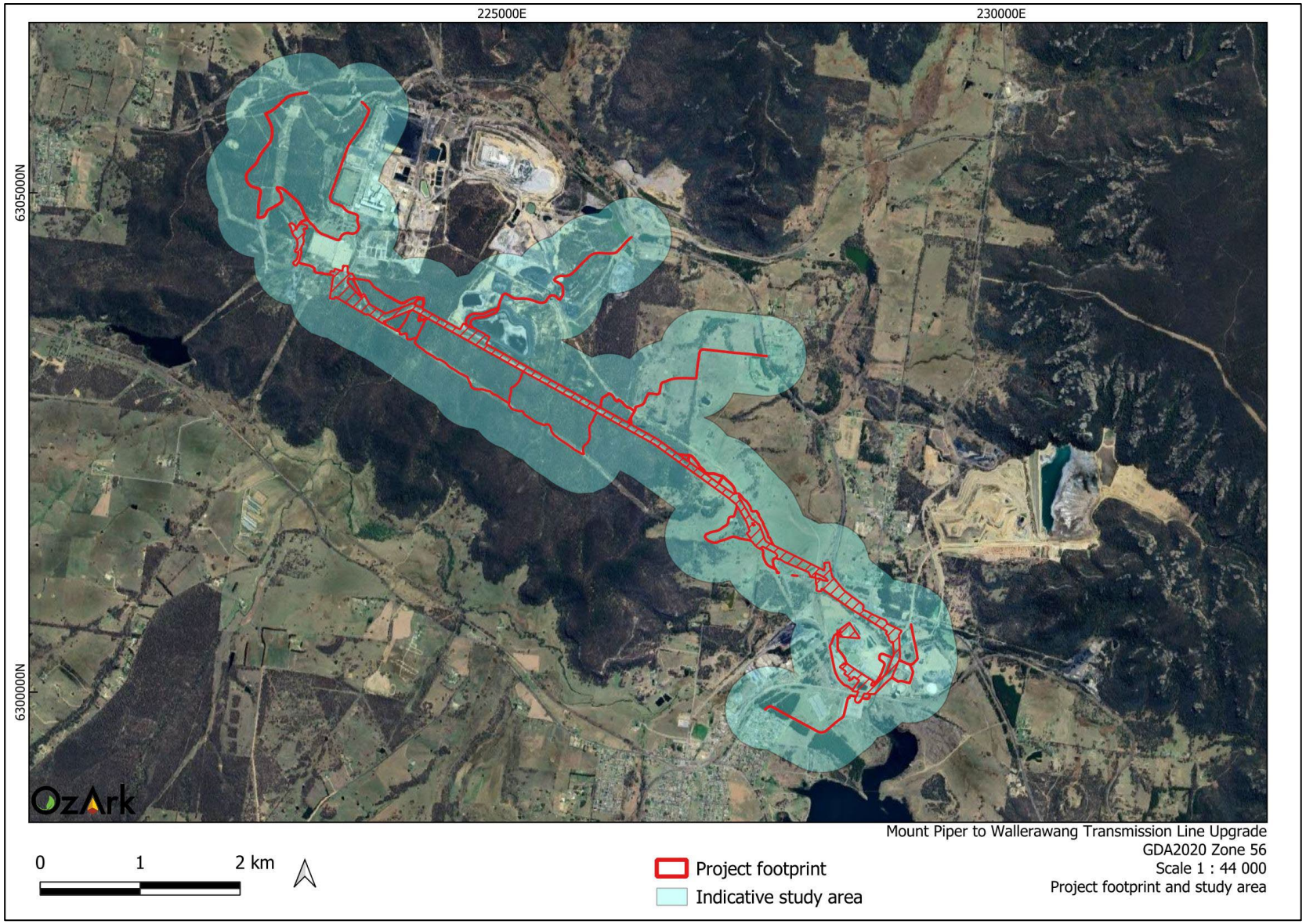
The inspection and assessment of heritage significance follows the:

1. The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Burra Charter).
2. Guidelines for preparing a statement of heritage impact (DPE 2023)
3. Assessing heritage significance. Guidelines for assessing places and objects against the Heritage Council of NSW criteria. (DCCEEW 2025).

2.3 STUDY AREA

The study area for this assessment included a 400-metre buffer of the project footprint. The study area is shown on **Figure 2-1**.

Figure 2-1: Historic heritage study area.



2.4 HISTORIC HERITAGE ASSESSMENT OBJECTIVES

The current assessment will apply the guidelines established in *Investigating Heritage Significance. A guide to identifying and examining heritage items in NSW* (Heritage Council 2021).

The historical heritage assessment, including field investigations, will meet the following objectives:

Objective One: To identify whether historical heritage items or areas are, or are likely to be, present within the project footprint

Objective Two: To assess the significance of any recorded historical heritage items or areas

Objective Three: Determine whether the proposal is likely to cause harm to recorded historical heritage items or areas

Objective Four: Provide management recommendations and options for mitigating impacts.

2.5 DATE OF HISTORIC HERITAGE ASSESSMENT

The fieldwork for the historic heritage assessment was undertaken by OzArk between March and November 2024. The assessment was staged to reflect the ongoing design development of the project footprint, and the assessment was undertaken alongside the Aboriginal cultural heritage assessments for the project.

The fieldwork survey was undertaken by:

- Fieldwork Director: Dr Jodie Benton (OzArk Director, BA [Hons] and PhD [Archaeology] University of Sydney)
- Archaeologist: Harrison Rochford (OzArk Archaeologist, B Lib Studies [Hons] and M Phil, University of Sydney).

2.5.1 Reporting

The reporting component of the heritage assessment was undertaken by:

- Report author: Dr. Bernadette Drabsch (Heritage Consultant, BA [Hons], PhD, University of Newcastle)
- Reviewer: Ben Churcher (OzArk Director and Principal Archaeologist; BA (hons) University of Queensland, Dip Ed. University of Sydney).

3 HISTORIC HERITAGE ASSESSMENT: BACKGROUND

3.1 ENVIRONMENTAL CONTEXT

The project footprint is generally undulating, with an elevation difference of up to 150 m between the highest and lowest points, ranging from 870 m Australian Height Datum (AHD) at the former Wallerawang Power Station in the south-east, to 1020 m AHD on the upper slopes near Mount Piper in the north-west. The topography of the project footprint would not have hindered colonial settlement, and the lack of steep slopes indicates that the area was suitable for agriculture and grazing activities. The soils of the slopes and range landforms at the west of the project footprint consist of shallow stony topsoil over poorly drained clays (Mitchell 2002: 107) which would have been suitable for grazing. The soils of level landforms towards the eastern end of the project consist of organic rich sandy loams suitable for agricultural activities. The Coxs River, which was modified in the 1950s, and Pipers Flat Creek converge at the south of the project footprint providing a permanent water source, indicating that the project footprint would have been a suitable location for permanent occupation by colonial settlers, with suitable water supplies to support a local agricultural industry and habitation. Prior to colonial land clearing, the project footprint would have comprised of woodland of rough-barked apple, red stringybark, scribbly gum, yellow box and Blakely's red gum, which were likely cut and used to construct residences and sheds for colonial occupants and incorporated into fencing and shelters.

The land use of the project footprint is varied, with generally high levels of disturbance. In the north-west, the project footprint follows an existing transmission line easement and access tracks. The Gardens of Stone SCA is located in the central section of the of the project footprint but more towards the western end. Much of this area is already cleared due to the existing 132 kV transmission line easement and associated tracks.

The project footprint at the eastern end of the project (east of the Gardens of Stone SCA) is situated on grazing paddocks surrounding the Coxs River which include sections of more recent high disturbance, such as the construction of the Springvale coal conveyor. The eastern end of the project also includes the diverted Coxs River channel, the Main Western Rail Line, multiple transmission lines and other infrastructure relating to the former Wallerawang Power Station, such as the Wallerawang 330 kV substation.

3.2 BRIEF HISTORY OF WALLERAWANG AND SURROUNDS

According to Tindale (1974), the project footprint falls within the eastern limits of the lands occupied by the Wiradjuri tribe. However, due to the location of this area at the western base of the mountains it has often been referred to as zone of interaction between the Wiradjuri, the Dharug to the east and the Gundungurra to the south (Bowdler 1983).

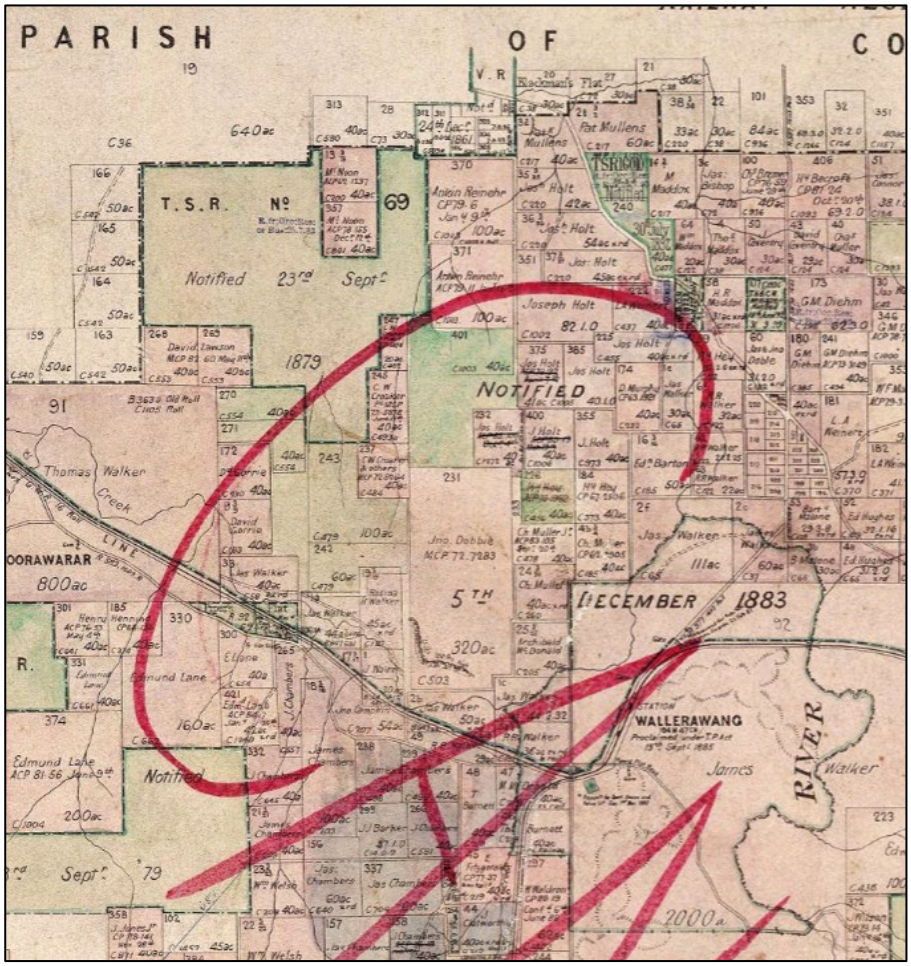
The name ‘Wallerawang’ is said to mean ‘place near wood or water’ or ‘plenty of water’ (The Sydney Morning Herald 2008). The Wallerawang area was initially surveyed in 1823 by James Blackman, after whom the nearby locality of Blackman’s Flat is named. The name, ‘Wallerawang’ was first mentioned in the log of Surveyor McBain, who noted that they crossed a stream of that name, which flowed south-east with an open plain of sandy soil and good pasture on the southern side of the rivulet (NGH 2021: 15).

The region of Wallerawang has been a hub of agricultural and industrial activity throughout the years with the main stock route coming to the area from western regions through the Wallerawang Valley. This contributed significantly to the early development of the area, with Wallerawang becoming a major stopover for those headed between Sydney and the farming areas beyond Mudgee and for those travelling between Sydney and Bathurst.

The discovery of gold in Bathurst and Mudgee in 1851 encouraged further growth in the region. The mining industry became a defining characteristic of the Wallerawang area following the discovery of coal resources in the 1860s. This industry spurred the development of the Wallerawang Gwabegar Rail Line, which further contributed to the growth of Wallerawang from a small village to a bustling township and industrial centre for the region (Aitken & Associates 1998: 26).

The first colonial settler in the Wallerawang area was James Walker, a retired British Marines officer who obtained a 2000-acre land grant in 1823 on the banks of the Coxs River (**Figure 3-1**). Walker married his cousin Robina in 1834, and they had four children. He called his holding ‘Wallerawang Station’, and the Walker family became powerful pastoralists in the central tablelands, later developing links across NSW and QLD (Aitken & Associates 1998: 13). James Walker predominantly used the land for grazing sheep and wool production. He was allocated one convict per 100 acres of land, and these were housed in turf huts with thatch roofs (AECOM 2021: 16). In 1836 there were around forty convicts living on Wallerawang Station, however, due to ongoing troubles with the convicts, Walker brought in migrant workers from England, who by 1839 outnumbered the convicts (AECOM 2021: 17).

Figure 3-1: 1892 Lidsdale parish map, showing the land surrounding the project footprint. Source: NSW Historical Land Records.



'Wallerawang Station' was managed by Andrew Brown of 'Cooerwull' much of the time and it became a major stopping place for travellers, with one of the most notable being naturalist, geologist and biologist, Charles Darwin, who stayed at the station in 1836. He offered the following description in his scientific expedition journal, '*The Voyage of the Beagle*':

> *… I left the high road and made a short detour to a farm called Walerawang, to the superintendent of which I had a letter of introduction from the owner in Sydney. Mr. Brown had the kindness to ask me to stay the ensuing day, which I had much pleasure in doing. This place offers an example of one of the large farming or rather sheep grazing establishments of the colony. Cattle and horse are however in the case, rather more numerous than usual, owing to some of the valleys being swampy and producing coarse pasture. The sheep were 15,000 in number, of which the greater part were feeding under the care of different shepherds in unoccupied ground, at a distance of more than 100 miles beyond the limits of the colony… Two or three flat pieces of ground near the house were cleared and cultivated with corn, but no more wheat is sown than sufficient for the annual support of the labourers employed on the establishment. The usual number of assigned servants here is about 40, but at the*

> *present time there are rather more. Although the farm was well stocked with every requisite, there was an apparent lack of comfort and not even a single woman resided there* (Charles Darwin 1839).

Darwin also commented on sighting a platypus in the local watercourses and waterways,

> *In the dusk of the evening, I took a stroll along a chain of pools (which in this country represents the course of a river) and had the good fortune to see several of the famous Platypus or Ornithorhynchus paradoxicus. They were diving and playing in the water; but very little of their bodies were visible, so they only appeared like so many water rats. Mr Browne [sic] shot one; certainly, it is a most extraordinary animal.*

The platypus intrigued Darwin and became a key exemplar of natural selection, and an enduring presence in his writing. To Darwin it embodied the concept that species are not 'created' but that the visible differences between species arise from adaptations to their individual environments.

James Walker and the Walker family (along with his brother William and nephews) became primary landowners in the area with 27 stations in the Bligh Valley alone (Crew 1963: 27). James Walker died in 1856, and the property reverted to his wife, who then held the licences for 16 stations totalling 4,700,000 acres (NGH 2021: 16).

In 1865 James and Robina's daughter, Georgina, married Edwin Barton, an engineer who surveyed possible routes between Windsor and Bathurst. Barton eventually took over the running of the Wallerawang Estate and changed the name to Barton Park (**Figure 3-2**). Georgina Walker established the first school in the area, now known as the Old Wallerawang School House (see **Section 3.4.3**) and commissioned the design and construction of St. John the Evangelist Church (see **Section 3.4.2**) following Edwin Barton's death in 1876. The Church, designed by Edmund Blacket, opened in 1881 (Integrated Design 2005: 10).

Construction of the Great Western Railway, following Barton's surveys, commenced in 1866 and included the Lithgow Zig Zag that is noted as a remarkable section of the line. The railhead reached Wallerawang in 1870, and the former village grew rapidly into an important junction for the two main rail lines which led west to Bathurst and north to Mudgee by 1885 with the main rail line running close to the St. John the Evangelist Church (Aitken & Associates 1998: 11, 27). Though the original track arrangement from the 1870s has changed significantly over time, initially the original alignment ran adjacent to the main street of the town of Wallerawang and the Wallerawang Gwabegar Rail Line played a significant role in the population growth of the town.

From 1873 onward, the area saw an increase in coal mining, with 15 collieries operating along the Lithgow seam at Mount Piper, between Wallerawang and Lidsdale between 1880 and 1951. Shale oil was also found in the area in 1900 with three shale oil works opening between 1900 and 1937 and pine forests were planted around Wallerawang to supply local timber mills.

In October 1948, two of James Walker's grandchildren, James Lyon Walker Barton and his sister Lue Loveday Walker Barton, were both tragically murdered on the estate by a disgruntled employee, William Harvey-Bugg, a 17-year-old station hand (Central Western Daily 1948). The Bartons had already discussed selling the property to the Joint Coal Board, and their surviving sister completed the sale in 1950 (**Figure 3-2**).

Figure 3-2: Barton Park, Wallerawang. Source: Lithgow District Historical Society Collection.

In 1950–51, extensive plans were made by the Joint Coal Board for a modern planned township at Wallerawang, which would have been the terminus of electrification of the Wallerawang Gwabegar Rail Line from Sydney and the location of a new railway workshop and power station. This transport hub, as envisioned by the Joint Coal Board would pave the way for a major expansion of coal mining in the area. The Church of St. John the Evangelist was to be relocated to make way for the new development, and 1,200 cottages were to be erected. Apart from the former Wallerawang Power Station and its associated mines, little came of these plans due to sustained opposition from political interests associated with nearby Lithgow (Lithgow Mercury 1953).

With the shift away from steam powered trains in the 1950s, Wallerawang was selected as the site of the Wallerawang Power Station, which despite earlier plans, was built just behind St John the Evangelist Church. During its operation, the power station was predominantly supplied with coal from local collieries.

When the needs of the Wallerawang Power Station required the damming of the Coxs River in the 1980s, the original Wallerawang House/Barton Park, which was located on a bend along the eastern side of Coxs River was demolished to create Lake Wallace (**Figure 3-3**).

The Lithgow Pottery Pavilion was crafted from sandstone acquired from the old barn (www.lithgow.com) (Figure **3-4**).

Figure 3-3: Map of the Bowenfels to Wallerawang line with red circle marking the location of Wallerawang house (Source: The Australian Railway Society, 1959).

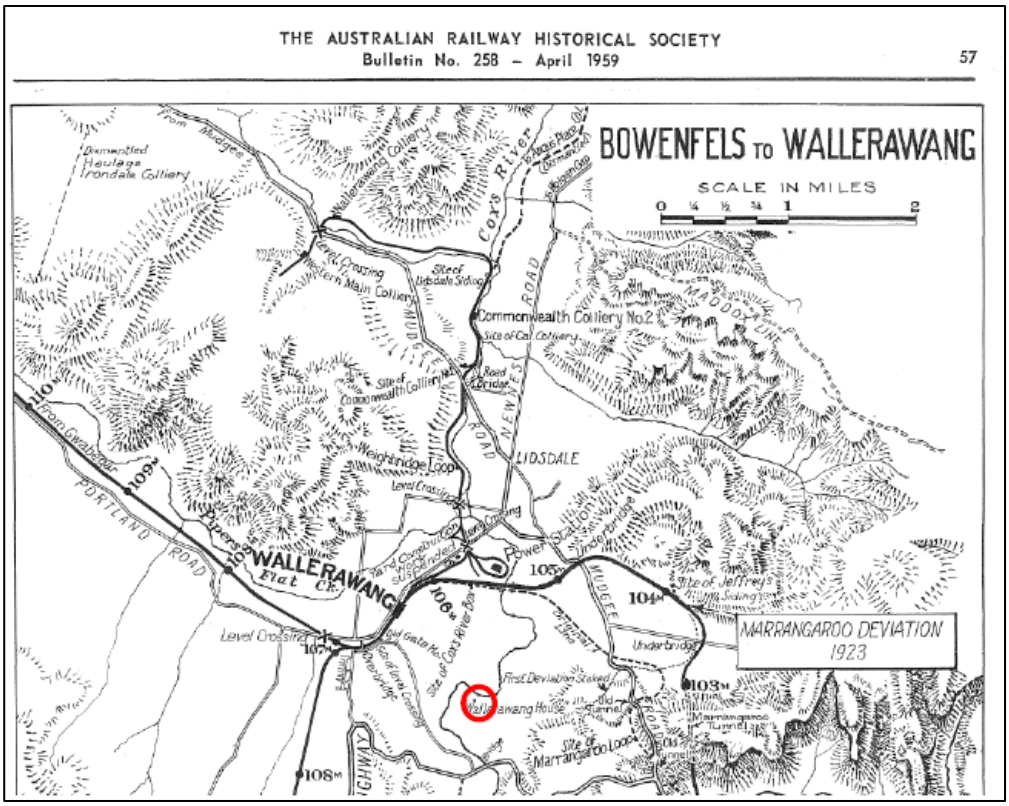
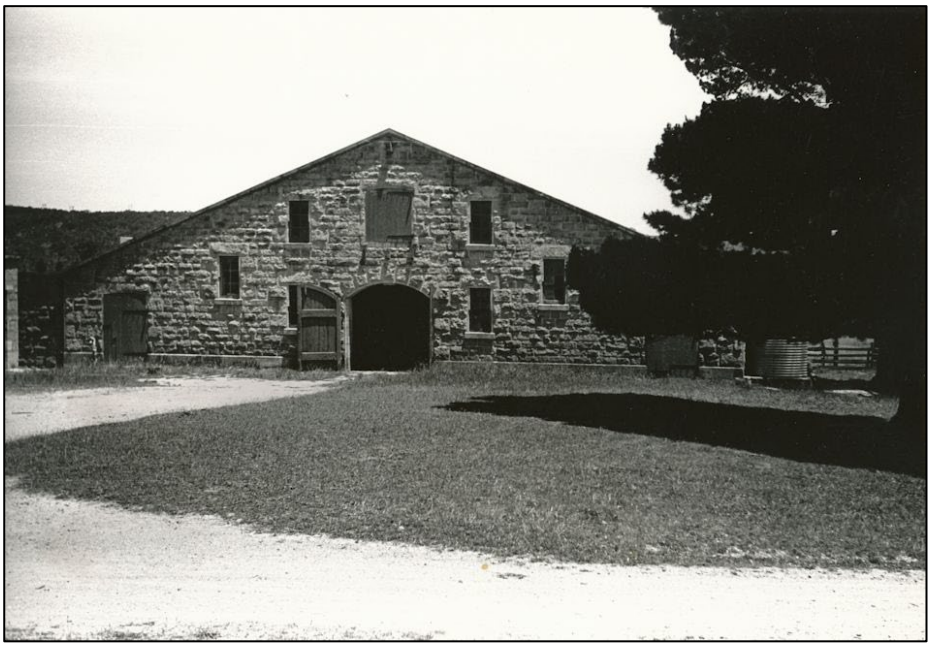


Figure 3-4: Barton Park Barn, Wallerawang. Source: Lithgow District Historical Society Collection.



There was a fall in the use of public transport in the 1980s and 1990s at the same time as there was a rise in operating costs to maintain the passenger freight rail system in NSW (Aitken & Associates 1998: 29). Rail services in NSW were reduced in the 1980s, and in the early 1990s, the main line at Wallerawang was rebuilt and repositioned within the rail reserve area to cater for the new, faster trains (Integrated Design 2005: 11). Wallerawang Station was decommissioned as a passenger service in 1989 and the station closed. The stock yards were also demolished in 1996.

Historical aerials detail the industrial and agricultural nature of the area with a 1975 image (**Figure 3-5**) showing large portions of the landscape cleared for agricultural/grazing purposes and the Wallerawang Power Station still functioning. In the 1984 aerial, it is evident that Coxs River had been dammed and the station that was once held by James Walker had become Lake Wallace (Figure 3-6). Wallerawang Power Station was placed out of service in 2014, with the majority of demolition proposed having occurred since 2022.

Figure 3-5: 1975 aerial photograph showing the eastern end of the project footprint around Wallerawang and Lidsdale (Source: Historical Imagery).

Figure 3-6: 1984 aerial photograph showing the eastern end of the project footprint around Wallerawang and Lidsdale (Source: Historical Imagery).

3.2.1 Previous heritage assessments near the project footprint

In 2021, AECOM prepared a Statement of Heritage Impact for the Great Western Battery Energy Storage System (BESS) on behalf of Neoen Australia Pty Ltd. Some of their study area overlaps the southern portions of the project footprint. The impact to the previously identified heritage items within that zone were assessed and AECOM concluded that the project would have no impact on known or potential heritage sites or potential historical archaeological deposits. They recommended that while a transmission line associated with the BESS would be constructed near the St. John the Evangelist Church, high vibratory methods would not be used within 50 m of the church to avoid damage to this item (AECOM 2021: 5).

In 2021, NGH prepared a Historical Archaeology Assessment and Statement of Heritage Impact for the Wallerawang BESS on behalf of Greenspot. Most of their study area was located to the east of Lake Wallace, with a small portion on the western shore, south of the project footprint and 1.5 km south-west of Wallerawang town centre. NGH assessed the listed heritage items within 4 km of their study area and found that the overall impact of the project was minor and proposed that any partial adverse impacts to the original Great Western Railway heritage by the project could be mitigated by the retention of the sandstone culvert and archival recording (NGH 2021: iv).

3.3 DESKTOP DATABASE SEARCHES CONDUCTED

A desktop search was conducted on the following databases to identify any potential previously recorded heritage within the project footprint. The results of this search are summarised in **Table 3-1**.

Table 3-1: Historic heritage: desktop-database search results.

Name of database searched	Date of search	Type of search	Comment
World, National and Commonwealth Heritage Lists	3/2/2025	Lithgow LGA	No places listed on either the National or Commonwealth heritage lists are located within the project footprint. The project footprint is approximately 10 km south-west of The Greater Blue Mountains Area (Place ID 105127) on the World Heritage List.
State Heritage Register and State government agency Section 170 Registers	3/2/2025	Within 1 km of the project footprint	There is one item listed on the SHR within the project footprint: Wallerawang Rail Bridges over Coxs River (SHR #01064). There is one listed item approximately 30 m west of the project footprint: St John the Evangelist Church (SHR #01702). There is one item approximately 130 m from the project footprint (Wallerawang Railway Station and yard group, SHR # 01282).\ The Wallerawang Rail Bridges over the Coxs River are also listed on the Country Rail Network (CRN) Section 170 Register (Wallerawang, Cox's River Underbridge, Heritage item ID: 3150086)
State Heritage Inventory (Local Environmental Plans/state agency registers)	3/2/2025	Lithgow LEP 2014 heritage items within 400 m of the project footprint	There is one LEP listed item within the project footprint; the Old Wallerawang School House (LEP #I113). There are eight LEP listed items within 400 m of the project footprint. These are listed in **Table 3-2**.

A search of the World, National, State, and local heritage databases, including the Lithgow LEP and the NSW government agency Section 170 Registers, returned two recordings for historical heritage sites within the project footprint:

- Wallerawang Rail Bridges over Coxs River (SHR #01064 and CRN Section 170 Register ID:3150086)
- Old Wallerawang School House (LEP #I113).

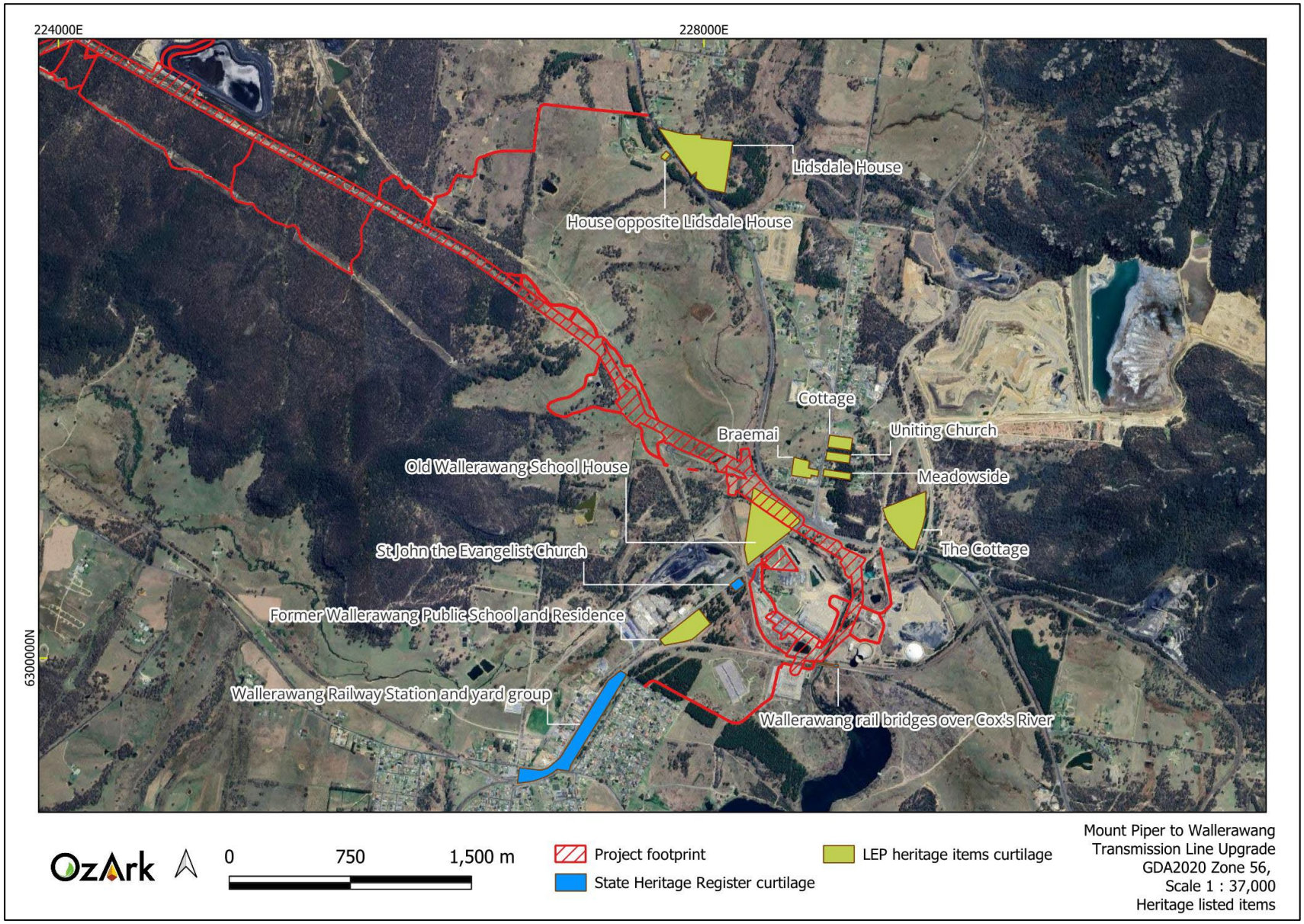
In addition, the SHR listed St. John The Evangelist Church (SHR #01702), is located in close proximity to the project footprint with the curtilage of the item located about 30 m to the west of the project footprint at its closest point. These sites in close proximity to the project footprint are discussed in **Section 3.4**.

There are a further nine historic heritage sites within 400 m of project footprint. However, these will not be harmed as they are outside of the vibration minimum working distance for heritage buildings. These items are presented in **Table 3-2** and their location is shown on **Figure 3-7**.

Table 3-2: Heritage listed items within the study area but over 100 m from the project footprint.

Item name	Location and proximity of heritage item curtilage to the project footprint	Listing ID
Wallerawang Railway Station and yard group	Approximately 130 m south-west of the project footprint. Located on Main Street, Wallerawang.	SHR #01282 (also listed on LEP)
Former Wallerawang Public School and Residence	Approximately 290 m west of the project footprint. Located on Main Street, Wallerawang.	LEP #I225
The Cottage	Approximately 160 m east of the project footprint. Located on Skelly Road, Lidsdale.	LEP #I191
'Braemai' House	Approximately 165 m north-east of the project footprint. Located on Wolgan Road, Lidsdale.	LEP #193
'Meadowside' Cottage	Approximately 275 m north-east of the project footprint. Located on Wolgan Road, Lidsdale.	LEP #I192
Uniting Church	Approximately 365 m north-east of the project footprint. Located on Wolgan Road, Lidsdale.	LEP #194
Lidsdale House and Gardens	Approximately 105 m east of the project footprint. Located on Castlereagh Highway.	LEP #I203
House opposite Lidsdale House	Approximately 250 m east of the project footprint. Located on Castlereagh Highway.	LEP #I204
Cottage	Approximately 400 m north of the project footprint. Located on Wolgan Road, Lidsdale.	LEP #I191

Figure 3-7: Location of heritage listed items near the project footprint.



3.4 REGISTERED HERITAGE ITEMS WITHIN OR ADJACENT TO THE PROJECT FOOTPRINT

There are three heritage items within or adjacent to the project footprint. These items are listed in Table 3-3 and outlined in further detail in the subsections below. The descriptions and assessments of significance are from the SHI listings and the Lithgow LEP 2014.

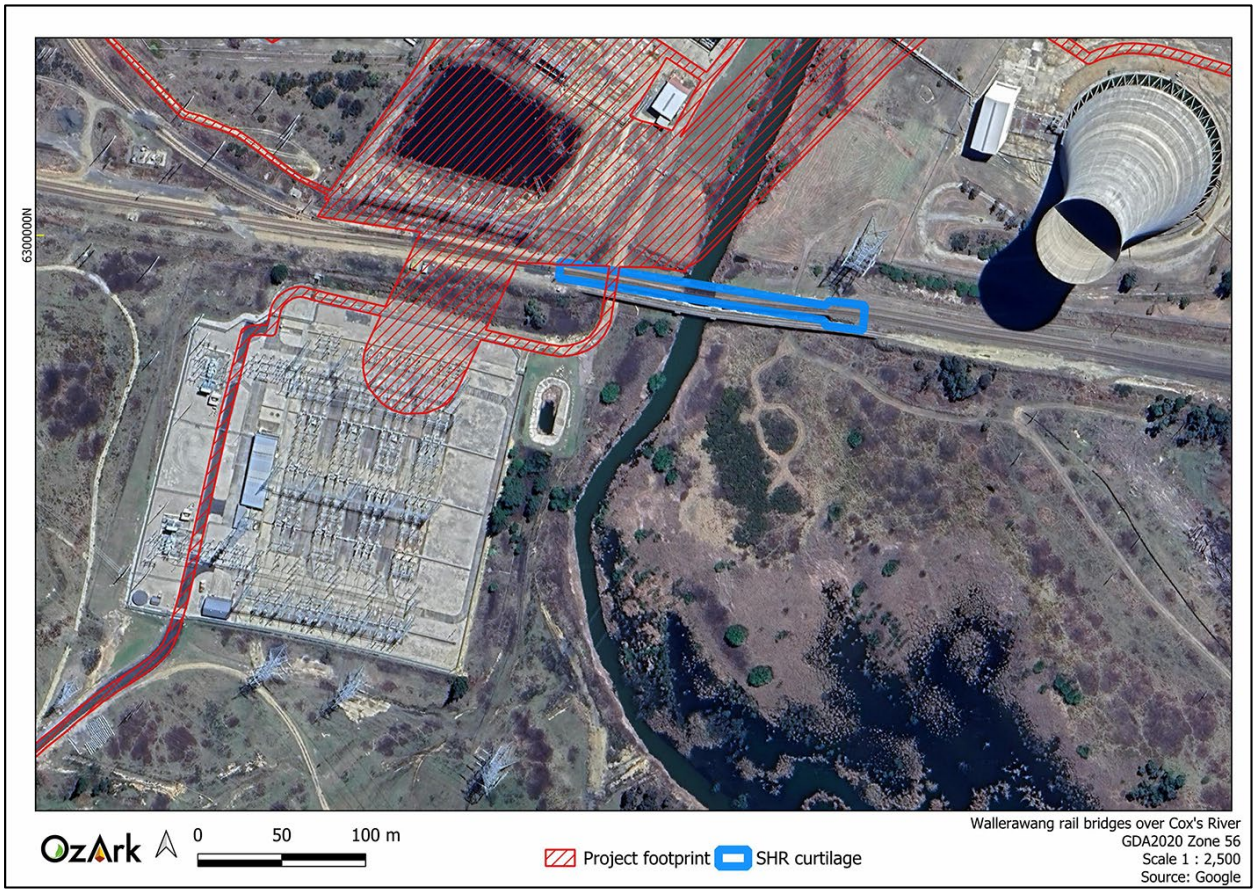
Table 3-3: Heritage listed items within the study area and within 100 m the project footprint.

Item name	Location and proximity to the project footprint	Listing ID
Wallerawang rail bridges over Coxs River	**Within the project footprint**. Located across the Coxs River.	SHR #01064 (also listed on LEP)
Old Wallerawang School House (former National School)	**Within the project footprint**. Located on the corner of Main Street and Castlereagh Highway, Wallerawang The curtilage of the item is within the project footprint. The school house building itself is located outside the project footprint, about 185 m south-west of the proposed project footprint (transmission line easement) and about 84 m north-west of compound site 2.	LEP #I113
St John the Evangelist Church	Approximately 30 m west of the project footprint. Located on Main Street, Wallerawang.	SHR #01702 (also listed on LEP)

3.4.1 Wallerawang Rail Bridges over Coxs River (SHR #01064)

The Wallerawang Rail Bridges over Coxs River are two State heritage-listed railway bridges located on the Main Western Railway, Wallerawang, assessable via Springvale Lane, off Mudgee Road (**Figure 3-8**).

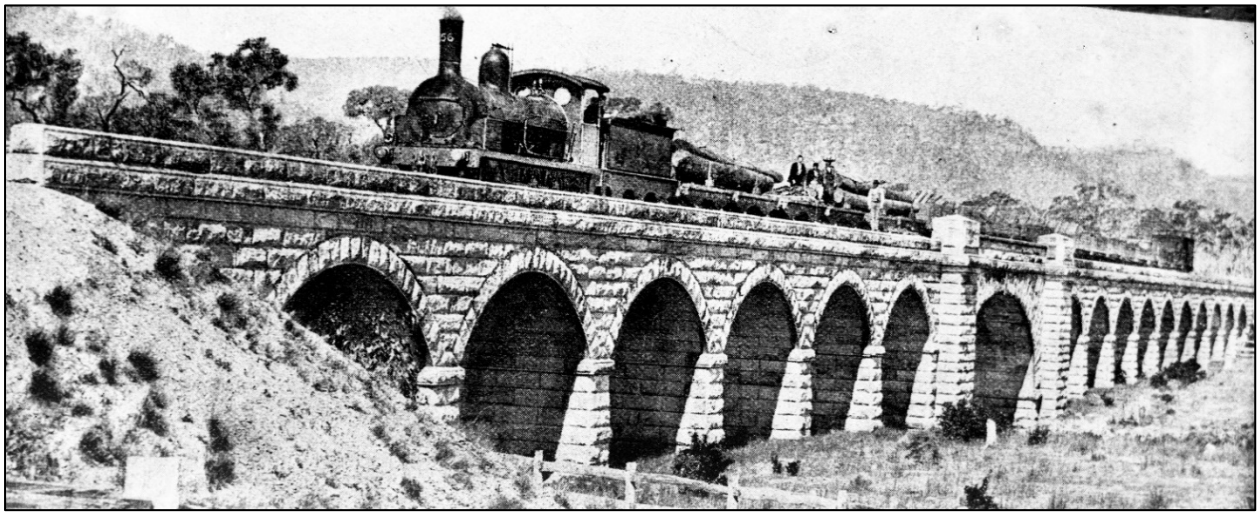
Figure 3-8: Aerial showing Wallerawang Rail Bridges over Coxs River in relation to project footprint.



3.4.1.1 History and Significance

According to the SHI, the impressive sandstone bridge was constructed in 1870 and is one of the oldest stone arch railway viaducts in New South Wales. It is also the longest masonry arch bridge ever constructed in Australia, featuring seventeen stone arch spans which measure 139.6 m in length (**Figure 3-11**, image 1). The bridge was assessed as having state heritage significance as it is associated with John Whitton, the 'father of New South Wales railways' and its construction contributed considerably to the subsequent railway extension to Bathurst and on to western New South Wales. When John Whitton was denied funds to continue with the expensive wrought iron girder bridges, he chose the stone arch viaduct for his major bridge works, particularly for the Zig Zag east of Lithgow and the extension west to Wallerawang. The Wallerawang Rail Bridges over Coxs River is the largest of Whitton's stone arch viaducts and is a fine representative example of a stone arch railway viaduct (**Figure 3-9**).

Figure 3-9: Class no. 56, goods train, Coxs River viaduct, Wallerawang, c. 1880s. Source: Australian Railway Historical Society, courtesy of University of Newcastle, Living Histories.



The bridge retains its original fabric, and the main span of 16.5 m is also large, being the fifth longest of its type for its age and is flanked by stone buttresses which extend above the deck (**Figure 3-9**). The treatment of the spandrel is unusual in that the radial joints of the arch rib are extended out to fill the entire spandrel space (**Figure 3-11**, image 1). The bridge is considered an integral part of a section of the New South Wales rail system of immense historical significance. It is part of the Bowenfels to Wallerawang duplication, the last of such works dominated by brick arch construction.

By the early 1900s, the original single track from Bowenfels to Wallerawang was inadequate for railway operations so plans were made to duplicate that section of line and at the same time ease the grades and flatten some curves. A major program of works began in 1910 and continued until the mid-1920s, but because steel was an expensive import from Britain, the dominant material for bridging the many watercourses was bricks, mostly from the 1912 State Brickworks at Homebush, and mostly in the form of brick arch culverts and viaducts (**Figure 3-11**, images 3, 4 and 8). The quantity of bricks used in the program was enormous and the period could be aptly described as the ‘era of the brick arch’. The Bowenfels to Wallerawang work was delayed until after World War I.

The bridges were decommissioned prior to the construction of the Wallerawang Power Station and are no longer in use by rail. A photograph taken in the 1930s shows the power transmission lines of that time running parallel to the bridges across the low-lying rural landscape (**Figure 3-10**).

Figure 3-10: 'NSWGR, abandoned Coxs River Railway Bridge near Wallerawang, NSW, 1930s'. Source: Australian Railway Historical Society, courtesy of the University of Newcastle Living Histories.

Figure 3-11: Field photographs of the Wallerawang Rail Bridges over Coxs River (Source: OzArk).

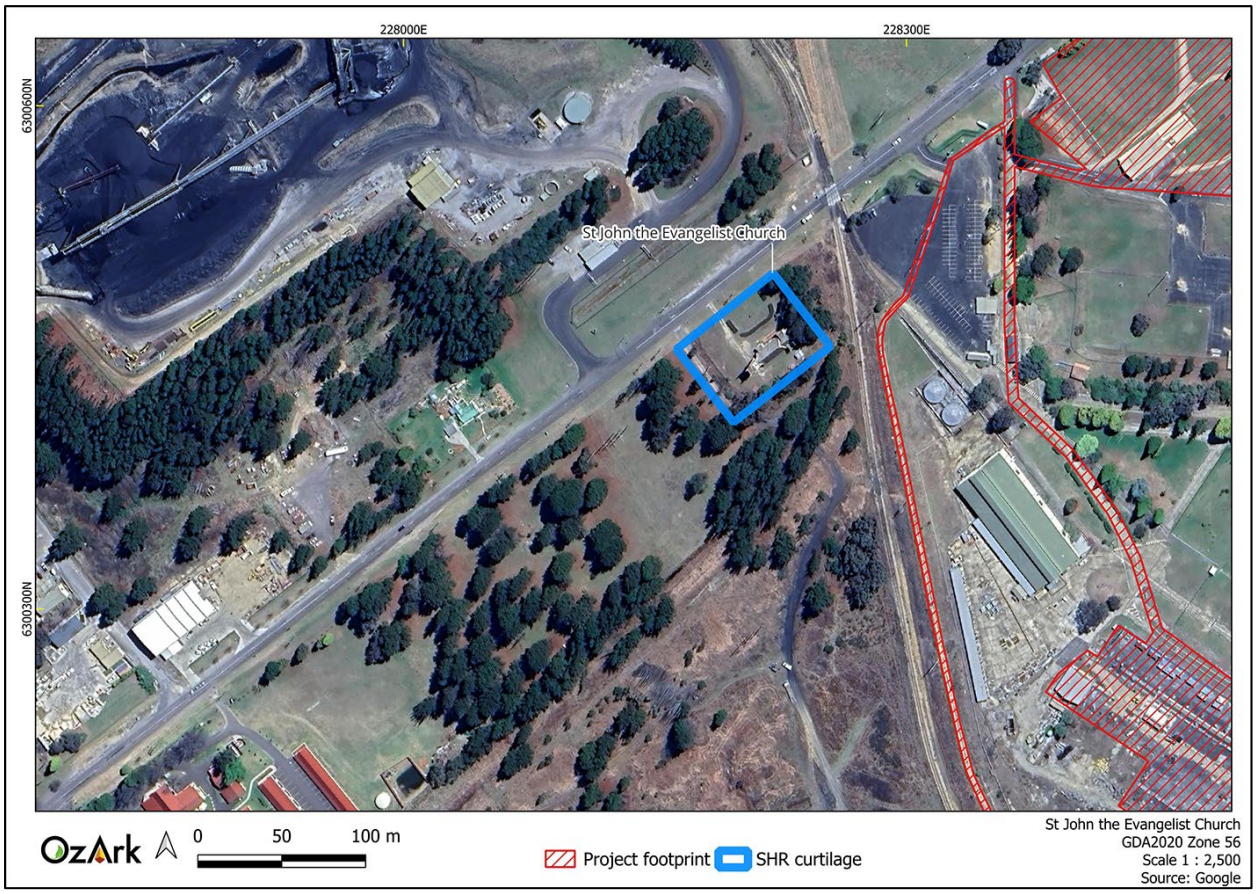
	
1. View of the 1870s sandstone bridge showing the main span over Coxs River.	2. View of the land-based viaduct arches extending over the access track.
	
3. View of the 1870s sandstone bridge and the 1910s brick bridge arches.	4. View of the 1910s brick bridge showing steel central span, from the access track.
	
5. View along Coxs River marshes towards the bridge showing existing transmission lines and associated infrastructure.	6. View towards the sandstone bridge showing proximity of the retained former power station cooling tower and infrastructure.

	
7. View from the south of existing access track that runs below both bridges, with sandstone bridge in foreground.	8. View from the north of existing access track, with brick bridge in the foreground.

3.4.2 St. John the Evangelist Church (SHR #01702, LEP # I112)

St. John the Evangelist Church is located on Main Street, Wallerawang, approximately 30 m west of the project footprint (proposed access track). It is within a heavily modified, industrial landscape.

Figure 3-12: Aerial photo showing St. John the Evangelist Church curtilage in relation to project footprint.



3.4.2.1 History and significance

According to the SHI, St. John the Evangelist Church at Wallerawang was constructed between 1880 and 1881. It is of state significance, due to the fact that it is a rare example of a major church building erected by private philanthropy, equalled in Lithgow only by the Hoskins Memorial Church and comparable to the Hunter Baillie Memorial Presbyterian Church in Annandale. It is possibly also the only example of a 'union' or public dual-denomination church identified to date in the Central West region. It is associated with the architect Edmund Blacket and is a fine example of the architecture of Blacket and Sons. It is associated with the Lithgow pioneering family of James Walker, and Edwin Barton who was the surveyor of rail routes to western New South Wales. It is unique in the Lithgow area as a dual denomination church and has wide social significance. St John the Evangelist Church contains numerous significant moveable objects and

artefacts (e.g. main alter, pews, readers lectern, baptismal font, and other associated furnishings, tables and chairs) that were purpose-built for the church.

The heritage item is a large imposing church of Victorian Gothic style. The building is symmetrical with a rectangular body, of cruciform plan with square high bell tower in three lifts (no turret), smaller chancel, and transepts. There is a mixture of dressed stone quoins and bush hammered stone elsewhere and the walls are buttressed. The building features pointed-arched sandstone windows, some with stained glass and some with diamond and square panes. The tower is topped with battlements and pinnacles and features gargoyles with animal faces (**Figure 3-13**). The physical condition is fair to poor and there is cracking evident to the bell tower.

The church is connected to early pioneers, James and Robina Walker and their family. James had sympathy with the Church of England as well as a strong acceptance of Presbyterian doctrine. He was a deeply religious man and clergy from both denominations were frequently welcomed at Wallerawang Station, including the Rev. Colin Stewart, pioneer Presbyterian Minister who arrived in the area in 1830. According to the Friends of St. John's Church, James Walker died in 1856 and was buried in the family cemetery on the estate. His widow, Robina Walker died in 1867.

Their daughter, Georgina Walker, married Edwin Barton, who was the surveyor / engineer of the Zig Zag railway and died in 1876. Mrs Walker-Barton commissioned the renowned Gothic Revival church architect (and family friend) Edmund Blacket in 1880 to design St. John the Evangelist Church on the estate as a place of worship for the Church of England and the Presbyterians of Wallerawang. The church was a commemoration to her parents and family, who had all died before her. It was to be used as the Wallerawang Estate Chapel and a 'union' or public dual-denomination church: by both the Presbyterian and Anglican denominations in memory of James Walker, his wife Robina, and Georgina's late husband Edwin Barton. She mainly financed the construction and established a small Gothic Revival style brick school nearby, which is still standing (see **Section 3.4.3**). The reflection of religious philanthropy is an important theme in Lithgow with five other churches in the area being privately funded.

The stone was from a quarry on Tunnel Hill, and the fine stone for the tracery and door frames came from Sydney. The carving on the Western Australian karri pews was designed to represent the Scottish heritage of the Walker-Barton family. The builder George McGarvie Donald of Lithgow was a master mason and builder who helped create the city of Lithgow. Born in Paddington in 1846, he was son of a Scottish stone mason George Donald. George senior had been encouraged to migrate to New South Wales by Governor Macquarie who wished him to assist with government building works. George junior did an apprenticeship as a mason under his father and uncle. After this he was engaged on railway construction projects in the Bowenfels district in the late 1860s. He worked on stone railway bridges at the Great Zig Zag and Marrangaroo and was responsible for the best stone buildings of the late Victorian period in the

area. Popular among citizens Donald was elected the first mayor of Lithgow after establishment of the Municipality of Lithgow in 1889. He held the seat of Hartley in the NSW Legislative Assembly jointly with Joseph Cook from 1891.

Knowing Blacket's great success since 1843 in both Sydney and Australia for harmonising religious desires for austerity/simplicity with High Anglican richness, detail and iconography, Georgina Walker-Barton ensured a magnificent opening ceremony in 1881, officiated by various dual denominational clerics. Furthermore, she granted in perpetuity the land to St. Johns to be a parish Church for Presbyterians and Anglicans.

The church's timber floor is locally cut black Sallee, and the church bell was cast by John Warner & Sons, Cripplegate, London, in 1880. Numerous memorials grace the church, in the form of plaques and stained-glass windows. The east window represents the Prophets, Apostles, Christ, and Martyrs. The church window is in memory of Georgina, who married Thomas Abbott in 1882 after the death of her first husband Edwin Barton. The window was installed after Georgina's death in 1906 (Friends of St. John's Church, SHI). The latest window was installed in 1962 in memory of Mary Barton, Georgina's daughter.

On the 18th of November 1952 the Trustees of the Church of England, Sydney Diocese and the Presbyterian Church NSW became the new owners as tenants in common, with equal moiety (Friends of St. John's Church, undated).

Sometime during 2001 the Church's insurance company ordered the property to be locked and fenced after an engineer's report revealed serious cracking in the bell tower that could be dangerous to people within the grounds. At this stage, the church was no longer used for regular church services.

In 2001, the church was advertised for sale. Suggestions ranging from dismantling and rebuilding the church in Canberra to bulldozing it completely were met with vigorous opposition from the Presbyterian Bowenfels parish. Their efforts were supported by the establishment of the Friends of St. John's Church to save the community asset. The Friends' charter is to preserve the fine building in the interests of the community (Friends of St. John's Church, SHI).

Through the work of the Friends of St John Committee, who were successful in obtaining a grant from the Heritage Office, a conservation management plan and urgent structural and maintenance was work completed during 2004 and 2005. To mark the occasion of the official re-opening of St. John the Evangelist Church a Thanksgiving Service was held on 14 May 2006.

Figure 3-13: Images of St John the Evangelist Church. (Source: SHI).

1. St John the Evangelist Church exterior.

2. Thanksgiving service inside the Church, looking towards the main stained-glass window.

3. Bell tower with decorative gothic elements, such as gargoyles.

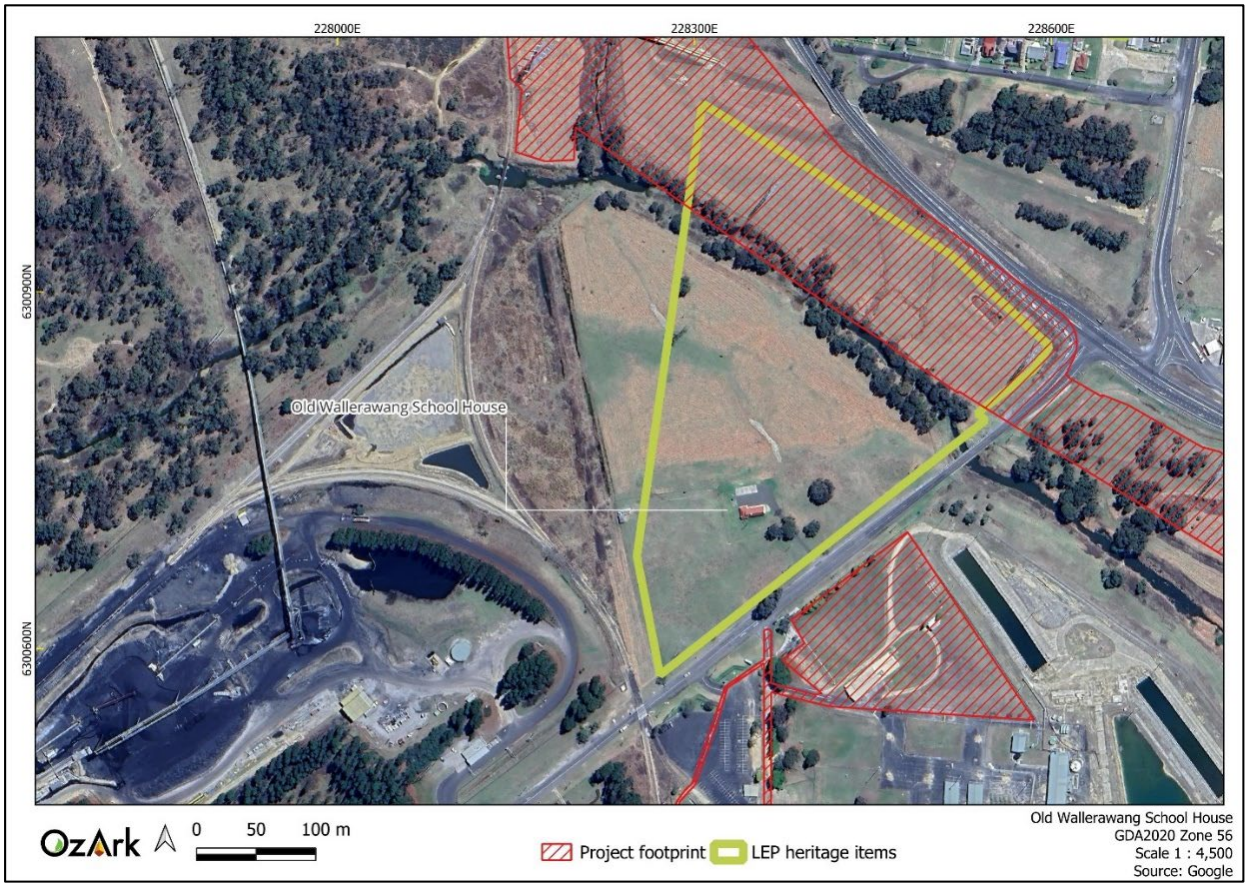
4. Animal faced gargoyle.

5. Memorial plaque outside of Church.

3.4.3 Old Wallerawang School House (LEP #I113)

The Old Wallerawang School House, also known as the Old National School, is located on the corner of Main Street and the Castlereagh Highway, Wallerawang within a paddock surrounded by an industrial landscape. The project footprint intersects with the north-eastern section of the SHI curtilage, to the north of the Coxs River which runs through the curtilage (**Figure 3-14**). The Old Wallerawang School House structure is located outside the project footprint but in proximity to two locations of the project footprint. The structure is located about 185 m west of the proposed transmission line easement and about 84 m north of compound site 2.

Figure 3-14: Aerial showing the Old Wallerawang School House in relation to the project footprint.



3.4.3.1 History and Significance

According to the SHI, the Old Wallerawang School House is second in importance only to Bowenfels National School in the local area. Wallerawang School House bears highly significant testimony to early education and Scottish philanthropy. The school house was a focal point for families for 22 years and holds considerable social significance. The item has been identified as meeting the criteria for state heritage significance (Jack et al. 1998), although it is noted that it has not been gazetted on the SHR and is currently only listed at the local level.

In 1860 the Board of National Education agreed to a petition from the Walker family, owners of Wallerawang Station, and the Bowenfels' Presbyterian minister that a National School be

established, similar to the one already created at Bowenfels. Hence becoming the second town west of the Blue Mountains to establish a public or National School. The local contribution was supplied by Mrs Robina Walker of Wallerawang, who also donated the land. The school featured one large room, a kitchen, parlour and two upstairs bedrooms. Mrs. Walker was appointed Honorary Patroness of the school, the first and possibly the only time a woman was appointed as a patroness during the term of the Board of National Education.

The stone building opened with some 30 pupils and a resident master, Scotsman, Charles Thomson. It seems also to have been used as a church by the Bartons until St. John the Evangelist Church was opened in 1881. Attendance grew at the Wallerawang school in the 1870s because of mining developments and by 1881 a larger school was necessary, which was built nearer to Wallerawang township. In 1882 the old school closed and became a private house on the Walker estate. The Joint Coal Board bought the property in 1950, and the building has had subsequent owners and uses since then.

The building is in two sections. The larger and more impressive school house is rectangular, with pointed-arch Georgian windows and doorway, giving the building an ecclesiastical appearance. It has a large stone fireplace adjoining the schoolmaster's quarters, with one downstairs room and two attic rooms. The windows and door are now externally barricaded, but the sash windows with small panes survive. Beyond the residential end there is an addition in less worked stone, making the whole structure T-shaped. This was probably added in 1882 when the building ceased to be a school. Further additions in timber and cement were later added but have been removed. The sandstone and iron building were refurbished in 2023 by Greenspot and Emirates One&Only Wolgan Valley Resorts and is used as a concierge and transport transition point for guests staying at the resort.

Figure 3-15: Images of the Old Wallerawang School House (Source: OzArk, SHI).

1. View north towards the Old Wallerawang School House.

2. View east across the paddock towards the tree-lined creek.

3. Secured windows and door on north-eastern side.

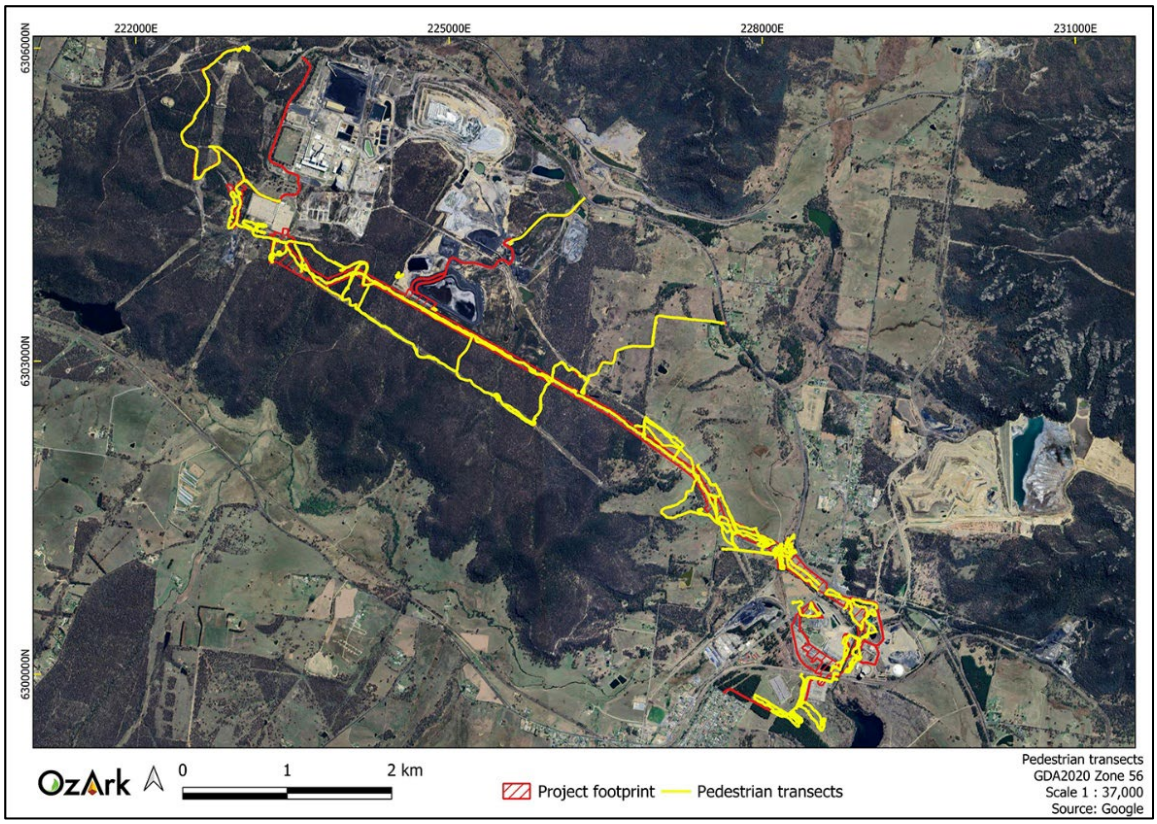
4. View north-west towards the Old School House.

3.5 RESULTS OF FIELD SURVEY

Standard archaeological field survey and recording methods were employed in this study (Burke & Smith 2004). A historic heritage survey occurred concurrently with the Aboriginal heritage survey between March and November 2024. One day of survey was completed on 25 March 2024, three days of survey were completed from 7–9 May 2024, and a day of survey was completed on 7 November 2024.Pedestrian coverage of the survey team across the project footprint is shown in **Figure 3-16**.

No further historic sites, outside of the registered historic heritage sites presented above, were identified during the survey.

Figure 3-16: Pedestrian transects of project footprint.



4 HERITAGE IMPACT ASSESSMENT

4.1 ARCHAEOLOGICAL ASSESSMENT

The project footprint comprises mostly of an existing transmission line easement and its associated access tracks. As such, there has been a generally high level of disturbance to the natural landscape of the project footprint The project footprint also includes discrete areas of high modification associated with the Mount Piper Power Station, the former Wallerawang Power Station, substations, coal conveyors and railways, in addition to the existing power transmission lines.

Historical aerial imagery dating to 1975 and 1984 reveal substantial infrastructure surrounded by grazing lands and undisturbed woodland, similar to currently visible land uses (**Figure 3-5**, **Figure 3-6**). The parish maps and historic research demonstrate that the landscape holds strong social connections to the pioneering Walker and Barton families, who established Wallerawang Station, St John the Evangelist Church, and the Old Wallerawang School House. The landscape, in particular Coxs River, also holds strong connections to naturalist Charles Darwin and his scientific writings.

The substantial structures relating to Wallerawang Station/Barton Park were located to the east of Coxs River and have either been removed or covered by the waters of Lake Wallace. There is no evidence to suggest the existence of previous substantial structures within the project footprint itself. Therefore, there is low potential for archaeological features or deposits relating to any former structures.

4.2 LIKELY IMPACTS TO HISTORIC HERITAGE FROM THE PROJECT

Table 4-1 details the anticipated impacts to historic heritage within the project footprint. The nature of the impacts and the reasoning for the evaluation are provided in **Section 4.3**.

Table 4-1: Historic heritage: impact assessment for items within the project footprint.

Item name	Level of significance	Location and proximity to the project footprint	Identified vibration impacts in Technical Report 10 – Noise and Vibration Assessment)	Impact
Wallerawang rail bridges over Coxs River. SHR #01064 (also listed on LEP)	State	Within the project footprint to the north of the Wallerawang 330 kV substation. The following elements are located within the curtilage: • Small portion of the transmission line easement which contains no physical works with nearest transmission structure (Structure 2C) located about 36 metres north of the curtilage • An existing access track which travels beneath the spans of the bridge will be used during the construction phase of the project, however no upgrade works are proposed to this track.	Wallerawang Rail Bridges over Coxs River is located within minimum working distances for vibratory rollers (< 35 m), excavator with medium hammer (< 24 m) and impact piling (<180 m). Refer to Section 6.2.2 of *Technical Report 10 – Noise and Vibration*.	Inconsequential, if appropriate vibration minimum distances are observed.
Old Wallerawang School House (former National School). LEP #I113	State (listed as State level in LEP)	Located on the corner of Main Street and Castlereagh Highway, Wallerawang. Heritage curtilage is within the project footprint, however significant fabric associated with the schoolhouse structure is located outside the project footprint, about 185 m south-west of the project footprint (the proposed transmission line easement) and about 84 m north-west of compound site 2. The project includes three new transmission structures within the curtilage area, with one of these being a relocation of an existing structure. The nearest structure is proposed about 215 metres from the school house structure. New access tracks will also be provided to each of the new transmission structures with these contained within the project footprint.	The curtilage of the Old Wallerawang School House is within the vibration minimum working distance for vibratory rollers (< 35 m), excavator with medium hammer (< 24 m) and impact piling (<180 m). The heritage structure itself is not within these vibration minimum working distances. Refer to *Section 6.2.2 of Technical Report 10 – Noise and Vibration*.	Inconsequential

Table 4-2 details the anticipated impacts to historic heritage outside of but within 400 m of the project footprint. All items are sufficiently far from the project footprint that they will not be directly impacted. However, some closer items will be able to view the project at a distance, but as the items are in a current industrial landscape, this change to the visual impact to items between 100 and 400 m from the project footprint will be inconsequential.

Table 4-2: Potential impacts to heritage listed items within 400 m the project footprint but outside the project footprint.

Item name	Level of significance	Potential impact	Degree of harm
St John the Evangelist Church SHR #01702 (also listed on LEP)	State	Approximately 30 m west of the project footprint. The item is in a fragile state and excessive vibration from works in the project footprint may damage the item.	No direct impact and no vibration impacts to any significant fabric of the church as the minimum working distances outlined in Section 6.2.2 of Technical Report 10 – Noise and Vibration Assessment being achievable. Inconsequential visual impacts as the item is already in an industrialised landscape.
Wallerawang Railway Station and yard group SHR #01282 (also listed on LEP)	State	Approximately 130 m north-west of the project footprint. The item is at a distance to project impacts.	No direct impact. No visual impacts.
Former Wallerawang Public School and Residence LEP #I225	Local	Approximately 290 m west of the project footprint. The item is at a distance to project impacts but may be visible in the distance.	No direct impact. Inconsequential visual impacts as the item is already in an industrialised landscape.
The Cottage LEP #I191	Local	Approximately 160 m east of the project footprint. The item is at a distance to project impacts but may be visible in the distance.	No direct impact. Inconsequential visual impacts as the item is already in an industrialised landscape.
Braemai LEP #193	Local	Approximately 165 m north-east of the project footprint. The item is at a distance to project impacts but may be visible in the distance.	No direct impact. Inconsequential visual impacts as the item is already in an industrialised landscape.
Meadowside LEP #I192	Local	Approximately 280 m north-east of the project footprint. The item is at a distance to project impacts but may be visible in the distance.	No direct impact. Inconsequential visual impacts as the item is already in an industrialised landscape.
Uniting Church LEP #194	Local	Approximately 370 m north-east of the project footprint. The item is at a distance to project impacts but may be visible in the distance.	No direct impact. Inconsequential visual impacts as the item is already in an industrialised landscape.
Lidsdale House LEP #I203	Local	Approximately 110 m east of the project footprint. The item is at a distance to project impacts.	No direct impact. No visual impacts.
House opposite Lidsdale House LEP #I204	Local	Approximately 250 m east of the project footprint. The item is at a distance to project impacts.	No direct impact. No visual impacts.

The project footprint is approximately 18 km west of The Greater Blue Mountains Area (Place ID 105127). The construction and operation of the project is highly unlikely to harm the identified natural and cultural values associated with this listing.

4.3 IMPACT ASSESSMENTS

The following assessments relate to the possible impacts to the heritage items; Wallerawang Rail Bridges over Coxs River (SHR #01064), St. John the Evangelist Church (SHR #01702), and the Old Wallerawang School House (LEP #I113), as assessed by the SOHI guideline criteria.

4.3.1 Wallerawang Rail Bridges over Coxs River (SHR #01064)

Will the proposed works affect the heritage significance of the adjacent heritage item or the heritage conservation area?

The heritage significance of the Wallerawang Rail Bridges over Coxs River is largely attributed to their aesthetic values, association with the early establishment of the rail corridor in the area, and the connection to rail engineer, John Whitton (**Section 3.4.1.1**). The project will be introducing new infrastructure into the landscape such as electricity conductors; however, it is assessed that this will not overshadow or dominate the rail bridges any more than they currently are. The project footprint contains an existing access track that traverses underneath an arch of both rail bridges (**Figure 3-11**). An alternate access track has been proposed for vehicles that are unable to fit through the sandstone arch to avoid the possibility of damage to the heritage listed item. The project does not intend to alter the current access track; therefore, no direct impact will be made to the heritage significance of the heritage item.

Technical Report 10 – Noise and Vibration Assessment indicates that the works near the Wallerawang Rail Bridge over Coxs River are within the minimum working distance for vibratory rollers (35 m), excavator with medium hammer (24 m) and impact piling (180 m) (refer to Table 4.5 and Table 4.6 in Technical Report 10). The recommendations regarding the selection of construction methods outlined in the Technical Report 10 – Noise and Vibration Assessment should be followed for vibration intensive activities that are planned within vibration minimum working distances of the Wallerawang Rail Bridge over Coxs River. Potential vibration impacts on the Wallerawang Rail Bridge over Coxs River are described further in Technical Report 10.

Will the proposed works affect views to, and from, the heritage item? If yes, how will the impact be mitigated?

The infrastructure relating to the project will be visible as a backdrop to the heritage item when viewed from a distance, however, the heritage item is already within a highly modified, industrial landscape which contains existing transmission infrastructure. Views to and from the heritage listed rail bridges, which are no longer in use, have already been impacted by the decommissioning and demolition of the former Wallerawang Power Station and more recent developments in the surrounding landscape. It is considered that the views to and from the heritage item will not be impacted to a degree that requires mitigation.

Will the proposed works impact on the integrity or the streetscape of the heritage conservation area?

It is assessed that the project will not have a negative impact on the integrity of the streetscape as the heritage item is already within an industrial area and the bridges will not be directly modified or altered by the project.

4.3.2 St John the Evangelist Church (SHR #01702)

Will the proposed works affect the heritage significance of the adjacent heritage item or the heritage conservation area?

The heritage significance of St John the Evangelist Church is largely attributed to its aesthetic values and association with the early pioneering Walker and Barton families, in addition to noted architect and mayor, Edmund Blacket (**Section 3.4.2.1**). The project will be introducing new infrastructure into the landscape, and care must be taken not to inadvertently damage the fragile building through high vibratory construction methods. The church is located approximately 50 m from an existing access track which runs along the western boundary of the project footprint that will be upgraded and 130 m from permanent infrastructure, such as the transmission lines. The item is surrounded on three sides by trees, with the other side facing the road, and it is considered that the impact of the project's infrastructure will not overshadow or dominate the church any more than it currently is.

The Technical Report 10 – Noise and Vibration Assessment indicates that the proposed works near the St John the Evangelist Church (SHR #01702) would be outside the vibration minimum working distances for heritage buildings. This is because any significant heritage fabric forming part of the item is located 50 m from the nearest vibratory works and therefore outside the 35 m minimum working distance for vibratory rollers that would undertake access track upgrade work near the item) (refer to Table 4.5 and Table 4.6 in Technical Report 10 – Noise and Vibration). As the minimum working distances can be met, vibration will not affect the St John the Evangelist Church.

Will the proposed works affect views to, and from, the heritage item? If yes, how will the impact be mitigated?

The infrastructure relating to the project will be visible as a backdrop to the heritage item when viewed from a distance, however, the heritage item is already within a highly modified, industrial landscape and views currently contain significant industrial infrastructural elements. Views to and from the church have already been impacted by the construction of the former Wallerawang Power Station and more recent developments in the surrounding landscape. It is therefore considered that the views to and from St John the Evangelist Church will not be impacted to a degree that requires mitigation.

Will the proposed works impact on the integrity or the streetscape of the heritage conservation area?

It is assessed that the project will not have a negative impact the integrity of the streetscape as the project will not impact this aspect of the item.

4.3.3 Old Wallerawang School House (LEP #I113)

Will the proposed works affect the heritage significance of the adjacent heritage item or the heritage conservation area?

The heritage significance of the Old Wallerawang School House is largely attributed to its association with the early pioneering Walker family and its place as the second oldest National School west of the Blue Mountains (**Section 4.3.3**). The project will be introducing new infrastructure into the landscape (additional transmission structures, transmission line conductors and access tracks), however, it is considered unlikely that the heritage item will be impacted by the project. The project footprint crosses the north-eastern portion of the LEP curtilage, which covers the entire lot associated the school house. The structure of the building is outside the project footprint and approximately 185 m south-west of the proposed transmission line easement and approximately 84 m north-west of compound site 2. The structure is visually separated from the transmission line easement by the trees adjacent to Coxs River (**Figure 3-14**). It is considered that the impact of the project's infrastructure will not overshadow or dominate the heritage item any more than it currently is. Therefore, it is assessed that the project will not negatively affect the heritage significance of the heritage item.

Will the proposed works affect views to, and from, the heritage item? If yes, how will the impact be mitigated?

The infrastructure relating to the project will be visible as a backdrop to the heritage item when viewed from a distance, however, the heritage item is already within a highly modified, industrial landscape and views currently contain significant industrial infrastructural elements. The item is separated from the transmission line easement by approximately 185 m of paddock and then a double row of trees on both banks of the Coxs River. The item is approximately 84 m north-west of compound site 2 and is also visually separated by a single row of trees along the property boundary of the former Wallerawang Power Station. Views to and from the old school house have already been impacted by the construction of the former Wallerawang Power Station and more recent developments in the surrounding landscape. It is therefore considered that the views to and from the old school house will not be impacted to a degree that requires mitigation.

Will the proposed works impact on the integrity or the streetscape of the heritage conservation area?

It is assessed that the project will not have a negative impact the integrity of the streetscape as the project will not impact this aspect of the item.

4.4 DISCUSSION

Twelve registered historic heritage items have been identified within 400 m of the project footprint; however, the heritage items that have been specifically addressed within this report are limited to those within 100 m of the project footprint, due to the industrial nature of the landscape, the presence of existing transmission lines and associated infrastructure. These include Wallerawang Rail Bridges over Cox's River (SHR #01064), St. John the Evangelist Church (SHR #01702), and Old Wallerawang School House (LEP #I113).

The assessment above demonstrates that the project will not adversely impact these historic items, however, care should be taken to reduce the use of construction methods utilising vibratory equipment for access track upgrades near St John the Evangelist Church due to its already fragile condition. No further historic items were identified during the field survey, and it has been assessed there is a low likelihood of any potential historical archaeology within the project footprint as there is no evidence of former significant structures within the project footprint and the landscape has been generally disturbed by grazing and industrialisation.

4.5 CUMULATIVE IMPACTS

Section 21.2 of the EIS outlines the assessment methodology for cumulative impacts including the methods for identifying what projects have been considered as part of the issue-specific cumulative impact assessments for the project. The assessment has been undertaken in accordance with the Cumulative Impact Assessment Guidelines for State Significant Projects (DPIE 2022).

The following 10 projects within 20 kilometres of the project footprint were identified for consideration as part of the cumulative impact assessment and are shown in **Figure 4-1**:

- Wallerawang Battery Energy Storage System
- Mount Piper Battery Energy Storage System
- Great Western Battery Energy Storage System
- Pinecrest Battery Energy Storage System
- Lake Lyell Pumped Hydro Energy Storage
- Ben Bullen Wind Farm
- Sunny Corner Win Farm
- Wallerawang Power Station Ash Dam
- Wallerawang residential subdivision (DA226/22).
- Wallerawang Station upgrades.

Table 4-3 outlines the potential cumulative impacts relevant to each assessment.

The examined projects near the project footprint have been described as having no impact or minimal impact on the significant heritage values of the area. Those with no information available are considered unlikely to have any impacts on heritage values. The cumulative impact of these projects on historic heritage values can be characterised as low, based on the results of their heritage assessments. As this report concludes that the project will have an inconsequential impact on the two listed heritage items within the project footprint and the nine assessed items near the project footprint, the project will not significantly increase the cumulative impact on the area's historic heritage values.

Figure 4-1: Projects considered in the cumulative assessment

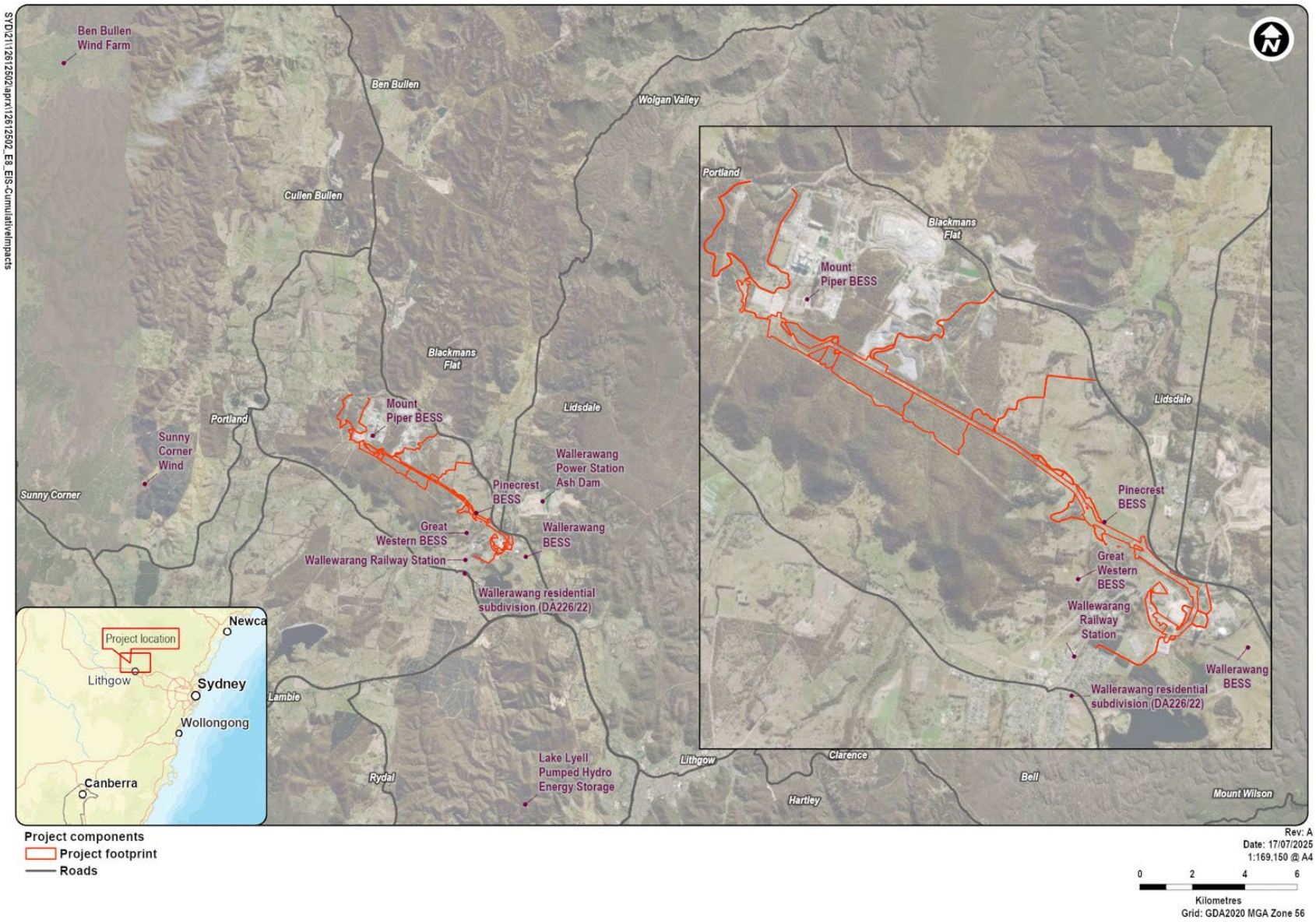


Table 4-3: Potential cumulative impacts of relevant future projects

Relevant future project	Scope	Approximate location	Status/timeframe/operational period	Potential for cumulative impact
Wallerawang BESS	Design changes to optimise the layout of the approved Wallerawang BESS (500 MW and 1,000 MWh of battery storage capacity)	500 m east of the project footprint	Approved 4/8/2022 Current modification at response to submissions stages Construction period of 1 to 2 years, expected to commence from 2025, construction does not appear to have commenced Operational period unchanged	NGH 2021 noted that there are no statutory listed heritage items within their project footprint, however, there are known heritage items within proximity of the project footprint, such as the Wallerawang rail bridges over Cox's River (SHR #01064). The report concludes that there will be no impacts materially or visually by the project. Therefore, this project does not contribute to the cumulative loss of heritage values in the immediate region.
Mount Piper BESS	Development of a grid-scale BESS with a capacity of up to 500 MW	Immediately north of the project footprint	Approved 15/11/2024 Construction period of 18-24 months expected to commence from mid-2026 at the earliest Potentially operational by 2027/2028 and would operate for about 20 years	The heritage assessment notes that there are no historic heritage items within the in the BESS study area or in close proximity (3 km) (Aurecon 2024: vi-vii). Therefore, this project does not contribute to the accumulative loss of heritage values in the immediate region.
Great Western BESS	Development of a 500 MW / 1,000 MWh BESS and associated infrastructure	300 m west of the project footprint	Approved 2/11/2023 Project has not yet commenced construction and construction start date is not known however is expected to occur over 12-14 months once the modification is approved The BESS is intended to have an operational life of up to 20 years	AECOM 2022 notes that there are no historic heritage items in the BESS study area that will be harmed. Therefore, this project does not contribute to the cumulative loss of heritage values in the immediate region. Similar precautionary measures around St. John the Evangelist Church (SHR #01702) were recommended identical to those in this report (limit vibration).
Pinecrest BESS	Development of 500 MW battery storage capacity and 1,000 MWh of storage with (2-hour duration) connecting to the grid via underground cabling	Layout shown in scoping report is located within project footprint, with Transgrid undertaking ongoing consultation with Banpu Energy regarding positioning of the site.	Scoping report prepared with SEARs not yet issued EIS is expected to be submitted in early 2026 Construction period of 18 months commencing in late 2026 if approved. Operations proposed to start in 2028	Project is at development phase with no heritage assessments undertaken. The assumed site of this project does not contain any listed heritage items and therefore is unlikely to result in any cumulative loss of heritage values in the immediate region.
Lake Lyell Pumped Hydro Energy Storage	Development of the Lake Lyell Pumped Hydro Energy Storage Scheme (that will provide between 300 to 350 MW of electricity generating capacity for up to 8 hours during peak demand	10 km south of the project footprint	EIS in preparation Technical design expected to conclude in 2025. Construction expected commence in late 2026 and to take four years with operation commencing in 2029	No detailed heritage assessment has been completed to date. However, the scoping report notes there are no heritage items within the study area and therefore is unlikely to result in any cumulative loss of heritage values in the immediate region.

Relevant future project	Scope	Approximate location	Status/timeframe/operational period	Potential for cumulative impact
Ben Bullen Wind Farm	Construction of approximately 64 wind turbine generators, a BESS and ancillary infrastructure	20 km north-west of the project footprint	EIS in preparation Construction in 2028 for 18-24 months Operational life of 35 years+	No detailed heritage assessment has been completed to date, however the scoping report notes there are no heritage items that would be subject to direct impacts. The project has potential for indirect impacts to heritage items and previously unrecorded heritage items may be present due to historic land uses within the project footprint.
Sunny Corner Wind Farm	Construction of approximately 80 wind turbine generators, a BESS and ancillary infrastructure	6 km west of the project footprint	EIS in preparation Construction in 2030 for 36 months Operational life of 30 years	There is one locally listed heritage item within the project footprint for Sunny Corner Windfarm (Kirkconnell Correctional Facility). There are two SHR listings within 2 km of the project footprint and five Bathurst LEP local heritage items within 1 km of the project footprint (RPS 2025: 83). As this project is in its assessment phase, potential harm to the historic heritage items noted in the scoping report is not known.
Wallerawang Power Station Ash Dam	Use of part of the lands lying north of the Castlereagh Highway that were once used by the former Wallerawang Power Station as coal ash dam repositories	Immediately north of the project footprint	Approved 13/10/2023 The modification proposes an additional ten years for the importation of capping material	The latest modification is for the extension of existing operations approved as part of earlier stages of the project. No cumulative impacts on heritage items or values identified.
Wallerawang Residential subdivision (DA226/22)	Torrens Subdivision - 1 Lot into 54 Residential Allotments, 4 New Roads, 2 lots for drainage and public reserve Allotment	19 Barton Avenue Wallerawang 2 km south-west of the project footprint	Currently being re-exhibited till 13 June 2025	No information available in terms of heritage assessment at location of the subdivision. Review of databases suggests that there are no listed heritage items within the Lot/DP linked with the subdivision. Considered unlikely to result in cumulative loss of heritage values in the immediate region based on available information.
Wallerawang Station updates	Works to upgrade the existing station, closed in 1989, so that passenger services can be restated.	850 m south-west of project footprint	Project has been announced on Transport for NSW website Early enabling works will be carried out from March to August 2025. Once the design is finalised, construction will commence later in 2025, with re-opening of the station planned for late 2026	The proposed works at the Wallerawang Station involve minor repairs and improvements to the station services and buildings. This includes repainting and repairs that are expected to be completed in line with TfNSW policies for works on SHR curtilage items. Although the heritage management documents have not been sited, it is assumed that sympathetic repair and restoration of the station will have a positive impact on the heritage values of the item.

5 MANAGEMENT AND MITIGATION

5.1 GENERAL PRINCIPLES FOR THE MANAGEMENT OF HISTORIC ITEMS

Appropriate management of heritage items is primarily determined based on their assessed significance as well as the likely impacts of the proposed development. In terms of best practice and desired outcomes, avoiding impact to any historical item is a preferred outcome, however, where a historical site has been assessed as having no heritage value, impacts to these items does not require any legislated mitigation.

5.2 WALLERAWANG RAIL BRIDGES OVER COXS RIVER

The heritage significance of the Wallerawang Rail Bridges over Coxs River (SHR #01064) is largely attributed to their aesthetic values, association with the early establishment of the rail corridor in the area, and the connection to rail engineer, John Whitton. The project footprint contains an existing access track that traverses underneath an arch of both rail bridges. An alternate access track has been proposed for vehicles that are unable to fit through the sandstone arch to avoid the possibility of damage to the heritage listed item. The project does not intend to modify the current access track; therefore, no impact will be made to the heritage significance of the bridges.

5.3 ST JOHN THE EVANGELIST CHURCH

The Technical Report 10 – Noise and Vibration Assessment has indicated that the proposed works near the St John the Evangelist Church adhere to the vibration minimum working distances for heritage buildings and that the construction of the access track within the project footprint will not affect the structure (refer to section 6.2.2 of Technical Report 10). The church structure is located approximately 50 m from the project footprint, an access track that will be upgraded. The church is 515 m west from the nearest proposed transmission structure (7C). The item is surrounded on three sides by trees, with the other side facing the road, and it is considered that the impact of the project's infrastructure will not overshadow or visually dominate the church. The project will not impact the heritage significance of the heritage item.

5.4 THE OLD WALLERAWANG SCHOOL HOUSE

Proposed works within the heritage curtilage for the Old Wallerawang School House (former National School) (LEP #I113) will not adversely affect the integrity of the heritage item. The heritage item is securely fenced, and the project footprint (including the proposed transmission line easement) is separated from the school house by a screen of trees on both banks of the Coxs River and by approximately 140 m of grassed paddock. The heritage item is also about 84 m north west of compound site 2. The north-eastern portion of heritage curtilage of item LEP #I113 is within the project footprint and would be subject to some excavation for transmission line structure construction. However, the potential for this area to contain archaeological deposits

associated with the Old Wallerawang School House is low. It is therefore concluded that the works will have an inconsequential impact on the heritage values of the Old Wallerawang School House.

6 CONCLUSIONS AND RECOMMENDATIONS

This assessment has concluded that the project footprint intersects the heritage curtilages of two listed items, the Wallerawang rail bridges over Coxs River (SHR #01064) and the Old Wallerawang School House (LEP #I113). The project footprint is within 50 m of another listed item, St. John the Evangelist Church (SHR #01702).

The project is generally within an industrial landscape and all three listed items are adjacent to landscapes that have been significantly modified by industry over many decades. Because of this, all items have lost much of their aesthetic values associated with the pre-industrial landscape, although they retain individual aesthetic values, as well as historic and research values.

This assessment concludes that the project will not change the physical fabric of the Wallerawang rail bridges over Coxs River (SHR #01064) and therefore no direct impacts are expected. While the project will involve the construction of new transmission structures adjacent to the item, this will not be a significant alteration within the industrial landscape surrounding the item. Use of the existing access track beneath the spans of the bridges will also not affect the heritage fabric of the item (and no upgrades are required to this track as part of the project). Therefore, it is concluded that there will be no impact to the item and the project will have an inconsequential impact to the item's heritage values.

The heritage curtilage for St. John the Evangelist Church (SHR #01702) is outside the project footprint, but within 50 m of proposed works and the fragile nature of this significant item must be considered. The Noise and Vibration Management Plan to be developed (discussed in Technical Report 10 – Noise and Vibration assessment) would establish measures for ensuring that appropriate minimum working distances for vibratory plant will be observed for this item even though its current expected to be outside the minimum working distances.

The Old Wallerawang School House (LEP #I113) is located outside the project footprint, about 185 m south-west of the project footprint, including the transmission line easement, and about 84 m north-west of compound site 2 and will not be directly harmed. Works, however, are proposed in the north-eastern portion of the heritage curtilage of the item and will separate from the heritage structure by the Coxs River, a screen of trees on both sides of the river and about 140 m of grassed paddock. At the closest point of the project footprint (including compound site 2), the heritage structure is separated from the listed item by approximately 84 m and a row of trees along the property boundary of the former Wallerawang Power Station. This assessment concludes that despite the project being within the heritage curtilage, this will have an inconsequential impact on the heritage values of the Old Wallerawang School House.

In total, the project will have an inconsequential impact on two listed items located within the project footprint and the historic heritage values of the area near the project footprint will be unchanged because of the project.

Recommendations and actions concerning the historic values within the project footprint are as follows.

1. All the proposed works will remain within the project footprint as shown on **Figure 1-2**. In the event that the project design changes, additional assessment may be required.
2. A Historic Heritage Management Plan (HHMP) will be prepared in consultation with Council and Heritage NSW, as required. The HHMP will include:
    - an unanticipated finds protocol and heritage induction/ toolbox requirements (refer to Appendix 1 for an example)
    - the location and curtilage extents of Wallerawang Rail Bridges, St. John the Evangelist Church and the Old Wallerawang School House on mapping. This includes details of the exclusion zone over a portion of the Old Wallerawang School House (LEP #I113) curtilage to the south-west of the project footprint.
    - requirements for inductions and toolbox talks to include a summary of the significance of heritage items, legislative responsibilities and appropriate mitigation measures.
3. Use of the existing access track within the heritage curtilage for Wallerawang rail bridges over Coxs River (SHR #01064) will be limited to light vehicles to avoid impact on the bridge underside. Signage will be erected and maintained during construction advising of the height limitations. No upgrades to this track are to occur within the curtilage area of the item.

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APPENDIX 1: HISTORIC HERITAGE: UNANTICIPATED FINDS PROTOCOL

A historic artefact is anything which is the result of past activity not related to the Aboriginal occupation of the area. This includes pottery, wood, glass and metal objects as well as the built remains of structures, sometimes heavily ruined.

Heritage significance of historic items is assessed by suitably qualified specialists who place the item or site in context and determine its role in aiding the community's understanding of the local area, or their wider role in being an exemplar of state or even national historic themes.

The following protocol should be followed if previously unrecorded or unanticipated historic objects are encountered:

1. All ground surface disturbance in the area of the finds should cease immediately, then:
    a) The discoverer of the find(s) will notify machinery operators in the immediate vicinity of the find(s) so that work can be halted
    b) The site supervisor will be informed of the find(s).
2. If finds are suspected to be human skeletal remains, then NSW Police must be contacted as a matter of priority.
3. If there is substantial doubt regarding the historic significance for the finds, then gain a qualified opinion from an archaeologist as soon as possible. This can circumvent proceeding further along the protocol for items which turn out not to be significant. If a quick opinion cannot be gained, or the identification is that the item is likely to be significant, then proceed to the next step.
4. Notify Heritage NSW (131 555 or info@environment.nsw.gov.au) and DPHI Compliance (compliance@planning.nsw.gov.au) providing any details of the historic find and its location.
5. If in the view of the heritage specialist or Heritage NSW that the finds appear not to be significant, work may recommence without further investigation. Keep a copy of all correspondence for future reference.
6. If in the view of the heritage specialist or Heritage NSW that the finds appear to be significant, facilitate the recording and assessment of the finds by a suitably qualified heritage specialist. Such a study should include the development of appropriate management strategies.
7. If the find(s) are determined to be significant historic items (i.e. of local or state significance), any re-commencement of ground surface disturbance may only resume following compliance with any legal requirements and gaining written approval from Heritage NSW or DPHI.