


Nowra Bridge Project

Non-Aboriginal Statement of Heritage
Impact

Report to SMEC and
Roads and Maritime Services

August 2018



 artefact

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EXECUTIVE SUMMARY

Introduction and background

Roads and Maritime Services NSW (Roads and Maritime) proposes to construct a new bridge on the A1 Princes Highway over the Shoalhaven River at Nowra (the proposal). This would include the construction of a new four lane bridge to the west (upstream) of the existing bridge crossings. The proposal would also include the upgrade of the Princes Highway in the vicinity of the bridge, as well as key intersection upgrades and modifications to the local road network. The proposal would improve access to Nowra and the surrounding areas, improve access for larger trucks, and reduce traffic delays.

The proposal would include the upgrade of about 1.6 kilometres of the Princes Highway from about 150 metres north of the Bolong Road intersection to about 75 metres north of the Moss Street intersection. The new bridge over the Shoalhaven River would be about 360 metres long and would accommodate four lanes of northbound traffic and a shared path for cyclists and pedestrians. A concept design has been developed, and the current proposal will seek approval through preparation of a Review of Environmental Factors (REF) under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Artefact Heritage has been engaged by SMEC on behalf of Roads and Maritime to prepare a Statement of Heritage Impact (SoHI) for the proposal. The aim of this SoHI is to identify heritage items which may be impacted by the proposal, determine the level of heritage significance of each item, assess the potential impact to those items, recommend mitigation measures to reduce the level of heritage impact, and identify other management or statutory obligations.

Overview of findings

There are 13 heritage items located within the proposal study area. All 13 items are listed on the Shoalhaven Local Environment Plan (LEP). One of these items, Graham Lodge, is also listed on the State Heritage Register (SHR). Another item, Nowra Bridge over the Shoalhaven River, is also listed on the Roads and Maritime Section 170 Heritage and Conservation Register (s170) and on the non-statutory Register of National Estate. There is one potential heritage item of local significance, the 'M&M Guesthouse' (former "Culburra House"), within the proposal study area. The proposal would result in a major physical and visual impact to one heritage item, the locally listed Captain Cook Bicentennial Memorial (LEP No. 338). The proposal would result in a moderate impact to two heritage items, the locally listed "Lynburn" (LEP No. 130) and "Illowra" (LEP No. 136). The proposal would result in neutral to minor physical and visual impacts to remaining listed heritage items within the study area. The proposal would result in a major impact to the potential heritage item 'M&M Guesthouse'.

While the proposal would result in a minor physical impact and visual impact to the Nowra truss bridge (RMS s170 Register No. 4301658, LEP Item No. 402), it is noted that termination of its historic use as the main transportation route across the Shoalhaven would result in an indirect impact to the heritage values of this item, which has been assessed as being of State significance. The changed use of the truss bridge would be balanced by positive heritage outcomes. The proposal allows for the bridge's retention and has been designed to site new development upstream (west) of the existing bridges. This complies with the CMP 2015 (Artefact Heritage), which outlines the importance of maintaining the setting and character of the bridge's eastern elevation. Potential conversion of the truss bridge in the future for pedestrian and cyclist use would also offer an opportunity to remove non-

original elements including the 1980s pedestrian walkway, road signs and guardrails, and would safeguard the bridge's ongoing use, maintenance and longevity.

There is a high potential that archaeological remains of State and local significance are located in the SHR curtilage of Graham Lodge. It is assumed that subsurface impacts would not occur within the SHR curtilage. According to historic plans the original Graham Lodge 1840s cottage was located within the existing road corridor of the Princes Highway outside the SHR curtilage. It is likely these remains have been impacted by the construction of the highway which has been cut into the original landform at that location. Although the location of the former stores and wharf on the northern side of the river, has low potential for locally significant archaeological remains (works), the area is not within the impact area and would not be affected by the proposal. Significant archaeological remains are not expected within the remainder of the study area as it was rural and agricultural in use until the late 19th century, therefore any remains are unlikely to reach the threshold of local significance.

The recommendations outlined below provide guidance on obtaining archaeological permits within areas of archaeological potential, and the procedures involved in the event that unexpected finds are encountered during work.

Recommendations

The recommendations set out below will aid in mitigating the impact of the proposal on nearby heritage items and areas of archaeological potential.

Avoid or minimise impact

Where feasible, opportunities to revise the design of the proposal should be considered to avoid or minimise impact to the curtilages of heritage items within the proposed project footprint. This includes consideration of revising the extent and location of ancillary facilities.

Impact to Graham Lodge (SHR No. 01699)

A temporary compound site would be constructed within the SHR curtilage of Graham Lodge. As the listing has significance in regard to Aboriginal heritage values, a section 57 exemption would not be approved. A section 60 application would therefore be required. Note that it is currently assumed subsurface impacts would be avoided.

If subsurface works which may impact significant archaeological remains within Graham Lodge are unavoidable and justifiable an Archaeological Research Design would be prepared to support the section 60 application as there is an identified high potential for State and locally significant archaeological remains across the SHR curtilage. Test excavation may be required prior to the permit being granted.

Impact to Captain Cook Bicentennial Memorial (LEP No. 338)

It is recommended that Roads and Maritime consult with Shoalhaven City Council in relation to assessed major impacts to the Captain Cook Bicentennial Memorial in order to determine options for relocation of the pavilion structure and revision of the item's LEP listing status.

Impact to "Lynburn" (LEP No. 130)

Where practicable, impacts should be reduced to the curtilage of "Lynburn" (LEP No. 130). If impacts cannot be avoided, screening vegetation should be retained where possible or replanted as part of a Landscape Plan after construction to minimise visual impact. The Landscape Plan would be

developed in consultation with Shoalhaven City Council to introduce appropriate new plantings to mitigate associated visual impact of the proposal.

Heritage Management Plan

A Heritage Management Plan (HMP) should be prepared to manage potential heritage constraints and unexpected finds during construction. The HMP would include:

- provisions to appropriately protect and manage significant fabric of heritage items such as establishing no-harm areas. This includes protection of significant fabric along the river front i.e. Inter-war Weatherboard Building and Timber Wharf heritage item and its associated concrete and timber footings beneath the extant timber wharf
- provision of a removal/relocation methodology for items proposed to be relocated, i.e. the Captain Cook Bicentennial Memorial to protect the item from damage
- provision of a heritage induction for all workers being carried out prior to commencement of works. The induction would include values of the sites, avoidance procedure, and contacts (site manager, Roads and Maritime environment officer) for reporting unexpected archaeological finds, or inadvertent impact to heritage items
- Unexpected finds procedure in accordance with the *Roads and Maritime Standard Management Procedure: Unexpected Heritage Items* (March 2015).

Potential vibration impact

Construction activities and associated ancillary sites would be within 25 metres of the truss bridge, Captain Cook Bicentennial Memorial, Graham Lodge, Graham Family Cemetery, the 'Inter-war Weatherboard Building and Timber Wharf' and the "Lynburn", "Illowra", "Kilsyth" and "Uuna" residences. Therefore, there is the potential risk for impact to these heritage items from vibration during construction. Management of vibration impacts would be undertaken in accordance with the recommendations of the Noise and Vibration assessment.

Future of the truss bridge

In order to conserve the heritage values of the truss bridge, further investigation should be undertaken during detailed design including consideration of removal of non-original elements, primarily the 1980s walkway attached to the eastern side of the bridge, along with guardrails and road signs, and development of an Interpretation Strategy. This would offer a positive visual and physical impact and enhance appreciation of the bridge's original design and configuration.

Interpretation strategy

Consideration should be given to the preparation of an Interpretation Strategy as part of the proposal. An Interpretation Strategy would consider interpretation opportunities for the heritage items located within the study area. Given the proposed change in its historic use, interpretation is considered particularly important for the truss bridge. Interpretation would outline the history, associations and significance of the bridge, and could involve interpretive signage or displays at the entry points to the bridge or at locations along its span in accordance with Roads and Maritime guidelines.

Archival recording

Archival recording should be undertaken for the Captain Cook Bicentennial Memorial (LEP No. 338), the Nowra truss bridge (RMS s170 Register No. 4301658, LEP No. 402), "Lynburn" (LEP No. 130),

“Illowra” (LEP No. 136) and the potential unlisted item ‘M&M Guesthouse’ prior to impacts occurring in accordance with *Photographic Recording Of Heritage Items Using Film or Digital Capture* (Heritage Council 2006).

Retention of natural screening and development of Landscape Plan

Given the proximity of the proposed construction activities to the heritage curtilages of nearby heritage items along Princes Highway, natural screening in the form of both remnant (natural) vegetation and plantings should be retained wherever possible. Where impact to vegetation cannot be avoided, planting of new vegetation under a developed Landscape Plan should be carried out as part of the scope of the proposal. This particularly relates to vegetation within the LEP listed “Lynburn” heritage item (LEP No. 130), “Illowra” heritage item (LEP No. 136), and Captain Cook Bicentennial Memorial heritage item (LEP No. 338), the curtilages of which would be substantially encroached upon by the proposed road alignment and associated ancillary facilities.

Archaeological management

No subsurface impacts are proposed within the SHR curtilage of Graham Lodge, and therefore no archaeological impacts are expected. As no other areas have been identified as being likely to contain relics, the *Roads and Maritime Standard Management Procedure: Unexpected Heritage Items* (March 2015) would be applied for the remainder of the study area.

Consultation with Shoalhaven City Council

As the proposal has been assessed as potentially resulting a major physical and visual impact to the locally listed Captain Cook Bicentennial Memorial heritage item (LEP Item No. 338), moderate physical and visual impact to “Lynburn” (LEP Item No. 130), moderate visual impact to “Illowra” (LEP No. 136), and major physical and visual impact to the potential unlisted item ‘M&M Guesthouse’, consultation with Shoalhaven City Council would be required under the ISEPP.

State Heritage Register listing of truss bridge

As the truss bridge has previously been assessed as being of State significance, it is recommended that it be considered for listing on the SHR.

Potential heritage item ‘M&M Guesthouse’ (former “Culburra House”)

It is recommended that Roads and Maritime consider options for relocation of the potential unlisted heritage item ‘M&M Guesthouse’ in consultation with Shoalhaven Council.

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ABBREVIATIONS

ARD	Archaeological Research Design
Artefact Heritage	Artefact Heritage Services Pty Ltd
CEMP	Construction Environmental Management Plan
CMP	Conservation Management Plan
DCP	Development Control Plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Heritage Act	<i>Heritage Act 1977</i>
HMP	Heritage Management Plan
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
NSW	New South Wales
OEH	Office of Environment and Heritage
REF	Review of Environmental Factors
RNE	Register of the National Estate
RNT	Register of the National Trust
Roads and Maritime	NSW Roads and Maritime Services
s60	Section 60 of the <i>Heritage Act, 1977</i>
s170	Section 170 of the <i>Heritage Act, 1977</i>
Shoalhaven LEP	City of Shoalhaven Local Environmental Plan 2014
SHI	State Heritage Inventory
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
the study area	Area of investigation surrounding the preferred option, provided by Roads and Maritime, shown in Figure 1.1
WHL	World Heritage List

1.0 INTRODUCTION AND BACKGROUND

1.1 Proposal background

Roads and Maritime Services NSW (Roads and Maritime) proposes to construct a new bridge on the A1 Princes Highway over the Shoalhaven River at Nowra (the proposal). This would include the construction of a new four lane bridge to the west (upstream) of the existing bridge crossings. The proposal would also include the upgrade of the Princes Highway in the vicinity of the bridge, as well as key intersection upgrades and modifications to the local road network. The proposal would improve access to Nowra and the surrounding areas, improve access for larger trucks, and reduce traffic delays.

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Artefact Heritage has been engaged by SMEC on behalf of Roads and Maritime to prepare a Statement of Heritage Impact (SoHI) for the proposal. The aim of this SoHI is to identify heritage items which may be impacted by the proposal, determine the level of heritage significance of each item, assess the potential impact to those items, recommend mitigation measures to reduce the level of heritage impact, and identify other management or statutory obligations.

1.2 Study area

The proposal is located on the Princes Highway in Nowra within the Shoalhaven Local Government Area (LGA) on the south coast of NSW, approximately 120 kilometres south of Sydney and 30 kilometres south west of Kiama. The study area of this assessment is an area of investigation that surrounds the preferred option provided by Roads and Maritime, and straddles the Shoalhaven River and existing alignment of the Princes Highway at Bomaderry to the north and Nowra to the south. The surrounding landscape comprises a combination of development ranging from open parkland to developed residential and commercial areas, and an agricultural flood plain landscape beyond. The study area is shown in Figure 1.1.

1.3 Proposal description

The main features of the proposal include:

- Construction of a new bridge to the west (upstream) of the existing bridge crossings over the Shoalhaven River including:
 - Upgrade of the bridge approaches generally between Bolong Road on the northern side and Moss Street on the southern side
 - Four northbound lanes including a dedicated left turn only lane from Bridge Road to Illaroo Road
 - A three-metre wide shared use path on the western side of the bridge connecting the Illaroo Road intersection to the Bridge Road intersection

- Widening of the existing bridge over Bomaderry Creek to the west (upstream)
- Minor lane adjustments on the existing northbound bridge to convert it to three lanes of southbound traffic
- Removal of traffic from the old southbound bridge and approach works to provide for pedestrian and cycle access
- Upgrading of the Princes Highway to provide three northbound and three southbound lanes from Bolong Road through to about 75 metres north of Moss Street
- Widening of Illaroo Road over a distance of about 340 metres
- Upgrading of the Princes Highway and Illaroo Road intersection to provide:
 - Two southbound right turn lanes from the Princes Highway into Illaroo Road
 - Three right turn lanes and one left turn lane from Illaroo Road to the Princes Highway
 - A short merge lane for westbound traffic turning left into Illaroo Road from the new northbound bridge
- Upgrading of the Princes Highway and Bridge Road intersection to provide:
 - Two southbound right turn lanes from the Princes Highway into Bridge Road
 - One left turn lane from Bridge Road to the Princes Highway
- Local road adjustments including:
 - Closing the access between Pleasant Way and the Princes Highway
 - Restricting turning movements to left in, left out at the intersection of Bridge Road and Scenic Drive
 - Construction of a new local road connecting Lyrebird Drive to the Princes Highway about 300 metres south of the existing Pleasant Way intersection
- Provision of pedestrian facilities at all intersections
- Dedicated off road shared paths and footpaths along the length of the proposal
- Urban design and social amenity improvements, and landscaping including foreshore pedestrian links to the historic truss bridge
- Relocation and/or protection of utility services within the affected road corridor
- Drainage and water quality management infrastructure along the road corridor
- Property works including acquisition, demolition, and adjustments to accesses
- Temporary ancillary facilities for use during construction including site offices, construction compounds, and stockpile sites.

1.4 Justification for proposed work

The proposal is intended to ease the current and growing congestion problems along Princes Highway over the Shoalhaven River, which are largely associated with limitations and maintenance closures of the truss bridge. With the increased planning for development in the area, congestion will increase in future, unless the capacity of the road to carry traffic is increased. The proposal aims to provide this capacity, to enable Princes Highway to function as a successful arterial road for the local area. The proposal would improve accessibility, safety and efficiency for road users, and would be compatible with the long-term transport network in the Nowra region.

Development of the preferred option involved consideration of a large number of options. Selection of a preferred alignment considered a host of environmental and engineering issues and constraints, including avoiding or minimising likely and potential impacts on non-Aboriginal heritage. The proposal avoids directly impacting on the truss bridge, which has been identified as having relatively high heritage value. Design development of the proposal would include appropriate consideration of opportunities to further mitigate environmental impacts including those on non-Aboriginal heritage.

1.5 Scope of this assessment

The purpose of this SoHI is to assess the potential impact to non-Aboriginal heritage values as a result of the proposed work. The scope of the assessment includes:

- Identification of listed heritage items and potential archaeological remains within the study area
- An overview of the historical development of the study area
- Assessment of significance of heritage items and potential archaeological remains within the study area
- Assessment of impact of the proposal on identified heritage items and potential archaeological remains within the study area
- Recommendations on appropriate management and mitigation measures in line with statutory requirements.

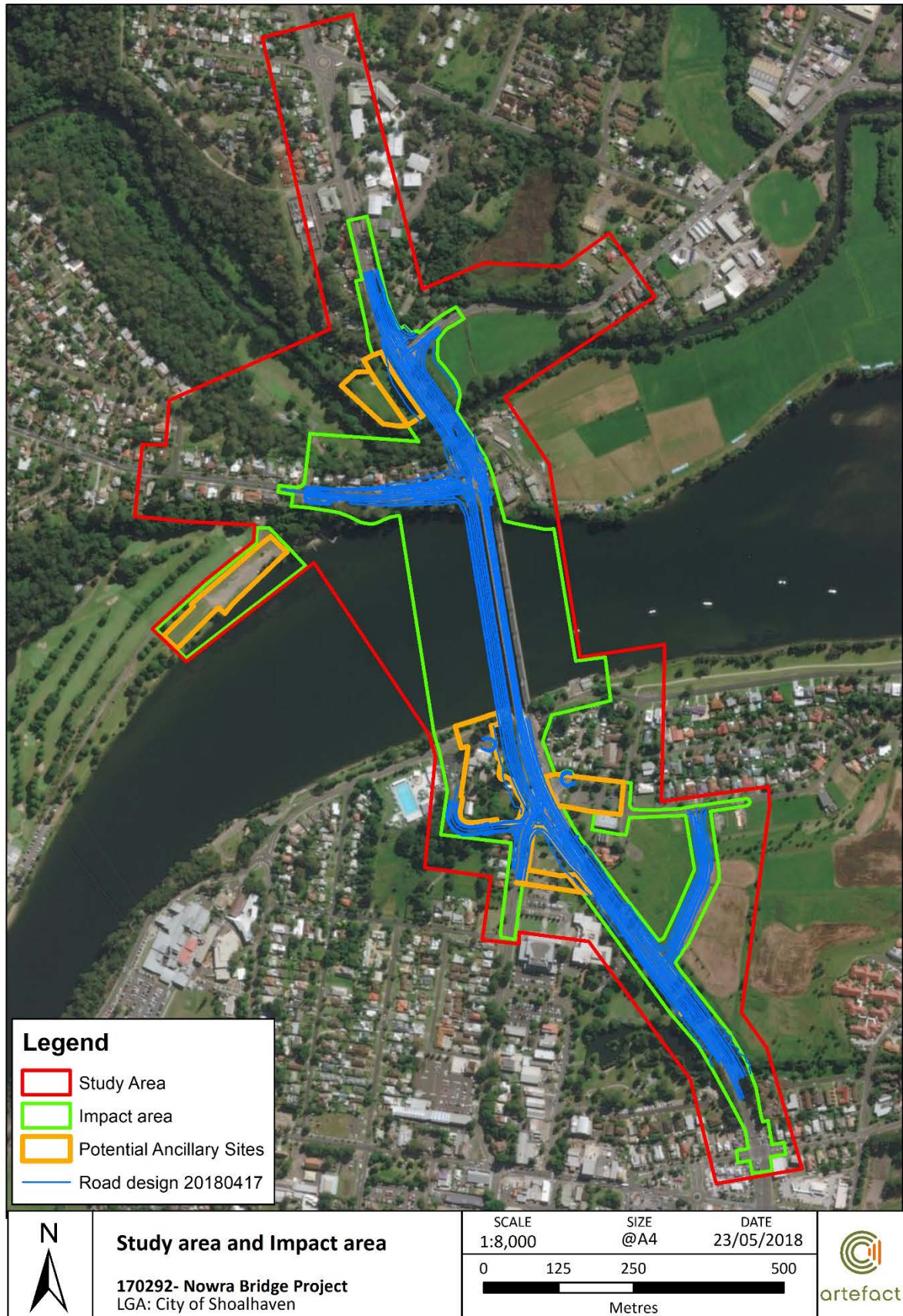
1.6 Methodology

This SoHI has been prepared with reference to the following:

- Statements of Heritage Impact, NSW Heritage Manual, 2002 (NSW Heritage Office)
- Australia ICOMOS Charter for Places of Cultural Significance, The Burra Charter, 2013 (Burra Charter)
- Roads and Maritime requirements for preparation of SoHI reports
- Artefact Heritage, 'Nowra Truss Bridge: Phase 1 Conservation Management Plan', 2015
- Freemans Architects, 'Graham Lodge Precinct, Nowra: Conservation Management Plan', 2000
- Heritage Archaeology, 'Archaeological Assessment of Greenhills, Nowra, NSW', 2000.

1.7 Authors

This report was prepared by Charlotte Simons (Heritage Consultant, Artefact Heritage). Mapping for the report was prepared by Jennifer Norfolk (Heritage Consultant, Artefact Heritage). Vanessa Edmonds (Principal, Artefact Heritage) provided input and reviewed the report. Dr Sandra Wallace (Director, Artefact Heritage) also reviewed the report.



Document Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\170292 - Nowra Bridge stage 2\MXD\SoHI Maps\Updated 23May18\Study area

Figure 1.1: Location of the study area

2.0 STATUTORY CONTEXT

2.1 Introduction

A number of planning and legislative documents govern how heritage is managed in NSW and Australia. The following section provides an overview of the requirements under each as they apply to the proposal. Listed items are discussed under each Act and shown in Figure 2.1

2.2 Commonwealth legislation

2.2.1 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legislative framework for the protection and management of matters of national environmental significance, that is, flora, fauna, ecological communities and heritage places of national and international importance. Heritage items are protected through their inscription on the World Heritage List (WHL), Commonwealth Heritage List (CHL) or the National Heritage List (NHL).

Under Part 9 of the EPBC Act, approval under the EPBC Act is required for any action occurring within, or outside, a Heritage place that has, will have, or is likely to have a 'significant impact' on the heritage values of a World, National or Commonwealth heritage listed property (referred to as a 'controlled action' under the Act). A 'significant impact' is defined as:

an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts.

The EPBC Act stipulates that a person who has proposed an action that will, or is likely to, have a significant impact on a site that is listed on the WHL, National Heritage List or Commonwealth Heritage List must refer the action to the Minister for Environment and Energy (hereafter Minister). The Minister will then determine if the action requires approval under the EPBC Act. If approval is required, an environmental assessment would need to be prepared. The Minister would approve or decline the action based on this assessment.

2.2.1.1 *Commonwealth Heritage List*

The Commonwealth Heritage List (CHL) has been established to list heritage places that are either entirely within a Commonwealth area, or outside the Australian jurisdiction and owned or leased by the Commonwealth or a Commonwealth Authority. The Commonwealth Heritage List includes natural, Indigenous and historic heritage places which the Minister for the Environment and Energy is satisfied have one or more Commonwealth Heritage values.

No sites within or near the study area are included on the Commonwealth Heritage List.

2.2.1.2 *National Heritage List*

The NHL was established under the EPBC Act, which provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. Under the EPBC Act, nationally significant heritage items are protected through listing on the NHL or the Commonwealth Heritage List.

No sites within or near the study area are included on the National Heritage List.

2.3 State legislation

2.3.1 Heritage Act 1977

The *Heritage Act 1977* (NSW) (Heritage Act) is the primary item of State legislation affording protection to items of environmental heritage in NSW. The Heritage Act is designed to protect both listed heritage items, such as standing structures, and potential archaeological remains or relics. Under the Heritage Act, 'items of environmental heritage' include places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. State significant items are listed on the NSW SHR and are given automatic protection under the Heritage Act against any activities that may damage or affect its heritage significance.

To carry out activities within the curtilage of an item listed on the SHR, approval must be gained from the Heritage Council by securing a Section 60 permit. In some circumstances, under Section 57(2) of the Heritage Act, a Section 60 permit may not be required if works are undertaken in accordance with the Standard Exemptions for Works Requiring Heritage Council Approval or in accordance with agency specific exemptions. This includes work that is only minor in nature and will have minimal impact on the heritage significance of the place.

2.3.1.1 State Heritage Register

The SHR was established under Section 22 of the Heritage Act and is a list of places and objects of particular importance to the people of NSW, including archaeological sites. The SHR is administered by the Heritage Division of the Office of Environment and Heritage (OEH). This includes a diverse range of over 1,500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW.

There is one item listed on the SHR located within the study area. This item is listed in Table 2-1 and shown in Figure 2.1

Table 2-1: SHR items located within the study area

SHR No.	Name	Location	Significance
01699	Graham Lodge	10 Pleasant Way, Nowra	State

2.3.1.2 Section 170 registers

Under the Heritage Act all government agencies are required to identify, conserve and manage heritage items in their ownership or control. Section 170 (s170) requires all government agencies to maintain a Heritage and Conservation Register that lists certain classes of heritage assets identified in Section 22(1) of the Heritage Regulation 2012. They must ensure that these assets are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the Government on advice of the NSW Heritage Council. These principles serve to protect and conserve the heritage significance of items and are based on NSW heritage legislation and guidelines.

There is one item listed on the s170 register located within the study area. This item is listed in Table 2-2 and shown in Figure 2.1.

Table 2-2: s170 items located within the study area

Roads and Maritime s170 Register No.	Name	Location	Significance
4301658	Nowra Bridge over the Shoalhaven River	Princes Highway, Nowra	State

2.3.1.3 Archaeological relics

Part 6 Division 9 of the Heritage Act protects archaeological 'relics' from being exposed, moved, damaged or destroyed. This protection extends to situations where a person has reasonable cause to suspect that archaeological remains may be affected by the disturbance or excavation of the land. It applies to all land in NSW that is not included in the SHR. Section 4(1) of the Heritage Act (as amended 2009) defines 'relic' as follows:

"relic means any deposit, artefact, object or material evidence that:

(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and

(b) is of State or local heritage significance."

Sections 139-145 of the Heritage Act prevent the excavation or disturbance of land known or likely to contain relics, unless in accordance with an excavation permit. Excavation permits are issued under Section 140 of the Heritage Act, or Section 60 for sites listed on the SHR. Excavation Permit Applications must be supported by an Archaeological Research Design. Section 146 of the Heritage Act requires that any discovery or location of a 'relic' is reported to the Heritage Council.

If the proposed work is minor and would have minimal impact on the heritage significance of the place or site, it may be granted an exception or exemption under Section 139 (4) or Section 57 (2) of the Heritage Act.

2.3.1.4 Works

The Heritage Act identified 'works' as being in a separate category to archaeological 'relics.' 'Works' refer to past evidence of infrastructure. 'Works' may be buried, and therefore archaeological in nature, however, exposure of a 'work' does not trigger reporting obligations under the Heritage Act. 'Works', as items of environmental heritage, have the potential to provide information that contributes to our knowledge of past practices, and good environmental practice recognises this. Roads and Maritime, for example, uses its *Standard Management Procedure: Unexpected Heritage Items* to manage the discovery of such works (Roads and Maritime 2015).

2.3.2 Environmental Planning and Assessment Act 1979

The EP&A Act establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impact is considered before land development; this includes impact on cultural heritage items and places as well as archaeological sites and deposits. The EP&A Act requires that Local Governments prepare planning instruments LEPs and Development Control Plans (DCPs) in accordance with the Act, to provide guidance on the level of environmental assessment required.

The current proposal location falls within the boundaries of the Shoalhaven LGA. Schedule 5 of the Shoalhaven LEP 2014 includes a list of items/sites of heritage significance within the Shoalhaven LGA (refer to Section 2.4 below).

2.3.3 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State. ISEPP clarifies the consent arrangements for certain infrastructure projects.

Clause 94(1) of ISEPP permits development for the purpose of a road or road infrastructure facilities to be carried out, by or on behalf of a public authority, without consent on any land (except for land reserved under the *National Parks and Wildlife Act 1974* where it can only be carried out if it meets certain requirements).

As the proposal meets the definitions of ‘road infrastructure facilities’ provided for by clause 97(c)(iii), and is being carried out by Roads and Maritime, it is permissible without consent under ISEPP. It can therefore be assessed under Part 5 of the EP&A Act. Development consent from Shoalhaven City Council is not required. However, Part 2 of the ISEPP contains provisions for public authorities to consult with local councils and other public authorities before the start of certain types of development. As the proposal is likely to have more than a minor impact to LEP listed heritage items, Council would be consulted in accordance with clause 14 of the ISEPP.

2.4 Local planning instruments

2.4.1 Shoalhaven Local Environmental Plan 2014

The study area falls within the Shoalhaven LEP 2014. The Shoalhaven LEP 2014 aims to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views; and to protect archaeological sites. The LEP stipulates development controls in relation to development proposed on or near heritage listed properties, archaeological sites, or Aboriginal places of heritage significance. The associated Shoalhaven DCP 2014 provides planning guidance and outlines specific controls for development relating to heritage items and within heritage conservation areas.

There are 13 items listed on the Shoalhaven LEP 2014 located within the study area. These items are listed in Table 2-3 and shown in Figure 2.1

Table 2-3: LEP items located within the study area

LEP Item No.	Name	Location	Significance
389	Graham Lodge (former Greenhills Estate and Homestead) and grounds	10 Pleasant Way, Nowra	State
122	“Greenleaves” – Federation Queen Anne style residence and grounds	59 Bolong Road, Bomaderry	Local
123	Federation brick and asbestos tile residence	67 Bolong Road, Bomaderry	Local

LEP Item No.	Name	Location	Significance
130	"Lynburn" – timber Federation residence and garden	Mattes Way, Bomaderry	Local
136	"Illowra" – Federation timber Berry Estate residence and garden	125 Brinawarr Street, Bomaderry	Local
331	"Kilsyth" – Federation weatherboard residence	33 Bridge Road, Nowra	Local
332	"Uuna" – late Victorian weatherboard cottage and garden	35 Bridge Road, Nowra	Local
338	Captain Cook Bicentennial Memorial	Bridge Road, Nowra	Local
369	Graham Family Cemetery	Lyrebird Drive, Nowra	Local
376	Late Victorian weatherboard residence	29 Moss Street, Nowra	Local
377	Late Victorian weatherboard cottage	31 Moss Street, Nowra	Local
402	"Shoalhaven River Bridge" – Victorian wrought iron bridge	Princes Highway, Nowra	Local
407	Inter-war Weatherboard Building and Timber Wharf	Wharf Road, Nowra	Local

2.5 Non-Statutory registers

2.5.1 The Register of the National Estate

The Register of the National Estate (RNE) is a list of natural, Aboriginal and historic heritage places throughout Australia. It was originally established under the *Australian Heritage Commission Act 1975*. Under that Act, the Australian Heritage Commission entered more than 13,000 places in the register. Following amendments to the *Australian Heritage Council Act 2003*, the RNE was frozen on 19 February 2007 and ceased to be a statutory register in February 2012. The RNE is now maintained on a non-statutory basis as a publicly available archive and educational resource.

Items listed on the RNE can be listed as 'registered place' or as an 'indicative place'. A 'registered place' means that the item was entered into the RNE before it was made statutorily obsolete in 2007. An 'indicative place' means the item was referred to the Australian Heritage Council to be included on the RNE, however a decision to include it on the list had not been reached by the time the register was made statutorily obsolete in 2007. Neither type of listing provides legal protection or additional conservational requirements for an item, however, much of the information on the Register of the National Estate is still valid for heritage assessment purposes.

There is one item listed on the Register of the National Estate within the study. This item is listed in Table 2-4.

Table 2-4: RNE items located within the study area

Place ID	Name	Location	RNE Status
15932	Nowra Road Bridge	Princes Highway, Nowra	Registered

2.5.2 Register of the National Trust

The National Trust of Australia is a community-based, non-government organisation committed to promoting and conserving Australia's Indigenous, natural and historic heritage. The Register of the National Trust (RNT) was established in 1949. It is a non-statutory register.

It is noted that in December 2017, a request was made to National Trust NSW for a register search of any RNT listings within the proposal study area to be undertaken. No response was received.

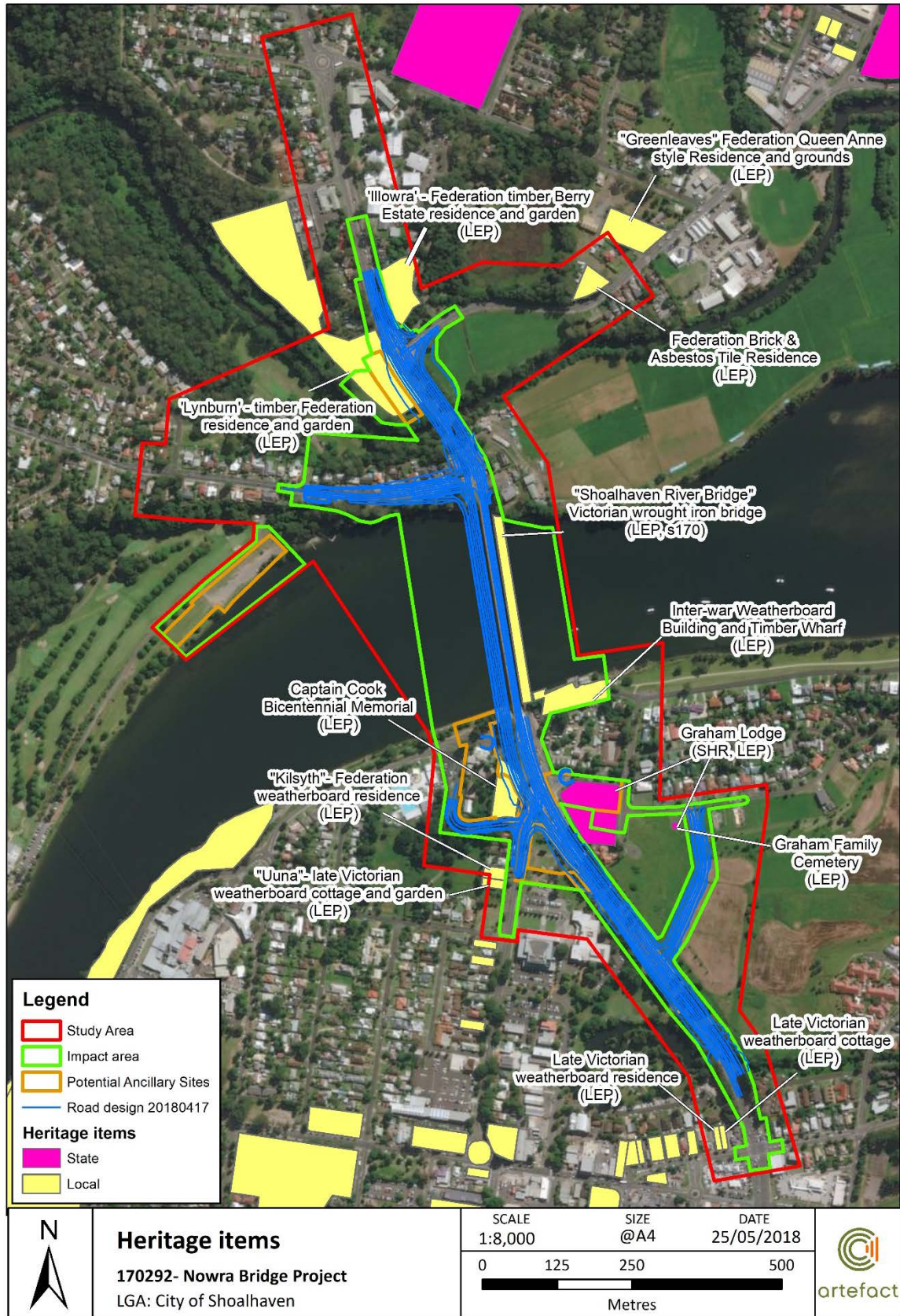


Figure 2.1: Location of heritage items within the study area

3.0 HISTORICAL CONTEXT

3.1 Introduction

The following historical context has been adapted from the Nowra Truss Bridge CMP 2015 (Artefact Heritage).¹ Where necessary, the history has been supplemented with additional research and historical photographs.

3.2 Aboriginal history

Archaeological evidence indicates that Aboriginal people have lived in the Illawarra region for at least 20,000 years,² however Aboriginal occupation in the region could be far older than this.

Traditional stories tell of the Dreamtime arrival of the Dharawal people at the mouth of Lake Illawarra in canoes when the Ancestors were animals. They brought the Dharawal or Cabbage Tree Palm (*Livistona australis*) with them from the north and are named for this sacred tree which is a significant local totem.³ The Dharawal people were led to their country by Mirrirul, the creator deity of their beliefs. One traditional teaching describes the Dharawal Dreamtime ancestors arriving by water in canoes.⁴

Aboriginal tribal boundaries within Australia have been primarily reconstructed from linguistic evidence and are therefore only approximations. Social interaction, tribal boundaries and linguistic evidence may not always correlate, and it is likely that group boundaries and interaction and communication levels varied and fluctuated over time.

Tindale (1974), identified the study area as being a border between the Wodi Wodi and the Wandandian people. Tindale (1974), described the territory of the Wodi Wodi as extending from north of the Shoalhaven River at Nowra to Wollongong and inland to Moss Vale. The Wandandian people are described as extending from the Lower Shoalhaven to Ulladulla, and inland to Braidwood. The Wodi Wodi were recorded as speaking the Dharawal / Tharawal language, while the Wandandian people spoke the Dhurga language⁵.

A more recent representation of the relationship between local Aboriginal groups and country is seen in Figure 3.1, which is derived through historical research and consultation with Aboriginal people of the region. This shows Nowra as within the country of the Wodi Wodi speakers of the Dharawal language.⁶

¹ Artefact Heritage, 2015. 'Nowra Truss Bridge: Phase 1 Conservation Management Plan'.

² Lampert 1971

³ Wesson 2005

⁴ Mathews 1899

⁵ Eades 1976

⁶ Wesson 2005

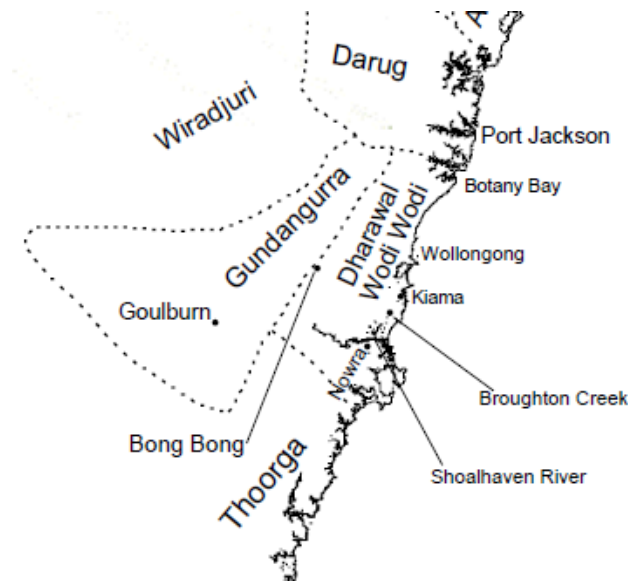


Figure 3.1: Aboriginal language groups of the mid-lower NSW coast

Dharawal speakers and their descendants lived and still live in the country from Botany Bay and Campbelltown in the north through the Nepean, Wollondilly, Georges, and Cataract water catchments, west to Moss Vale (Illillawatta) and south to the Shoalhaven River and Jervis Bay. Dharawal people have in the past defined themselves as being either fresh water or salt water people depending on whether they occupied the coastal regions or the plateaus and inland river valleys.⁷ Nowra is situated at the border between coastal saltwater and plateau freshwater country and it is possible that Nowra constituted a natural meeting place for coastal and inland Aboriginal people.

Aboriginal people were highly mobile hunter-gatherers utilising different landform units and resource zones. Different resources may have been available seasonally, necessitating movement or trade.⁸ Aboriginal people hunted kangaroo and wallaby and snared possums for food and skins. In marine or estuarine environments Aboriginal people caught fish and collected shellfish. There are many accounts by Europeans of Aboriginal people in canoes on rivers and the ocean, fishing and cooking the fish on small fires within the vessels.⁹ The Shoalhaven estuary and floodplain area is one of the most extensive and diverse in south-eastern NSW and extends 50 kilometres upstream from the ocean. Aboriginal people in the area around the Shoalhaven River would therefore have had access to both estuarine and freshwater resources, as well as the wetland and forest systems supported by the river and nearby tributaries.

The Aboriginal population of the Ulladulla region has been estimated to have been around 600 at the time of European settlement. This population rapidly declined as a result of European arrival, in particular the spread of diseases to which the Aboriginal population had not been exposed previously. The European occupation of Aboriginal land also had a detrimental impact on the traditional social structure. The 20th century was a time of social and institutional disenfranchisement for the Aboriginal population on the South Coast, but also of continuing connections to the landscape and the community. Following European occupation of the region, many Aboriginal people were removed from their families and sent to missions and children's homes. Despite the disenfranchisement resulting from European occupation, Aboriginal culture remains strong today. The study area falls within the boundaries of the Nowra Local Aboriginal Land Council (Nowra LALC).

⁷ Wesson 2005

⁸ Attenbrow 2010: 78

⁹ e.g. Collins 1798

3.3 Early European land-use

The Shoalhaven region was first explored by Europeans in the late 1790s and surveyed in 1805. The first European occupants of the region were cedar getters who logged trees in the area from at least 1811. The first recorded cargo of cedar was brought from the Shoalhaven River to Sydney in December 1812, and the timber industry continued to grow, with timber getters exploiting the patches of cedar along the local rivers and creeks. During this period there was conflict between cedar getters and local Aboriginal people, and in 1815 Governor Macquarie forbade timber getters from visiting the district after a cedar party was killed by Aboriginal people.¹⁰

Settlement on the north and south banks of the Shoalhaven River was often dictated by ease of access. The southern banks of the river, where the village of Nowra was established, were difficult to reach via water. By contrast, the northern banks of the river, today associated with Bomaderry, was quickly settled and easy to access via Bomaderry Creek and the Berry to Bomaderry Road.

3.3.1 Settlement north of the Shoalhaven River - Bomaderry

In the early 19th century, Scottish-born surgeon, merchant and explorer Alexander Berry visited Shoalhaven while searching for land to occupy and graze his stock. Berry had searched much of the colony and was particularly interested in finding an alternative settlement to areas such as the Hunter River and Bathurst which were subject to competitive land settlement at the time.¹¹ When Berry and his business partner, Edward Wollstonecraft, saw Shoalhaven, they were particularly impressed by its rich alluvial soils and natural grassy 'meadows'. The pair were jointly granted 10,000 acres, named 'Coolloomagatta' in 1822.¹²

Berry established his station at the foot of Mount Coolangatta (east of the Nowra Bridge) and slowly acquired additional land.¹³ The northern portion of one of Berry's grants (which sat along the Shoalhaven River) is now associated with the southern approach to the Nowra Bridge and the majority of land surrounding it. Wollstonecraft died in 1832 and in 1836 Alexander Berry shared control of the Coolangatta Estate to his brother David. By 1840, Berry had acquired over 40,000 acres of land on which they grew maize, tobacco, wheat, barley and potatoes as well as rearing pigs and grazing cattle. Berry sold his produce at a store established on George Street, bought a ship to transport the goods to Sydney and established a road specifically for transport purposes (now part of the Princes Highway).¹⁴ Convict labour was used on the estate, and Berry was publicly accused of mistreatment and neglect on a number of occasions.¹⁵ Despite this, many of Berry's convict workers remained in the area once they regained their freedom, living and working on tenant land released by Berry from 1842 onwards.

The Gold Rush of the 1850s had a major influence on Coolangatta, with much of the male population leaving the town to try their luck in the gold fields. In order to make up for the decrease in population, Berry offered more liberal tenancies as well as entering into contracts with newly immigrated Chinese and German labourers. As a result the population of Coolangatta quadrupled, reaching 1,700 by 1859.¹⁶

¹⁰ Navin Officer 2007:60-61

¹¹ T. M. Perry, 'Berry, Alexander (1781–1873)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/berry-alexander-1773/text1987>, published first in hardcopy 1966, accessed online 13 April 2015.

¹² Ibid.

¹³ Navin Officer 2007:63

¹⁴ T. M. Perry 1966.

¹⁵ Ibid.

¹⁶ Shoalhaven Heritage Study, 2003. Report prepared for Peter Freeman Pty Ltd in association with JRC Planning Services, Sydney: 20

A number of Aboriginal people lived and worked on Berry's Coolangatta Estate between the time it was established and the late 1880s, when the estate began to be subdivided and the Aboriginal inhabitants were moved into the Roseby Park mission station.¹⁷ In 1892, many of these tenant farmers were able to buy their portions of land when the Berry Estates were subdivided following David's death in 1889.¹⁸ A number of fine residences were built on these portions of land. In the late 19th -century, prominent Sydney architect Howard Joseland designed several fine residences within the 'Lynburn' was established as a fine Federation residence designed by prominent Sydney architect Howard Joseland, overlooking Bomaderry Creek, along with other residences

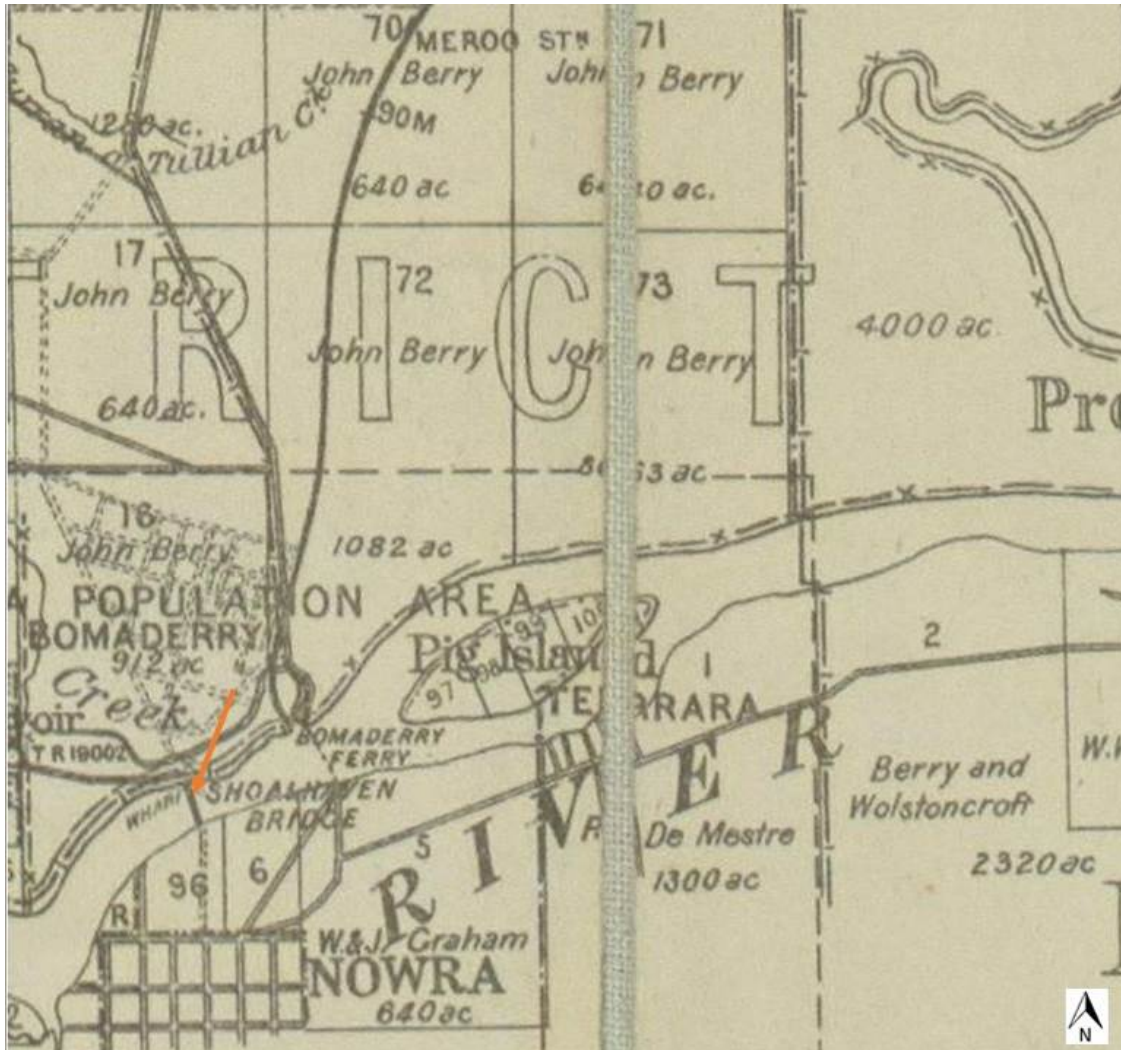


Figure 3.2: Detail of map of the County of Camden, Eastern Division, NSW, 1895 showing extent of the Berry family's land holdings. The truss bridge is indicated with an arrow. Source: National Library of Australia

3.3.2 Settlement south of the Shoalhaven River - Nowra

Early settlement to the south of the Shoalhaven River was concentrated along the river banks and associated with larger land grants to the east than the west. Larger grants to the east consisted of 82 acres given to John Jenkins Peacock and a series of grants ranging from 109-600 acres to William and James Graham in the 1840s.

¹⁷ Kuskie 2008:13

¹⁸ Navin Officer 2007:64-65



Figure 3.3: Detail of post-1881 parish of Nowra map showing 'Town of Nowra' and surrounding land grants. The truss bridge is indicated with an arrow. Source: SixMaps Historical Viewer

In 1826, William Graham, a Scottish convict, was released and soon after began acquiring land around the Shoalhaven River with his sons, to the east of Peacock's original grant. The area was known as Greenhills. Greenhills extended along the southern bank of the Shoalhaven River (near today's Bridge Road), to the Nowra to Bomaderry ferry road (today's Ferry Lane). In the 1840s, the first Graham homestead was established in an area near the extant Graham Lodge residence (refer to Figure 3.4 below).



Figure 3.4: Samuel Elyard circa 1877 painting, *Graham Lodge and associated Graham Farm buildings*, showing two storey main homestead and associated outbuildings and cottages. Source: Heritage Archaeology, 'Archaeological Assessment of Greenhills, Nowra, NSW' 2000

In 1840, Sydney born merchant and shipbuilder John Jenkins Peacock acquired 82 acres of land on the southern banks of the Shoalhaven River. In addition to the river, the property was bound to the south by land reserved for a village, which would later become Nowra. The property's location was suitable for dairying and agricultural purposes.¹⁹ Soon after his acquisition, Peacock sold the land. This marked the beginning of a series of sales associated with the property, a portion of which was eventually reserved as Bridge Road in anticipation of the completion of the Nowra Bridge.

Settlement south of the river was slow and came much later than that to the north in today's Bomaderry. Nowra, located on the southern side of the Shoalhaven River, is the only Government planned town in Shoalhaven. The land associated with Nowra was reserved in the early 19th century and surveyed by Thomas Mann as the 'village of Nowra' in 1852. At the time, earlier and larger townships in the area such as Terara (formerly Terrara) and Numbaa (or Numba) located on the southern side of the river, were subject to flooding. In contrast, Nowra-which was located on higher ground, was safe from flooding yet less populated. In 1853, the newly surveyed land was advertised for sale; however the area was remote and difficult to access, meaning settlement was gradual.²⁰

In 1854, Nowra's first steam mill was established on the previously named Greenhill Point approximately 400m upstream from the present Nowra Bridge.²¹ By 1857, only seven dwellings had been built in the town, mainly comprising of timber slab cottages with shingled roofs and verandahs.²² The first hotel was established in July 1857 and a National School was established soon after. Soon a courthouse was built in the town, and replaced the nearby Numba Court House. In 1859, the Shoalhaven Municipality headquarters were set up in Nowra, cementing its role within the

¹⁹ Edward Higginbotham & Associates Pty Ltd, 2002. Statement of Heritage Impact for Nowra William Ratnett Gasworks, Lamonds Lane, Nowra, NSW. Report prepared for Shoalhaven City Council: 7

²⁰ Arthur Cousins, *The Garden of New South Wales: A History of Illawarra & Shoalhaven*, reprint, Illawarra Historical Society, 1994: 253

²¹ Conveyance Book 34 No 438 in Tropman and Tropman Architects, 2002. Jarman's Cottage Nowra Conservation management Plan. Report Prepared for Shoalhaven City Council: 6

²² Ibid: 253

Shoalhaven region. Between 1860 and 1861, the imposing two-storey Graham Lodge was constructed as the second residence on the Greenhills estate, overlooking the Shoalhaven.

3.3.3 Early transport routes

The earliest overland route between the Shoalhaven River settlement and the colony consisted of a series of dirt roads leading from the main colony into the Illawarra. Despite these early land routes, the closest road to Bomaderry and the Shoalhaven River settlements was in Gerringong, 25 kilometres away. As such, early trade and communication between the colony and the Shoalhaven area was heavily reliant on the river, and many private wharves, punts and ferry points were established on its banks from the early 19th century onwards.²³

Frustrated by a lack of government initiative to build a road from Bomaderry to Berry, Alexander Berry decided to fund the construction of a road himself.²⁴ In 1868, the Numbaa Council was established and took over ownership of roads in the area. As a result, roads originally established by Berry were upgraded and consolidated, creating what would be called the Main South Road and eventually the Princes Highway in 1920. The problem of crossing the river to reach Nowra remained an issue until 1881 when the Shoalhaven River Bridge (now the Nowra Bridge) was built.

3.3.4 Crossing the Shoalhaven River - 1852-1876

Before the construction of the Nowra Bridge, the Shoalhaven River was crossed by the Bombaderry Ferry, a journey that often took over half an hour due to strong currents along the watercourse. This ferry route and associated wharves were located approximately 600m to the east of the current bridge crossing.²⁵ In 1859, James Graham, son of Scottish born convict William Graham, divided small lots along the Shoalhaven River banks for sale.²⁶ This provided opportunities for additional wharfs, and associated infrastructure and amenities. A paddle steamer known as “The Coolangatta” was also used to cross the river at this time.

An 1892 map advertising the sale of portions of the late Berry Estate shows a wharf and stores around 50 metres east of the truss bridge (Figure 3.5). These are likely to be associated with the Berry Estate, which by this stage remained relatively undeveloped. Although steam ships could easily navigate the Shoalhaven River and the nearby settlements of Numba and Terara, Nowra remained relatively inaccessible for seagoing ships due to a significant outcrop at Bomaderry Creek. The outcrop was removed in 1904 after which the Illawarra Steam Navigation Co established an office in the town, in what is today the Sailing Club clubhouse.²⁷

²³ Peter Freeman Pty Ltd, 2000. Graham Lodge Precinct, Nowra. Conservation Management Plan. Report prepared for the Shoalhaven City Council: 44

²⁴ Peter Freeman Pty Ltd, 2003. Heritage Study 1995-1998. Report prepared for the Shoalhaven City Council: 19

²⁵ Tropman and Tropman Architects, 2002. Jarman’s Cottage Nowra Conservation Management Plan. Report Prepared for Shoalhaven City Council: 6

²⁶ Empire, Wednesday 3 August 1859

²⁷ Walliss, op cit: 23; Arthur Cousins, The Garden of New South Wales: A History of the Illawarra and Shoalhaven Districts, 1770-1900, Sydney 1948, new ed. Wollongong 1994: 71; N.P. Morrissey, A Pictorial History of the Shoalhaven, 2nd ed., Kiama 1994: 42



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Figure 3.5: 1892 map of the Bomaderry Township showing location of the truss bridge (outlined in red), stores and wharf crossing. Source: National Library of Australia

3.3.5 Construction of the Nowra truss bridge

In 1876, planning for the construction of a timber bridge over the Shoalhaven River began. The initial budget for the bridge was £1200, however additional funds were provided in 1878 and the timber bridge design was overturned in favour of an iron bridge. Reasons behind the additional funding and design variation are unknown. However it is likely that a timber bridge was seen as impractical for the predicted use of the bridge. For example, the number of piers required for a timber truss bridge far exceeded those needed for an iron bridge. Therefore, a timber truss bridge would have made navigation of the river difficult. At the time, the most common form of bridge construction in 19th century NSW was the timber beam bridge.²⁸ This was primarily due to the high availability of hardwoods, meaning they were inexpensive and easy to construct (although repair and maintenance costs were high).²⁹

A newspaper article dated 1879 outlining the tender process for the bridge described the overall cost of construction to be £28,368. The bridge was designed by prominent Pittsburg born bridge builder 'C Shaler Smith Engr'. The construction and planning of the bridge would be a significant engineering feat for the time due to difficulties stabilising its footings into the riverbed, which was deep and rocky.³⁰ The through bridge design was also an essentially American form of design, which had been used since the 1840s.

The bridge was designed and built in America by the Delaware based Edge Moor Iron Works Company.³¹ The use of American bridge designs was especially controversial as NSW was a British colony and railway technology had been pioneered by the British, most famously in India.³² The use of American designs was seen as a break-away from tradition, and likely considered unpatriotic. Upon completion, the bridge was considered an engineering innovation. The truss design of the bridge reflects the American tradition of using large pins at the joints of each diagonal, a practice that significantly reduced assembly and erection times.³³

²⁸ Cardno MBK, 2000. Study of Relative Heritage Significance of RTA Controlled Timber Beam Road Bridges in NSW, Report to the NSW Roads and Traffic Authority.

²⁹ Cardno MBK, 2001. Historical Overview of Bridge Types in NSW: Extract from the Study of Heritage Significance of Pre-1930 RTA Controlled Metal Road Bridges in NSW: 60

³⁰ Peter Freeman Pty Ltd, 2003. Heritage Study 1995-1998. Report prepared for the Shoalhaven City Council: 19

³¹ Shoalhaven Chronograph, August 2006, vol 25 no. 3.

³² Fraser, D. 2009. American Bridges in New South Wales 1870-1932. Proceedings of the third Australasian Engineering Heritage Conference: 1

³³ Shoalhaven Chronograph, August 2006, vol 25 no.3.



Figure 3.6: Workers at the approach to the Nowra Bridge, 1881. Source: Wollongong City Library



Figure 3.7: Workers near the Shoalhaven River and bridge, 1881. Photograph taken from north-eastern side of the river by Auguste Tronier, where the fisherman co-op is today. Note bridge approaches are incomplete. Source: Wollongong City Library

When the truss bridge was completed, it was the longest bridge funded by the then Public Works Department, with an overall length of 309m. The truss bridge (then known as the Shoalhaven Bridge) was opened in 1881, located approximately 600m west of the Bomaderry Ferry Wharf. Over 6,000 people attended the opening ceremony. Once completed, the bridge acted as a 'unifying entity', bringing north and south Shoalhaven together 'economically, politically and socially'.³⁴ Increased rail and road based traffic primarily from the north resulted in increasing subdivisions. On the southern side, completion of the bridge resulted in decreased traffic on the ferries and refocused development away from Ferry Lane and townships to the east.

3.3.6 Consolidated settlement

The truss bridge allowed for additional transport methods to make their way into Nowra without the need to cross the river by ferry or steamer. However, the population remained relatively small after the bridge was opened and it was not until the railway link from Bomaderry to Kiama was complete by 1893 that Nowra began to grow. The arrival of the railway established Nowra as a destination in the broader area as well as a centre for dairy production and trade.³⁵ Pastoral and agricultural activities also prospered at this time.³⁶

³⁴ Shoalhaven Historical Society, 2014. The Old Nowra Bridge: Protecting our Heritage, ensuring our future. Report prepared for Roads and maritime Services NSW

³⁵ Peter Freeman Pty Ltd, 2000. Graham Lodge Precinct, Nowra. Conservation Management Plan. Report prepared for the Shoalhaven City Council: 37

³⁶ Peter Freeman Pty Ltd, 2003. Heritage Study 1995-1998. Report prepared for the Shoalhaven City Council: 68



Figure 3.8: Map of Nowra in 1891 showing all buildings in the town. Source: R. Ian Jack, Shoalhaven City Council Heritage Study 1997 as found in Freeman Architects 'Greenhills Conservation Management Plan 2000'

Dairying, pastoral and agricultural industries, the location of the bridge and location of the railway line dictated further settlement in the area which congregated around the new transport route. Bridge Road, which cut through the centre of the town, acted as an entrance road from the north, linking to the truss bridge. Due to the efficiency of these routes, residential and commercial development along Bridge Road was consolidated in the decades that followed.³⁷ By the 1930s, a private hospital known as Bridge Road Hospital (since demolished) was located on the western side of the road, adjacent to Graham Lodge.

³⁷ Peter Freeman Pty Ltd, 2000. Graham Lodge Precinct, Nowra. Conservation Management Plan. Report prepared for the Shoalhaven City Council: 41



Figure 3.9: Historical photograph showing the wharf for coasting steamers and associated stores located to the north east of the truss bridge, circa 1900s. Source: Wollongong City Libraries



Figure 3.10: Early photograph showing pedestrians using the bridge. Source: Shoalhaven Historical Society

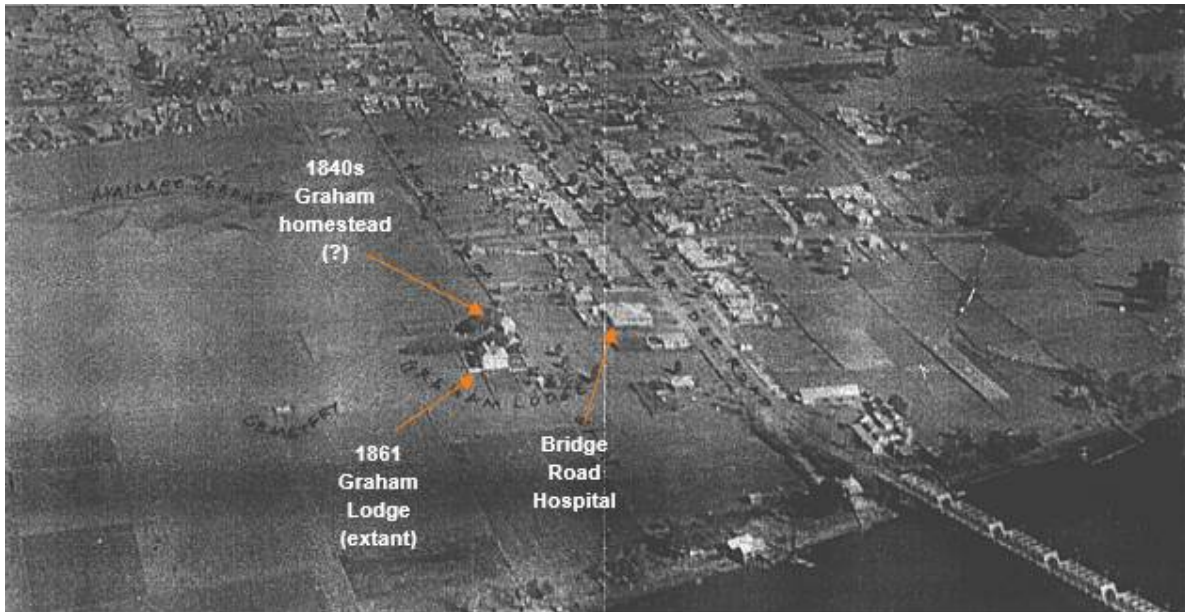


Figure 3.11: Aerial view of the township of Nowra in 1937. Source: Shoalhaven Historical Society, as found in as found in Freeman Architects 'Greenhills Conservation Management Plan 2000'

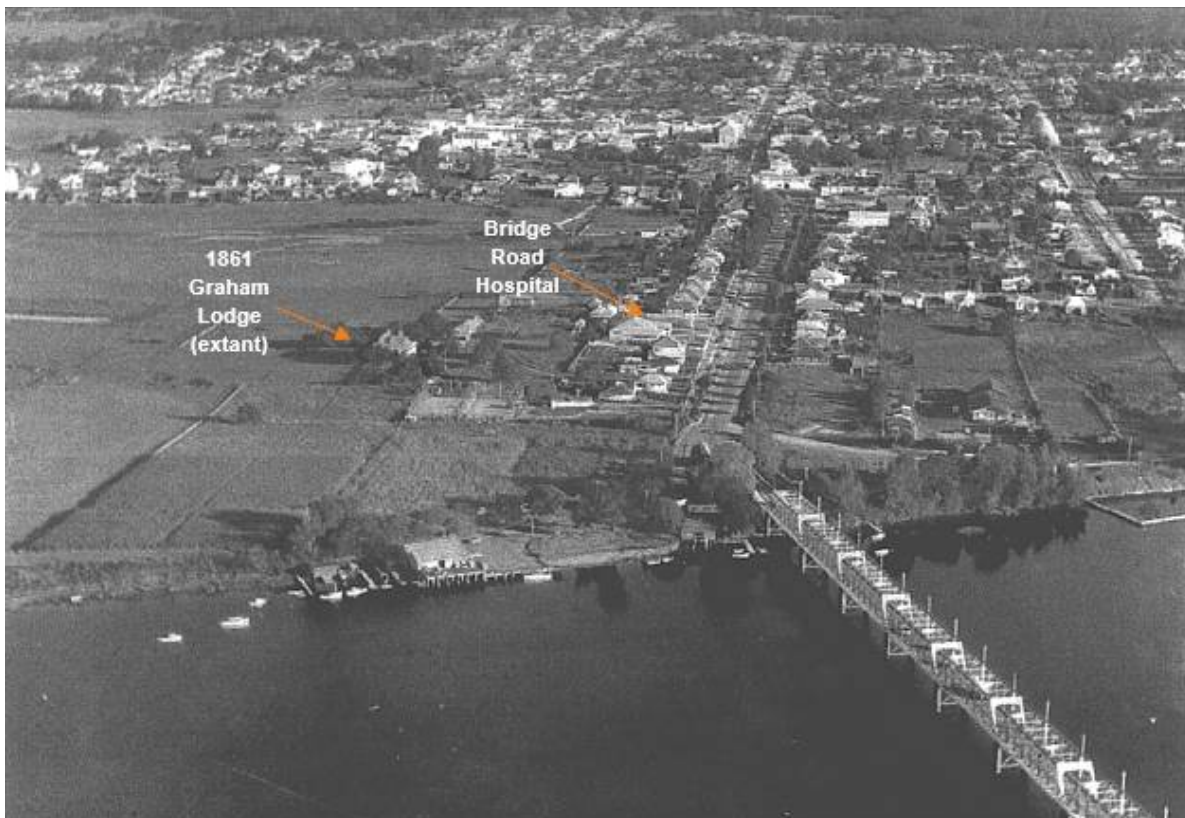


Figure 3.12: Aerial view of the township of Nowra in 1967. Source: Shoalhaven Historical Society, as found in as found in Freeman Architects 'Greenhills Conservation Management Plan 2000'

By the mid-20th century the traffic demands on the bridge had grown. By 1967, the route of the proposed bypass of the city centre had been confirmed. This bypass connected with East Street at its junction with North Street. In the 1980s, the bypass was carried out and a new bridge was opened alongside the truss bridge to ease traffic congestion. The new bridge was constructed from reinforced concrete and carried northbound traffic. The truss bridge was converted to a southbound carriageway only.³⁸ At this time, a pedestrian walkway was constructed off the downstream face of the truss bridge.

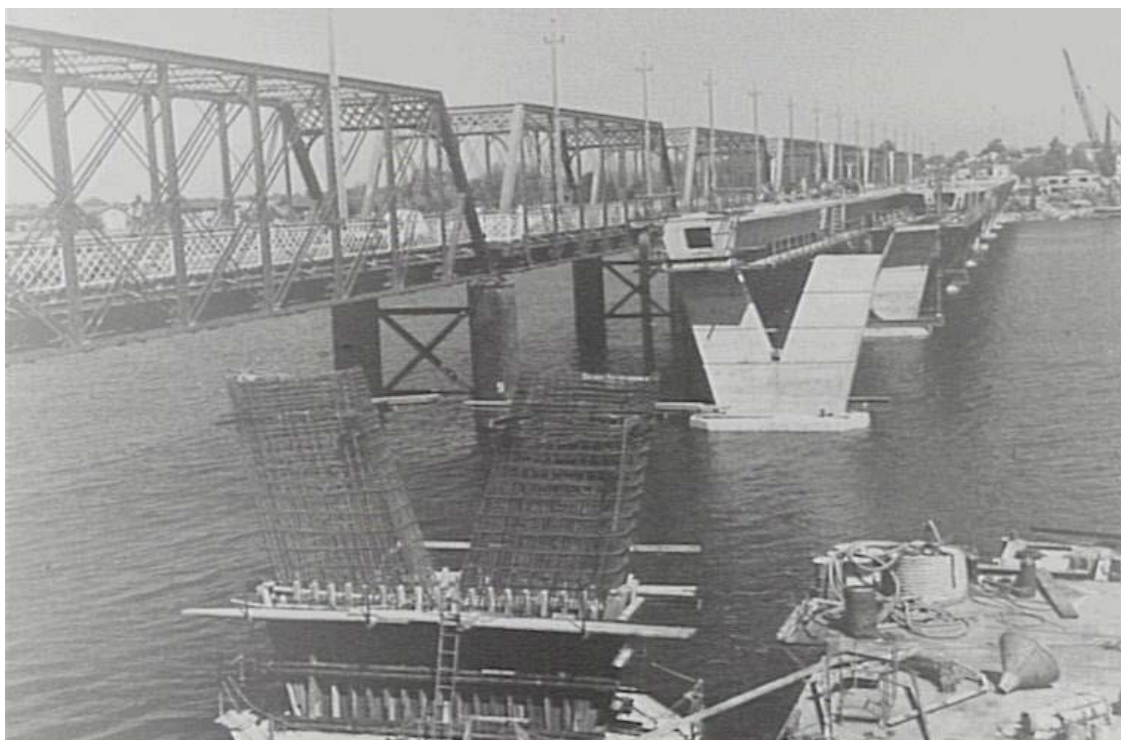
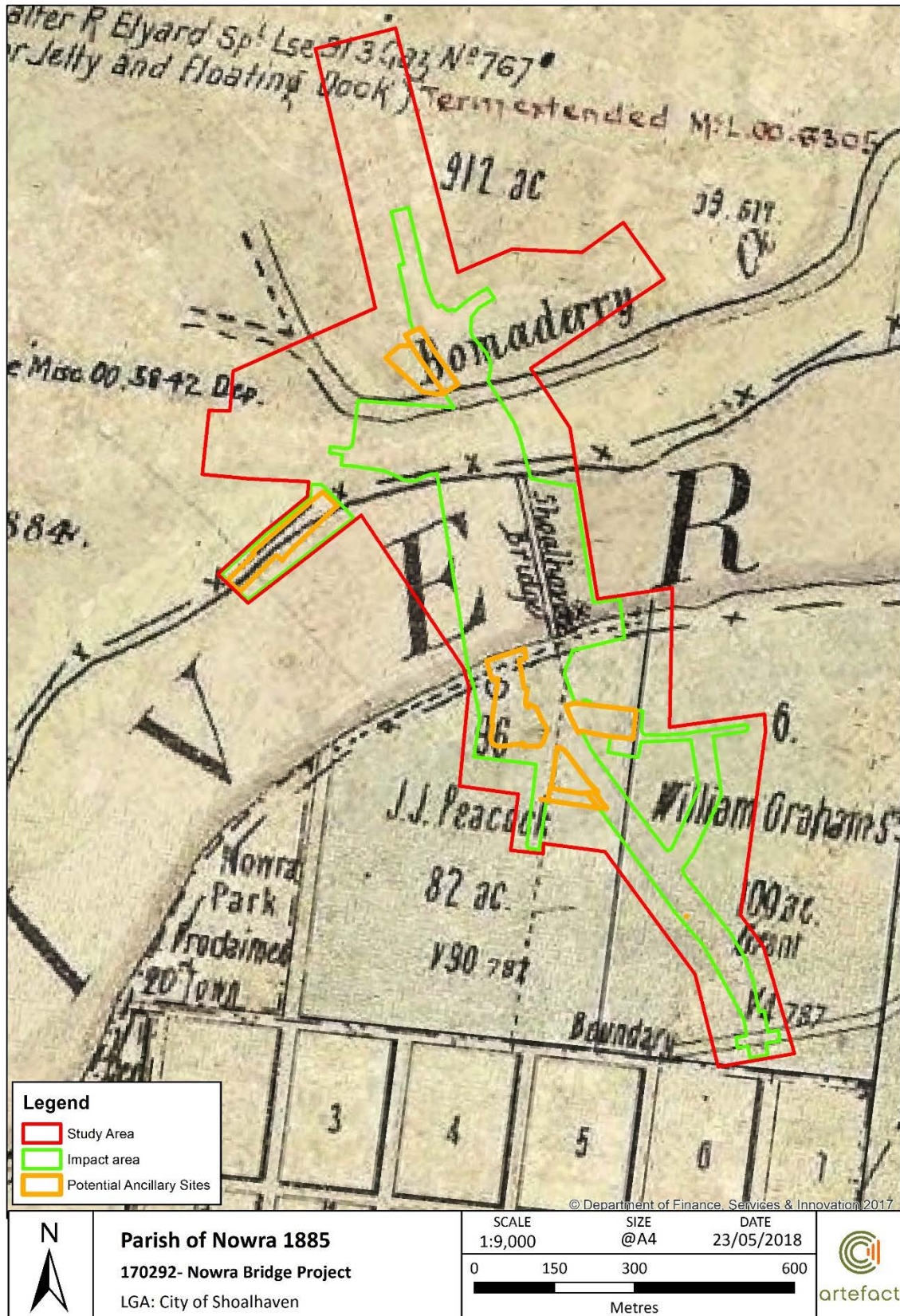


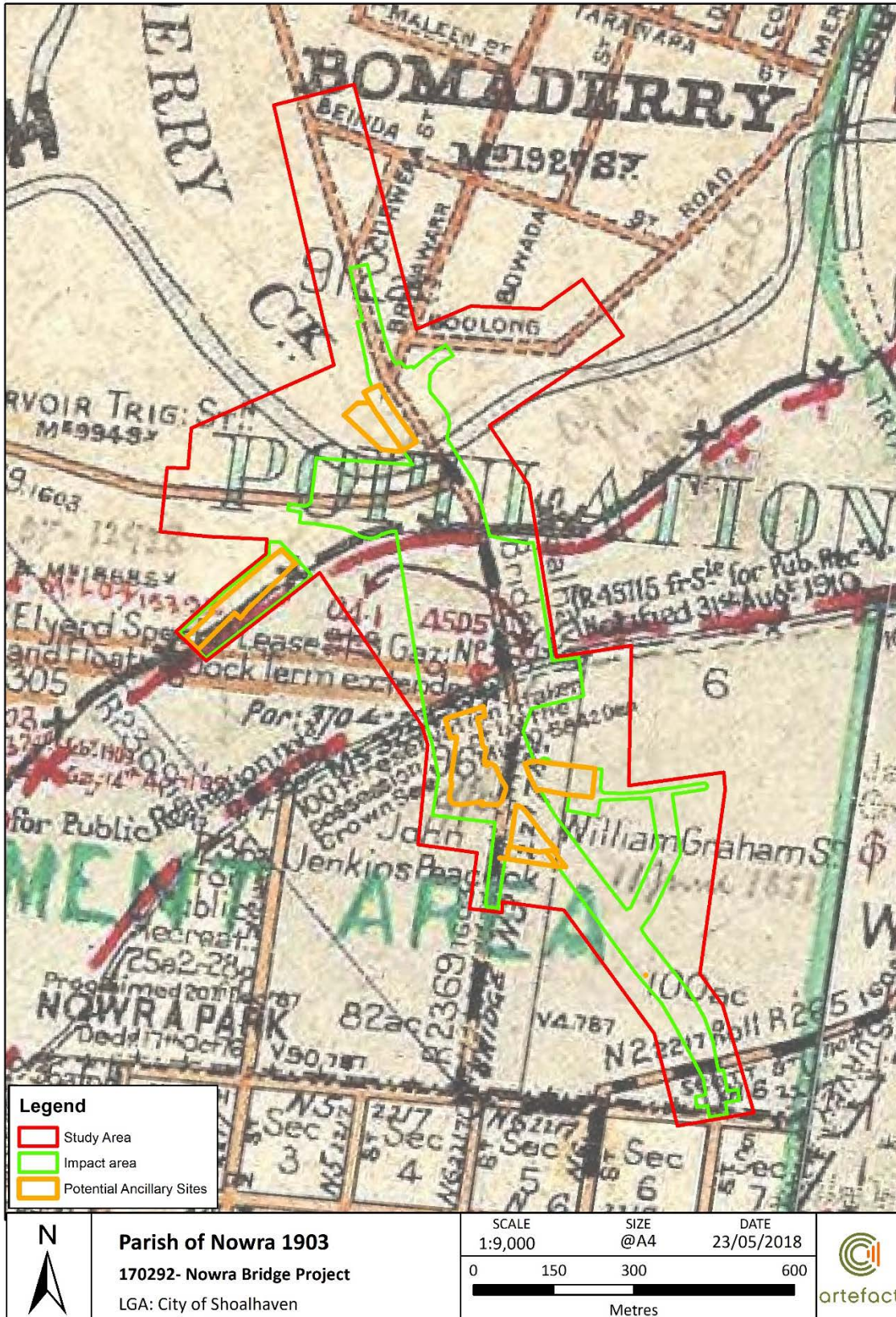
Figure 3.13: Photograph circa 1980 showing construction of the new Nowra bridge next to the truss bridge. Source: Wollongong City Libraries

³⁸ Austral Archaeology 2001: 4



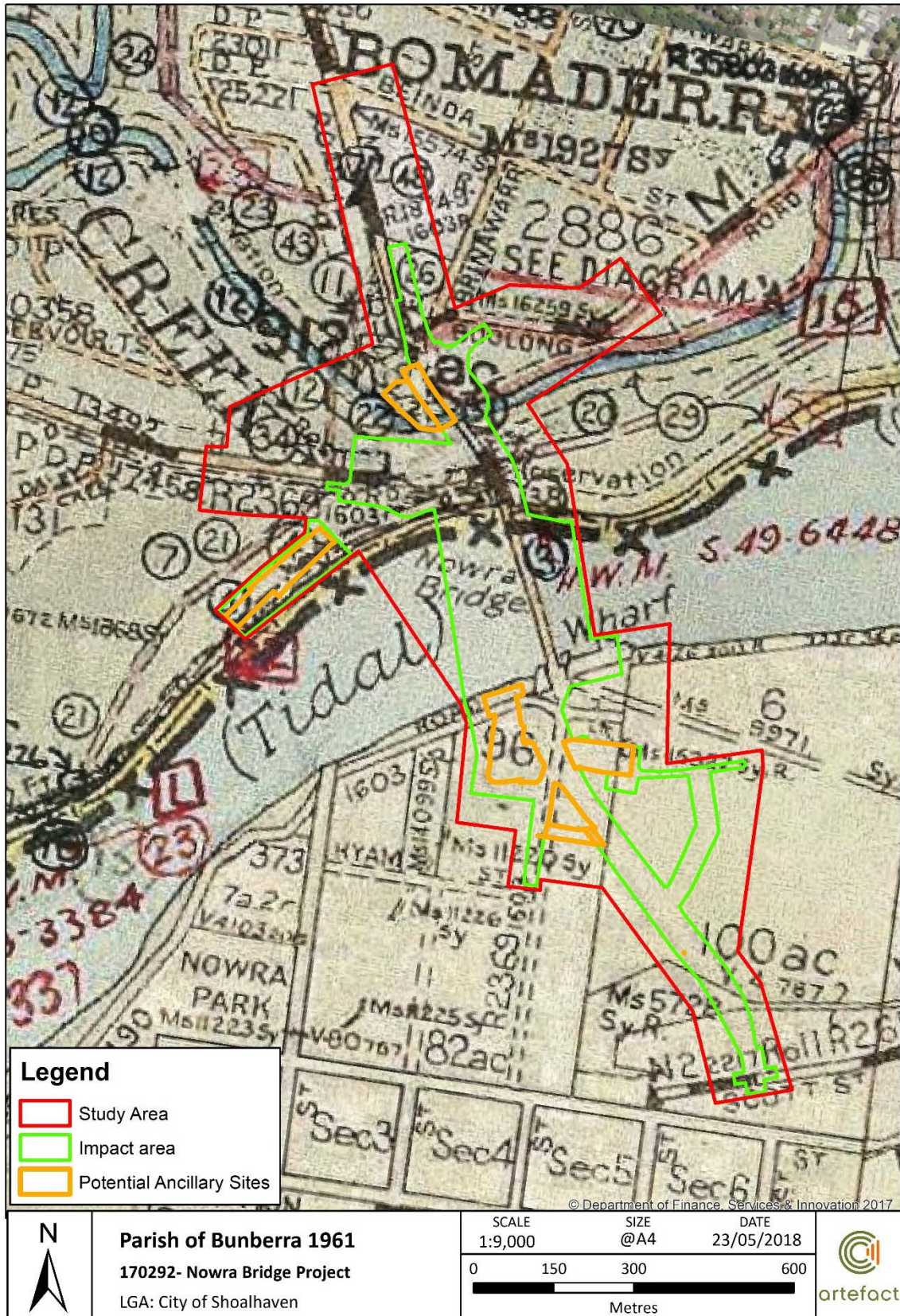
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Figure 3.14: Parish Map of Nowra, 1885 (study area outlined in red). Source: Historic Land Records Viewer



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Figure 3.15: Parish Map of Nowra, 1903 (study area outlined in red). Source: Historic Land Records Viewer



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Figure 3.16: Parish Map of Bunberra, 1961 (study area outlined in red). Source: Historic Land Records Viewer

4.0 SITE DESCRIPTION

4.1 Background

A site inspection of the study area was conducted by Matthew Alexander (Heritage Consultant, Artefact Heritage) and Charlotte Simons (Heritage Consultant, Artefact Heritage) on 15 December 2017. The aim of this inspection was to identify the nature of Princes Highway and the overall impact of the proposal on heritage items in the locality. The following section provides a physical analysis of the study area. All photographs, unless indicated otherwise, were taken by Artefact Heritage.

4.2 Site description

4.2.1 Setting and context

The study area, which extends along the Princes Highway at the intersection with Beinda Street in Bomaderry to the north, to the intersection with Moss Street in Nowra to the south, straddles the Shoalhaven River at the existing river crossings. These crossings comprise the truss bridge and the northbound concrete bridge immediately to the west, which are described in further detail below. The Princes Highway is the main north-south transport corridor linking Sydney and Wollongong to the NSW South Coast and north-eastern Victoria, and is an important freight, bus and tourist route for the south coast.

The study area encompasses a range of development to the north and south of the Shoalhaven River, including residential, commercial, recreational and crown land. The northern end of the study area begins at the intersection of the Princes Highway with Beinda Street. Further south, the study area encompasses the locally listed “Lynburn” and “Illowra” heritage items, which are next to the intersection of the Princes Highway and Bolong Road. These Federation residences are largely screened from the road corridor by mature plantings and hedges.

Travelling further south, Princes Highway crosses Bomaderry Creek, and continues to the Shoalhaven River. At the bridge crossing site, the river is broad and tidal, and extends approximately 308 metres between Nowra and Bomaderry. The northern shoreline is characterised by eroded sandstone cliffs which rise several metres above the bridge level to the west of the northbound concrete bridge. To the east these cliffs drop away in height, with the riverbank being reconstituted in places using large concrete blocks to provide stability, and evidence of an early wharf by way of associated sandstone embankment in this locality. The southern shoreline is characterised by lower banks with stability provided generally by grass and trees. Immediately to the east of the truss bridge on the southern shoreline is the locally listed ‘Inter-war Weatherboard building and Timber Wharf’ heritage item. While at the time of the site inspection the building appears to have been demolished, the timber wharf component of the heritage item remains.

The southern end of the study area continues along Princes Highway on the southern side of the Shoalhaven River. The intersection of Princes Highway with Bridge Road and Pleasant Way is in the vicinity of several heritage items. The Captain Cook Bicentennial Memorial is located on lower ground beneath the highway in Moorhouse Park, and features a pavilion structure, open park space and large plantings. A potential heritage item, the former ‘M&M Guesthouse’ (also known as “Culburra House”), is located near Moorhouse Park to the rear of the present Riverhaven Motel. On the east side of Princes Highway is the SHR listed Graham Lodge, which is situated on a slight rise overlooking the surrounding area. Two small locally listed cottages “Kilsyth” and “Uuna” are located on Bridge Road, and an additional two heritage items are located near the southern boundary of the study area including the ‘Late Victorian weatherboard residence’ and ‘Late Victorian weatherboard cottage’.

4.2.2 Truss bridge

The truss bridge over the Shoalhaven River at Nowra is a nine span bridge consisting of seven wrought iron ‘Whipple’ truss spans with overhead bracing supported on pairs of cast iron cylindrical piers, with an overall length of 340 metres. The bridge features decorative elements including circular cast iron rosettes. The downstream face of the bridge supports a pedestrian walkway retrofitted at the time of the deck upgrade in 1981. At present, the bridge carries two southbound traffic lanes of the Princes Highway, with northbound traffic carried on a new prestressed concrete box girder bridge located immediately to the west that was completed in 1981.



Figure 4.1: View east across the Shoalhaven River towards Nowra Bridge from Riverbank Reserve



Figure 4.2: View south east across the Shoalhaven River to Nowra Bridge, showing approximate site of proposed bridge



Figure 4.3: View north west across the Shoalhaven River to Nowra Bridge, pedestrian walkway seen attached to the truss bridge



Figure 4.4: View from underside of Nowra Bridge, pedestrian walkway seen attached to the truss bridge



Figure 4.5: View north along the pedestrian walkway off the Nowra truss bridge (seen left)



Figure 4.6: View of the Nowra truss bridge with northbound concrete bridge seen in distance



Figure 4.7: View south along the pedestrian walkway off the Nowra truss bridge (seen right)



Figure 4.8: Detail view of cast iron rosette on the structure of the Nowra truss bridge



Figure 4.9: View east across the Shoalhaven River from the pedestrian walkway attached to the Nowra truss bridge



Figure 4.10: View west from the pedestrian walkway attached to the Nowra truss bridge, note the northbound concrete bridge blocking views to the Shoalhaven River beyond



Figure 4.11: View north across the Shoalhaven River from the approximate location of the proposed new bridge, next to the northbound concrete bridge (seen right)



Figure 4.12: View west along the southern shoreline of the Shoalhaven River at the approximate location of the proposed approaches to a new Nowra bridge



Figure 4.13: View south along the park area alongside the Princes Highway at the approximate location of the proposed southern approach to a new Nowra bridge



Figure 4.14: View north along the park area alongside the Princes Highway at the approximate location of the proposed southern approach to a new Nowra bridge



Figure 4.15: View south alongside Princes Highway at the approximate location of the proposed southern approach to a new Nowra bridge, Captain Cook Memorial seen to right



Figure 4.16: View north alongside Princes Highway at the approximate location of the proposed southern approach to a new Nowra bridge



Figure 4.17: View south along footpath to Princes Highway at the approximate location of the proposed southern approach to a new Nowra bridge



Figure 4.18: View north along footpath to Princes Highway at the approximate location of the proposed southern approach to a new Nowra bridge



Figure 4.19: View south west at intersection of Princes Highway with Bridge Road, approximately location of proposed southern approach to a new Nowra bridge



Figure 4.20: View north east along Bridge Road showing nearby locally listed heritage cottages within streetscape (seen left) in proximity to proposed intersection upgrade



Figure 4.21: View north along Princes Highway, showing residential development and agricultural landscape to right



Figure 4.22: View north west across Princes Highway to approximate site of proposed intersection upgrade at Bridge Road



Figure 4.23: View east from footpath alongside Princes Highway towards SHR listed Graham Lodge (largely concealed from street level)



Figure 4.24: View west from family cemetery associated with Graham Lodge towards the main homestead seen in distance



Figure 4.25: View north across park next to Illaroo Road on northern side of Shoalhaven Road, at the approximate location of the proposed northern approach to a new Nowra bridge



Figure 4.26: View east along Illaroo Road towards site of proposed intersection upgrade and northern approach to a new Nowra bridge (note modern residential housing seen to the left)



Figure 4.27: View north west across Princes Highway at existing bridge over Bomaderry Creek



Figure 4.28: View east from existing bridge on Princes Highway over Bomaderry Creek showing historic pedestrian crossing



Figure 4.29: View south along Princes Highway near intersection with Bolong Road (boundary of locally listed “Lynburn” with white picket fence seen to right)



Figure 4.30: View west across Bomaderry Creek from existing bridge on Princes Highway

5.0 HERITAGE ASSESSMENT

5.1 Assessment methodology

Determining the significance of archaeological items or items of heritage significance is carried out by utilising a system of assessment informed by *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013* (Burra Charter). The principles of the charter are relevant to the assessment, conservation and management of sites and relics. The assessment of significance is outlined through legislation in the Heritage Act and implemented through the NSW Heritage Manual and the Archaeological Assessment Guidelines (NSW Heritage Office 1996: 25 – 27). If an item meets one of the seven heritage criteria, and retains the integrity of its key attributes, it can be considered to have significance. The significance of an item or potential archaeological site can then be assessed as being of local or state significance, based on a series of criteria that have been developed for assessing significance relating to archaeological sites and their associated ‘relics’. The criteria identify a series of questions that could be asked in relation to the item to assist in the identification of the appropriate level of significance to be applied as follows:

- ‘State heritage significance’, in relation to a place, building, work, relic, moveable object or precinct, means significance to the state in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item; and
- ‘Local heritage significance’, in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item (NSW Heritage Office 1996: 6).

The heritage significance assessment criteria are outlined in Table 5-1 below.

Table 5-1: NSW heritage assessment criteria

Criteria	Description
A – Historical Significance	An item is important in the course or pattern of the local area’s cultural or natural history.
B – Associative Significance	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area’s cultural or natural history.
C – Aesthetic or Technical Significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area.
D – Social Significance	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons.
E – Research Potential	An item has potential to yield information that will contribute to an understanding of the local area’s cultural or natural history.
F – Rarity	An item possesses uncommon, rare or endangered aspects of the local area’s cultural or natural history.
G – Representative	An item is important in demonstrating the principal characteristics of a class of NSWs (or the local area’s): <ul style="list-style-type: none"> - cultural or natural places; or - cultural or natural environments.

5.2 Listed heritage items

The following section provides an overview description and assessment of significance of heritage items that are located within the study area. Information for each item has been extracted from their respective State Heritage Inventory (SHI) database listings on the OEH website, CMP, SHR, s170 and LEP. Where assessments are incomplete or there have been changes to the listed items assessments of significance have been updated.

5.2.1 Graham Lodge

Graham Lodge³⁹ (SHR No. 01699, LEP No. 389)

Images



Figure 5.1: View of east (main) façade of Graham Lodge

History

In 1826, emancipated convict William Graham arrived in the Shoalhaven region and took up an unoccupied grant of 100 acres on the southern banks of the Shoalhaven River in a holding that became known as Greenhills. In the years that followed, the Greenhills estate was expanded and portions of the landholdings were cleared and cultivated, a cottage erected, along with establishment of several sheds and a stockyard.

In 1843, Graham's early home at Greenhills was noted as the only residence in the vicinity of present-day Nowra. In the 1850s, the government town of Nowra was surveyed, although the township only became the main settlement in the area after 1870 following a series of floods, which encouraged a general shift away from the riverside settlements. Construction of the Nowra truss bridge in 1881 brought the main road into the district (passing near Graham Lodge), and following establishment of the railway connection to Sydney terminating at Bomaderry in 1893, urbanisation and economic expansion of the region increased.

Following the death of William Graham in 1852, who was subsequently buried in the nearby family cemetery, his son James Graham took over running of the estate and inherited the original 100 acre grant and house. Construction of a new two-storey residence began in 1861 and was completed in May 1861. The property remained in ownership of the Graham family until 1928, from which point Graham Lodge has passed ownership and been subdivided over time. Following closure of the property's use as the Nowra-Bomaderry Leagues Club in 1992, Graham Lodge fell into disrepair and became derelict. In 1998, Shoalhaven City Council bought the property, and restoration and interpretive work was undertaken from this time.

³⁹ NSW Office of Environment & Heritage, 'Graham Lodge'. Accessed online 12/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5052090>

Graham Lodge³⁹ (SHR No. 01699, LEP No. 389)

Description

Graham Lodge is a large two-storey residence constructed in 1860-1861. Designed in the Victorian Georgian style with Victorian Regency influences, the residence is located near the south bank of the Shoalhaven River to the north-east of Nowra's town centre, and is near the Princes Highway by-pass. The building is constructed of locally fired rendered bricks on sandstone footings with a double hipped slate roof. Styled with symmetrical ordering and harmonic proportioned windows and doors, the residence features an upper verandah roof with striped corrugated iron roofing, cast iron verandah posts, iron lace brackets and wrought iron balustrade.

Oriented east, the house overlooks a portion of its original pastoral landscape, including the nearby family cemetery located on a separate allotment. The cemetery contains three headstones and the Graham monument, and retains significant visual connections to Graham Lodge. Several interpretive panels are located across the property and cemetery. The Nowra Visitor's Centre is located in a wing of the building that was established by the Leagues Club, and is separated from the residence by several metres of grass. Medium density housing development borders Graham Lodge to the south.

For the archaeological potential of Graham Lodge, please refer to Section 6.2.6.

Significance State

A – Historical Significance

Graham Lodge is of State historical significance as a substantial nineteenth century Victorian Georgian residence that was the focus of the "Greenhills" estate, an early European settlement in the region. Still overlooking some of the original pastoral acreage of Graham's father's pioneering property of Greenhills, the Victorian Georgian styled house has important archaeological potential for its record of nineteenth century pastoralism, its history of contact between European and Aboriginal people, and its evidence of nineteenth century Chinese market gardens. It also has historical associations with the foundation of local politics in the Shoalhaven in 1860 and for its more recent recreational function as club premises. It thus can be seen to be a microcosm reflecting some of the broad patterns of historical development of the region. Many aspects of these historical roles are furthermore evidenced in artworks and images depicting the property and its inhabitants at various times.

B – Associative significance

Graham Lodge has local significance for its historical association with the Graham family, who were among the first European settlers in the area and prominent in early local politics. It is also significant for its evidence of the craftsmanship of early Nowra builders Charles Moore and Willet Burrey. The private cemetery records the deaths of many early Graham family members.

C – Aesthetic or Technical Significance

Graham Lodge is of State significance as an early substantial residence built 1860-1861 on the NSW south coast, in the style of Victorian Georgian with Victorian Regency influences. The two storey veranda facade would appear to be the earliest example of this residential form in the Shoalhaven. The imposing façade and use of building materials such as roof slates and internal cedar joinery are an expression of the aspiration to quality and permanency in all parts of the building, illustrating both its owner's social standing and the gradual urbanisation of the area.

D – Social significance

As the focal point of the "Greenhills" pastoral estate from 1860, Graham Lodge has State social and cultural significance because of its associations with the early European settlement of regional NSW and as an early point of contact between European and Aboriginal people, as well as a site used by Chinese market gardeners. The location of the private family cemetery within view of the home is suggestive of a more domestic relationship of family life with the deaths of family members than is typically practiced now. As the home of the municipality's first mayor and home to subsequent family members prominent in Nowra affairs, it also

Graham Lodge³⁹ (SHR No. 01699, LEP No. 389)

has local significance for local social and political history. In addition, the building functioned prominently in the social life of the region as a function centre and club building between 1960 and 1998.

E – Research potential

Graham Lodge is of State significance for its archaeological potential to demonstrate aspects of the history of a pastoral estate with clear connections with Aboriginal people. Its archaeological potential is enhanced by the visual evidence of cottages and sheds recorded in various historical artworks including Samuel Elyard's painting of 1877, and by the proximity of the Graham family cemetery. Graham Lodge is also of local significance as an early residence which contributes to the understanding of mid-nineteenth century regional construction techniques and for illustrating the story of European settlement and local government in the Shoalhaven district.

F – Rarity

Graham Lodge is of local significance for its rarity as a surviving remnant of a nineteenth century pastoral estate that includes a substantial mid-nineteenth residential building, a family cemetery, and archaeological sites within a partially intact cultural landscape. The location of the private family cemetery within view of the home is suggestive of a more domestic relationship of family life with the deaths of family members than is typically practiced now. The headstone dedicated to William Graham is of particular significance as marking the grave of an original land grantee on part of the original grant.

G – Representativeness

Graham Lodge is of State significance for being representative of the early European settlement and political development enacted by pioneering families in rural NSW. It is a fine example of a substantial Victorian Georgian residence using good quality materials and projecting an imposing facade. The physical relationship of the residence to the family cemetery is representative of a different, nineteenth century understanding of the relationship of family life with death. The property is held in high esteem locally as an important remnant of the early European history of the region.

Statement of significance

Graham Lodge is significant for its aesthetic quality as a substantial nineteenth century Victorian Georgian residence still overlooking much of its original pastoral landholdings and for its potential to expand historical understanding of early European settlement patterns and interactions with Aboriginal people.

It also has significance for its historical associations with the foundation of local politics in the Shoalhaven and its more recent recreational role as club premises, in which function it contributed to the social life of the region for nearly 40 years. It can thus be seen to be a microcosm demonstrating some of the broad patterns of historical development of the region.

The site has significance particularly for the archaeological potential associated with the 'Greenhills' estate, including remnants from the demolished cottages and sheds recorded in historic paintings, evidence of both pre- and post-contact Aboriginal artefacts, and evidence of early Chinese market gardens. The curtilage includes a small lot within view of the house containing the family cemetery. The headstone dedicated to William Graham is of particular significance as marking the grave of an original land grantee situated on the original grant.

5.2.2 Truss bridge

“Shoalhaven River Bridge” Victorian wrought iron bridge⁴⁰ (LEP No. 402, s170 No. 4301658)

Images



Figure 5.2: View of north west of the truss bridge

History

The Nowra truss bridge (originally known as the Shoalhaven Bridge) was designed by the prominent engineer C. Shaler Smith, considered one of the premier bridge designers in the post-Civil War period, and was officially opened in 1881. Establishment of a bridge in the locality resulted in increased subdivisions and development, and refocused development on the southern side of the river from Terara to Nowra in the west. In 1981, the bridge was upgraded with a new concrete bridge constructed immediately upstream (west) to carry northbound traffic, and a pedestrian walkway was attached to the truss bridge’s eastern elevation.

Description

The truss bridge over the Shoalhaven River is a nine span bridge consisting of seven wrought iron ‘Whipple’ truss spans with overhead bracing supported on pairs of cast iron cylindrical piers, with an overall length of 340 metres. The bridge features decorative elements including circular cast iron rosettes. The downstream face of the bridge supports a pedestrian walkway installed in 1981. At present, the bridge carries two southbound traffic lanes of the Princes Highway, with northbound traffic carried on the northbound concrete bridge immediately to the west that was completed in 1981.

Significance

State

Assessment of heritage significance

A – Historical Significance

The truss bridge is a rare example of an early truss bridge that is connected with the early development of the township of Nowra, and is demonstrative of a period of expansion throughout the Shoalhaven region in the late nineteenth century. It was originally designed to carry a double railway track, however the lines were never extended beyond Bomaderry Station. Today it carries the Princes Highway across the Shoalhaven River and is considered a gateway to Nowra town centre.

The truss bridge was the longest bridge in New South Wales prior to the construction of the 1889 Hawkesbury River Railway Bridge, and it is the earliest example of a Whipple Truss bridge in New South Wales:

- The bridge has been in continuous use since the 1880s, as the main road connection between north and south Nowra. Together

⁴⁰ Artefact Heritage (2015). *Nowra Truss Bridge: Phase 1 Conservation Management Plan*.

“Shoalhaven River Bridge” Victorian wrought iron bridge⁴⁰ (LEP No. 402, s170 No. 4301658)

with the concrete bridge constructed to the west in 1981, it constitutes an integral part of the Princes Highway road network

- The construction of the bridge contributed to the growth of the Shoalhaven region, and allowed the flow of goods and services to settlements further south
- The bridge demonstrates continuity of use for over 130 years. The bridge continues to be utilised for its intended purpose
- The bridge was a major factor in the acceleration of the growth of Nowra as a settlement on the South Coast. It was a landmark construction for the region, and was widely reported throughout the Shoalhaven and Sydney
- The construction of the bridge, using materials and design uncommon to the region and NSW, would have been a significant public sector undertaking at the time
- The bridge has become a focal point for local celebrations and political statements. In 1915 the WWI Waratah recruitment march passed over the bridge. The bridge was closed to traffic on Sorry Day (26 May 1998).

The bridge has state significance under this criterion.

The design and construction of the truss bridge is associated with a number of individuals.

B – Associative significance

- The Whipple Truss bridge type was patented by Squire Whipple in 1847. Whipple was born in Massachusetts in 1804 and was a key figure in iron bridge design in America
- The bridge was designed by the former American civil engineer and specialist bridge engineer C. Shaler Smith. Smith was considered one of the premier bridge designers in the post-Civil War period, and he designed and built major bridges in the United States, Australia, and Peru
- The bridge was opened by the Hon. John Lackey, then the NSW Minister for Public Works, in 1881
- The construction of the bridge affected the lives of a large number of construction workers at the time. It is likely that many of these workers were local to, or relocated to, the Nowra Bomaderry area during construction and completion of the bridge.

The bridge has state significance under this criterion.

C – Aesthetic or Technical Significance

The truss bridge is a landmark within the Shoalhaven landscape and valued for its aesthetic qualities. It is highly visible from the park and businesses that line the banks of the river in this location. The predominantly grey bridge forms a focal point at a visually prominent location on the Shoalhaven River and provides a tangible reminder of the historical context and growth of the area.

The structure is a visually prominent and striking example of a truss bridge, retaining many of its original decorative features, including the lattice plates across the top of each upper chord cross member and the rosette washers at the intersections of the diagonals. All

“Shoalhaven River Bridge” Victorian wrought iron bridge⁴⁰ (LEP No. 402, s170 No. 4301658)

components and structural details of the bridge are clearly visible, and this form of construction is rare in road bridges. The length of the bridge, and its location spanning a wide section of the river, also contributes to the unique experience of crossing it, either on foot or by car.

The bridge is a visual reminder of the historical context of the local area, which was largely shaped by the construction of the bridge.

The bridge has local significance under this criterion.

The truss bridge is a visually prominent and unique structure, experienced by the local community who use the pedestrian footbridge, and those passing through the area travelling on the Princes Highway. The bridge has landmark status for the local area, and is seen as being representative of the history of the area as it facilitated the development of Nowra.

The Nowra Bridge is held in high esteem by various community stakeholders. This is evident through the number of submissions received by Roads and Maritime during community consultation in November 2014 around the future of the old Nowra Bridge. During community consultation Roads and Maritime received a number of submission, capturing community interest in future uses of the bridge. Of the 720 submissions received:⁴¹

D – Social significance

- 540 indicated the truss bridge should be retained
- 80 indicated the truss bridge should be removed
- 69 indicated the truss bridge should be relocated
- 31 indicated that they had no opinion.

The majority of submissions that indicated the truss bridge should be retained stated that it was for historic or heritage reasons. The responses outlined the historic and heritage value of the truss bridge and that it is one of the last bridges of its kind still in use in NSW. Other submissions referred to the place of the truss bridge in the history of the area. The large number of submissions received by Roads and Maritime, and the number of stakeholders who indicated the bridge should be retained for heritage reasons, indicates that the historic role of the truss bridge is recognised in the Nowra community.

The bridge has local significance under this criterion.

E – Research potential

The truss bridge is technically significant as the only Whipple Truss Bridge in operation in New South Wales.

- The bridge provides an understanding of the technological developments of the time, and some understanding of the working conditions in the 1880s
- The bridge demonstrates the change in technology from wrought iron to steel in bridge construction

⁴¹ Roads and Maritime Services Nowra Bridge Project Consultation summary May 2015; 16.

“Shoalhaven River Bridge” Victorian wrought iron bridge⁴⁰ (LEP No. 402, s170 No. 4301658)

- The bridge is demonstrative of innovative technological achievements in bridge building in the late 19th century
- There is research potential in analysis of the construction methods adopted in spanning the Shoalhaven River - at the time of its construction it was the longest bridge span in New South Wales
- The bridge has the ability to respond to research questions regarding the construction of wrought iron bridges in NSW, and the adoption of American technologies of road building.
- The bridge embodies a deviation from the conservative British opinions of the time.

The bridge has state significance under this criterion.

F – Rarity

The bridge is a rare example of a Whipple Truss bridge, one of only two built in NSW, and the only remaining example in use in NSW.

- The bridge represents a unique development in the transport system of the Shoalhaven and NSW
- The bridge was the first example of a Whipple Truss constructed in Australia, and is one of only two Whipple Truss bridges that continue to be in use in Australia (the other being Sadliers Crossing Railway Bridge in Queensland, constructed in 1902). It is the only Whipple Truss in use in New South Wales, the other example at Lewisham Railway decommissioned and now on display. It was also one of the few examples of a Whipple Truss used for road traffic, rather than rail.

The bridge has state significance under this criterion.

G – Representativeness

The truss bridge is a definitive example of a Whipple Truss bridge. The design incorporates ideas around the use of metal over wood in the creation of truss bridges, and demonstrates a high degree of technological achievement and open mindedness in bridge design.

- The bridge is an excellent and representative example of a complete Whipple truss bridge. The bridge is generally intact, and has a high degree of structural integrity, considering it has remained in near constant use over a period of 135 years
- The bridge is representative of what was a new style of bridge design, and adoption of new technologies in bridge building, not previously adopted due to conservative attitudes of the British based road and rail establishment.

The bridge has state significance under this criterion

“Shoalhaven River Bridge” Victorian wrought iron bridge⁴⁰ (LEP No. 402, s170 No. 4301658)

Statement of significance

The significance of the truss bridge lies largely in its ability to demonstrate over 130 years of history of the use of the Shoalhaven River crossing, and reflect the growth of Nowra and Bomaderry. By extension, the historical relationship between the bridge, the river and the town is apparent both visually and symbolically. The bridge is also held in high regard by many members of the community, evidenced by public interest in the bridge options development process, and public submissions on the future of the bridge.

The significance of the truss bridge is embodied in the fabric of the item, it is a rare, surviving example of a pre-1890s “American –style” Whipple Truss bridge. It retains elements of a rare construction technology, and has maintained its structural integrity. The bridge represents the early and innovative adoption of a style of bridge uncommon to Australia in the late 19th century. It also symbolically demonstrates the movement towards a less conservative approach to infrastructure within the Colonial Government, and away from the traditional British construction methods that had been adopted previously.

Overall, this assessment has found that the Nowra Bridge has significance at a state level for its historic value, its landmark aesthetic qualities, its ability to contribute to research questions relating to the construction of Whipple truss bridges in Australia, its rarity and its representativeness.

5.2.3 Graham Family Cemetery

Graham Family Cemetery⁴² (LEP No.369)

Images



Figure 5.3: View south to Graham Family Cemetery

Overview

The Graham Family Cemetery comprises a small private cemetery that marks the final resting place of the Graham family, a prominent family in the Nowra region. The cemetery is located on low ground approximately 400m south from the Shoalhaven River. Four surviving monuments remain, which are oriented east. The cemetery is overlooked by and retains significant historic sightlines with Graham Lodge.

Significance

State

A – Historical Significance

The private cemetery has historical significance as it records the deaths of many early Graham family members.

⁴² NSW Office of Environment & Heritage, ‘Graham Family Cemetery’. Accessed online 12/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390660>

Graham Family Cemetery⁴² (LEP No.369)

Assessment of heritage significance	B – Associative Significance	Graham Lodge has local significance for its historical association with the Graham family, who were among the first European settlers in the area and prominent in early local politics. The private cemetery records the deaths of many early Graham family members.
	C – Aesthetic or Technical Significance	The cemetery has aesthetic significance and William Graham's monument is an elegant sandstone stela, gabled with square shoulders and an acroteria.
	D – Social significance	The cemetery is socially significant as the location of the private family cemetery within view of the home is suggestive of a more domestic relationship of family life with the deaths of family members than is typically practiced now.
	E – Research potential	The cemetery has research potential to understand the social relationship of family life and death during the early development of Nowra.
	F – Rarity	The location of the private family cemetery within view of the home is suggestive of a more domestic relationship of family life with the deaths of family members than is typically practiced now. The headstone dedicated to William Graham Snr. is of particular significance as marking the grave of an original land grantee on part of the original grant.
	G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally. This item is assessed as scientifically representative locally. This item is assessed as socially representative locally.
Statement of significance	The Graham family cemetery includes an early rare headstone which predates the Civil Register of 1856 and identifies the land grant made to the Graham family. Historic, aesthetic, social and research value. The nearby house built by Graham and the visual relationship between the cemetery and the house is particularly significant.	

5.2.4 “Lynburn”

“Lynburn” – timber Federation residence and garden⁴³ (LEP No. 130)

Images



Figure 5.4: View of “Lynburn” from footpath alongside Princes Highway

⁴³ NSW Office of Environment & Heritage, “Lynburn” – timber Federation residence and garden”. Accessed online 12/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390820>

“Lynburn” – timber Federation residence and garden⁴³ (LEP No. 130)

Overview	<p>Designed by leading Sydney architect Howard Joseland, who was commissioned to design several fine buildings on the Berry Estate in the late 19th century, “Lynburn” was built by George Muller and completed in 1895.</p> <p>An ornate Federation residence, the weatherboard residence features two front gabled projections, a skillion verandah and complex slate roof with terracotta ridge capping and unusual timber decoration to gable ends. Despite a fire that occurred in 1981, the exterior of the residence has been sensitively restored and the interior remains largely intact featuring several marble fireplaces and original lathe and plaster ceilings. The grounds of the property contain several mature trees. Road widening associated with previous upgrading of the Princes Highway slightly reduced the garden, and resulted in the removal of several mature spotted gum trees and reconstruction of the entry gates.</p>	
Significance	Local	
Assessment of heritage significance	A – Historical Significance	<p>The item is of historical significance as an example of a single storey, late Victorian house that was built in 1895 by George Muller for the widow of Henry Gordon Morton who was a manager and surveyor for the Berry Estate. The house was called Lynburn and was designed by the leading Sydney architect Howard Joseland, who was commissioned to design a number of buildings on the Berry Estate between 1883 and the early 1900s.</p>
	B – Associative significance	<p>The house has associations with Howard Joseland (1860-1930), who was commissioned to design a number of buildings on the Berry Estate between 1883 and the early 1900s.</p>
	C – Aesthetic or Technical Significance	<p>The house is a very good example of a single storey, late Victorian, Federation style residence set in landscaped grounds that contain many magnificent mature trees including a Cedar of Lebanon at the gate and a Virginian Swamp Cypress on the south side of the drive that date back to the 1890s.</p>
	D – Social significance	<p>This item would not reach the threshold of local significance under this criterion</p>
	E – Research potential	<p>This item would not reach the threshold of local significance under this criterion</p>
	F – Rarity	<p>This item is assessed as historically rare locally. This item is assessed as aesthetically rare at a State level.</p>
	G – Representativeness	<p>This item is assessed as historically representative locally. This item is assessed as aesthetically representative at a State level.</p>
Statement of significance	<p>An outstanding timber Federation house by noted Sydney architect Howard Joseland which incorporates several interesting and unusual design features. The house is of high integrity. Special local historical interest as an employer-provided house on the former Berry Estate. Has architectural values which contribute significantly to the local streetscape at the approaches to Nowra Road Bridge. Local significance (Shoalhaven).</p>	

5.2.5 “Illowra”

“Illowra” – Federation timber Berry Estate residence and garden⁴⁴ (LEP No. 136)

Images



Figure 5.5: View to “Illowra” from Brinawarr Street

Overview

Designed by leading Sydney architect Howard Joseland, “Illowra” was built in 1906 for Mark F. Morton as part of the Berry Estate. The large Federation residence, which features an attic storey, is constructed of weatherboard with tall chimneys in rendered brick and a complex high-pitched jerkin-head roof. The residence is largely concealed from the surrounding streetscape, with plantings and the property fencing concealing the house from view from Princes Highway, Bolong Road and Brinawarr Street.

Significance

Local

Assessment of heritage significance

A – Historical Significance	The item is of historical significance as an example of a two storey, Edwardian house was built in 1906 for Mark F. Morton, the member for Wollondilly in the NSW Legislative Assembly from 1901 till his death in 1938. The house was named "Illowra" and was designed by Howard Joseland, a leading Sydney architect.
B – Associative Significance	The place has associations with Mark F. Morton the member for Wollondilly in the NSW Legislative Assembly from 1901 till his death in 1938. Morton was a son of Henry Gordon Morton, who had managed the lands of the Berry Estate at Numbaa, and was Mayor of Numbaa Municipality for 30 years. The place also has associations with Howard Joseland (1860-1930), a leading Sydney architect who was commissioned to design most of the buildings erected on the Berry Estate between 1883 and the early 1900s.
C – Aesthetic or Technical Significance	The house is a very good example of a large Edwardian Arts and Crafts house with fine external detailing and was designed by Howard Joseland, a leading Sydney architect who was commissioned to design most of the buildings erected on the Berry Estate between 1883 and the early 1900s. The residence is surrounded by fine old trees and established gardens.
D – Social significance	This item would not reach the threshold of local significance under this criterion
E – Research potential	This item would not reach the threshold of local significance under this criterion

⁴⁴ NSW Office of Environment & Heritage, “Illowra” – Federation timber Berry Estate residence and garden’. Accessed online 12/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=2390819>

“Illowra” – Federation timber Berry Estate residence and garden⁴⁴ (LEP No. 136)

F – Rarity	This item is assessed as aesthetically rare at a State level. This item is assessed as historically rare at a State level.
G – Representativeness	This item is assessed as historically representative at a State level. This item is assessed as aesthetically representative at a State level.
Statement of significance	Federation period timber residence designed by noted Sydney architect Howard Joseland. Special historical interest for its long association with the prominent Morton family. Historic and aesthetic value. Local significance (Shoalhaven).

5.2.6 “Kilsyth”

“Kilsyth” – Federation weatherboard residence⁴⁵ (LEP No.331)

Images



Figure 5.6: View to “Kilsyth” from the surrounding streetscape

Overview	Built in circa 1929 by Bruce Lumsden, “Kilsyth” is a single storey Inter-War California Bungalow style residence. Constructed of weatherboard with a corrugated iron roof, the house features axially centred gables facing the street with fibro and batten infill and louvered vent. Making a significant contribution to the surrounding streetscape, the item remains as one of the few unmodified examples of its kind in Nowra.	
Significance	Local	
Assessment of heritage significance	A – Historical Significance	This item would not reach the threshold of local significance under this criterion
	B – Associative Significance	This item would not reach the threshold of local significance under this criterion
	C – Aesthetic or Technical Significance	This item would not reach the threshold of local significance under this criterion
	D – Social significance	This item would not reach the threshold of local significance under this criterion

⁴⁵ NSW Office of Environment & Heritage, “Kilsyth” – Federation weatherboard residence’. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390707>

“Kilsyth” – Federation weatherboard residence⁴⁵ (LEP No.331)

E – Research potential	This item would not reach the threshold of local significance under this criterion
F – Rarity	This item is assessed as aesthetically rare locally.
G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally. This item is assessed as socially representative locally.

Statement of significance

Kilsyth is an excellent representative example of the range of Inter-War California Bungalow styles employed in Nowra during the Inter-war years. In conjunction with its neighbours and mature garden it makes a positive contribution to the streetscape. Historic and aesthetic values. Local significance (Shoalhaven).

5.2.7 “Uuna”

“Uuna” – late Victorian weatherboard cottage and garden⁴⁶ (LEP No. 332)

Images



Figure 5.7: View to “Uuna” from the surrounding streetscape

Overview

Built by 1895, “Uuna” is a single storey late Victorian shiplap weatherboard cottage featuring a complex hipped iron roof. The gable facing Bridge Street features decorative bargeboard and a finial, and the front verandah with a bullnose iron roof features iron-lace fringing and brackets. The building’s unusual form and roof shape, along with its well landscaped garden, contributes to the character and quality of the surrounding streetscape.

Significance

Local

Assessment of heritage significance	A – Historical Significance	This item would not reach the threshold of local significance under this criterion
	B – Associative Significance	This item would not reach the threshold of local significance under this criterion
	C – Aesthetic or Technical Significance	This item would not reach the threshold of local significance under this criterion

⁴⁶ NSW Office of Environment & Heritage, “Uuna” – late Victorian weatherboard cottage and garden. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390706>

“Uuna” – late Victorian weatherboard cottage and garden⁴⁶ (LEP No. 332)

D – Social significance	This item would not reach the threshold of local significance under this criterion
E – Research potential	This item would not reach the threshold of local significance under this criterion
F – Rarity	This item would not reach the threshold of local significance under this criterion
G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.

Statement of significance
 Good example on an asymmetrical Victorian weatherboard house with mature garden which contributes to the streetscape values of Bridge Road. Historic and aesthetic values. Local significance (Shoalhaven).

5.2.8 Captain Cook Bicentennial Memorial

Captain Cook Bicentennial Memorial⁴⁷ (LEP No.338)

Images



Figure 5.8: View looking south to the Captain Cook Bicentennial Memorial

Overview

In 1970, the Shoalhaven Council received a grant of \$3500 to construct a modern boathouse as part of the Captain Cook Bicentennial celebrations. The pavilion to house a restored flood boat was completed later in 1970 and was designed by Sydney Architect Michael Tomaszewski. The monument is a late-20th century period shell concrete structure that is reminiscent of 1960s architecture, externally painted white and painted light blue internally. At the time of this assessment, the flood boat was not present within the pavilion memorial and is understood to have been relocated to the Jervis Bay Maritime Museum.

Significance

Local

Assessment of heritage significance	A – Historical Significance	This item would not reach the threshold of local significance under this criterion
	B – Associative Significance	This item would not reach the threshold of local significance under this criterion

⁴⁷ NSW Office of Environment & Heritage, 'Captain Cook Bicentennial Memorial'. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390709>

Captain Cook Bicentennial Memorial⁴⁷ (LEP No.338)

C – Aesthetic or Technical Significance	This item would not reach the threshold of local significance under this criterion
D – Social significance	This item would not reach the threshold of local significance under this criterion
E – Research potential	This item would not reach the threshold of local significance under this criterion
F – Rarity	This item is assessed as aesthetically rare locally. This item is assessed as historically rare regionally.
G – Representativeness	This item is assessed as historically representative regionally. This item is assessed as socially representative locally.

Statement of significance
 The Captain Cook Memorial Pavilion, which formerly contained the Flood Boat, is strategically sited at the entrance to Nowra, is evocative of the sentiments surrounding the 200th anniversary of the sighting of this part of New South Wales by Captain James Cook, the role of the Berry family in the district and the impact of the Shoalhaven River on settlement. Local significance (Shoalhaven).

5.2.9 Inter-war weatherboard building and timber wharf (Nowra Sailing Club site)

Inter-war weatherboard building and timber wharf⁴⁸ (LEP No. 407)

Images



Figure 5.9: View to site of weatherboard building (since burnt down) and timber wharf

⁴⁸ NSW Office of Environment & Heritage, 'Weatherboard building and timber wharf'. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4301658>

Inter-war weatherboard building and timber wharf⁴⁸ (LEP No. 407)

<p>Overview</p>	<p>Constructed in 1930, the Nowra Sailing Club was a typical Inter-War Federation style timber framed building of the 1920s, located directly above the Shoalhaven River. The timber framed building featured a simple gabled roof structure of galvanised iron, and was supported on a brick sub-floor structure. The associated timber piled wharf has been progressively replaced over time with the present combination of piles and fill. The weatherboard building burnt down in 2017. However, it is noted the existing timber wharf and its underlying concrete pile footings along with concrete and timber footings of the earlier 1884 and 1902-1904 wharf remain. An adjacent stone boat ramp is located to the west of the wharf.</p> <p>A maritime assessment provided by Shoalhaven City Council⁴⁹ has found that archaeological remains apart from the structural remains of the footings are unlikely to be present within the river and banks due to water movement and scouring. The wharf footings would be defined as ‘works’ and would not fall under the relics provisions of the Heritage Act.</p>	
<p>Significance</p>	<p>Local</p>	
<p>Assessment of heritage significance</p>	<p>A – Historical Significance</p>	<p>This item would not reach the threshold of local significance under this criterion</p>
	<p>B – Associative Significance</p>	<p>This item would not reach the threshold of local significance under this criterion</p>
	<p>C – Aesthetic or Technical Significance</p>	<p>The heavy timber construction of the wharf itself and the substructure to the warehouse through the bold vernacular hardwood rough sawn timber beam floor structure contribute elements of considerable interest and unusual design.</p>
	<p>D – Social significance</p>	<p>This item would not reach the threshold of local significance under this criterion</p>
	<p>E – Research potential</p>	<p>This item would not reach the threshold of local significance under this criterion</p>
	<p>F – Rarity</p>	<p>This item is assessed as historically rare locally.</p>
	<p>G – Representativeness</p>	<p>This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally. This item is assessed as socially representative locally.</p>
<p>Statement of significance</p>	<p>Nowra Wharf is locally significant for its ability to illustrate the historical relationship between Nowra and the Shoalhaven River and its dependence on coastal shipping and river transport well into the twentieth century. The close juxtaposition of the wharf and road bridge of 1881 reinforces this dependence. Local significance (Shoalhaven).</p>	

⁴⁹ Cosmos (2018). Nowra Wharf Statement of Heritage Impact, report to Nowra Shire Council

5.2.10 “Greenleaves”

“Greenleaves” – Federation Queen Anne style residence and grounds⁵⁰ (LEP No.122)

Images



Figure 5.10: View to “Greenleaves” from Bolong Road

Overview

Originally called “Flawcraig” and later renamed “Greenleaves”, this residence was built around 1895 by the Berry Estate and designed by leading Sydney architect Howard Joseland. Constructed of local materials, “Greenleaves” is a fine, slightly asymmetrical Federation Queen Anne style house of face brick on sandstone foundations and a complex slate roof. Decorative elements, including ornate brick chimneys, verandah posts and brackets add interest to the surrounding streetscape, which is accentuated by the property’s generous grounds.

Significance

Local

Assessment of heritage significance

A – Historical Significance	The item is of historical significance as an example of a substantial, late Victorian house that was built around 1895 by the Berry Estate for the widow of their trusted employee, Peter Hall. The house was originally called Flawcraig and was designed by the noted architect, Howard Joseland. The property was sold in 1937 and renamed "Greenleaves".
B – Associative Significance	The property has associations with the Berry family who had established an estate at Coolangatta in 1822. The Berry estate built the house for their employee, Peter Hall whose father Thomas had migrated to Coolangatta from Cupar in Scotland with members of the Berry family in 1836. The place also has associations with the noted architect, Howard Joseland (1860-1930).
C – Aesthetic or Technical Significance	The house is a very good example of a single, storey, Federation Queen Anne style house in face brick. The house was designed by the leading Sydney architect Howard Joseland, who was commissioned to design a number of fine buildings on the Berry Estate between 1883 and the early 1900s.
D- Social Significance	This item would not reach the threshold of local significance under this criterion
E – Research Potential	This item would not reach the threshold of local significance under this criterion
F – Rarity	This item would not reach the threshold of local significance under this criterion

⁵⁰ NSW Office of Environment & Heritage, “Greenleaves” – Federation Queen Anne style residence and grounds’. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390818>

“Greenleaves” – Federation Queen Anne style residence and grounds⁵⁰ (LEP No.122)

G – Representativeness This item would not reach the threshold of local significance under this criterion

Statement of significance
 An outstanding late nineteenth century house, essentially Federation in style. Designed by noted Sydney architect Howard Joseland. Local historical interest as an employer-provided house on the former Berry Estate. Historic, aesthetic and associative value. An example of the work of Howard Joseland which contributes significantly to the streetscapes of Bomaderry. Local significance (Shoalhaven).

5.2.11 Federation brick and asbestos tile residence

Federation Brick and Asbestos Tile Residence⁵¹ (LEP No.123)

Images



Figure 5.11: View to ‘Federation Brick and Asbestos Tile Residence’ from Bolong Road

Overview
 Constructed in 1915, this single storey brick and asbestos cement tile house is designed in the late Federation style. Once part of the Berry Estate landholding, this parcel of land was subdivided following the death of David Berry. The residence has an asymmetrical plan form with projecting gabled bays on two sides below the main hipped roof, and features decorative design features including terracotta ridge tiles, gable finials and coloured glass.

Significance Local

Assessment of heritage significance	A – Historical Significance	This item would not reach the threshold of local significance under this criterion
	B – Associative Significance	This item would not reach the threshold of local significance under this criterion
	C – Aesthetic or Technical Significance	This item would not reach the threshold of local significance under this criterion
	D- Social Significance	This item would not reach the threshold of local significance under this criterion

⁵¹ NSW Office of Environment & Heritage, ‘Federation Brick and Asbestos Tile Residence’. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390799>

Federation Brick and Asbestos Tile Residence⁵¹ (LEP No.123)

E – Research Potential	This item would not reach the threshold of local significance under this criterion
F – Rarity	This item is assessed as historically rare locally.
G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally. This item is assessed as socially representative locally.
Statement of significance	Locally rare example of an asymmetrical brick late Federation period house which adds considerably to the form, scale and character of Bomaderry's streetscapes. Demonstrates the importance of Bolong Road in conjunction with numbers 59 and 63 Bolong Road. Historic and aesthetic value. Local significance (Shoalhaven).

5.2.12 Late Victorian weatherboard residence

Late Victorian weatherboard residence⁵² (LEP No. 376)

Images



Figure 5.12: View to 'Late Victorian weatherboard residence' from southern side of Moss Street

Overview	Constructed circa 1900, the item is an Italianate asymmetrical plan form cottage that is common from the late Victorian and Federation periods. The weatherboard cottage features a hipped galvanized iron roof and projecting gabled bay. The hipped verandah to the front of the house is roofed with flat corrugated iron sheeting with timber posts and brackets. A picket fence defines the street boundary of the property.	
Significance	Local	
Assessment of heritage significance	A – Historical Significance	This item would not reach the threshold of local significance under this criterion
	B – Associative Significance	This item would not reach the threshold of local significance under this criterion

⁵² NSW Office of Environment & Heritage, 'Late Victorian weatherboard residence'. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2390709>

Late Victorian weatherboard residence⁵² (LEP No. 376)

C – Aesthetic or Technical Significance	This item would not reach the threshold of local significance under this criterion
D- Social Significance	This item would not reach the threshold of local significance under this criterion
E – Research Potential	This item would not reach the threshold of local significance under this criterion
F – Rarity	This item is assessed as aesthetically rare locally.
G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.
Statement of significance	Excellent representative example of a late Victorian asymmetrical plan cottage erected at the turn of the century. Aesthetic and historic value as part of the range of housing types in the Moss Street Conservation Area. Local significance (Shoalhaven).

5.2.13 Late Victorian weatherboard cottage

Late Victorian weatherboard cottage⁵³ (LEP No. 377)

Images



Figure 5.13: View to ‘Late Victorian weatherboard cottage’ from southern side of Moss Street

Overview	Erected circa 1900, this item is a late Victorian example of the Italianate asymmetrical plan form cottage. The weatherboard cottage with a hipped galvanised iron roof and projecting gabled bay and bullnose bay window and verandah to front with timber posts and brackets. The projecting bay features decorative bargeboards and a finial. A picket fence defines the street boundary of the property.	
Significance	Local	
	A – Historical Significance	This item would not reach the threshold of local significance under this criterion

⁵³ NSW Office of Environment & Heritage, ‘Late Victorian weatherboard cottage’. Accessed online 13/12/17 at: <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=2390686>

Late Victorian weatherboard cottage⁵³ (LEP No. 377)

Assessment of heritage significance	B – Associative Significance	This item would not reach the threshold of local significance under this criterion
	C – Aesthetic or Technical Significance	This item would not reach the threshold of local significance under this criterion
	D- Social Significance	This item would not reach the threshold of local significance under this criterion
	E – Research Potential	This item would not reach the threshold of local significance under this criterion
	F – Rarity	This item is assessed as aesthetically rare locally.
	G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.
Statement of significance	Excellent representative example of a late Victorian asymmetrical weatherboard cottage. Aesthetic and historic value as part of the Moss Street Conservation Area. Local significance (Shoalhaven).	

5.3 Potential unlisted heritage item

5.3.1 ‘M&M Guesthouse’ (former “Culburra House”)

M&M Guesthouse⁵⁴

Images



Figure 5.14: View east from Scenic Drive towards the ‘M&M Guesthouse’ (former “Culburra House”) building near Moorhouse Park

⁵⁴ Information provided by Shoalhaven Historical Society, July 2018.

M&M Guesthouse⁵⁴

Overview Originally named “Culburra House”, the ‘M&M Guesthouse’ comprises a single storey weatherboard building connected with a covered walkway and featuring corrugated metal sheet roofing and timber framed windows and doors. Built by local land developer Henry Halloran in the early 1920s, “Culburra House” was designed in the Californian Bungalow style and was one of the earliest buildings at Culburra Beach. The township of Culburra emerged as a popular sea-side holiday destination. While the guest house proved a success in the early years of its operation, during World War II it became uneconomical to run. Between 1953 and 1954 it was subsequently dismantled into several sections and relocated by road from Culburra to its present location in Nowra as the Riverhaven Guest Hotel. The building later became part of the Riverhaven Motel complex.

Significance Local

Assessment of heritage significance	A – Historical Significance	The ‘M&M Guesthouse’, as the former “Culburra House”, has historical significance as having been one of the earliest buildings constructed at Culburra Beach. The M&M Guesthouse reflects the earliest phase of development in the area in response to the popularity of the township as a tourist destination during the early decades of the twentieth century. The relocation of “Culburra House” to Nowra demonstrates the changing settlement and development patterns in the district during the twentieth century.
	B – Associative Significance	The ‘M&M Guesthouse’ and former “Culburra House” are associated with early land developer of Culburra Beach Henry Halloran and the individuals and companies that leased the guesthouse during its operation, although these associations are unlikely to meet the threshold for local significance.
	C – Aesthetic or Technical Significance	The ‘M&M Guesthouse’ is an example of the Californian Bungalow style. While portions of the bungalow remain intact, the building was cut into sections and relocated, and subsequently has been modified over time. Decorative elements, comprising timber verandah brackets and shingle cladding to verandahs and gable end appear to have been removed. Condition and interior intactness not known. May potentially reach threshold of local significance.
	D- Social Significance	The ‘M&M Guesthouse’, as the former “Culburra House”, appears to have been a popular tourist attraction and local landmark at Culburra Beach prior to its relocation. As such, the building may have social significance for former guests and local residents at Culburra Beach. Since its relocation to Nowra, the building became known as the ‘M&M Guesthouse’ and appears to have retained a degree of social significance in its new context.
	E – Research Potential	This item would not reach the threshold of local significance under this criterion
	F – Rarity	This item is assessed as aesthetically rare locally.
	G – Representativeness	This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.

Statement of significance The M&M Guesthouse, as having been the former “Culburra House”, was one of the earliest buildings established at Culburra Beach during the early decades of the twentieth century. As a popular tourist destination, the building was a local landmark for many years and has retained its significant values since its relocation to Nowra during the development of the region during the mid-twentieth century.

6.0 ARCHAEOLOGICAL POTENTIAL AND SIGNIFICANCE

6.1 Introduction

Non-Aboriginal archaeological potential is defined as the potential of a site to contain historical archaeological relics, as classified under the Heritage Act. Non-Aboriginal archaeological potential is assessed by identifying former land uses and associated features through historical research, and evaluating whether subsequent actions (either natural or human) may have impacted on evidence for these former land uses.

As this constitutes a preliminary archaeological assessment, a complete investigation for the potential significance of archaeological resources within the study area has not been undertaken.

6.2 Discussion of archaeological potential and significance

6.2.1 Methodological framework

The potential for the survival of archaeological relics in a particular place is significantly affected by activities which may have caused ground disturbance. These processes include the physical development of the site (for example, phases of building construction) and the activities that occurred there. The likelihood for the survival of these relics (i.e. their archaeological potential) is distinct from the archaeological/heritage significance of these remains, should any exist. For example, there may be 'low potential' for certain relics to survive, but if they do, they may be assessed as being of State significance.

Identification of the potential historical archaeological resource of the study area is based on the review and understanding of its land use and development (site formation processes) through historical research, and evaluating whether subsequent actions (either natural or human) may have impacted on evidence of former land use phases.

Table 6-1: Grades of archaeological potential

Grading	Justification
Nil	No evidence of historical development or use, or where previous impacts such as deep basement structures would have removed all archaeological potential
Low	Research indicates little or low intensity historical development, or where there have been substantial previous impacts, disturbance and truncation in locations where some archaeological remains such as deep subsurface features may survive
Moderate	Analysis demonstrates known historical development and some previous impacts, but it is likely that archaeological remains survive with some localised truncation and disturbance
High	Evidence of multiple phases of historical development and structures with minimal or localised 20th century development impacts, and it is likely the archaeological resource would be largely intact

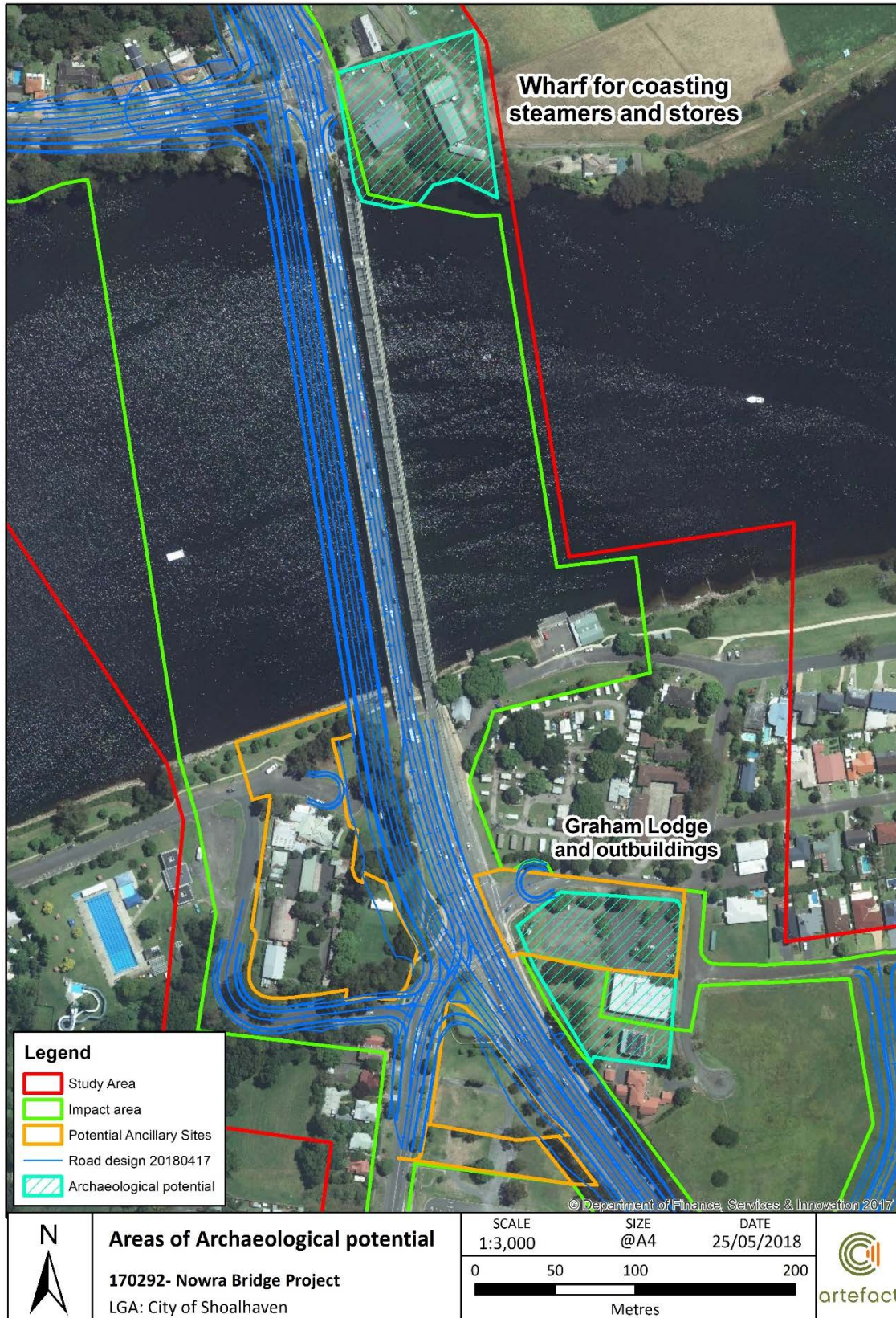
Assessing significance for archaeological sites can be difficult, in that the extent and nature of the remains is generally unknown and value judgements based on potential or expected attributes need to be made. Heritage significance in NSW is assessed using the Heritage Council of NSW's seven specific criteria based on the principles of the *Burra Charter*. How these apply to archaeological heritage assessment is further explained in *Assessing Significance for Historical Archaeological Sites*

and Relics.⁵⁵ Consideration of the research potential of an archaeological resource is necessary in determining archaeological significance. In addition, the expected intactness or integrity of an archaeological resource influences the evaluation of research potential and significance.

6.2.2 Approach

Assessment of archaeological potential was limited to the impact area as this is where subsurface impacts would occur. Areas of identified potential are mapped (Figure 6.1), with a general assessment provided for the remainder of the impact area. This approach is considered appropriate as the much of the study area was undeveloped until the 20th century so area of potential are limited and associated with structures identified on maps and plans, and the study area comprises a large linear corridor that would be best managed by isolating areas of potential.

⁵⁵ Heritage Branch, Department of Planning NSW, Heritage Manual 2009 – ‘Assessing Significance for Historical Archaeological Sites and ‘Relics’.



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Figure 6.1: Areas of archaeological potential located within the impact area

6.2.3 The study area in general

The study area remained rural in nature from the time of early land grants until after the construction of the bridge in 1881. It wasn't until the late 1800s and early 1900s that significant subdivision and development was undertaken with the growth of Nowra and Bombaderry.

Review of historical plans, maps and photos as presented in this report indicate that there are unlikely to have been substantial structures within the construction area that would have left an archaeological signature, other than those identified below. Any archaeological remains within the majority of the construction area would either be related to later development and unlikely to have research potential, related to the agricultural use of the area and would be ephemeral with their location unpredictable, or would relate to infrastructure such as former road surfaces or drainage, which are unlikely to meet the threshold of local significance and would be classified as works under the NSW Heritage Act.

The locations discussed below are those identified within the impact area as having potential to contain significant archaeological deposits.

6.2.4 Archaeological finds during Aboriginal archaeological excavations

Archaeological material was located during Aboriginal archaeological test excavations on the western side of the Princes Highway opposite Graham Lodge. The material included artificial human teeth, broken thermometers, assorted glass from ampules and various assorted such as metal, earrings and china. The material likely dated from the early to mid twentieth century.

The archaeological material was not in situ and represented a fill deposit which is likely to have been moved during construction of the highway. The deposit was assessed as not containing relics and unlikely to reach the threshold of local significance. As such archaeological management under the NSW Heritage Act was not required.

6.2.5 Wharf for coasting steamers and associated stores

The remains of the wharf constructed for coasting steamers in the late-19th century and associated stores may be located within the impact area, around 50 metres east of the truss bridge on the northern shoreline of the Shoalhaven River.

An 1892 subdivision map shows the wharf and stores in their location (Figure 3.5). Historical photographs indicate the wharf was of timber construction with sandstone embankments to the shoreline, and the stores as simple weatherboard structures (Figure 3.9 and Figure 6.2).

At present, the portion of the area adjacent to the shoreline remains largely free from development and retains evidence of the sandstone embankment (Figure 6.3). The area further north has since been developed with the fisherman's coop and ancillary outbuildings associated with a neighbouring farm.

6.2.5.1 Previous impacts

Following construction of the truss bridge in 1881 and arrival of the railway to Bomaderry in 1893, ferry and river traffic operating on the Shoalhaven decreased. A photograph of the site of the former coasting steamer wharf in c1920-1930 indicates that by this time, the wharf structure had become dilapidated, although it appears to have remained in use (Figure 3.9).

The shoreline area associated with the former coasting steamer wharf and associated stores is located within the flood zone of the Shoalhaven River, which has subsequently been subject to

repeated scouring events. As such, it is unlikely that substantial archaeological resources beyond the sandstone embankment survive in this location.

6.2.5.2 *Archaeological potential*

Due to previous disturbances, the potential for intact archaeological remains associated with the former wooden wharf for coasting steamers and associated stores to survive within the study area is low. Archaeological remains associated with the wharf and stores above the existing embankment may include pier pilings, post holes, brick or stone footings. These remains would be classified as 'works', therefore approval for impacts under the Heritage Act would not be required. There is a nil-low potential for the presence of relics as deposition of artefacts with research potential regarding the wharf and stores is unlikely.



Figure 6.2: Site of 19th century stores and wharf located next to the truss bridge, circa 1920-1930 (note timber wharf construction). Source: Wollongong City Libraries



Figure 6.3: Site of former 19th century stores and wharf located next to the truss bridge (note sandstone embankment)

6.2.5.3 *Archaeological significance*

Archaeological remains associated with the timber wharf and stores located to the north-east of the Nowra truss bridge may be locally significant, depending on integrity and intactness, for their ability to demonstrate the historical relationship between Bomaderry and the Shoalhaven River, which was the major transportation route in the region prior to the construction of the truss bridge. Archaeological remains of stores, or other legible elements such as piers may have some social and aesthetic significance (depending on visibility and intactness) as representative of a publicly known area with known association with the Nowra and Bomaderry crossing. These remains are unlikely to constitute relics, under the Heritage Act and would be classified as works.

6.2.6 *Graham Lodge and outbuildings*

The remains of outbuildings associated with Graham Lodge and the original Greenhills property are likely to be located within the Graham Lodge SHR curtilage which is part of the study area. This includes several outbuildings located within the western portion of the SHR listed curtilage (Figure 6.4). These remains are assessed as having potential State significance in the CMP.

Note that the original 1840s farmhouse was located within what is now the Princes Highway road corridor (within a cutting) and is likely to have been impacted by the construction of the road in the 1980s. It is therefore not included in the mapped areas of potential or impact assessment.

Historical paintings and aerial photographs of the region indicate that several outbuildings and cottages were located to the rear of the extant Graham Lodge building within the current SHR curtilage. While many of these were removed during later phases of ownership, a small early cottage was removed in the 1980s to facilitate engineering works for the new Princes Highway bypass.

Previous archaeological investigations carried out on the Graham Lodge site by Heritage Archaeology in 1999 uncovered archaeological relics on the ground surface and sub-surface area in the vicinity of SHR listed residence, on the western portion of the property (within the SHR curtilage). These relics survived despite recent domestic, industrial and commercial development, and the findings of the initial assessment of archaeological heritage recommended further investigations be undertaken. An area of archaeological potential containing archaeological relics was also identified along the verge to Hawthorne Avenue at the northern portion of the site, adjacent to the carpark area. It is noted that previous archaeological investigations carried out by Heritage Archaeology have also identified Aboriginal cultural values associated with the site, which are covered in the SHI listing for the item.

Archaeological remains associated with early Graham Lodge outbuildings and cottages may include post holes, fence lines, brick or stone footings, refuse pits and occupation deposits. It is assumed there are unlikely to be any surviving significant archaeological remains outside the SHR curtilage as construction of the road would have impacted them.

6.2.6.1 *Previous impacts*

The initial archaeological assessment of the site undertaken by Heritage Archaeology in 1999 identified the large open grassed area at the western portion of the Graham Lodge site as having high potential, while the remaining areas of the site were of slight potential with very disturbed soil. As noted above, an area along the verge to Hawthorne Avenue adjacent to the carpark area was also identified as an area of archaeological potential.

6.2.6.2 *Archaeological potential*

The potential for intact archaeological remains associated with outbuildings within the SHR curtilage of Graham Lodge is high.

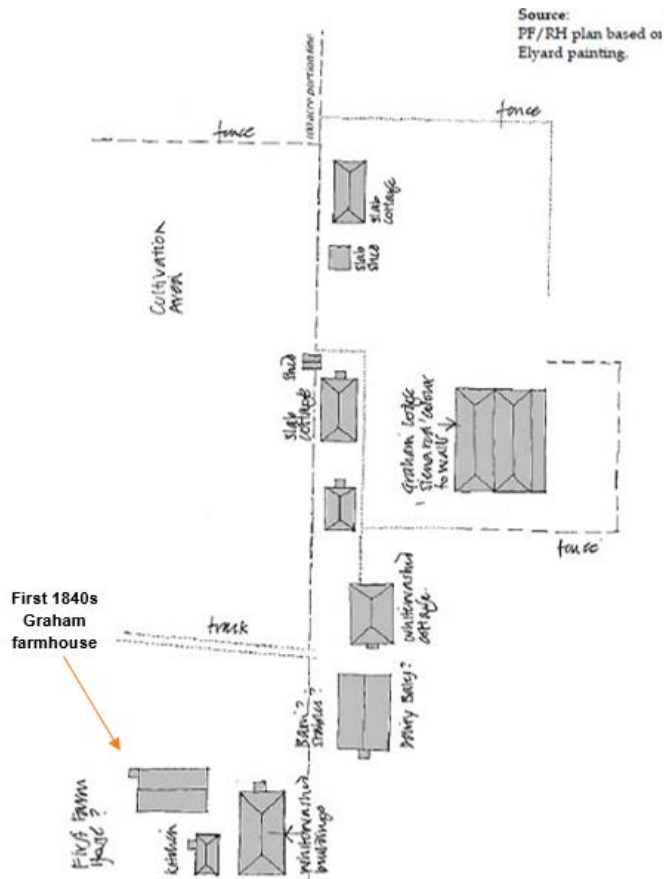
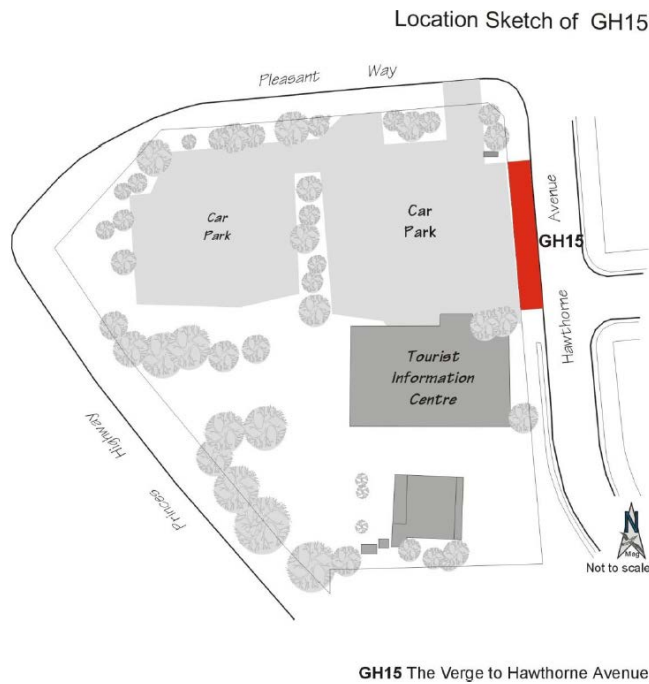


Figure 6.4: Potential site of first 1840s Graham farmhouse and associated outbuildings and cottages (Source: Graham Lodge CMP 2000)



GH15 The Verge to Hawthorne Avenue

Figure 6.5: Area of archaeological potential (shaded red) identified in previous investigations (Source: Heritage Archaeology, Greenhills Archaeological Assessment 1999)

6.2.6.3 Archaeological significance

Archaeological deposits associated with the Graham Lodge outbuildings and cottages would have the potential for local or State significance as demonstrating the early attempts at development of the region. The CMP for the item assessed the significance of potential archaeological remains as State.

6.3 Summary of archaeological potential and significance

A summary of the archaeological potential within the study area is included in Table 6-2 below, and areas of archaeological potential are shown in Figure 6.1.

Table 6-2: Summary of archaeological potential and significance

Item	Description	Disturbance	Significance	Archaeological potential
Wharf for coasting steamers and stores	<p>Site of a former wharf recorded as early as 1892 used for coasting steamers and associated stores located to the east of the truss bridge on the northern shoreline of the Shoalhaven River.</p> <p>Wharf appears to have been of timber construction with sandstone embankment to the shoreline, and associated stores as simple weatherboard structures.</p>	Moderate	Local (works)	Low archaeological potential
Graham Lodge outbuildings (within SHR curtilage)	<p>Outbuildings and cottages associated with SHR listed Graham Lodge. Structures depicted in 1877 historical painting of the area.</p> <p>Possible that an area along the verge to Hawthorne Avenue adjacent to the carpark area in the northern portion of the site contains archaeological relics.</p> <p>Buildings ranging from brick or timber construction. Several timber slab cottages with brick chimneys.</p>	Low-Moderate	Local/State (as assessed in CMP)	High archaeological potential

7.0 IMPACT ASSESSMENT

7.1 Introduction

The objective of a SoHI is to evaluate and explain how the proposed development, rehabilitation or land use change will affect the heritage value of the site and/or place. A SoHI should also address how the heritage value of the site/place can be conserved or maintained, or preferably enhanced by the proposed work.

This report has been prepared in accordance with the following guidelines:

- NSW Heritage Manual (NSW Heritage Office & Department of Urban Affairs and Planning 1996)
- Statements of Heritage Impact (NSW Heritage Office 2002)
- Roads and Maritime requirements for preparation of SoHI reports.

The guidelines pose a series of questions as prompts to aid in the consideration of impact due to the proposed work. The questions vary in the guideline, depending on the nature of the impact to the heritage site. Each of these questions is addressed below.

7.1.1 Impact assessment terminology

In order to consistently identify the potential impact of the proposal, the terminology contained in Table 7-1 has been referenced throughout this document.

Table 7-1: Terminology for assessing the magnitude of heritage impact

Grading	Definition
Major	<p>Actions that would have a long-term and substantial impact on the significance of a heritage item. Actions that would remove key historic building elements, key historic landscape features, or significant archaeological materials, thereby resulting in a change of historic character, or altering of a historical resource.</p> <p>These actions cannot be fully mitigated.</p>
Moderate	<p>Actions involving the modification of a heritage item, including altering the setting of a heritage item or landscape, partially removing archaeological resources, or the alteration of significant elements of fabric from historic structures.</p> <p>The impact arising from such actions may be able to be partially mitigated.</p>
Minor	<p>Actions that would result in the slight alteration of heritage buildings, archaeological resources, or the setting of an historical item.</p> <p>The impact arising from such actions can usually be mitigated.</p>
Negligible	<p>Actions that would result in very minor changes to heritage items.</p>
Neutral	<p>Actions that would have no heritage impact.</p>

7.2 Impact assessment

This section assesses heritage impacts to the listed items within and adjacent to the study area, including physical and visual impacts. The impact assessment assumes that all land within the impact area would be disturbed for the purposes of road infrastructure, site compounds, stockpiles, bridge construction etc.

In summary, 13 heritage items are located within the study area (refer to Figure 2.1, Figure 7.1 and Figure 7.2). The heritage items within the study area are listed below, and an assessment of impact from the proposal is provided in the sections that follow.

- Graham Lodge (SHR No. 01699, LEP No. 389)
- Graham Family Cemetery (LEP No. 369)
- Nowra Bridge over the Shoalhaven River (s170 No. 4301658, LEP No. 402)
- “Lynburn” – timber Federation residence and garden (LEP No. 130)
- “Illowra” – Federation timber Berry Estate residence and garden (LEP No. 136)
- “Kilsyth” – Federation weatherboard residence (LEP No. 331)
- “Uuna” – late Victorian weatherboard cottage and garden (LEP No. 332)
- Captain Cook Bicentennial Memorial (LEP No. 338)
- Inter-war Weatherboard Building and Timber Wharf (LEP No. 407)
- Late Victorian weatherboard residence (LEP No. 376)
- Late Victorian weatherboard cottage (LEP No. 377)
- Federation brick and asbestos tile residence (LEP No. 123)
- “Greenleaves” – Federation Queen Anne style residence and grounds (LEP No. 122).

One potential heritage item (‘M&M Guesthouse’) and one area of archaeological potential (Wharf for coasting steamers and stores) are also present within the study area.

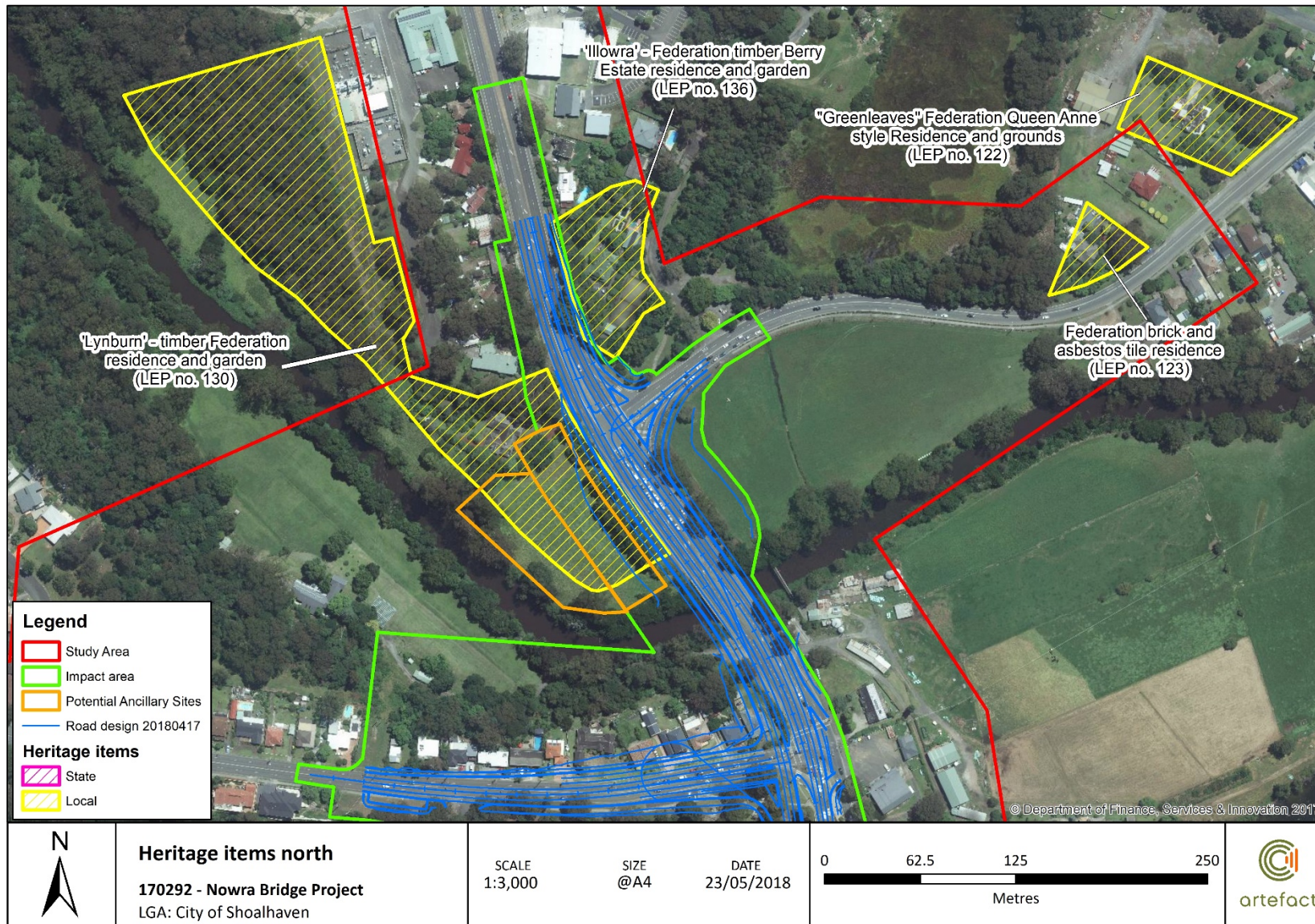
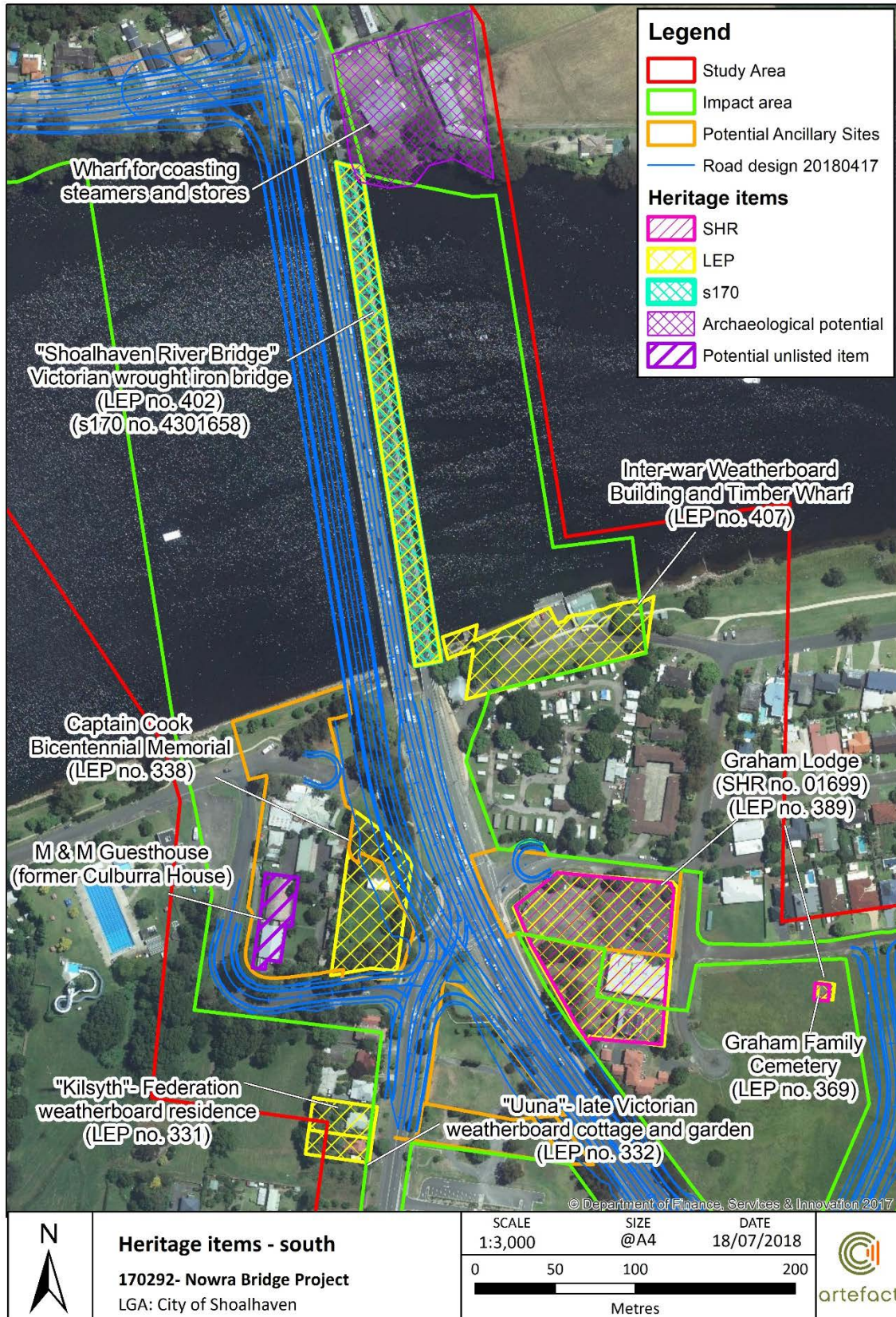


Figure 7.1: Location of heritage items near or within study area and impact area



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Figure 7.2: Location of heritage items near or within impact area



Figure 7.3: Location of heritage items near or within impact area

7.2.1 Graham Lodge (SHR No. 01699, LEP No. 389)

7.2.1.1 Physical impact assessment

The impact area extends into the heritage curtilage of the SHR listed Graham Lodge, involving the use of the existing carpark and hardstand area located at the northern portion of the item for a construction compound site. The use of the area for a construction compound would require storage and movement of equipment and machinery, and possibly erection of temporary fabric such as fencing. It is assumed any impacts would be temporary in nature. The proposal would not result in any permanent changes or a reduction of the item's heritage curtilage.

The proposal would result in closure of vehicular access between Pleasant Way and Princes Highway and establishment of a cul-de-sac adjacent to the heritage curtilage of Graham Lodge. The current concept design indicates a minor overlap of a section of associated embankment within the edge of the SHR curtilage of Graham Lodge, although this is considered to be an anomaly that would be addressed in detailed design to avoid any permanent intrusion into the heritage curtilage of Graham Lodge.

The proposal would result in a minor physical impact to Graham Lodge.

7.2.1.2 Visual impact assessment

The proposal would involve work that would result in permanent visual changes adjacent to the heritage curtilage of Graham Lodge. This would include the establishment of a new entry road from Princes Highway to Lyrebird Drive to the south east of the property.

Located on a slight rise, the rear of the property overlooks Princes Highway directly to the west. It is noted that these views west have previously been impacted by construction of the Princes Highway bypass in the 1980s. The front of the property retains its distant historic primary views east across the surrounding floodplains of the Shoalhaven and also to the nearby Graham Family Cemetery. At the time of the site inspection, it is noted these views appear to be at risk of obscurement from ongoing residential development in the vicinity.

While the Graham Lodge CMP (Freemans Architects, 2000) does not contain any policies directly relating to views, the report highlights the importance of retaining the remnant pastoral setting of the property by way of preventing further development to the east of the homestead. The construction of a new entry road to Lyrebird Drive, located to the east of the SHR listed residence, would result in changes to the landscape setting and character of the property. It is noted, however, that visual impacts would be obscured or otherwise obstructed by the housing development located between the new entry road and Graham Lodge.

The proposal would result in a negligible visual impact to Graham Lodge.

7.2.2 Truss bridge (RMS s170 Register No. 4301658, LEP Item No. 402)

7.2.2.1 Physical impact assessment

The construction of a new bridge immediately upstream (west) of the existing bridges and removal of vehicular traffic from the truss bridge would result in termination of the truss bridge's historic use as the major transportation route in the region across the Shoalhaven River. This is considered a key aspect of the item's heritage significance, and impacts to this aspect of the item's intangible significance are covered in Section 7.3.

It is noted the use of the truss bridge has previously been impacted by the construction of the northbound concrete bridge, which at present carries all northbound traffic across the river. The

bridge has also been previously adapted for pedestrian use in the 1980s, involving the attached walkway on the eastern side of the bridge.

Construction of a new bridge upstream (west) of the existing bridges would ultimately allow for the truss bridge's retention, albeit in a reduced form, and would potentially allow for conversion to pedestrian and cyclist use in the future. The retention of the bridge is considered a positive outcome from a heritage perspective. Direct physical impact to the truss bridge would mainly involve making it safe following removal of vehicles by preventing access by pedestrians and cyclists and carrying out essential maintenance activities in the interim. The reconfiguration of the truss bridge for adaptive reuse will be subject to a separate environmental assessment and consultation process.

Construction activities associated with approaches to the proposed new bridge crossing would be located approximately 25 metres to the west of the truss bridge and works would be undertaken on the northbound concrete bridge. As such, the proposal would potentially result in vibration impact to the truss bridge heritage item at times during construction. However, given the existing level of vibrations produced by traffic travelling along the bridge, any changes from the proposal would be considered negligible and removal of traffic would potentially result in a positive physical impact.

The proposal would result in a negligible physical impact to the truss bridge.

7.2.2.2 Visual impact assessment

The proposed construction of a new bridge immediately upstream of the existing northbound concrete bridge that is located to the west of the truss bridge would introduce a new visual element in the vicinity of this heritage item, and result in changes to views both towards and out from the truss bridge and its existing river setting. Potential establishment of construction compound sites on the shorelines to the east of the bridge would temporarily obscure key views to the bridge from these localities.

Since its construction in the late decades of the 19th century, the truss bridge, with its distinctive wrought iron trusses and detailed decorative features, has been a local landmark in the Nowra and Bomaderry townships and a historic feature within the surrounding Shoalhaven cultural landscape. The truss bridge is visible from nearby and distant vantage points on the shoreline of the Shoalhaven River and for motorists and pedestrian from associated approaches along the Princes Highway.

The truss bridge partially retains its historic views out to the surrounding landscape. Views out west from the Nowra truss bridge, in the direction of the proposal, are relatively obscured by the northbound concrete bridge, and the construction of the proposed new bridge would further undermine these views. At present, views out east from the bridge across the Shoalhaven are partially obscured by the existing pedestrian walkway that was attached to the truss bridge in the 1980s. The proposed conversion of the truss bridge for pedestrian use could, in the future, result in the removal of the walkway. This would reinstate views across the river and improve the overall appearance of the bridge from shoreline vantage points.

It is noted that the proposal has been designed as far as possible to minimise visual impact to the truss bridge. This has been achieved by locating the new bridge to the west of the northbound concrete bridge, and by matching bridge level and pier placement for the design of the new bridge.

The proposal would result in a minor visual impact to the truss bridge.

7.2.2.3 Conservation Management Plan

Table 7-2 provides discussion on the ways in which the proposal complies with the relevant conservation policies contained in the Nowra Truss Bridge CMP 2015 (Artefact Heritage).⁵⁶

Table 7-2: Summary of Nowra Truss Bridge Conservation Management Plan policy compliance

Preliminary Policy	Comment
<p>1 – Overall preliminary conservation policy</p> <p><i>The truss bridge at Nowra should be conserved as a place of State significance, primarily through its preservation and maintenance. The introduction of new materials will be used only where it is essential for the conservation of cultural significance or for essential management tasks such as safety code compliance.</i></p>	<p>The proposal aligns with this policy by allowing for the retention of the truss bridge, and retention of the structure in its current appearance and condition. The proposal provides an opportunity to convert the truss bridge for pedestrian and cycle use in the future, which could allow for removal of the 1980s walkway attached to the eastern face of the bridge. This would enhance views to and from the bridge, and potentially improve appreciation and understanding of the bridge's aesthetic qualities for the general public.</p> <p>The proposal generally complies with Preliminary Policy 1.</p>
<p>2 – Recognising State significance</p> <p><i>The Nowra Bridge is recognised as a place of State heritage significance and the future conservation and management of the place must be in accordance with this recognised significance.</i></p>	<p>The proposal allows for the retention of the truss bridge in its current form, and does not involve any major physical impacts to this State significant heritage item. Potential impact by way of termination of the bridge's historic use as the main transportation route across the Shoalhaven River would be offset by its retention, future maintenance and potential conversion to pedestrian and cycle use. This is considered to represent a positive heritage outcome.</p> <p>The proposal generally complies with Preliminary Policy 2.</p>
<p>6 – Maintenance and management of curtilages</p> <p><i>The area to the east of the bridge and around the two ends of the bridge are to be maintained free from any new constructions and the incursion of any vegetation, which will inhibit the safe operation of the structure and the visual aspect of the structure.</i></p>	<p>The proposal has been developed to avoid any permanent changes to the east of the truss bridge, with the new bridge to be located to the west (upstream) of the northbound concrete bridge. The proposal would potentially involve establishment of a construction ancillary facility on the shorelines to the west of the truss bridge. This aspect of the proposal, albeit temporary, would obscure and obstruct views and vistas to the bridge from these locations. It is noted, however, that the existing concrete bridge upstream of the truss bridge currently obscures these views. The impact of this aspect of the proposal is considered temporary, and, as such, would be minor in nature.</p> <p>The proposal generally complies with Preliminary Policy 6.</p>
<p>8 – Interpretation</p> <p><i>The bridge should be interpreted as a place of State cultural significance in its own right. Interpretation should aim at being low key and low maintenance.</i></p>	<p>The proposal could potentially allow for conversion of the truss bridge for pedestrian and cyclist use. This aspect of the proposal presents an opportunity for improved provision of interpretation to be presented to pedestrians and cyclists along the truss bridge.</p> <p>The proposal generally complies with Preliminary Policy 8.</p>

⁵⁶ Artefact Heritage, 2015. *Nowra Truss Bridge: Phase 1 Conservation Management Plan*: pp.69-71.

Preliminary Policy	Comment
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9 – Heritage Impact Assessment

Any proposal that would result in a negative impact to the heritage values of the bridge, through modification, removal or adaptive re-use of part of the fabric of the bridge, would require the production of a heritage impact assessment. This would need to be prepared by a suitably qualified heritage consultant and identify the potential impacts to the heritage significance of the bridge that may occur as a consequence of the proposal.

The preparation of this SoHI meets this policy by assessing the potential impact of the proposal on the truss bridge (refer to Section 7.3).
The proposal generally complies with Preliminary Policy 9.

7.2.3 Captain Cook Bicentennial Memorial (LEP Item No. 338)

7.2.3.1 Physical impact assessment

The proposal would result in localised physical impact on the locally listed Captain Cook Bicentennial Memorial. The proposed southern approach would occupy a significant portion of the item’s heritage curtilage, and associated embankments would occur over the top of the current location of the 1970s pavilion structure. This would result in a permanent reduction in the item’s heritage curtilage and would require relocation of the pavilion structure itself. The proposal would also result in the establishment of a construction compound that would temporarily occupy additional space within the item’s heritage curtilage. Establishment of a temporary construction compound on the site would potentially result in removal of vegetation, excavation and earth movements within the heritage item’s curtilage, which would result in some permanent physical impacts.

While the proposal does not specify any proposed work to the pavilion, the proximity of the proposed work to this item would require relocation of the pavilion. This, in addition to a reduction of the item’s heritage curtilage, would result in a major physical impact to the Captain Cook Bicentennial Memorial, although it is noted the item would still likely retain its significance following relocation.

The proposal would result in a major physical impact to the Captain Cook Bicentennial Memorial.

7.2.3.2 Visual impact assessment

Captain Cook Bicentennial Memorial is located on a low-lying site immediately west of and beneath the Princes Highway. Primary sightlines to the memorial are from within the park, ‘Bens Walk’ shoreline reserve, along with glimpsed views for pedestrians and traffic on Princes Highway and adjoining Bridge Road. The proposed construction of the new southern approaches in this locality would change the existing visual setting and character of the Captain Cook Bicentennial Memorial, and would likely result in relocation not only of the pavilion but also removal of surrounding vegetation.

The proposal would result in a major visual impact to the Captain Cook Bicentennial Memorial.

7.2.4 “Lynburn” (LEP Item No. 130)

7.2.4.1 Physical impact assessment

Construction of the northern approaches to the proposed new Nowra bridge and upgrades to the Bolong Road intersection would result in encroachment upon the eastern extent of the heritage curtilage of “Lynburn”. Establishment of associated embankments would encroach into the eastern

extent of the item's heritage curtilage by up to 20 metres. This would result in a permanent reduction of the heritage curtilage of "Lynburn", and removal of existing plantings and vegetation that borders Princes Highway in this locality.

The proposal would also potentially result in the establishment of an associated construction compound that would temporarily occupy additional space within the southern and eastern portion of the item's heritage curtilage. This would potentially result in further removal of vegetation, excavation and earthworks within the heritage item's curtilage. Construction activities would be undertaken within 25 metres of the residence and, as such, the proposal could potentially result in indirect physical impact by way of vibration.

The proposal would result in a moderate physical impact to "Lynburn".

7.2.4.2 Visual impact assessment

The proposal would involve work within and near the heritage curtilage of "Lynburn". This includes the northern approaches to the proposed new bridge and proposed intersection upgrades to Princes Highway at Bolong Road. The proposed road design and associated construction compounds would potentially result in the removal of vegetation that at present screens the historic residence from the nearby roadway. Removal of vegetation and adjustments to the intersection opposite "Lynburn" would alter the setting and landscape character of the property, in particular the adjoining paddock to the south of the homestead which extends to Bomaderry Creek. It is noted, however, that the rural agricultural setting of "Lynburn" has been previously impacted by upgrades to the Princes Highway road corridor.

Potential temporary visual impact to "Lynburn" from the proposal would be dependent on the extent of the construction compounds including potential impact to vegetation along the item's eastern boundary, and whether or not any removed vegetation would be replanted as part of the scope of the proposed work.

The proposal would result in a moderate visual impact to "Lynburn".

7.2.5 "Illowra" (LEP Item No. 136)

7.2.5.1 Physical impact assessment

The construction of approaches to the proposed bridge would result in a minor encroachment upon the western extent of the heritage curtilage of "Illowra" along Princes Highway, by approximately three metres. This would potentially result in removal of vegetation, excavation and earthworks within the heritage item's curtilage. Construction activities would be undertaken within 25 metres of the residence and, as such, the proposal could potentially result in indirect physical impact by way of vibration.

The proposal would result in a minor physical impact to "Illowra".

7.2.5.2 Visual impact assessment

The proposed upgrade to the intersection of Princes Highway and Bolong Road would be next to the locally listed "Illowra". This work would potentially involve removal of vegetation in this locality that presently screens the historic dwelling from Princes Highway and adjustments to the nearby roadway. This work would alter the setting and landscape character of the property, although it is noted that the rural agricultural setting of the "Illowra" has been previously impacted by upgrades to Princes Highway. Potential visual impact to "Illowra" would be dependent on whether or not any removed vegetation would be replanted as part of the scope of the proposed work.

The proposal would result in a moderate visual impact to “Illowra”.

7.2.6 ‘Inter-war Weatherboard Building and Timber Wharf’ (LEP Item No. 407) (Nowra Sailing Club site)

7.2.6.1 *Physical impact assessment*

The proposal does not involve any work that would directly affect the physical fabric of the ‘Inter-war Weatherboard Building and Timber Wharf’. Impact in this area would involve use of the existing stone boat ramp, which is of high significance, for access to and from Shoalhaven River. It is noted that use of the boat ramp to provide access to and from the river during construction would represent a continuation of this element’s current use.

The weatherboard building burnt down in 2017, although the timber wharf structure and underlying significant concrete footings are still extant. It is understood use of the boat ramp would not impact the extant timber wharf structure and underlying footings, with the ramp located around 20 metres upstream from the wharf site. As the main construction activities of the proposal are located more than 25 metres away, vibration impact to this heritage item is not anticipated.

The proposal would result in a negligible physical impact to the ‘Inter-war Weatherboard Building and Timber Wharf’.

7.2.6.2 *Visual impact assessment*

It is noted that the main components of this heritage item, i.e. the site of the since demolished weatherboard building and extant timber wharf and underlying concrete footings, are largely outside the registered heritage curtilage. It is unlikely the major elements of the proposal including the proposed new bridge would be discernible from the location of the ‘Inter-war Weatherboard Building and Timber Wharf’ heritage item, as any sightlines are currently obscured by the existing truss bridge and northbound concrete bridge. While there would be some visual impact from the movement of machinery and equipment on the existing boat ramp during construction in order to provide access to and from the river, visual impact would be temporary in nature.

The proposal would result in a negligible visual impact to the ‘Inter-war Weatherboard Building and Timber Wharf’.

7.2.7 Graham Family Cemetery (LEP Item No. 369)

7.2.7.1 *Physical impact assessment*

The proposal does not involve any works that would directly affect the physical fabric or encroach upon the heritage curtilage of the Graham Family Cemetery (which is part of the SHR curtilage of Graham Lodge - refer to Section 1.1.1). Construction activities would be undertaken within 25 metres of the cemetery and, as such, the proposal could potentially result in an indirect physical impact by way of vibration.

The proposal would result in a neutral physical impact to the Graham Family Cemetery.

7.2.7.2 *Visual impact assessment*

The proposal, although not resulting in any physical impacts to the Graham Family Cemetery, would involve works that are adjacent the item’s heritage curtilage. This includes establishment of a new road connecting Princes Highway with Lyrebird Drive, located to the south and east of the heritage item. The proposed works in this locality would potentially alter the setting and character of the property and surrounding agricultural landscape.

It is noted, however, that the broader setting of this item has already been impacted by adjacent residential development. With the proposed new entry at Lyrebird Drive located to the east of the cemetery, the proposal would not obstruct the significant sightlines between the Graham Family Cemetery and associated Graham Lodge homestead located to the west.

The proposal would result in a minor visual impact to the Graham Family Cemetery.

7.2.8 “Kilsyth” (LEP Item No. 331)

7.2.8.1 *Physical impact assessment*

The proposal does not involve any work that would directly affect the physical fabric or encroach upon the heritage curtilage of “Kilsyth”. Construction activities for the proposed road alignment would be undertaken within 25 metres of the residence and, as such, the proposal could potentially result in indirect physical impact by way of vibration.

The proposal would result in a neutral physical impact to “Kilsyth”.

7.2.8.2 *Visual impact assessment*

The proposal, although not resulting in a physical impact to “Kilsyth”, would involve work near the item’s heritage curtilage. This includes minor road work along Bridge Road and establishment of a construction compound in the park space directly opposite, which may potentially involve removal of vegetation. The proposed work in this locality would potentially result in slight temporary changes to the setting of the property and surrounding streetscape, although it is noted the setting of “Kilsyth” has previously been impacted by the Shoalhaven Entertainment Centre and associated carpark.

The proposal would result in a negligible visual impact to “Kilsyth”.

7.2.9 “Uuna” (LEP Item No. 332)

7.2.9.1 *Physical impact assessment*

The proposal does not involve any work that would directly affect the physical fabric or encroach upon the heritage curtilage of “Uuna”. Construction activities for the proposed road alignment would be undertaken within 25 metres of the residence and, as such, the proposal could potentially result in indirect physical impact by way of vibration.

The proposal would result in a neutral physical impact to “Uuna”.

7.2.9.2 *Visual impact assessment*

The proposal, although not resulting in a physical impact to “Uuna”, would involve work near the item’s heritage curtilage. This includes minor street works along Bridge Road and establishment of a construction compound in the park space directly opposite, which may potentially involve removal of vegetation. The proposed work in this locality would potentially result in slight temporary changes to the setting of the property and surrounding streetscape, although it is noted the setting of “Uuna” has previously been impacted by the Shoalhaven Entertainment Centre and associated carpark.

The proposal would result in a negligible visual impact to “Uuna”.

7.2.10 “Greenleaves” – Federation Queen Anne style residence and grounds (LEP Item No. 122)

7.2.10.1 Physical impact assessment

The proposal does not involve any work that would directly affect the physical fabric or encroach upon the heritage curtilage of the “Greenleaves” residence or grounds. As construction activities are located more than 25 metres away, vibration impact to this heritage item is not anticipated.

The proposal would result in a neutral physical impact to “Greenleaves”.

7.2.10.2 Visual impact assessment

The proposal would not involve work near the item’s heritage curtilage. The “Greenleaves” heritage item does not retain any direct view lines to the intersection of Bolong Road with Princes Highway, or views south towards Bomaderry Creek and the Shoalhaven beyond. The proposed work would not alter the existing character and setting of the property.

The proposal would result in a neutral visual impact to “Greenleaves”.

7.2.11 Federation Brick and Asbestos Tile Residence (LEP Item No. 123)

7.2.11.1 Physical impact assessment

The proposal does not involve any work that would directly affect the physical fabric or encroach upon the curtilage of the ‘Federation Brick and Asbestos Tile Residence’ heritage item. As construction activities are located more than 25 metres away, vibration impact to this heritage item is not anticipated.

The proposal would result in a neutral physical impact to ‘Federation Brick and Asbestos Tile Residence’.

7.2.11.2 Visual impact assessment

The proposal would not involve work near the item’s heritage curtilage. The ‘Federation Brick and Asbestos Tile Residence’ heritage item does not retain any direct view lines to the intersection of Bolong Road with Princes Highway, and views south and southwest from the property towards Princes Highway are largely obscured by development along Bolong Road and surrounding vegetation. The proposed work would not alter the existing character and setting of the property.

The proposal would result in a neutral visual impact to ‘Federation Brick and Asbestos Tile Residence’.

7.2.12 Late Victorian weatherboard residence (LEP Item No. 376)

7.2.12.1 Physical impact assessment

The proposal does not involve any work that would directly affect the physical fabric or encroach upon the heritage curtilage of the ‘Late Victorian weatherboard residence’. As construction activities are located more than 25 metres away, vibration impact to this heritage item is not anticipated.

The proposal would result in a neutral physical impact to the ‘Late Victorian weatherboard residence’.

7.2.12.2 Visual impact assessment

The proposal would involve work near the item’s heritage curtilage. While the ‘Late Victorian weatherboard residence’ heritage item does not retain any direct view lines to the Princes Highway, or views towards the Shoalhaven River, views along Moss Street towards the intersection at Princes

Highway would potentially be temporarily changed with associated construction activities. The proposed work in this locality would be temporary in nature and would not permanently alter the existing character and setting of the property.

The proposal would result in a neutral visual impact to the ‘Late Victorian weatherboard residence’ heritage item.

7.2.13 Late Victorian weatherboard cottage (LEP Item No. 377)

7.2.13.1 Physical impact assessment

The proposal does not involve any work that would directly affect the physical fabric or encroach upon the heritage curtilage of the ‘Late Victorian weatherboard cottage’. As construction activities are located more than 25 metres away, vibration impact to this heritage item is not anticipated.

The proposal would result in a neutral physical impact to the ‘Late Victorian weatherboard cottage’ heritage item.

7.2.13.2 Visual impact assessment

The proposal would not involve work near the item’s heritage curtilage. While the ‘Late Victorian weatherboard cottage’ heritage item does not retain any direct view lines to the Princes Highway, or views towards the Shoalhaven River, views along Moss Street towards the intersection at Princes Highway would potentially be temporarily changed with associated construction activities. The proposed work in this locality would be temporary in nature and would not permanently alter the existing character and setting of the property.

The proposal would result in a neutral visual impact to the ‘Late Victorian weatherboard cottage’ heritage item.

7.2.14 Summary of impact to heritage items

A summary of various impacts to the heritage items located within the study area is included below in Table 7-3.

Table 7-3: Summary of impact to heritage items located within the proposal study area

Heritage item	Physical impact	Visual impact	Overall impact
Captain Cook Bicentennial Memorial (LEP No. 338)	Major	Major	Major
“Lynburn” – timber Federation residence and garden (LEP No. 130)	Moderate	Moderate	Moderate
“Illowra” – Federation timber Berry Estate residence and garden (LEP No. 136)	Minor	Moderate	Moderate
Graham Lodge (SHR No. 01699, LEP No. 389)	Minor	Negligible	Minor
Nowra Bridge over the Shoalhaven River (s170 No. 4301658, LEP No. 402)	Negligible	Minor	Minor
Graham Family Cemetery (LEP No. 369)	Neutral	Minor	Minor

Heritage item	Physical impact	Visual impact	Overall impact
Inter-war Weatherboard Building and Timber Wharf (LEP No. 407)	Negligible	Negligible	Negligible
“Kilsyth” – Federation weatherboard residence (LEP No. 331)	Neutral	Negligible	Negligible
“Uuna” – late Victorian weatherboard cottage and garden (LEP No. 332)	Neutral	Negligible	Negligible
“Greenleaves” – Federation Queen Anne style residence and grounds (LEP No. 122)	Neutral	Neutral	Neutral
Federation brick and asbestos tile residence (LEP No. 123)	Neutral	Neutral	Neutral
Late Victorian weatherboard residence (LEP No. 376)	Neutral	Neutral	Neutral
Late Victorian weatherboard cottage (LEP No. 377)	Neutral	Neutral	Neutral

7.2.15 Archaeological impact assessment

There is high potential for significant archaeological remains of State and local significance to be present within the SHR curtilage of Graham Lodge. This includes the previously identified area of potential along the verge between Hawthorne Avenue and the existing carpark, which is located within the proposed impact area.

The location of the former stores and wharf has low potential for locally significant archaeological remains (works) and is outside the proposed impact area.

Significant archaeological remains are not expected within the remainder of the study area as it was rural and agricultural in use until the late 19th century, therefore any remains are unlikely to reach the threshold of local significance.

7.2.16 Potential heritage item ‘M&M Guesthouse’ (former “Culburra House”)

The proposal includes a potential construction compound in the location of a potential heritage item, the M&M Guesthouse (former “Culburra House”), which is located to the rear of the present Riverhaven Motel near Moorhouse Park. At present, the proposal would result in the removal of all buildings on the site. This would result in a major physical and visual impact to the potential M&M Guesthouse heritage item, which has been assessed as being of local significance. Given that the building has been previously moved from its original location at Culburra Beach, relocation of this item is not considered to diminish its significant values. Further investigation should be carried out to explore options for the relocation of the buildings, in consultation with Shoalhaven City Council.

7.3 Statement of heritage impact

A statement of heritage impact has been prepared for the proposal, and is presented in Table 7-4.

Table 7-4: Statement of heritage impact for the proposal

Development	Discussion
<p>What aspects of the proposal respect or enhance the heritage significance of the study area?</p>	<p>The proposal has been developed, where possible, to minimise direct impact on nearby heritage items, including the retention of the LEP listed truss bridge (RMS s170 Register No. 4301658, LEP Item No. 402), which has previously been assessed as being of State significance. Impacts to other LEP items have been minimised by design.</p> <p>The proposal would result in positive heritage outcomes for the truss bridge. In addition to allowing for the retention of the truss bridge, the siting of the proposed new bridge has been developed to the west of the existing bridges. This would minimise impacts to the truss bridge and is in keeping with the policies contained in the CMP 2015, which outline the requirement to maintain the area to the east of the bridge and around the two ends of the bridge as being free from any new constructions.</p>
<p>What aspects of the proposal could have a detrimental impact on the heritage significance of the study area?</p>	<p>The change in use of the Nowra truss bridge, and encroachment upon the heritage curtilages of several heritage items as a result of the proposal would not respect or enhance the heritage significance of these items and the surrounding cultural landscape of the Shoalhaven, and would potentially involve a range of physical and visual impacts.</p> <p>The proposal would involve temporary encroachment into the SHR curtilage of Graham Lodge to establish a construction compound in the existing carpark and hardstand area. This would potentially result in temporary visual changes in the locality, although it is understood that no permanent changes would occur within the item's heritage curtilage.</p> <p>The proposed new Nowra bridge and subsequent decommissioning of the truss bridge from vehicular use would result in an indirect impact to the historical use of the bridge as the main transportation route across the Shoalhaven since its construction over 130 years ago. It is noted, however, that the proposal allows for the retention of the truss bridge into the future and allows for its historical, associative, aesthetic, research potential, rarity and representativeness heritage values to be conserved and interpreted for pedestrian and cyclist use.</p> <p>The alignment of the proposed southern approaches to the new Nowra bridge would result in significant incursions to the Captain Cook Bicentennial Memorial (LEP Item No. 338), and would likely necessitate relocation or removal of the 1970s pavilion structure. Changes to this feature and reduction of its heritage curtilage would result in a major physical impact and visual impact to the Captain Cook Bicentennial Memorial.</p> <p>Encroachment upon the eastern boundary of "Lynburn" (LEP Item No. 130) to construct the northern approaches to a new bridge and associated construction compounds would alter the setting and cultural landscape of this item by removing vegetation and resulting in a reduction of its heritage curtilage. As such, the proposal would result in a moderate physical impact and visual impact to "Lynburn". Encroachment upon the western boundary of the adjacent "Illowra" (LEP Item No. 136) necessitating localised removal of vegetation would alter the setting of this item and would result in a moderate visual impact.</p>

Development	Discussion
	<p>The location of a proposed construction compound adjacent to Moorhouse Park would require excavations and works that would result in a major physical and visual impact to the potential heritage item 'M&M Guesthouse' (former "Culburra House"). It is noted that the item has been relocated previously from its original location in Culburra Beach, and relocation from its present location would not diminish its identified heritage significance.</p> <p>The proposed impact area is within the SHR curtilage of Graham Lodge, which has been assessed as having moderate-high potential to contain archaeological remains and relics and covers a previously identified area of archaeological potential along the verge between Hawthorne Avenue and the existing carpark area. It is noted that the SHR curtilage of Graham Lodge has identified Aboriginal cultural values. Recommendations contained in Section 8.2 provide guidance on obtaining relevant archaeological permits, management measures and procedures to be employed in the event that unexpected finds are encountered during the proposed work.</p>
<p>Have more sympathetic options been considered and discounted?</p>	<p>Development of the proposal has involved a complex and ongoing process that has explored numerous design options for the proposal. This process has negotiated constraints and opportunities and input from various stakeholders in order to reach the current proposal that meets the key objectives.</p> <p>Three options were considered for the truss bridge:</p> <ul style="list-style-type: none"> • Retention – the truss bridge would be repaired and maintained; potentially refitted for a variety of different uses • Relocation (whole or in parts) – the truss bridge would be removed and relocated • Removal – complete removal of the whole truss bridge, only to be considered if no other feasible option can be found. <p>For the proposal, Roads and Maritime have drawn upon the review by an independent external specialist of all investigations completed to date relating to the future of the old southbound truss bridge. The independent assessment confirmed that the old bridge is operationally unsuitable for the current and future demands of the Princes Highway, and that once a new bridge crossing is constructed the old bridge should then be closed to vehicular traffic.</p> <p>The independent assessment assigned substantial weight to the potential heritage value of the bridge and considers the community impacts of any option that does not retain the old bridge in its current location. The independent assessment also estimates a marginal cost differential in the first ten years to retain the old bridge for adaptive reuse, and also considers that option to be viable in the medium term. Based on this analysis, the proposal involves retention and adaptive reuse of the truss bridge, and a proposed new vehicular bridge immediately upstream of the northbound concrete bridge.</p> <p>Several options were considered for the location of the proposed new bridge, which are outlined in the REF.</p> <p>Based on the results of multiple options assessment exercises including consideration of the benefits for light and heavy vehicles, design and urban</p>

Development

Discussion

design issues, constructability and utilities challenges, environmental and heritage priorities, whole of life maintenance and work health safety, as well as relative construction costs and value for money; and after consulting with key stakeholders, the proposal was selected as the preferred option.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 Overview of findings

There are 13 heritage items located within the proposal study area. All 13 items are listed on the Shoalhaven Local Environment Plan (LEP). One of these items, Graham Lodge, is also listed on the State Heritage Register (SHR). Another item, Nowra Bridge over the Shoalhaven River, is also listed on the Roads and Maritime Section 170 Heritage and Conservation Register (s170) and on the non-statutory Register of National Estate. There is one potential heritage item of local significance, the M&M Guesthouse (former "Culburra House"), within the proposal study area. The proposal would result in a major physical and visual impact to one heritage item, the locally listed Captain Cook Bicentennial Memorial (LEP No. 338). The proposal would result in a moderate impact to two heritage items, the locally listed "Lynburn" (LEP No. 130) and "Illowra" (LEP No. 136). The proposal would result in neutral to minor physical and visual impacts to remaining listed heritage items within the study area. The proposal would result in a major impact to the potential heritage item 'M&M Guesthouse'.

While the proposal would result in a minor physical impact and visual impact to the Nowra truss bridge (RMS s170 Register No. 4301658, LEP Item No. 402), it is noted that termination of its historic use as the main transportation route across the Shoalhaven would result in an indirect impact to the heritage values of this item, which has been assessed as being of State significance. The changed use of the truss bridge would be balanced by positive heritage outcomes. The proposal allows for the bridge's retention and has been designed to site new development upstream (west) of the existing bridges. This complies with the CMP 2015 (Artefact Heritage), which outlines the importance of maintaining the setting and character of the bridge's eastern elevation. Potential conversion of the truss bridge in the future for pedestrian and cyclist use would also offer an opportunity to remove non-original elements including the 1980s pedestrian walkway, road signs and guardrails, and would safeguard the bridge's ongoing use, maintenance and longevity.

There is a high potential that archaeological remains of State and local significance are located in the SHR curtilage of Graham Lodge. It is assumed that subsurface impacts would not occur within the SHR curtilage. According to historic plans the original Graham Lodge 1840s cottage was located within the existing road corridor of the Princes Highway outside the SHR curtilage. It is likely these remains have been impacted by the construction of the highway which has been cut into the original landform at that location. Although the location of the former stores and wharf on the northern side of the river, has low potential for locally significant archaeological remains (works), the area is not within the impact area and would not be affected by the proposal. Significant archaeological remains are not expected within the remainder of the study area as it was rural and agricultural in use until the late 19th century, therefore any remains are unlikely to reach the threshold of local significance.

The recommendations outlined below provide guidance on obtaining archaeological permits within areas of archaeological potential, and the procedures involved in the event that unexpected finds are encountered during work.

8.2 Recommendations

The recommendations set out below will aid in mitigating the impact of the proposal on nearby heritage items and areas of archaeological potential.

8.2.1 Avoid or minimise impact

Where feasible, opportunities to revise the design of the proposal should be considered to avoid or minimise impact to the curtilages of heritage items within the proposed project footprint. This includes consideration of revising the extent and location of ancillary facilities.

8.2.2 Impact to Graham Lodge (SHR No. 01699)

A temporary compound site would be constructed within the SHR curtilage of Graham Lodge. As the listing has significance in regard to Aboriginal heritage values, a section 57 exemption would not be approved. A section 60 application would therefore be required. Note that it is currently assumed subsurface impacts would be avoided.

If subsurface works which may impact significant archaeological remains within Graham Lodge are unavoidable and justifiable an Archaeological Research Design would be prepared to support the section 60 application as there is an identified high potential for State and locally significant archaeological remains across the SHR curtilage. Test excavation may be required prior to the permit being granted.

8.2.3 Impact to Captain Cook Bicentennial Memorial (LEP No. 338)

It is recommended that Roads and Maritime consult with Shoalhaven City Council in relation to assessed major impacts to the Captain Cook Bicentennial Memorial in order to determine options for relocation of the pavilion structure and revision of the item's LEP listing status.

8.2.4 Impact to "Lynburn" (LEP No. 130)

Where practicable, impacts should be reduced to the curtilage of "Lynburn" (LEP No. 130). If impacts cannot be avoided, screening vegetation should be retained where possible or replanted as part of a Landscape Plan after construction to minimise visual impact. The Landscape Plan would be developed in consultation with Shoalhaven City Council to introduce appropriate new plantings to mitigate associated visual impact of the proposal.

8.2.5 Heritage Management Plan

A Heritage Management Plan (HMP) should be prepared to manage potential heritage constraints and unexpected finds during construction. The HMP would include:

- provisions to appropriately protect and manage significant fabric of heritage items such as establishing no-harm areas. This includes protection of significant fabric along the river front i.e. Inter-war Weatherboard Building and Timber Wharf heritage item and its associated concrete and timber footings beneath the extant timber wharf
- provision of a removal/relocation methodology for items proposed to be relocated, i.e. the Captain Cook Bicentennial Memorial to protect the item from damage
- provision of a heritage induction for all workers being carried out prior to commencement of works. The induction would include values of the sites, avoidance procedure, and contacts (site manager, Roads and Maritime environment officer) for reporting unexpected archaeological finds, or inadvertent impact to heritage items

- Unexpected finds procedure in accordance with the *Roads and Maritime Standard Management Procedure: Unexpected Heritage Items* (March 2015).

8.2.6 Potential vibration impact

Construction activities and associated ancillary sites would be within 25 metres of the truss bridge, Captain Cook Bicentennial Memorial, Graham Lodge, Graham Family Cemetery, the 'Inter-war Weatherboard Building and Timber Wharf' and the "Lynburn", "Illowra", "Kilsyth" and "Uuna" residences. Therefore, there is the potential risk for impact to these heritage items from vibration during construction. Management of vibration impacts would be undertaken in accordance with the recommendations of the Noise and Vibration assessment.

8.2.7 Future of the truss bridge

In order to conserve the heritage values of the truss bridge, further investigation should be undertaken during detailed design including consideration of removal of non-original elements, primarily the 1980s walkway attached to the eastern side of the bridge, along with guardrails and road signs, and development of an Interpretation Strategy. This would offer a positive visual and physical impact and enhance appreciation of the bridge's original design and configuration.

8.2.8 Interpretation strategy

Consideration should be given to the preparation of an Interpretation Strategy as part of the proposal. An Interpretation Strategy would consider interpretation opportunities for the heritage items located within the study area. Given the proposed change in its historic use, interpretation is considered particularly important for the truss bridge. Interpretation would outline the history, associations and significance of the bridge, and could involve interpretive signage or displays at the entry points to the bridge or at locations along its span in accordance with Roads and Maritime guidelines.

8.2.9 Archival recording

Archival recording should be undertaken for the Captain Cook Bicentennial Memorial (LEP No. 338), the Nowra truss bridge (RMS s170 Register No. 4301658, LEP No. 402), "Lynburn" (LEP No. 130), "Illowra" (LEP No. 136) and potential unlisted heritage item 'M&M Guesthouse' prior to impacts occurring in accordance with *Photographic Recording Of Heritage Items Using Film or Digital Capture* (Heritage Council 2006).

8.2.10 Retention of natural screening and development of Landscape Plan

Given the proximity of the proposed construction activities to the heritage curtilages of nearby heritage items along Princes Highway, natural screening in the form of both remnant (natural) vegetation and plantings should be retained wherever possible. Where impact to vegetation cannot be avoided, planting of new vegetation under a developed Landscape Plan should be carried out as part of the scope of the proposal. This particularly relates to vegetation within the LEP listed "Lynburn" heritage item (LEP No. 130), "Illowra" heritage item (LEP No. 136) and Captain Cook Bicentennial Memorial heritage item (LEP No. 338), the curtilages of which would be encroached upon by the proposed road alignment and associated ancillary facilities.

8.2.11 Archaeological management

No subsurface impacts are proposed within the SHR curtilage of Graham Lodge, and therefore no archaeological impacts are expected. As no other areas have been identified as being likely to contain relics, the *Roads and Maritime Standard Management Procedure: Unexpected Heritage Items* (March 2015) would be applied for the remainder of the study area.

8.2.12 Consultation with Shoalhaven City Council

As the proposal has been assessed as potentially resulting a major physical and visual impact to the locally listed Captain Cook Bicentennial Memorial heritage item (LEP Item No. 338), moderate physical and visual impact to “Lynburn” (LEP Item No. 130) moderate visual impact to “Illowra” (LEP Item No. 136) and a major physical and visual impact to the potential unlisted heritage item ‘M&M Guesthouse’, consultation with Shoalhaven City Council would be required under the ISEPP.

8.2.13 State Heritage Register listing of truss bridge

As the truss bridge has previously been assessed as being of State significance, it is recommended that it be considered for listing on the SHR.

8.2.14 Potential heritage item ‘M&M Guesthouse’ (former “Culburra House”)

It is recommended that Roads and Maritime consider options for relocation of the potential unlisted heritage item ‘M&M Guesthouse’ in consultation with Shoalhaven Council.

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