

Appendix F

Non-Aboriginal Heritage Assessment

Cessnock Road Upgrade at Testers Hollow

Non-Aboriginal Heritage Assessment

Roads and Maritime Services | July 2019



blank page

Contents

Abbreviations	i
Executive summary	ii
Approvals requirement	iv
1. Introduction	1
1.1 Proposal background	1
1.2 Study definitions	4
1.3 Aims and scope of the assessment	4
1.4 Authorship of the report	5
2. Legislative context	6
2.1.1 <i>Environmental Planning and Assessment Act 1979</i>	6
2.1.2 State Environmental Planning Policy (Infrastructure) 2007	6
2.1.3 <i>Heritage Act 1977</i>	6
2.1.3.1 State Heritage Register	6
2.1.3.2 Archaeological relics	7
2.1.3.3 Works	8
2.1.3.4 Section 170 Heritage and Conservation Registers	8
2.2 Commonwealth legislation	8
2.2.1 <i>Environment Protection and Biodiversity Conservation Act 1999</i>	8
2.2.1.1 Commonwealth Heritage List	8
2.2.1.2 National Heritage List	8
2.2.1.3 Register of the National Estate	9
3. Background to the assessment	10
3.1 Historical context	10
3.1.1 Settlement and development of the Hunter Valley	10
3.1.2 Ayrfield No.1 Colliery	10
3.1.3 South Maitland Railway	12
3.1.4 Testers Hollow and flooding	12
3.2 Heritage context	14
3.2.1 Heritage register search results	14
3.2.2 Previous heritage assessments and studies	15
3.2.3 Review of aerial imagery	16
3.3 Predictive statement	20
4. Field survey	21
4.1 Aims	21
4.2 Timing and personnel	21
4.3 Survey sampling strategy and methodology	21
4.4 Results of assessment	21

Non-Aboriginal Heritage Assessment

5. Significance assessment	24
5.1 Approach to significance assessment	24
5.2 Ayrfield Colliery Site	24
5.2.1 Significance assessment	24
5.2.2 Statement of significance	25
5.2.3 Assessment of archaeological potential	25
6. Impact assessment	27
7. Mitigation measures	28
7.1 General management measures	28
7.1.1 Discovery of historical heritage materials, features or deposits	28
7.1.2 Heritage induction training	28
7.2 Approvals requirements	28
8. References	29

List of tables

Table 1 : Non-Aboriginal heritage places within the proposal area	iii
Table 2 : Summary of potential impacts and general management measures	iii
Table 3.3 : Non-Aboriginal heritage items within the proposal area	15
Table 5.1 : Assessment of Significance against the NSW Heritage Criteria (Insite Heritage 2005)	25

List of figures

Figure 1.1: Location of proposal	2
Figure 1.2: The proposal	3
Figure 3.1 : Location of Ayrfield Colliery to the north west of Testers Hollow, Heddon Greta (source: Insite Heritage 2005).	11
Figure 3.2 : William Tester 1848 - 1938 (Source: Jenny Caller and Maitland Mercury, 1 March 2016)	12
Figure 3.3 : Bus passengers taken to dry land 1929 (Source: Maitland Mercury, 31 January 2016)	13
Figure 3.4 : Testers Hollow in flood January 2016 (Source Maitland Mercury)	13
Figure 3.5 : 2014 regrading of the southern proposal area (source: Monteath and Powys 2014)	17
Figure 3.6 : Non-Aboriginal heritage places within the proposal area.	18
Figure 3.7: Proposed amendment to the Heritage area at Cliftleigh (source: Cessnock City Council 2017)	19
Figure 4.1: Soil disturbance associated with channeling and dam construction on southern side of proposal area near waterway.	22
Figure 4.2: Asbestos fragments to south of waterway	22
Figure 4.3: Brick fragments	22
Figure 4.4: Concrete fragments	22
Figure 4.5: View of Main road embankment to east of dams.	22
Figure 4.6: View to south west towards waterway. Ayrfield Colliery site is in distant background to left of picture.	23
Figure 4.7: View to south east showing culvert crossing waterway	23

Abbreviations

CHL	Commonwealth Heritage List
EPA	Environmental Protection Authority
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>
ICOMOS	International Council for Monuments and Sites
ISEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
Jacobs	Jacobs Group (Australia) Pty Ltd
km	kilometre
LEP	Local Environmental Plan
LGA	Local Government Area
m	metre
mm	millimetre
NHL	National Heritage List
NSW	New South Wales
the proposal	The upgrade of Cessnock Road at Testers Hollow
RNE	Register of the National Estate
Roads and Maritime	Roads and Maritime Services
Section 170	Section 170 Heritage and Conservation Register
SHR	State Heritage Register

Executive summary

Jacobs has been appointed by Roads and Maritime Services (Roads and Maritime) to undertake a review of environmental factors (REF) to assess the environmental impacts of the upgrade of Cessnock (Main) Road at Testers Hollow (the proposal) as required under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposal is located around 3.5 kilometres to the east of Kurri Kurri and about 5.4 kilometres to the west of Maitland within the Cessnock Local Government Area (LGA) and directly alongside the western boundary of the Maitland LGA. Cessnock Road is an important regional transport route that connects Kurri Kurri and Maitland and links with the Hunter Expressway.

The road is subject to flooding at Testers Hollow, which affects local residents, commuters and freight in the surrounding area. Severe weather events can result in parts of the Gillieston Heights community being cut-off from road access. The proposal is required as it would provide increased flood immunity along Cessnock Road at Testers Hollow between Gillieston Heights and Cliftleigh.

This non-Aboriginal heritage assessment has been prepared to inform and support the REF being completed for the proposal. This report describes the background to the assessment, the nature of the proposal, the potential impacts to non-Aboriginal heritage values as a result of these works, and recommends management or mitigation measures required for minimising heritage impacts.

The proposal

The proposal consists of:

- A new two lane 60 and 80 kilometre per hour road, one lane each direction with two metre shoulders, around 900 metres long between Gillieston Heights and Cliftleigh on the western side of the existing road
- The new road would be about 1.5 metres higher than the existing Cessnock Road, which would allow access in a five per cent Annual Exceedance Probability (AEP). AEP refers to the likelihood of a flood event occurring in any one year
- The new road would tie in with the existing road at the northern and southern extents
- Existing access arrangements would be maintained to private property and to the existing combined U-turn bay and intersection at Avery Lane
- New drainage to allow water to pass freely under the new road
- Utility and street light relocations
- Partial property acquisitions
- Ancillary works including drainage works, safety barriers, signs, linemarking, landscaping and environmental protection works
- Temporary ancillary facilities including site compounds and stockpile sites.

The construction of the proposal would be expected to start in early 2020 and take about two years to complete.

Objectives of the proposal are to:

- Provide increased flood immunity along Cessnock Road between Gillieston Heights and Cliftleigh
- Minimise the cost of project construction, operation and maintenance
- Minimise impact to the community and environment.

Non-Aboriginal heritage

The proposal area contains a locally significant coal precinct identified in the Cessnock Local Environmental Plan (LEP) identified as the Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721). The proposal area is situated partially within this precinct but does not include the pit top of the Ayrfield Colliery site and its associated ruins. The South Maitland Railway system is also located next to the proposal area yet some distance away from any proposed works or ancillary areas (refer to Table 1).

Table 1 : Non-Aboriginal heritage places within the proposal area

Name	Source	Number	Within/adjacent to the proposal area	Comments
Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721)	Cessnock LEP	I1215	Within	Ayrfield Colliery is a part of the Cessnock LEP (L215) listing, amongst other collieries in the Cessnock LGA including the Hillend Colliery, Ellalong Colliery and Cessnock to Aberdare Extended Colliery Railway. The Colliery precinct is partially located within the southern section of the proposal area and extends to the west to the site of the Ayrfield colliery 'pit top' some 850 metres to the west (refer to Figure 3.6). The Colliery site is ruinous following a destructive fire in 1938 and contains limited evidence of the associated buildings (concrete foundations) all of which are located well outside of the proposal area.
South Maitland Railway System	Cessnock LEP	I1212	Adjacent	To the west of the proposal area

Impact assessment and mitigation measures

Table 2 contains a summary of the potential heritage impacts of the proposal and associated management measures.

Table 2 : Summary of potential impacts and general management measures

Heritage component	Potential impacts	Management measures
Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721)	Impacts to unexpected finds related to Ayrfield Colliery, a component of the Collieries of the South Maitland Coalfields/Greta Coal Measures Group	If at any time during the proposal construction, historical heritage materials, features and/or deposits are found, the Roads and Maritime <i>Standard Management Procedure: Unexpected Heritage Items</i> (Roads and Maritime Services 2013) would be followed. Non-Aboriginal heritage awareness training must be provided for contractors prior to commencement of construction works

Non-Aboriginal Heritage Assessment

Heritage component	Potential impacts	Management measures
South Maitland Railway System	None anticipated	No management required

Approvals requirement

The Ayrfield Colliery site (1910-1938) is part of the local heritage item identified as the Collieries of the South Maitland Coalfields/Greta Coal Measures Group (item number 1340721). The Colliery site and associated railway embankments are located outside and to the west of the proposal area. Additionally, this assessment has demonstrated that evidence relating to the Colliery has negligible archaeological research potential. This is principally due to the ruinous nature of the remains of the Colliery and the general level of disturbance to the surface soils in the area. The proposal area to the south of Testers Hollow has been used for small scale animal husbandry and the construction of small dams until the 1980s. Small structures associated with these activities were removed from the site after this time and more recently the site was re-graded which involved disturbance to topsoil to a depth of at least 250 mm. In some places the regrading of the site has involved disturbance to soils up to 2.9 m depth. There is therefore little likelihood of significant historical relics being located in the proposal area.

In accordance with the NSW Government Gazette (no 110, 5 September 2008) Schedule of Exceptions to subsection 139 (1) and (2) of the *Heritage Act*, made under subsection 139 (4), an Excavation Permit Exception Notification Form is required to be submitted to the NSW Heritage Division with appropriate supporting information including this heritage assessment report.

Under the Infrastructure State Environmental Planning Policy 2007 (ISEPP), as the impact of the proposal is 'minor or inconsequential on a local heritage item' then consent from, and consultation with, Cessnock Council is not required.

Important note about your report

The sole purpose of this report and the associated services performed by Jacobs is to undertake a non-Aboriginal heritage assessment in accordance with the scope of services set out in the contract between Jacobs and the Client. That scope of services, as described in this report, was developed with the Client.

In preparing this report, Jacobs has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, Jacobs has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

Jacobs derived the data in this report from information sourced from the Client and available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination of the proposal and subsequent data analysis, and re-evaluation of the data, findings, observations and conclusions expressed in this report. Jacobs has prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

This report should be read in full and no excerpts are to be taken as representative of the findings. No responsibility is accepted by Jacobs for use of any part of this report in any other context.

1. Introduction

1.1 Proposal background

Jacobs Group (Australia) Pty Ltd (Jacobs) has been appointed by Roads and Maritime Services (Roads and Maritime) to undertake a review of environmental factors (REF) to assess the environmental impacts of the upgrade of Cessnock Road at Testers Hollow (the proposal) as required under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This non-Aboriginal heritage assessment has been prepared to inform and support the REF being completed for the proposal.

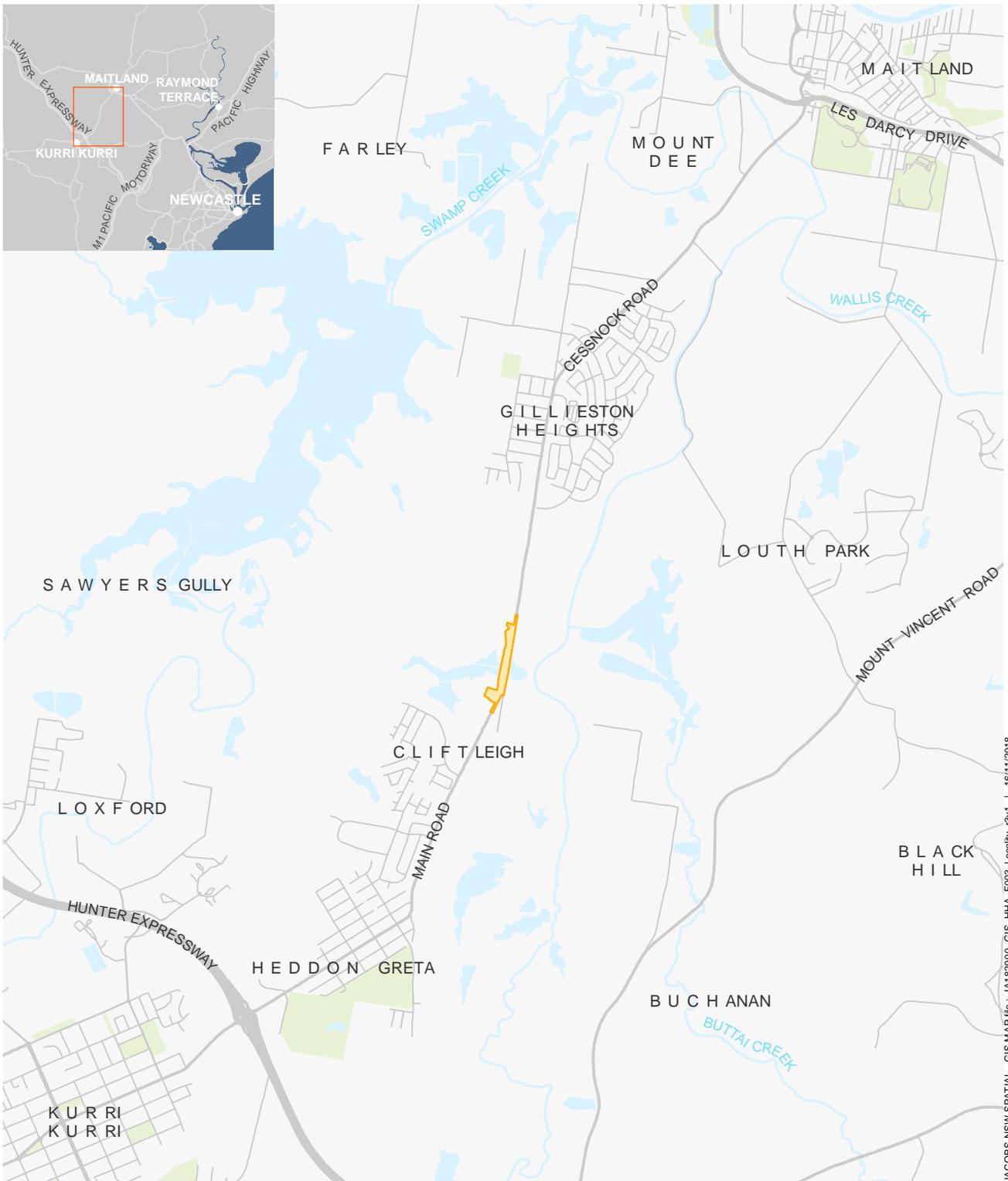
The proposal is located around 3.5 kilometres to the east of Kurri Kurri and about 5.4 kilometres to the west of Maitland within the Cessnock Local Government Area (LGA) and directly alongside the western boundary of the Maitland LGA (refer to Figure 1.1). Cessnock Road is an important regional transport route that connects Kurri Kurri and Maitland and links with the Hunter Expressway and in doing so provides access to jobs, schools and services for the people of Maitland, Heddon Greta, Kurri Kurri and surrounding communities.

Cessnock Road at Testers Hollow is currently affected by flooding and is overtopped by flood waters during events equivalent to, and in excess of, the five-year Annual Recurrence Interval (ARI) flood which affects local residents, commuters and freight in the surrounding area. Severe weather events can result in parts of the Gillieston Heights community being cut-off from road access. The proposal is required as it would provide increased flood immunity along Cessnock Road at Testers Hollow between Gillieston Heights and Clifftleigh.

The proposal is shown in Figure 1.2 and consists of:

- A new two lane 60 and 80 kilometre per hour road, one lane each direction with two metre shoulders, around 900 metres long between Gillieston Heights and Clifftleigh on the western side of the existing road
- The new road would be about 1.5 metres higher than the existing Cessnock Road, which would allow access in a five per cent Annual Exceedance Probability (AEP). AEP refers to the likelihood of a flood event occurring in any one year
- The new road would tie in with the existing road at the northern and southern extents
- Existing access arrangements would be maintained to private property and to the existing combined U-turn bay and intersection at Avery Lane
- New drainage to allow water to pass freely under the new road
- Utility and street light relocations
- Partial property acquisitions
- Ancillary works including drainage works, safety barriers, signs, linemarking, landscaping and environmental protection works
- Temporary ancillary facilities including site compounds and stockpile sites.

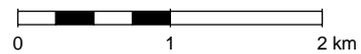
The construction of the proposal would be expected to start in early 2020 and take about two years to complete.



JACOBS NSW SPATIAL - GIS MAP file: I:\182900_GIS_HHA_F003_Locality_r3v1 | 16/11/2018

Legend

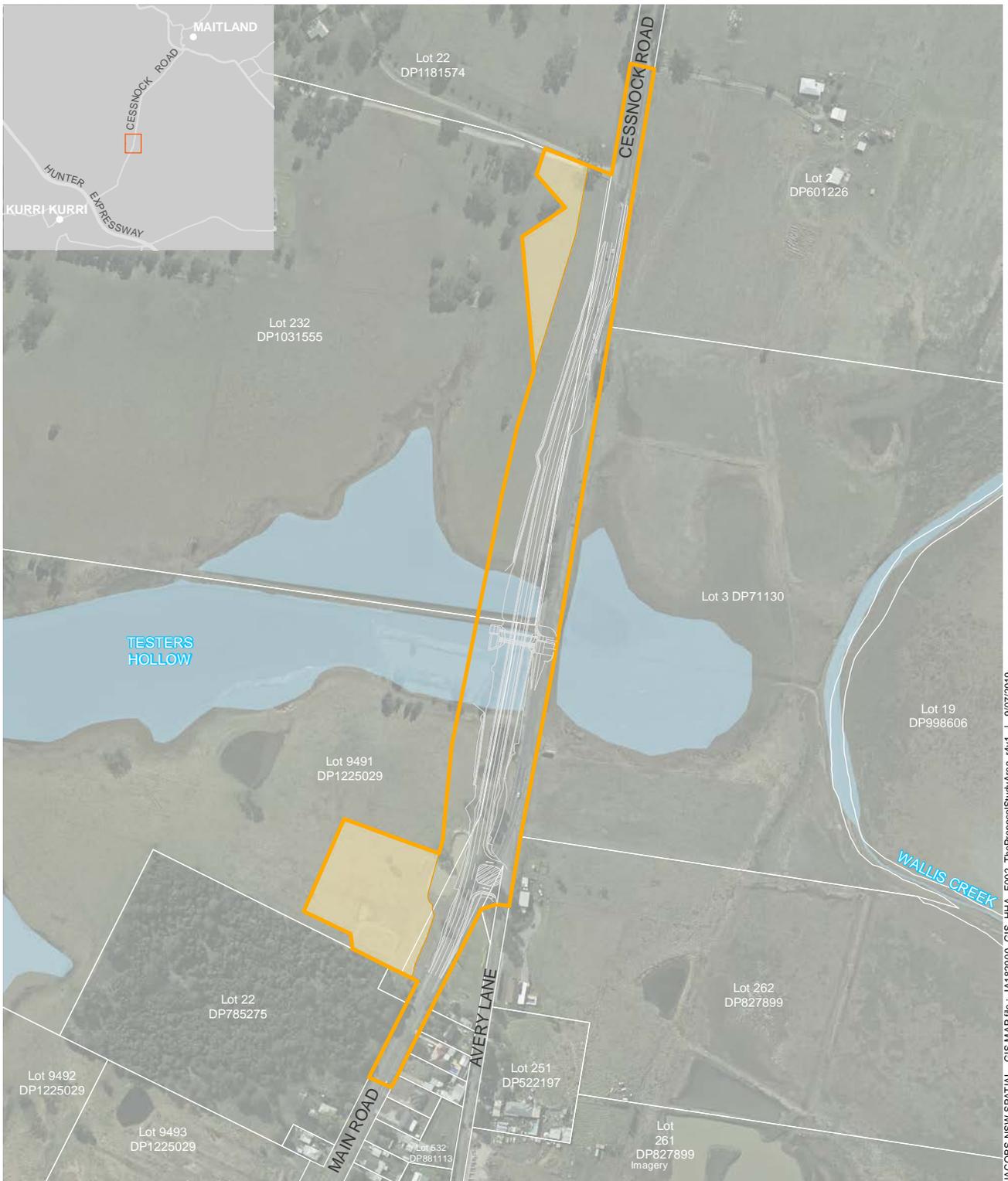
 Proposal area



1:50,000 @ A4



Figure 1.1 | Location of the proposal



Legend

- Proposal area
- Potential ancillary site
- Waterbody
- Design



Figure 1.2 | The proposal

Objectives of the proposal are to:

- Provide increased flood immunity along Cessnock Road between Gillieston Heights and Cliftleigh
- Minimise the cost of project construction, operation and maintenance
- Minimise impact to the community and environment.

1.2 Study definitions

The following definitions are used throughout the report:

- Proposal area: is comprised of a portion of Cessnock Road and part of Lot 9491 DP1225029 and Lot 232 DP1031555 (refer to Figure 1.2) required for the concept design and ancillary facilities including construction compounds. The proposal area was used to assess the impacts of the proposal on non-Aboriginal heritage
- Study area: includes the proposal area and surrounding area
- Locality: This is defined as the area within a 10 kilometre radius surrounding the proposal footprint.

1.3 Aims and scope of the assessment

The aim of this assessment is to identify the non-Aboriginal heritage items within and adjacent to the Testers Hollow proposal area. This non-Aboriginal (historical) heritage assessment aims to address the archaeology, heritage items and conservation areas in the proposal area, in accordance with NSW Heritage Division guidelines, and the Australia ICOMOS Charter for Places of Cultural Significance (Burra Charter). The proposal is anticipated to have only negligible/minor impacts on Non-Aboriginal heritage.

The tasks to be carried out include:

- Heritage register searches to identify heritage items in and near the proposal area and associated legislative requirements including the NSW State Heritage Register (SHR), State Heritage Inventory, Cessnock Local Environmental Plan 2011 (LEP), National Trust of Australia (NSW) list, Register of the National Estate (RNE), Commonwealth Heritage List (CHL), National Heritage List (NHL), and the World Heritage List (WHL), and prepare maps showing the registered or known heritage items and the curtilage of each
- Undertake a literature review including previous heritage assessments and heritage studies in the proposal area and surrounding region.
- Prepare succinct historical summary of the proposal area and surrounding region
- Prepare predictive statement about types of previously unidentified non-Aboriginal heritage which may be present in the proposal area
- Undertake site inspection of the proposal area (in conjunction with Aboriginal heritage field survey)
- Review significance assessments for known heritage items and prepare preliminary significance assessments for any heritage items identified during field survey
- Identify potential impacts on the heritage significance of the identified heritage item
- Identify management measures and recommendations to help avoid, minimise or mitigate against proposal impacts on heritage items.

1.4 Authorship of the report

This report has been prepared by Andy Roberts (Senior Archaeologist, Jacobs). A quality review was carried out by Dr Karen Murphy (Technical Leader (Historical Heritage), Jacobs). Mapping was prepared by Wes Graham (Senior Spatial Consultant, Jacobs).

2. Legislative context

2.1.1 *Environmental Planning and Assessment Act 1979*

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land-use planning, including impacts on Aboriginal and non-Aboriginal heritage. Part 5 of the EP&A Act is designed to ensure public authorities fully consider environmental issues before they undertake or approve activities that do not require development consent.

2.1.2 *State Environmental Planning Policy (Infrastructure) 2007*

The *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) aims to facilitate the effective delivery of infrastructure across the State. Clause 94 of the ISEPP permits development on any land for the purpose of road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent. The proposal can therefore be assessed under Part 5, Division 5.1 of the EP&A Act by Roads and Maritime as both the proponent and the determining authority. Development consent from Cessnock or Maitland Council is not required.

There are several divisions and clauses in the ISEPP that refer to heritage matters. Clause 14 states that where a development may be carried out without consent (determined by Clause 94), and that development is likely to have an impact that is not minor or inconsequential on a local heritage item (other than a local heritage item that is also a State heritage item) or a heritage conservation area then:

‘(2) A public authority, or a person acting on behalf of a public authority, must not carry out development to which this clause applies unless the authority or the person has:

- (a) had an assessment of the impact prepared, and
- (b) given written notice of the intention to carry out the development, with a copy of the assessment, to the council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located, and
- (c) taken into consideration any response to the notice that is received from the council within 21 days after the notice is given.’

As a public authority, this clause applies to Roads and Maritime. A heritage impact assessment report would fulfil the requirement under subclause (2)(a). ISEPP requires that a notification and a copy of a heritage impact assessment be submitted to the council(s) within which any potentially impacted local heritage items are located, and take into consideration any response to the notice that is received from the council within 21 days after the notice is given.

2.1.3 *Heritage Act 1977*

The *Heritage Act 1977* (Heritage Act) provides a number of mechanisms by which items and places of heritage significance may be protected. The Heritage Act is designed to protect both listed heritage items, such as standing structures, and potential archaeological remains or relics. Different parts of the Heritage Act deal with these different situations.

2.1.3.1 *State Heritage Register*

The Heritage Council of NSW maintains the SHR. Only those items which are of state-level heritage significance in NSW are listed on the SHR. Listing on the SHR controls activities such as alteration, damage, demolition and development.

Non-Aboriginal Heritage Assessment

When a place is listed on the SHR, approval of the Heritage Council of NSW is required for any major work, including the following:

- Demolishing the building or work
- Carrying out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place, or land within the precinct
- Altering the building, work, relic or moveable object.

An application under section 60 of the Heritage Act must be made to the Heritage Council in order to carry out such activities.

In some circumstances a section 60 permit may not be required if works are undertaken in accordance with the *Standard Exemptions for Works Requiring Heritage Council Approval* (NSW Heritage Council 2009). For example, Standard Exemption 7 covers works that would have little or no adverse impact on the heritage significance of the heritage item. An Exemption Notification Form (s57(2)) is required to be submitted to the former NSW Heritage Division (now part of the Department of Planning, Industry and Environment [DPIE]) with appropriate supporting information (such as this heritage assessment).

2.1.3.2 Archaeological relics

Part 6 Division 9 of the Heritage Act protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation 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. A 'relic' is defined by the Heritage Act as:

Any deposit, object of material evidence which relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and has local or state significance.

Section 139 of the Heritage Act requires any person who knows or has reasonable cause to suspect that their proposed works will expose or disturb a 'relic' to first obtain an Excavation Permit from the Heritage Council of NSW (pursuant to Section 140), unless there is an applicable exception (pursuant to Section 139(4)).

In some circumstances a section 140 permit may not be required when excavating land in NSW. In accordance with the NSW Government Gazette (no 110, 5 September 2008) Schedule of Exceptions to subsection 139 (1) and (2) of the Heritage Act, made under subsection 139 (4):

Excavation or disturbance of land of the kind specified below does not require an excavation permit under section 139 of the Heritage Act, provided that the Director-General is satisfied that [certain criteria] have been met and the person proposing to undertake the excavation or disturbance of land has received a notice advising that the Director-General is satisfied that:

(c) a statement describing the proposed excavation demonstrates that evidence relating to the history or nature of the site, such as its level of disturbance, indicates that the site has little or no archaeological research potential.

An Excavation Permit Exception Notification Form is required to be submitted to the DPIE with appropriate supporting information. If the DPIE (formerly the Director of the Heritage Division) is satisfied of the relevant matters relating to the proposal, a copy of the form will be endorsed by the DPIE and returned to the applicant.

Section 146 of the Heritage Act requires any person who is aware or believes that they have discovered or located a relic must notify the Heritage Council of NSW providing details of the location and other information required.

2.1.3.3 Works

The Heritage Act identifies 'works' as a category separate to relics. 'Works' refer to past evidence of infrastructure which may even be buried, and so therefore 'archaeological' in nature and with the potential to provide information that contributes to our knowledge. Exposure of a 'work' does not trigger reporting obligations under the Heritage Act. However, good environmental practice recognises the archaeological potential of such discoveries and the need to balance these against the requirements of development. Roads and Maritime uses its *Standard Management Procedure: Unexpected Heritage Items* (Roads and Maritime Services 2013) to manage the discovery of such items. This provides guidance for the way such finds are to be managed when uncovered during construction and other activities.

2.1.3.4 Section 170 Heritage and Conservation Registers

Section 170 of the Heritage Act requires government agencies to identify, conserve and manage heritage assets owned, occupied or managed by that agency. Section 170 requires government agencies to keep a register of heritage items, which is called a Heritage and Conservation Register or more commonly, section 170 register.

The Heritage Act obliges government agencies to maintain their assets with due diligence in accordance with State-Owned Heritage Management Principles approved by the Minister on the advice of the Heritage Council and notified by the Minister to government instrumentalities from time to time.

2.2 Commonwealth legislation

2.2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) includes 'national heritage' as a matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL). The following is a description of each of the heritage lists and the protection afforded to places listed on them.

2.2.1.1 Commonwealth Heritage List

The CHL is established under the EPBC Act. The CHL is a list of properties owned by the Commonwealth that have been assessed as having significant heritage value. Any proposed actions on CHL places must be assessed for their impact on the heritage values of the place in accordance with Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies (Significant Impact Guidelines 1.2) apply. The guidelines require the proponent to undertake a self-assessment process to decide whether or not the action is likely to have a significant impact on the environment, including the heritage value of places. If an action is likely to have a significant impact an EPBC Act referral must be prepared and submitted to the Minister for approval.

2.2.1.2 National Heritage List

The NHL is a list of places with outstanding heritage value to Australia, including places overseas. Any proposed actions on NHL places must be assessed for their impact on the heritage values of the place in accordance with Management of National Environmental Significance (Significant Impact Guidelines 1.1). The guidelines require the proponent to undertake a self-assessment process to decide whether or not the action is likely to have a significant impact on a matter of National Environmental Significance, including the national heritage value of places. If an action is likely to have a significant impact an EPBC Act referral must be prepared and submitted to the Minister for approval.

2.2.1.3 Register of the National Estate

The Register of the National Estate (RNE) was formerly compiled as a record of Australia's natural, cultural and Aboriginal heritage places worth keeping for the future. The RNE was frozen on 19 February 2007, which means that no new places have been added or removed since that time. From February 2012 all references to the RNE were removed from the EPBC Act. The RNE is maintained on a non-statutory basis as a publicly available archive.

3. Background to the assessment

3.1 Historical context

3.1.1 Settlement and development of the Hunter Valley

The Aboriginal inhabitants of the Lower Hunter Valley (the wider region in which the proposal area is situated) were the Wonnarua people, neighbouring the Gamilaroi, Darkinjung, Worimi and Awabakal peoples. These people had many and varied interactions and are likely to have all had connections with the local area.

The non-Aboriginal exploration of the Hunter Valley commenced in the 1790s. The Hunter Valley was initially settled as a penal colony however British and European people were using land in the proposal area long before the 1823 proclamation that the Hunter Valley was open for free settlement. In 1797, Lieutenant Shortland discovered coal at the mouth of the Hunter River and shortly after in 1801, Lieutenant Colonel Paterson took the survey vessel 'Lady Nelson' up the river to investigate and report on this coal outcrop and other natural resources (Ward-Harvey 2008). In 1812, 1818 and 1821 Governor Macquarie took parties up the Hunter River. They proceeded up the Hunter and Paterson Rivers, visiting some of the farms Governor Macquarie had permitted settlers to occupy. Land grants east and west of these rivers were made available in the 1820s. By 1838 European settlers had acquired portions of land near to the west of Black Hill near today's township of Kurri Kurri. In the 1830s Richard Windeyer, a lawyer and free settler, developed some of the first vineyards in the Hunter Valley. Testers Hollow is named after a Mr William Tester who had farmed this and several other areas in the district (Parkes 1979).

The proposal area is significant in the history of the Hunter valley and is located in an area known for its historical collieries. The commencement of coal mining in 1862 followed the discovery of a large Permian coal bed known as the Greta Coal Measure in a location where it uplifts dramatically towards the surface. The discoveries were followed by the establishment of townships at Telarah, East Greta, Heddon Greta, Stanford Merthyr, Pelaw Main, Kurri Kurri, Weston, Abermain, Neath, Kearsley, Abernethy, Kitchener, Aberdare, Paxton, Pelton and Bellbird (Parkes 1979). The proposal area has also played a significant role in the development of railways in the district. The first of the coal transporting railways developed between Cessnock and Newcastle passes to the northwest of Testers Hollow via the Government railways and shipping facilities to the Port of Newcastle.

3.1.2 Ayrfield No.1 Colliery

Mining of the Greta Coal Measures was conducted at the Ayrfield No. 1 Colliery between 21 January 1910 and 22 November 1938. The first lease of Ayrfield No.1 Colliery (located next to the proposal area) was undertaken in 1910 (refer to Figure 3.1.) The colliery was located underground between the Maitland to Kurri Road and the Stanford Railway Line and included the development of a 'bord and pillar' system in which the mined coal was extracted across a horizontal plane, creating horizontal arrays of rooms and pillars (Eardley 1969). Initially coal and spoil was brought to the surface by 'horse wheeling' which was later replaced by an upright boiler operating a steam-driven haulage engine.

Two tunnels were driven 25 metres apart known as the North and South Tunnels. An up-cast shaft was sunk during late 1923 and used in conjunction with an underground furnace and later with a steam driven fan. The colliery chimney stack was made from galvanised iron. A transmission line was connected to the colliery in 1928. Pit top facilities included a winding house, poppet-head, tumblers and screens, a timber stack coal holding box, bath house, engine house, boiler house, lamp cabin, fan, explosives magazine, blacksmith shop, colliery office, two dams and a rail branch track that hauled the coal to the Stanford Railway Line (Douglas Partners 2005).

Underground fires in 1938 and 1946 destroyed the North and South Tunnels and above ground buildings. By 1947 the remaining fabric of the mine was bulldozed (Eardley 1969) and the surface entrances were eventually

Non-Aboriginal Heritage Assessment

sealed (Insite Heritage 2005: 5). The majority of extant structures connected to the Colliery are located close to the disused rail siding. These include mounded earth and concrete footings, a linear concrete pit and some now infilled dams. The closest of these remnant features is located 850 metres to the west of the proposal area (refer to Figure 3.6).

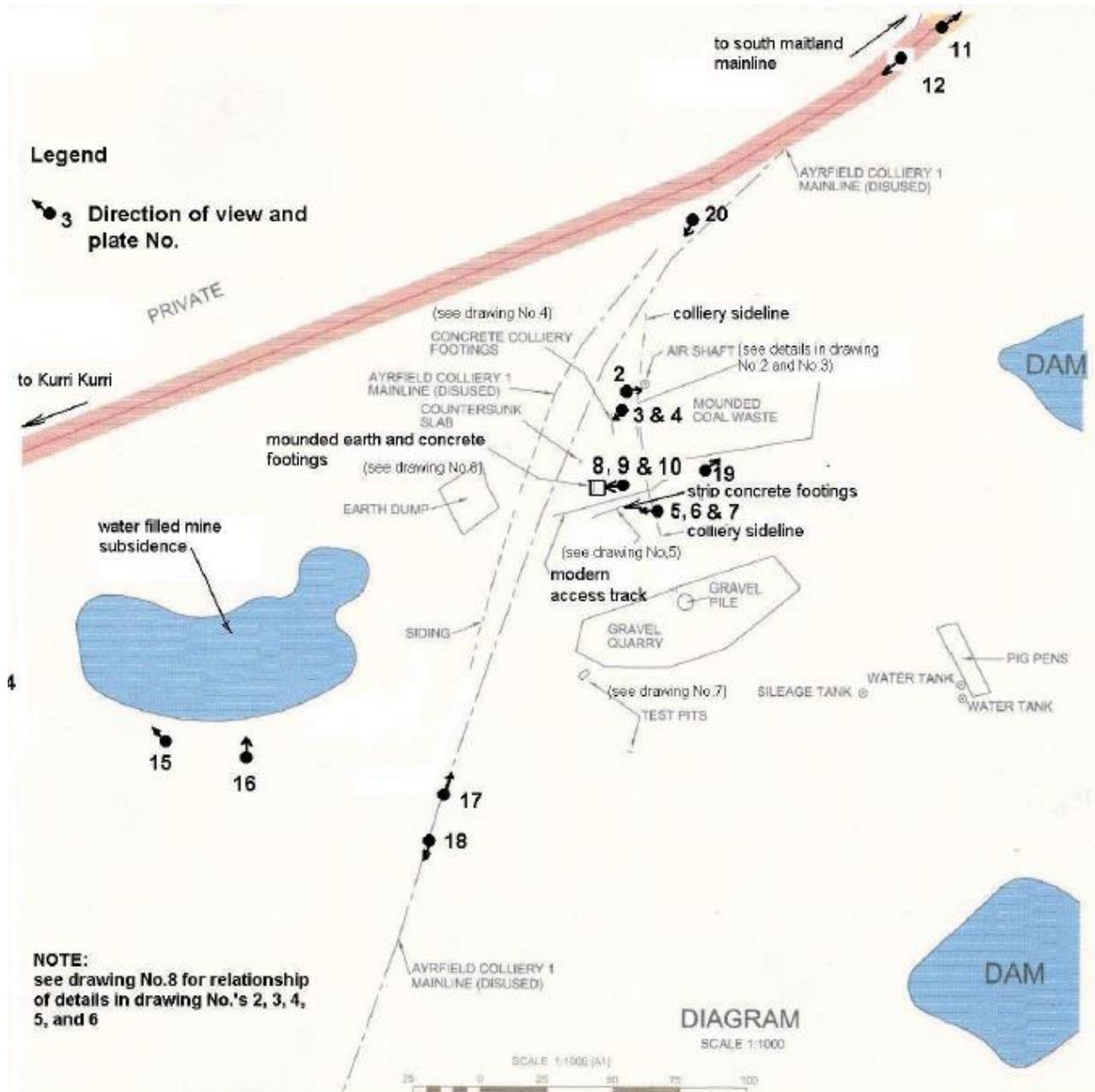


Figure 3.1 : Location of Aryfield Colliery to the north west of Testers Hollow, Heddon Greta (source: Insite Heritage 2005).

3.1.3 South Maitland Railway

The South Maitland Railway was once an extensive network of privately owned colliery and passenger railway lines which served the South Maitland coalfields. The first section of the line was opened to East Greta in 1893 (McNicol 1982). This line was built by the East Greta Coal Mining Company to service their East Greta Colliery. This colliery was joined in 1896 by the East Greta No.2 Colliery which was located towards Maitland (Eardley 1969). The construction of the 8.2 km Stanford Railway by the company in the vicinity of the proposal area included a number of cuttings, embankments and five bridges. The alignment of the railway is still evident today in existing embankments to the north west of Testers Hollow. All of these features are located outside of the current proposal area.

3.1.4 Testers Hollow and flooding

Testers Hollow is named after Mr William Tester (refer to Figure 3.2), a selector that had farmed this and several other areas in the district (Insite Heritage 2005). Flooding has been a problem for local residents ever since the early days when Mr Tester built a reputation for saving people from drowning in the late 19th Century (*Maitland Mercury*, 12 January 2016). Mr Tester lived a short distance from the flood-prone road and was known to use a bullock wagon to pull people from danger. He died in 1938 and has been honoured by a road being named after him in nearby developments on the land once occupied by the Aryfield Colliery (*Maitland Mercury*, 1 March 2016).

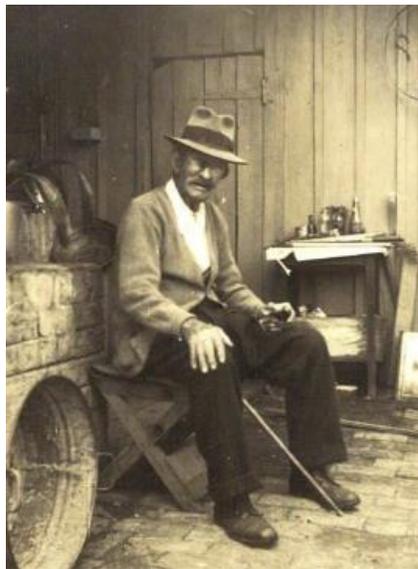


Figure 3.2 : William Tester 1848 - 1938 (Source: Jenny Caller and Maitland Mercury, 1 March 2016)

There has been recent campaigning by local residents affected by flooding to raise the road passing over Testers Hollow (reported in the *Maitland Mercury* between 10-31 January 2016). Flooding at Testers Hollow was reported to have been in the media as early as January 1927 when it rose two metres above the causeway (*Maitland Mercury*, 12 January 2016). Records show that the road flooded four times between 1927 and 1931 (refer to Figure 3.3), and another four times between 1950 and 1955, when Maitland experienced its now infamous deluge. The road continues to flood intermittently (refer to Figure 3.4). Post and rail fencing of the causeway evident in 1929 (refer to Figure 3.3) has been replaced with modern safety barriers (refer to Figure 3.4). In the ten years between 2007 to 2017 the road flooded on at least six occasions. The road has been closed from periods of two days up to 17 days. The closure of 17 days includes days the road was closed due to flood damage as well as water over the road.

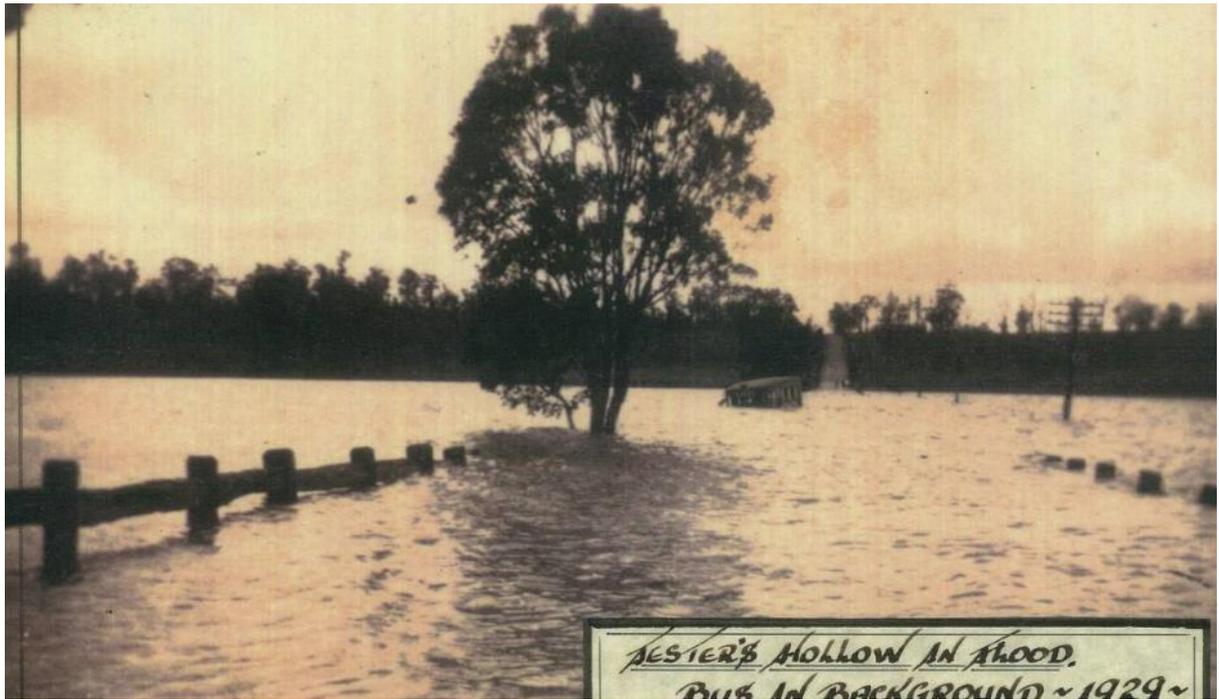


Figure 3.3 : Bus passengers taken to dry land 1929 (Source: Maitland Mercury, 31 January 2016)



Figure 3.4 : Testers Hollow in flood January 2016 (Source Maitland Mercury)

3.2 Heritage context

3.2.1 Heritage register search results

A search of all available non-Aboriginal heritage registers was undertaken on 16 July 2018 and on 9 July 2019 for known heritage items situated within or immediately adjacent to the assessment area using a combination of spatial data in a Geographic Information System and online registers and databases. The following registers were searched:

- State Heritage Register
- NSW State Heritage Inventory
- Cessnock LEP, Schedule 5 Environmental heritage
- Maitland LEP, Schedule 5 Environmental heritage
- Section 170 Heritage and Conservation Registers
- Commonwealth Heritage List
- National Heritage List
- World Heritage List
- RNE.

Searches of all relevant Commonwealth, State and local government heritage registers revealed two heritage items within or adjacent to the proposal area – both listed on the Cessnock LEP. These items are presented in Table 3.3 and their locations mapped in Figure 3.6. A proposed amendment to the Heritage area I215 is shown in Figure 3.7. This does not affect the current assessment however.

Table 3.3 : Non-Aboriginal heritage items within the proposal area

Name	Source	Number	Within/adjacent to the proposal area	Comments
Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721)	Cessnock LEP 2011	I215	Within	Ayrfield Colliery is a part of the Cessnock LEP (L215) listing, amongst other collieries in the Cessnock LGA including the Hillend Colliery, Ellalong Colliery and Cessnock to Aberdare Extended Colliery Railway. The Colliery precinct is partially located within the southern section of the proposal area and extends to the west to the site of the Ayrfield colliery 'pit top' some 850 metres to the west (refer to Figure 3.6). The Colliery site is ruinous following a destructive fire in 1938 and contains limited evidence of the associated buildings (concrete foundations) all of which are located well outside of the proposal area.
South Maitland Railway System	Cessnock LEP 2011	I212	Adjacent	

3.2.2 Previous heritage assessments and studies

A report on a preliminary site assessment for the Cliftleigh residential project adjacent to the proposal area in the region of the Ayrfield Colliery No 1 site was prepared by Douglas Partners for the Winton Property Group in 2005 (Douglas Partners 2005). A number of relic features related to small scale animal husbandry were identified within the proposal area. These included burial pits, sheds and dams. Sheds had been removed by 2001 (Douglas Partners 2005).

A European Archaeological Assessment was undertaken in 2005 by Winton Property Group (Insite Heritage 2005). The report assessed the remaining fabric of the Ayrfield Colliery in lieu of a residential development proposed for the site. The Colliery site, although heavily disturbed, has remnant features that represent the history of coal mining in the district and its association with the life or works of a person or group of persons important in the local area.

The European Archaeological Assessment (Insite Heritage 2005) assessed the Ayrfield Colliery site against the State Heritage Criteria as being representative of its class (coal mining) and locally significant under criterion (b) historically, as it was one of the first coal mines owned by the Hunter company R.W. Miller & Co. and (d) socially, as it has an associative link to a number of communities developed as a result of coal mining. The assessment determined that the quality of relics varied little and the Pit Head and associated buildings could be described as a ruin. It was recommended that a conservation management plan be implemented for the remaining fabric including the Stanford-Methyr branch line embankment, dams and remaining concrete footings. All of these features are located outside of the current proposal area by at least 850 metres, were the subject of a residential rezoning proposal and are not a focus of this assessment.

3.2.3 Review of aerial imagery

Douglas Partners undertook a review of aerial imagery as a part of the site assessment for the Clifftleigh residential project in 2005 (Douglas Partners 2005: 12). This included an assessment of the 1954, 1966, 1986 and 2001 aerial photographs scaled between 1: 40,000 and 1: 25,000. The principal results of this review indicated that in 1954 there was a large proportion of dense bushland south of Testers Hollow on the Clifftleigh portion. A disturbed area was located in the vicinity of the Ayrfield Colliery to the south west of the proposal area and the area immediately south of Testers Hollow showed evidence of crops having been grown on the foreshores of the inundation area. By 1964 additional clearing for crops had taken place on the south and north of Testers Hollow and a transmission road had been installed adjacent to Main Road. By 1984 the majority of bushland had been cleared surrounding Testers Hollow and a number of large and smaller dams had been constructed in the area to the south west of the proposal area to support poultry and pig farming. The sheds associated with these activities had been demolished by 2001 (Douglas Partners 2005). Rubble associated with these demolition activities that was evident in 2004 has subsequently been removed from the site.

Jacobs has reviewed recent aerial imagery of the proposal at a similar scale to the historical imagery reviewed by Douglas Partners. These indicate few changes have occurred to the local environment in the proposal area in the subsequent decades. Channelling is evident in Testers Hollow proper, and a small dam located to the west of the junction of Main Road and Avery Lane has been infilled. As mentioned above, no evidence of the prior existence of pig and poultry sheds is evident in the proposal area. Recent aerial imagery shows evidence of the site having been re-contoured during regrading that occurred in 2014.

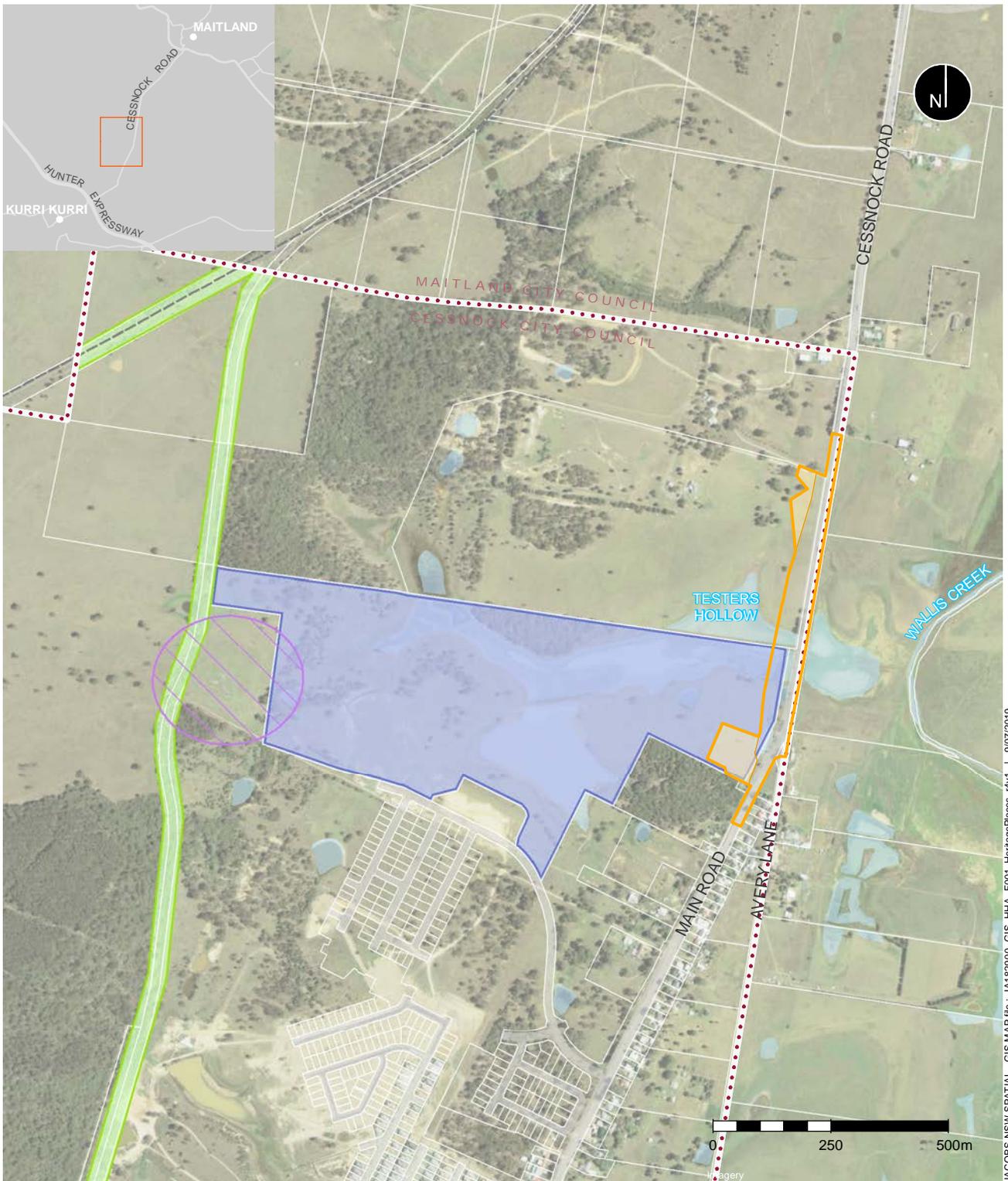
The review of aerial imagery of the site confirms it having been devoid of any buildings within recent decades and that it is inundated by intermittent floods. Historical aerial photographs of the proposal area are of poor quality yet confirm previous reviews of it having undergone development as a mine site in its early history, particularly with the Ayrfield colliery to the south west and as a site for small scale animal husbandry until 2001.

In 2014, the majority of the proposal area to the south of Testers Hollow was regraded and re-contoured under a construction certificate issued to the Cessnock City Council that preceded the residential development at Clifftleigh. Subsequently the site was almost entirely re-contoured with excavations typically greater than 1.4 metres across the majority of the proposal area to the south of Testers Hollow (Cessnock City Council 2014).

Non-Aboriginal Heritage Assessment



Figure 3.5 : 2014 regrading of the southern proposal area (source: Monteath and Powys 2014)



JACOBS NSW SPATIAL - GIS MAP file: I1162300_GIS_HHA_F001_HeritagePlaces_14v1 | 9/07/2019

Legend

- Proposal area
- Potential ancillary site
- Local Government boundary
- Railway
- Anyfield Colliery site (pit top and extent features)
- LEP Heritage (DPE 2019)**
- Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721)
- South Maitland Railway System

Figure 3.6 | Non-Aboriginal heritage places within the proposal area

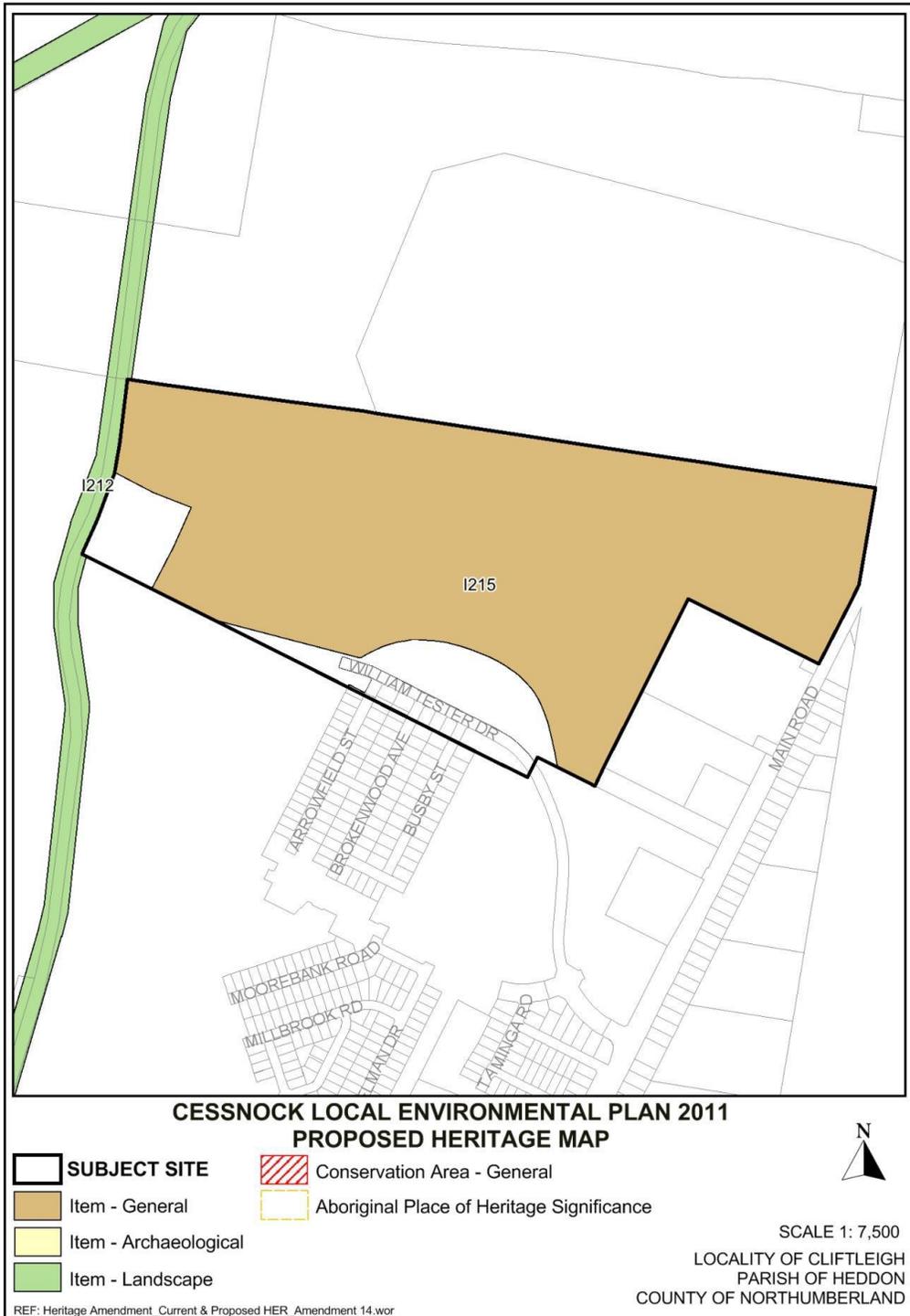


Figure 3.7: Proposed amendment to the Heritage area at Clifbleigh (source: Cessnock City Council 2017)

3.3 Predictive statement

The proposal area has local significance as it is located within the curtilage of the historic Collieries of the South Maitland Coalfields/Greta Coal Measures Group (1340721). As such it is expected that any early objects or sites of historical significance will be associated with the Ayrfield Colliery such as relics associated with track railways, mining equipment and miscellaneous artefacts from the period 1910-1948.

Furthermore, relics may be found associated with small scale pastoralism, animal husbandry or agriculture. Testers Hollow was also used in the past for small rural water infrastructure including farm dams. The area to the south of Testers Hollow, prior to being 'cleaned up' for the Cliffeigh urban residential development is reported to have previously contained large amounts of localised building debris that had been dumped in the area or was as a result of the demolition of small farm sheds (Douglas Partners 2005). The debris included tractor tyres, timber and scrap iron and the like. Given the area was prone to significant inundation it is unlikely to have ever been chosen for habitable dwellings. Additionally, the site was re-graded in 2014 which disturbed the topsoil to a depth of at least 250 mm (Cessnock City Council 2014). Furthermore, the site is known to have been contaminated by pollution from the coalfield and contains sulphuric acid, iron and aluminium leached from abandoned coal workings (Douglas Partners 2005).

4. Field survey

4.1 Aims

The aims of the field survey were to inspect all registered heritage items and identify any further unregistered heritage items within the proposal area (including potential archaeological sites). This was completed in order to develop strategies for avoiding and/or mitigating harm to non-Aboriginal heritage values.

4.2 Timing and personnel

A field survey was undertaken of the proposal area including two ancillary areas on 28 May 2018 by Andy Roberts (Senior Archaeologist, Jacobs).

4.3 Survey sampling strategy and methodology

The survey involved transects over an area of approximately 6.7 hectares principally adjacent to the existing road and causeway on its western side. This included one potential ancillary area on the south of the waterway of 1.9 hectares, and one on the north western corner of the proposal area of 1.9 hectares. There were no constraints to the survey taking place, ground surface visibility for example was excellent over the majority of the area and the entire proposed development area was able to be assessed.

4.4 Results of assessment

The field survey on the south of the waterway did not locate any potential heritage items. It was evident that the site had been cleared of any of the previously reported rubble from small sheds associated with animal husbandry. The main channel was associated with small dams and exhibited a high degree of ground disturbance from channelling and dam construction (refer to Figure 4.1).

The survey also identified areas where small dams evident on aerial imagery had been infilled. Additionally, small areas of imported fill from road construction were observed. Small undiagnostic fragments of concrete, brick and asbestos were noted (refer to Figure 4.2 - Figure 4.4). It was determined that these fragments are likely to have resulted from being crushed into the soil during debris removal after 2001 and re-grading of the site in 2014, and are unlikely to be of heritage significance. Re-grading of the proposal area to the south of Testers Hollow and the construction of the road embankment is known to have created significant soil disturbance (refer to Figure 4.5).



Figure 4.1: Soil disturbance associated with channeling and dam construction on southern side of proposal area near waterway.



Figure 4.2: Asbestos fragments to south of waterway



Figure 4.3: Brick fragments



Figure 4.4: Concrete fragments



Figure 4.5: View of Main road embankment to east of dams.

The field survey to the north of the waterway did not locate any potential heritage items. The area was observed to have been used for pastoralism (refer to Figure 4.6 and Figure 4.7). There were no structures or debris observed and the proposal area is known to be located outside of the Greta Coal Measures heritage precinct.



Figure 4.6: View to south west towards waterway. Ayrfield Colliery site is in distant background to left of picture.



Figure 4.7: View to south east showing culvert crossing waterway

5. Significance assessment

5.1 Approach to significance assessment

The approach to the assessment of heritage significance affirmed by the NSW Heritage Office adopts as a foundation the four values of the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter). These values are broadly accepted Australia wide, as historical, aesthetic, scientific and social classifications of significance. The implications of these classifications are as follows:

- Historical significance considers the evolutionary or associative qualities of an item with aesthetics, science and society, identifying significance in the connection between an item and cultural development and change
- Scientific significance involves the evaluation of an item in technical and/or research terms, considering the archaeological, industrial, educational and/or research potential. Within this classification items have significance value in terms of their ability to contribute to the better understanding of cultural history or environmental and their ability to communicate, particularly to a broad audience within a community
- Social significance is perhaps the most overtly evolutionary of all classifications in that it rests upon the contemporary community appreciation of the cultural record. Evaluation within this classification depends upon the social spiritual or cultural relationship of the item with a recognisable community
- Aesthetic significance addresses the scenic and architectural values of an item and/or the creative achievement that it evidences. Thus, an item achieves aesthetic significance if it has visual or sensory appeal and/or landmark qualities and/or creative or technical excellence.

5.2 Ayrfield Colliery Site

5.2.1 Significance assessment

Ayrfield Colliery is a part of the Cessnock LEP listing for the Collieries of the South Maitland Coalfields/Greta Coal Measures (I215) amongst other collieries in the Cessnock LGA including the Hillend Colliery, Ellalong Colliery and Cessnock to Aberdare Extended Colliery Railway. The significance of the Ayrfield Colliery against the NSW Heritage Criteria as defined by the NSW Heritage Council of NSW is provided in Table 5.1. The significance assessment was obtained from the European Archaeological Assessment for the Cliftleigh residential project (Insite Heritage 2005). It assessed the site as being representative of its class (coal mining) at the local level under criterion (b) historical and (d) social.

Proposed amendments to the boundaries of the Ayrfield Colliery site in the Cessnock Local Environment Plan have been presented in a recent planning proposal (Cessnock City Council 2017) and subsequent review (RPS 2017) (refer to Figure 3.7). This amendment proposed a change to the boundary of the heritage precinct as to reflect the boundary of the Cliftleigh residential subdivision.

The European Archaeological assessment determined that the quality of the relics varied little and could be described as a ruin (Insite Heritage 2005: 6) yet provided assessment of remaining elements and management strategies to include preservation and reuse of the rail embankments associated with the site.

Table 5.1 : Assessment of Significance against the NSW Heritage Criteria (Insite Heritage 2005)

Criteria	Assessment
Criterion (a) an item is important in the course, or pattern, of NSW cultural or natural history.	<ul style="list-style-type: none"> • The Colliery was the first coal mine owned by the Hunter company R.W. Miller & Co. but is in a poor state of preservation (ruin) • The positioning of the South Maitland Railway System was largely determined by the location of this mine • Its subsurface fabric (archaeology) including tunnelling technology remains locally significant but of an unknown state of preservation • The cuttings and embankments for rail spur and hopper lifting remain locally significant as standing ruins that are common on other sites • The foundations of mine buildings remain locally significant as ruins but are common on other sites • Farm dams have no remaining significance, do not relate to the mining phase but are worth preserving • Fencing is locally significant but common • Subsidence of the mining landscape has local significance but is a common feature of shallow mines • Portable relics have no remaining significance and can be found on most mine sites.
Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.	<ul style="list-style-type: none"> • The Colliery has an associative link to a number of communities which developed as a result of coal mining and the positioning of the South Maitland Railway System that supported it. • The old railway alignment are well known vestiges of the development of the coal industry and there is evidence of community concern about their preservation/reuse.

5.2.2 Statement of significance

The Ayrfield No.1 Colliery is an archaeological site, representative of the coal mining period circa 1860s to late 20th century which took place in the Greta coal measures. It is possible that further information about the local heritage significance of the colliery may be recoverable from further studies of the site, oral history and historical documents.

5.2.3 Assessment of archaeological potential

In summary, the proposal area is some distance from the focus of underground mining in the early 20th century. The principal remaining features of the Ayrfield colliery including the concrete foundations of the principal structures (refer to Section 3.1.2) are ruinous and located at least 850 metres to the west of the proposal area. The site has also been the focus of small scale animal husbandry since the Colliery demise after the 1938 fire when significant mining structures were destroyed. Additionally, efforts have been made to remove any structural debris from the proposal area following the demolition of structures related to animal husbandry and re-grading of the site that took place there in more recent times.

A review of previous assessments (Douglas Partners 2005 and Insite Heritage 2005) and a field visit undertaken on 28 May 2018 have indicated there is little or no historical archaeological potential in the proposal area. Any remaining structures associated with animal husbandry have been removed and small dams that occupied the

proposal area have been infilled. The proposal area to the south of Testers Hollow was the focus of re-grading in 2014 which involved disturbance to topsoil to a depth of at least 250 millimetres. Additionally, construction of the Main Road embankment and culvert at Testers Hollow have had considerable impact on the integrity of soils in the area.

6. Impact assessment

The proposal is not considered to have any impact on the heritage significance of the Ayrfield Colliery site. The principal remaining features of the colliery are located at least 850 metres to the west of the proposal area (refer to Figure 3.6). There were no reported structures associated with the Colliery within or adjacent to the proposal area and none identified during the field survey. The proposal is therefore unlikely to have any impact on the significance of the Colliery site or any remaining features.

7. Mitigation measures

7.1 General management measures

7.1.1 Discovery of historical heritage materials, features or deposits

In accordance with Section 146 of the Heritage Act, if at any time during the proposal construction, historical heritage materials, features and/or deposits are found, the Roads and Maritime *Standard Management Procedure: Unexpected Heritage Items* (Roads and Maritime Services 2015) would be followed, and the Heritage Council of NSW would be notified, including details of the location and description of the discovery.

7.1.2 Heritage induction training

Non-Aboriginal heritage awareness training must be provided for contractors prior to commencement of construction works to ensure understanding of potential heritage items and correct procedures to be undertaken in respect to unanticipated finds and significant trees that may be impacted during the proposal. Workers should be made aware of the procedure required to be undertaken in the event of discovery of both non-Aboriginal and Aboriginal heritage materials, features or deposits, or the discovery of human remains.

7.2 Approvals requirements

The Ayrfield Colliery site (1910-1938) and associated railway embankments are located outside and to the west of the proposal area. However, the precinct of the Collieries of the South Maitland Coalfields/Greta Coal Measures Group (item number 1340721) related to the Colliery and registered on the Cessnock LEP is partially located within the proposal area. This area does not contain any heritage fabric related to the Ayrfield Colliery.

This assessment has demonstrated that the site of the Ayrfield Colliery has negligible archaeological research potential. This is principally due to the ruinous nature of the remains of the Colliery and the general level of disturbance to the surface soils in the area.

The proposal area to the south of Testers Hollow was used for small scale animal husbandry and the construction of small dams until the 1980s. Small structures associated with these activities were removed from the site after this time and more recently the site was re-graded which involved disturbance to topsoil to a depth of at least 250 millimetres and up to 1.9 metres. There is therefore little likelihood of significant historical relics being located in the proposal area.

As the precinct of the registered heritage item remains partially within the proposal area (although not retaining any heritage fabric) it is necessary that in accordance with the NSW Government Gazette (no 110, 5 September 2008) Schedule of Exceptions to subsection 139 (1) and (2) of the *Heritage Act*, made under subsection 139 (4), an Excavation Permit Exception Notification Form is required to be submitted to the DPIE with appropriate supporting information including this heritage assessment report.

Under the ISEPP, as the impact of the project is 'minor or inconsequential on a local heritage item' then consent from, and consultation with, the Cessnock Council is not required. Roads and Maritime undertook ISEPP consultation with Cessnock on 9 April 2018 on potential impact on local heritage items. No responses were received.

8. References

- Andrews, B. R. (2007). *Coal, Railways and Mines - The Story of the Railways and Collieries of J & A Brown*. Iron Horse Press.
- Attenborough, P. (2001). *South Maitland Railways*. Eveleigh Press.
- Cessnock City Council (2014). *Notice of Determination of Application for Construction Certificate: Civil Works- Bulk Earthworks of Future Open Space*. Site regrading for Testers Hollow rehabilitation works.
- Cessnock City Council (2017). *Planning Proposal amendment to the Cessnock Local Environment Plan 2011: City Wide Heritage Amendments*. Version 1 4 July 2017.
<https://www.cessnock.nsw.gov.au/resources/file/Agendas/2017/Seperate%20Cover%20%20Planning%20Proposal%20%20City%20Wide%20Heritage%20Amendment%20%20MASTER%20%20KBrown.pdf>
- Douglas Partners (2005). *Proposed residential development Main Road Clifftleigh*. Prepared for Project Plan Pty Ltd on behalf of Winton Property Group. Project 31913/1 October 2005.
- Eardley, G.H. (1969). *The railways of the south Maitland Coalfields*. Australian Railway Historical Society. New South Wales Division.
- Environmental Protection and Biodiversity Conservation Act (1999).
http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
- Insite Heritage (2005). *European Archaeological Assessment of lands at Clifftleigh including Ayrfield Colliery No 1*. Prepared for Winton Property Group.
- Maitland Mercury January 10 (2016). (and various other editorials between 10 and 31 January 2016 as part of the 'Raise the Road' Campaign).
<https://www.maitlandmercury.com.au/story/3655209/time-to-raise-the-road-at-testers-hollow-editorial/?cs=173>
- McNicol, S (1982). *Coals to Maitland*. Railmac Publications.
- Monteath and Powys (2014). Sheet 3/14 in Cessnock City Council Construction Certificate: *Notice of Determination of Application for Construction Certificate: Civil Works- Bulk Earthworks of Future Open Space*. Site regrading for Testers Hollow rehabilitation works.
- Parkes, W. S. (1979). *Mines, wines and people: a history of Greater Cessnock*. Council of the City of Cessnock, NSW.
- Roads and Maritime Services (2015). *Standard Management Procedure: Unexpected Heritage Items*
- RPS (2017) Cessnock City Council: Heritage Study Review
- Ward-Harvey, K. (2008). *Raymond Terrace 1801-2008*. Retrieved 19/01/16 from
<http://www.sketchleycottage.org.au/>.