



HAWKESBURY-NEPEAN VALLEY FLOOD EVACUATION ROAD RESILIENCE PROGRAM
Improvements on The Northern Road and Londonderry Flood Evacuation Routes

Aboriginal Cultural Heritage Assessment Report
Stage 3 PACHCI

PUBLIC RELEASE VERSION

Prepared for SMEC on behalf of Transport for NSW

Hawkesbury and Penrith Local Government Areas

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Portions of this document have been redacted for reasons of confidentiality and to protect sensitive cultural information.

Executive Summary

The NSW and Australian Governments have committed \$33 million towards planning for more than 100 improvements that will make the Hawkesbury-Nepean Valley flood evacuation road network more resilient to flooding. Road infrastructure improvements have been identified across four Western Sydney Local Government areas: Penrith, Hawkesbury, Blacktown, and The Hills. The proposed improvements include road shoulder widening, culvert upgrades, new bridge structure, road raising, pinch point upgrades and drainage improvements. These improvements will make evacuation routes better able to withstand local flash flooding which can cause early closure of evacuation routes.

The Hawkesbury-Nepean Valley has the highest flood risk in NSW due to its unique landscape and large existing population. Floods in the Hawkesbury-Nepean Valley can and have had a significant impact on people's lives, livelihoods, and homes. The key objective of Hawkesbury-Nepean Valley Flood Evacuation Road Resilience Program is to improve drainage on the road network to better withstand local flash flooding and to increase capacity to evacuate by road during major flood events.

The Hawkesbury-Nepean Valley Flood Evacuation Road Resilience Program has two components – State Road Improvements (on the Transport for NSW managed roads of The Northern Road and Londonderry Road) and Regional/Local Road Improvements (on the mostly local council managed road network), this proposal refers to the State Road Improvements only, being The Northern Road and Londonderry Road flood evacuation routes.

The proposal is in Sydney's West, is within the Penrith and Hawkesbury local government areas and traverses the suburbs of Berkshire Park, Bligh Park, Cambridge Gardens, Cranebrook, Hobartville, Llandilo, Londonderry, Jordan Springs, Penrith and Kingswood. Key features of the locality include Castlereagh Nature Reserve, Windsor Downs Nature Reserve, Wianamatta Nature Reserve, Nepean Hospital, the T1 Western Line and the Francis Greenway Correctional Complex.

SMEC on behalf of Transport for NSW ('Transport') engaged Kelleher Nightingale Consulting Pty Ltd (KNC) to prepare an Aboriginal cultural heritage assessment report (CHAR) for the proposal. The CHAR has been prepared in accordance with Stage 3 of the *Transport Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI)* (Roads and Maritime Services 2011) and the *Heritage NSW Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011a). The CHAR is supported by an Aboriginal archaeological assessment undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH 2010a). Aboriginal community consultation has been undertaken in accordance with the PACHCI and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010b).

Aboriginal archaeological assessment undertaken in accordance with the *Code of Practice* and Transport PACHCI identified eight extant Aboriginal archaeological sites that would be partially impacted by the proposal.

- Wianamatta Nature Reserve AFT 3
- Londonderry Road PAD 11
- Londonderry Road PAD 13
- Londonderry Road PAD 15
- The Northern Road North PAD 7
- The Northern Road North PAD 21
- The Northern Road South PAD 10
- The Northern Road South PAD 12

Sites comprised open context surface artefact sites (both isolated find and artefact scatter) and areas of potential archaeological deposit (PAD). Archaeological significance of the identified Aboriginal sites is defined by the information exhibited by each site. The archaeological sites located within the proposal area are a mix of low-moderate and moderate significance sites.

Following the detailed design phase of the project (where project footprint is rationalised), a program of archaeological test excavation is proposed. Archaeological test excavation will take place prior to Transport seeking an Aboriginal Heritage Impact Permit (AHIP) for the project. Archaeological test excavation is recommended for sites/ PAD areas identified as having low-moderate and moderate archaeological potential/significance.

An application for an AHIP should be made under section 90A of the *National Parks and Wildlife Act 1974* for the land and associated objects within the boundaries of the study area. The application should be prepared in accordance with Heritage NSW guidelines. The AHIP should be sought for the specified Aboriginal sites and Aboriginal objects contained within the study area prior to construction works for the project.

An application for an AHIP would likely include provisions for impact mitigation through archaeological salvage. An archaeological salvage excavation program would be based upon the results of the proposed test excavation program and further cultural heritage assessment.

Salvage excavation must be completed prior to any activities (including pre-construction activities) which may harm Aboriginal objects. Salvage excavation activities would be undertaken in accordance with an appropriate salvage excavation methodology.

The boundary of any future AHIP area adjacent to the non-impacted portion of sites should be demarcated with protective fencing and listed in the CEMP. These areas should be identified as “no-go zones” on the CEMP maps and workers inducted as to appropriate protection measures and requirements to comply with conditions in the AHIP.

This CHAR has been prepared to support the REF and to accompany any future applications for an AHIP made by Transport. It has been prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and the PACHCI. The CHAR builds on the results of previous assessments and consultation regarding the proposal.

Contents

| | |
|---------------------------------------------------------------------------------------|-----------|
| FIGURES | V |
| TABLES | V |
| 1 INTRODUCTION..... | 1 |
| 1.1 PROPONENT AND CONSULTANTS..... | 1 |
| 1.2 LOCATION AND SCOPE OF ACTIVITY | 1 |
| 1.3 STATUTORY CONTROLS AND DEVELOPMENT CONTEXT..... | 2 |
| 1.4 NATIONAL PARKS AND WILDLIFE ACT 1974 | 2 |
| 1.5 OBJECTIVES OF THE CHAR | 8 |
| 2 ENVIRONMENTAL CONTEXT..... | 9 |
| 3 ETHNOHISTORIC CONTEXT | 14 |
| 4 ARCHAEOLOGICAL CONTEXT..... | 16 |
| 4.1 STAGE 2 PACHCI ARCHAEOLOGICAL SURVEY REPORT (KNC 2023) | 17 |
| 5 ABORIGINAL COMMUNITY CONSULTATION..... | 23 |
| 5.1 STAKEHOLDER IDENTIFICATION AND REGISTRATION OF INTEREST..... | 23 |
| 5.2 PROVISION OF PROPOSED ASSESSMENT METHODOLOGY | 24 |
| 5.3 STAKEHOLDER RESPONSES TO DRAFT CHAR..... | 25 |
| 5.4 ABORIGINAL FOCUS GROUP MEETING | 25 |
| 5.5 ABORIGINAL CULTURAL HERITAGE VALUES..... | 25 |
| 6 SUMMARY AND ANALYSIS OF BACKGROUND INFORMATION..... | 26 |
| 6.1 SUMMARY OF IDENTIFIED ABORIGINAL ARCHAEOLOGICAL SITES WITHIN THE STUDY AREA | 29 |
| 7 CULTURAL HERITAGE VALUES AND STATEMENT OF SIGNIFICANCE | 31 |
| 7.1 SIGNIFICANCE ASSESSMENT CRITERIA | 31 |
| 7.1.1 <i>Cultural / social values</i> | 31 |
| 7.1.2 <i>Historic values</i> | 32 |
| 7.1.3 <i>Scientific / archaeological values</i> | 32 |
| 7.1.4 <i>Aesthetic values</i> | 32 |
| 7.2 STATEMENTS OF SIGNIFICANCE..... | 33 |
| 8 IMPACT ASSESSMENT | 34 |
| 8.1 THE PROPOSED ACTIVITY | 34 |
| 8.2 IMPACT REDUCTION/AVOIDANCE | 35 |
| 8.3 PROPOSED IMPACTS TO ABORIGINAL ARCHAEOLOGICAL SITES | 35 |
| 9 MITIGATING HARM..... | 38 |
| 9.1 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES..... | 38 |
| 9.1.1 <i>The Precautionary Principle</i> | 38 |
| 9.1.2 <i>The Principle of Inter-Generational Equity</i> | 38 |
| 9.2 MITIGATION MEASURES | 39 |
| 10 SUMMARY AND RECOMMENDATIONS | 41 |
| REFERENCES..... | 42 |
| APPENDIX A ADVERTISEMENT FOR REGISTRATION OF INTEREST | 44 |
| APPENDIX B AFG MINUTES | 45 |
| APPENDIX C ABORIGINAL COMMUNITY CONSULTATION | 50 |
| APPENDIX D CONSULTATION LOG | 51 |

Figures

| | |
|------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 1. Overview of study area | 4 |
| Figure 2. Detail of study area – Londonderry Road | 5 |
| Figure 3. Detail of study area – The Northern Road, northern section | 6 |
| Figure 4. Detail of study area – The Northern Road, southern section | 7 |
| Figure 5. Topography of the study area | 11 |
| Figure 6. Geology of the study area | 12 |
| Figure 7. Soil landscapes of the study area | 13 |
| Figure 8. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023) | 19 |
| Figure 9. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023) | 20 |
| Figure 10. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023) | 21 |
| Figure 11. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023) | 22 |
| Figure 12. Identified Aboriginal archaeological sites within the study area..... | 27 |
| Figure 13. Identified Aboriginal archaeological sites within the study area..... | 28 |
| Figure 14. Study area (impact area) and Aboriginal heritage | 36 |
| Figure 15. Study area (impact area) and Aboriginal heritage | 37 |

Tables

| | |
|-------------------------------------------------------------------------------------------------------|----|
| Table 1. Registered Aboriginal parties..... | 23 |
| Table 2. Identified Aboriginal archaeological features within the study area | 29 |
| Table 3. Summary of significance/potential of archaeological features located in the study area | 33 |
| Table 4. Impact of proposed activities on Aboriginal archaeological sites within the study area | 35 |
| Table 5. Mitigation measures for impacted Aboriginal site | 39 |

1 Introduction

1.1 Proponent and consultants

The NSW and Australian Governments have committed \$33 million towards planning for more than 100 improvements that will make the Hawkesbury-Nepean Valley flood evacuation road network more resilient to flooding. Road infrastructure improvements have been identified across four Western Sydney Local Government areas: Penrith, Hawkesbury, Blacktown, and The Hills. The proposed improvements include road shoulder widening, culvert upgrades, new bridge structure, road raising, pinch point upgrades and drainage improvements. These improvements will make evacuation routes better able to withstand local flash flooding which can cause early closure of evacuation routes.

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SMEC on behalf of Transport for NSW ('Transport') engaged Kelleher Nightingale Consulting Pty Ltd (KNC) to prepare an Aboriginal cultural heritage assessment report (CHAR) for the proposal. The CHAR has been prepared in accordance with Stage 3 of the Transport *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI) (Roads and Maritime Services 2011) and the Heritage NSW *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011a).

The CHAR is supported by an Aboriginal archaeological assessment undertaken in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH 2010a). Aboriginal community consultation has been undertaken in accordance with the PACHCI and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010b).

1.2 Location and scope of activity

The proposed works are located in the Penrith and Hawkesbury local government areas (LGA). The proposal constitutes the 'study area' for this assessment and is shown on Figures 1-4. The proposal area generally includes the road corridors of The Northern Road, Londonderry Road, Andrews Road and Vincent Road as follows:

- The Northern Road between the intersection with Richmond Road/Blacktown Road, Bligh Park in the north, and Borrowdale Way, Cranebrook in the south
- Londonderry Road from 270 metres south of Southee Road, Hobartville to the intersection with The Northern Road, Llandilo excluding approximately 270 metres north and 300 metres south of the existing intersection at The Driftway, Londonderry
- Route A9 (The Northern Road/Richmond Road) from 130 metres north of Andrews Road, Cranebrook south to Boomerang Place, Cambridge Gardens
- Andrews Road, Cranebrook from The Northern Road to the Andrews Road Baseball Complex west of Greygums Road, Cranebrook
- Vincent Road, Cranebrook, for approximately 70 metres west from The Northern Road
- Identified isolated areas along Route A9 (Richmond Road/Parker Street) between Gascoigne Street and Great Western Highway, Kingswood for the installation of flood evacuation signage.

The proposal area includes a buffer from the outer edge of the designed works to facilitate construction work. The buffer is generally ten metres in width but is reduced to six metres or less in specific areas, to minimise impacts on sensitive areas. Key features of the proposal include:

- Widening of the southbound shoulder pavement on the following roads, a total of approximately 20 kilometres, to provide a second outbound lane reserved for drivers to use during emergency flood evacuations. This will include culvert and drainage extensions to accommodate a wider road corridor, and connecting drainage along:
 - Londonderry Road between Southee Road and The Northern Road, Londonderry
 - The Northern Road between Richmond Road and Borrowdale Way, in Londonderry, Berkshire Park, Cranebrook, Llandilo, and Jordan Springs
- Drainage improvements including upgrades to culvert crossings, drainage channels, and pit and pipe networks at identified locations to improve resilience in localised flooding events.
- Raising of low points along sections of The Northern Road.
- Extend, replace or add new culverts at selected locations along Londonderry Road and The Northern Road to maintain property access (e.g. driveways) as required.
- Realignment of The Northern Road, Cranebrook (within the road corridor), between around 330m north of Seventh Avenue, Llandilo to around 280m south of Vincent Road, Cranebrook to reduce project impacts on adjacent sensitive receivers and improve road safety.
- Adjustments to intersections to facilitate a secondary outbound lane for drivers to use during a flood evacuation event.
- Installation of new signage to be displayed during emergency flood evacuations to facilitate a second left turn at the existing Parker Street/Great Western Highway intersection in Penrith under traffic control.
- Adjustments as required to connect Londonderry Road and The Northern Road to local roadways, side roads and access roads.
- Relocation and/or adjustments of various road furniture (such as signage, road safety barriers, street lighting, kerb and island adjustment etc) throughout the proposal area.
- Relocation of bus stops.
- Utility and driveway adjustments as required within the proposal area.
- Landscaping as required.
- Provision of temporary ancillary facilities to support the construction works including office and staff amenities, site compound and laydown areas.

The final construction staging of the proposal would be determined by Transport and the construction contractor. However, it is anticipated that the permanent works would be carried out in stages, with an early works component. Subject to funding availability, the construction is expected to commence in 2026 and completed in 2030.

1.3 Statutory controls and development context

The proposal is for road infrastructure carried out by Transport, to be assessed under Part 5 of the *Environmental Planning and Assessment Act 1979*. Aboriginal objects would be harmed by the proposal and an application for an Aboriginal Heritage Impact Permit (AHIP) would be made under section 90A of the *National Parks and Wildlife Act 1974*.

This Aboriginal CHAR has been prepared to support a Review of Environmental Factors (REF) for the project. It has been prepared in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011a). The CHAR complies with the *Transport Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (Transport for NSW 2011).

1.4 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) is the primary statutory control dealing with Aboriginal heritage in New South Wales. Items of Aboriginal heritage (Aboriginal objects) or Aboriginal places (declared under section 84) are protected and regulated under the NPW Act.

Under the Act, an “Aboriginal object” is defined as “any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains”. As such, Aboriginal objects are confined to physical evidence and are commonly referred to as Aboriginal sites.

Aboriginal objects are protected under section 86 of the Act. It is an offence to harm or desecrate an Aboriginal object, either knowingly [section 86 (1)] or unknowingly [section 86 (2)].

There are offences and penalties relating to harm to, or desecration of, an Aboriginal object or declared Aboriginal place. Harm includes to destroy, deface, damage or move. Penalties are tiered according to offences, which include:

- a person must not harm or desecrate an Aboriginal object that the person knows is an Aboriginal object
- a person must not harm an Aboriginal object (strict liability offence)
- a person must not harm or desecrate an Aboriginal place (strict liability offence)
- failure to notify Office of Environment and Heritage of the location of an Aboriginal object (existing offence and penalty)
- contravention of any condition of an AHIP.

Under section 87 (1) it is a defence against prosecution if “(a) the harm or desecration concerned was authorised by an Aboriginal heritage impact permit and (b) the conditions to which that Aboriginal heritage impact permit was subject were not contravened”.

Section 87 (2) of the Act provides a defence if “the defendant exercised due diligence to determine whether the act or omission constituting the alleged offence would harm an Aboriginal object and reasonably determined that no Aboriginal object would be harmed”.

Section 89A of the Act relates to the notification of sites of Aboriginal objects, under which it is an offence if the location of an Aboriginal object is not notified to the Director-General in the prescribed manner within a reasonable time.

Under section 90 (1) of the Act “the Director-General may issue an Aboriginal heritage impact permit”. The regulation of Aboriginal heritage impact permits is provided in Part 6 Division 2 of the Act, including regulations relating to consultation (section 90N).

An AHIP is required for an activity which will harm an Aboriginal object.

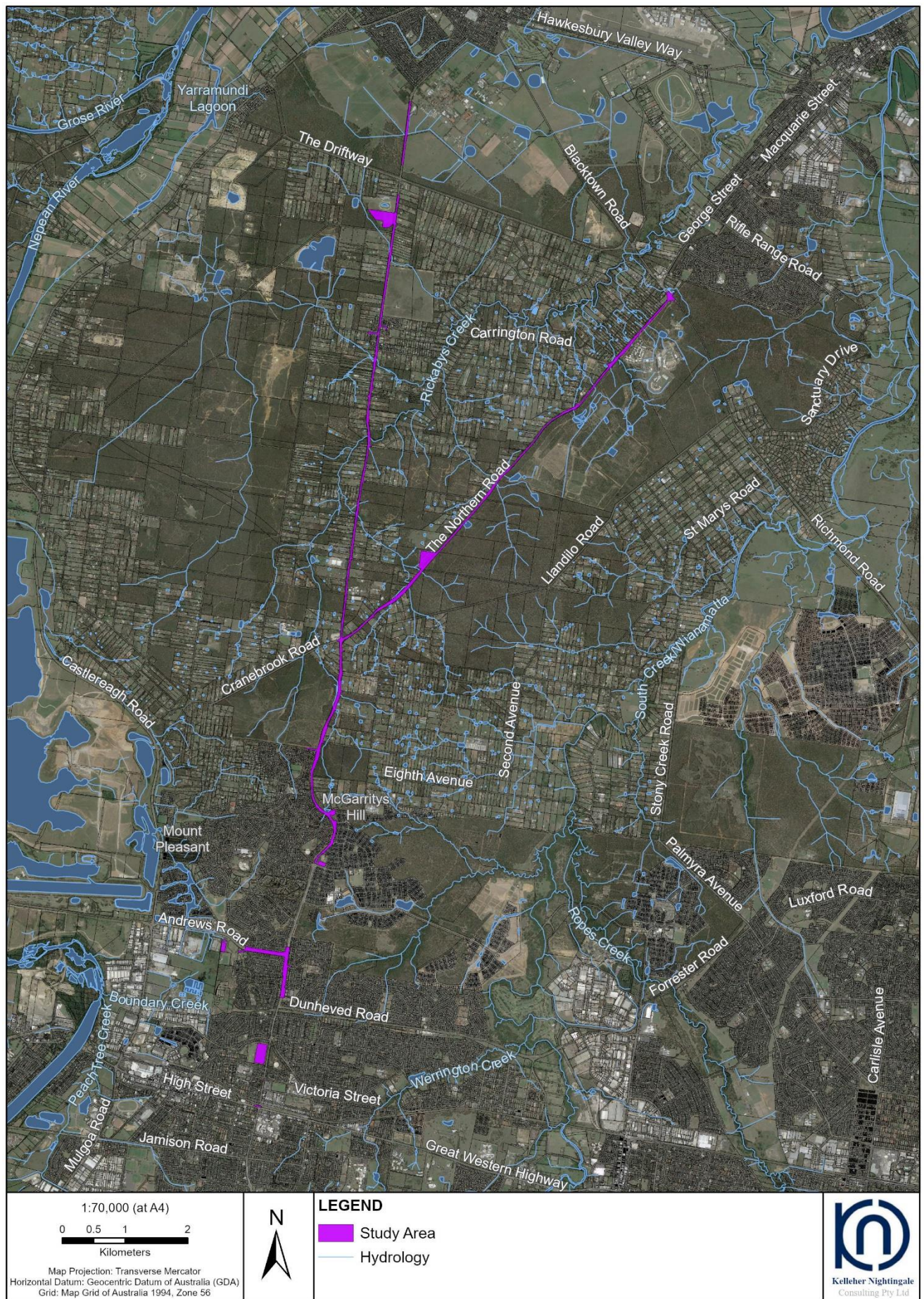


Figure 1. Overview of study area

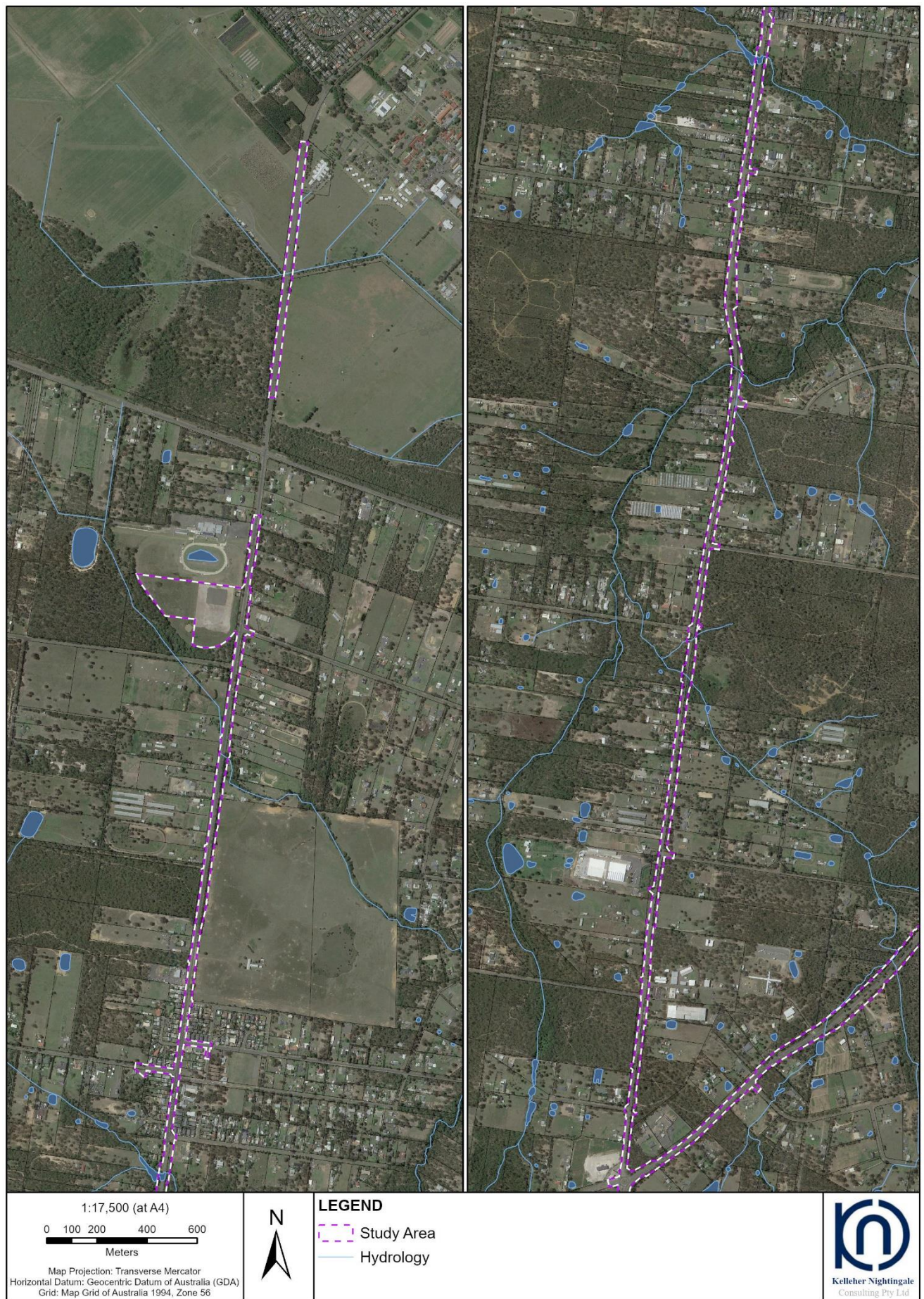
**Figure 2. Detail of study area – Londonderry Road**



Figure 3. Detail of study area – The Northern Road, northern section



Figure 4. Detail of study area – The Northern Road, southern section

1.5 Objectives of the CHAR

The proposed infrastructure works will impact on some Aboriginal objects (sites). Approval obtained under the *National Parks and Wildlife Act 1974* is required for these Aboriginal objects prior to any impact or harm. The proponent would apply for an AHIP under section 90A of the Act.

Clause 61 of the *National Parks and Wildlife Regulation 2019* requires that an application for an AHIP is accompanied by a CHAR. The CHAR is to provide information on:

- the significance of the Aboriginal objects or Aboriginal places that are the subject of the application
- the actual or likely harm to those Aboriginal objects or Aboriginal places from the proposed activity that is the subject of the application
- any practical measures that may be taken to protect and conserve those Aboriginal objects or Aboriginal places
- any practical measures that may be taken to avoid or mitigate any actual or likely harm to those Aboriginal objects or Aboriginal places.

The *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011a) provides further guidance on the preparation of a CHAR. This report has been prepared in accordance with the requirements of the Regulation and the Heritage NSW guide.

This CHAR has been prepared to support the REF and to accompany any future applications for an AHIP made by Transport for NSW for Aboriginal objects within the study area, including those associated with Aboriginal archaeological sites which will be wholly or partially impacted by the proposal.

2 Environmental Context

The study area is located in the northwest of the Cumberland Plain, a gently undulating and generally low-lying physiographic region of the Sydney Basin. The Sydney Basin is a large geological feature stretching from Batemans Bay in the south to Newcastle in the north and Lithgow in the west. The formation of the basin began between 250 to 300 million years ago when river deltas gradually replaced the ocean that had extended as far west as Lithgow.

The topography of the northern portion of the study area is generally characterised by a mixture of floodplain and low lying flats. The southern portion of the study area is characterised by gentle ridgelines and slightly higher elevations (Figure 5). Drainage depression landforms associated with Rickabys Creek and its tributaries and tributaries of South Creek dissect the study area. Archaeologically, both watercourses have proven to be a focal point for Aboriginal land use activity and are likely to have provided a stable source of water and raw materials suitable for tool-making.

In the north of the study area, Londonderry Clay and the Rickabys Creek Gravels together, form the base of the Tertiary formation extending east from the river (Figure 6). Londonderry Clay is a plastic, relatively impervious clay with patches of sand and aggregates cemented by iron oxides, and represents the finer sediments deposited during fluvial conditions of the late Oligocene/early Miocene. This deposit occurs in combination with the larger clast Rickabys Creek braid plain gravels which form the basal layer of the Tertiary terrace, comprising quartzite, quartz, granite, chert, silicified tuff, silcrete, hornfels and others. The gravels outcrop around the perimeter of the terrace and where it is dissected by Rickabys Creek. Quaternary reworking has widely distributed this material across the north western Cumberland Plain and along the major tributaries to the Hawkesbury/Nepean system including South Creek and Eastern Creek. Fine-grained sand, silt and clay form Quaternary Alluvium deposits associated with these watercourses and with Rickabys Creek.

The southern portion of the study area is characterised by Bringelly shales of the Wianamatta Group (Figure 7). Bringelly Shale is interpreted as a coastal alluvial plain sequence preserved from the deposition of sediments on a broad, low lying coastal plain which consisted of extensive swamplands intersected by estuarine and alluvial channels. The resulting geological formation is comprised of shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff (Clark and Jones 1991).

The soil landscapes of the study area comprise the Luddenham, Berkshire, South Creek and Richmond soil profiles (Figure 7). An area of Disturbed Terrain is also present adjacent to the Northern Road corridor. Erosional soils of the Luddenham soil landscape are found on the more elevated landforms of the study area, and are common on the ridgelines, crests, and moderate gradient upper and mid slopes of the ridge spurs that extend east from the foothills to the Hawkesbury/Nepean floodplain. Luddenham soils are characterised by shallow dark podzolic soils or massive earthy clays on crests, moderately deep red podzolic soils on upper to mid slopes and moderately deep yellow podzolics and prairie soils on lower slopes and along drainage lines. The erosional susceptibility of this soil landscape is moderate to very high depending on disturbance and vegetation.

The alluvial Berkshire Park soil landscape is characterised by dissected, gently undulating low rises on the Tertiary terraces of the Hawkesbury/Nepean. Landforms include flat terraces dissected by small drainage channels and narrow drainage lines with exposed areas of underlying geology due to erosion. These soils are derived from the underlying Tertiary geology and consist of a sandy loam to sandy clay loam with inclusions of silcrete boulders of up to 20 centimetres in size overlying sandy clay and clay. The soils have a high level of wind erosion where cleared and have gully, sheet and rill erosion within dissected areas. The South Creek soil profile can be found along the floodplain of South Creek and its associated tributaries. The South Creek soil landscape is characterised by deep to very deep alluvial sediments, loams and clays, susceptible to erosion and frequent flooding.

Richmond soils occupy the higher level Quaternary terraces of the Hawkesbury/Nepean River. Relief is mainly flat, with terrace edges, levees and splays providing low local relief of up to 10 metres. Soil materials comprise poorly structured orange to red clay loams, clays and sands with ironstone nodules. Red earths and red podzolics occur on terrace surfaces with earthy sand on edges and plastic clays in drainage lines. This soil landscape displays a high erosion hazard on terrace edges and localised waterlogging and flooding. Erodibility and erosion hazard is moderate to high depending on slope gradient and vegetation cover.

An area of disturbed terrain is present on the eastern side of The Northern Road, north of the Castlereagh Nature Reserve. The topography varies from level plains to undulating terrain, which has been disturbed to a depth of at least 100 centimetres, with native vegetation completely cleared. These soils consist of landfill materials including soil, rock, building and waste materials. Geologically, disturbed terrain in the Penrith area is underlain by alluvial and volcanic materials.

The distribution of native vegetation within the study area has been affected by historic and contemporary European land use practices in the region. The study area and its surrounds have been mostly stripped of vegetation by historical land clearing activities. Vehicle access tracks and large erosion scours are present. The construction of the existing roads and buried utilities have also contributed to subsurface disturbance and surface erosion within the current study area.

Prior to the arrival of Europeans, a mixture of native vegetation communities would have extended across the entirety of the Cumberland Plain with distribution determined by a combination of factors including soil, terrain and climate. The clearance of native vegetation across the majority of the study area by European settlers has left remnant areas of native vegetation within and adjacent to road verges, particularly within proximity to tributaries of Rickabys Creek and South Creek. Native vegetation within the study area is classified as a mixture of vegetation communities, including Castlereagh Ironbark Forest, Castlereagh Swamp Woodland, Sydney Coastal Alluvial River-flat Forest, Castlereagh Scribbly Gum Woodland, Shale Hills Woodland, Shale Plains Woodland and Shale Gravel Transition Forest.

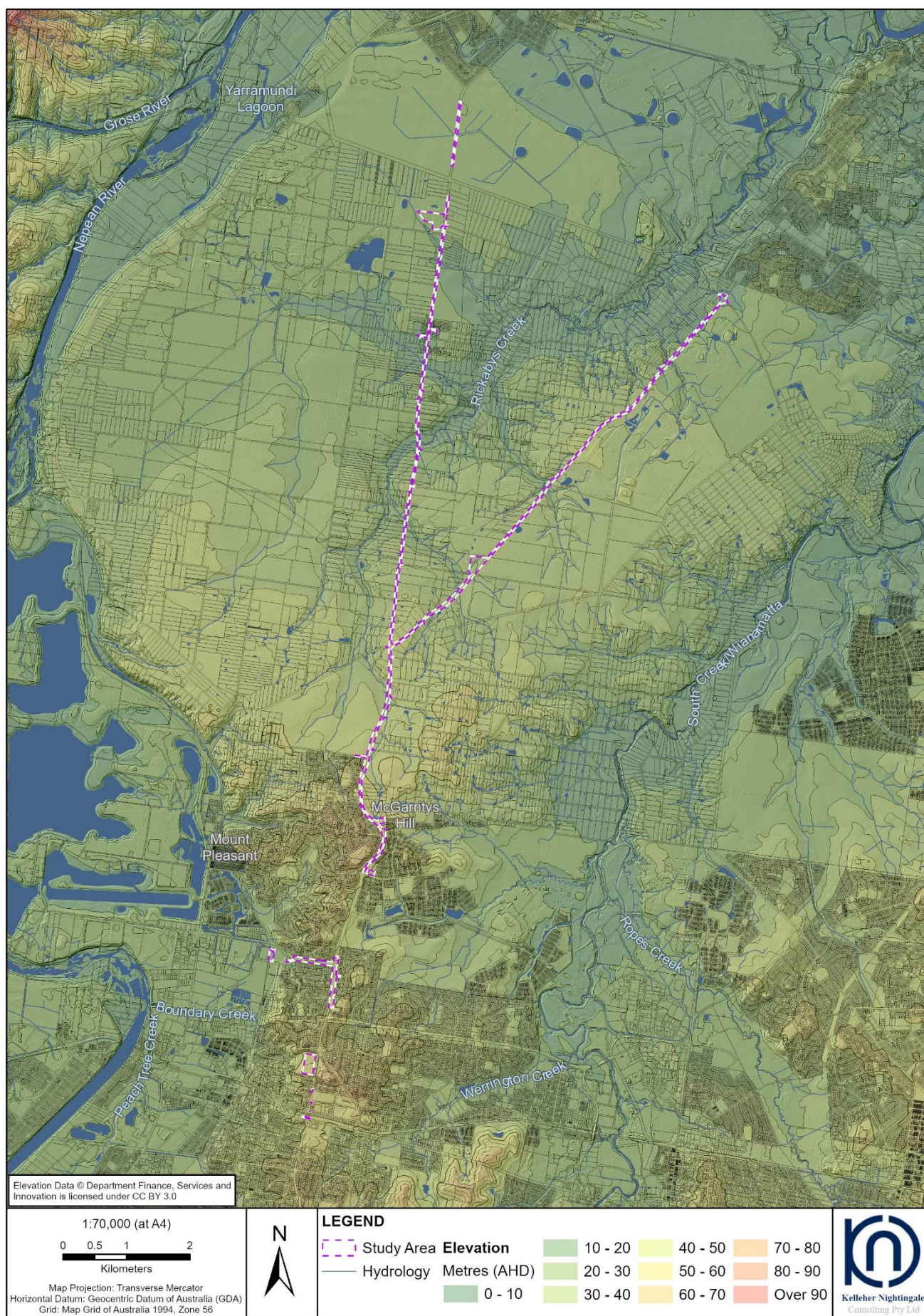


Figure 5. Topography of the study area

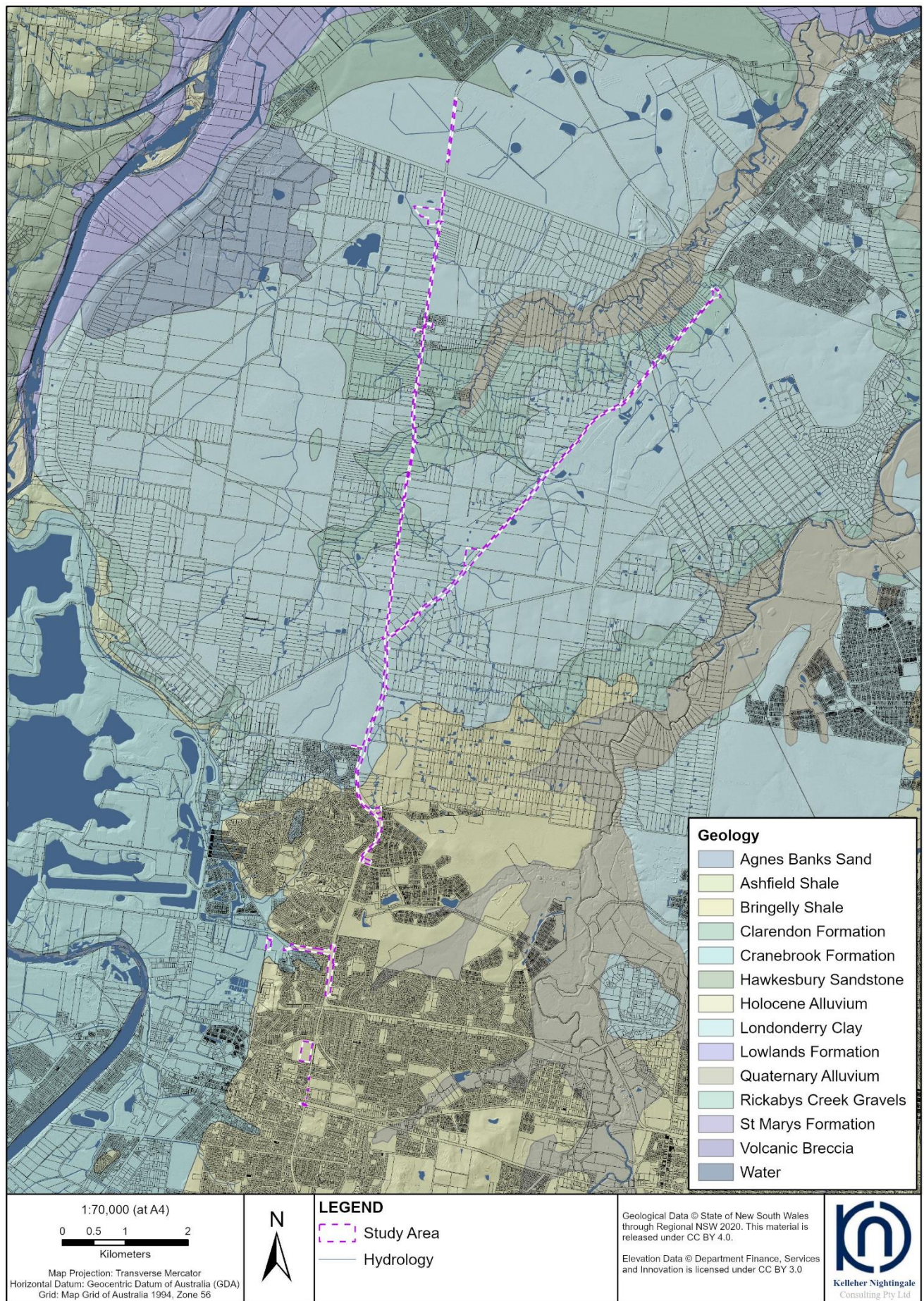


Figure 6. Geology of the study area

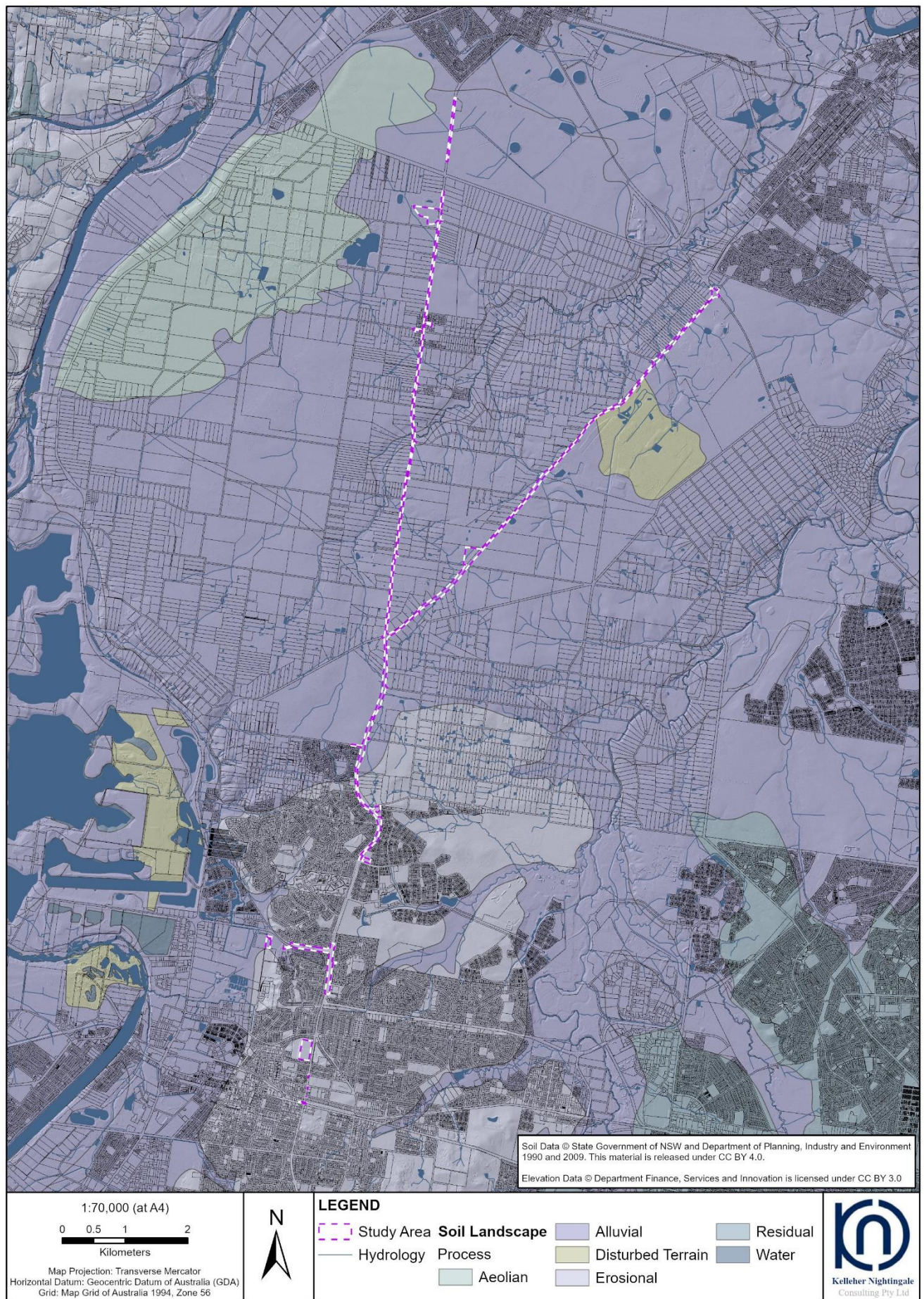


Figure 7. Soil landscapes of the study area

3 Ethnohistoric Context

Aboriginal people living throughout Australia at the time of European invasion belonged to a multitude of groups that spoke approximately 250 distinct languages and several hundred dialects. Historical descriptions of the social organisation, culture and practices of Aboriginal people living in the Sydney region at the time of European invasion is fragmentary due to the generalised nature of early European accounts which provide vague and at times contradictory information. It should also be noted that the early British accounts are observations of Aboriginal people living in the Sydney region during the late 18th and 19th centuries and should not be used to infer the cultural practices of Aboriginal people living in the preceding millennia which are highly unlikely to have been static.

The project area lies within a landscape which was important to, and intensively used by, past Aboriginal peoples (Attenbrow 2002). The diversity of the groups living in the Sydney region was apparent to the British from their earliest interactions despite having arrived with an almost total ignorance of the land and its people. The arrival of European settlers began a cataclysmic series of events which radically changed the lifestyle of Aboriginal people on the Cumberland Plain. Contact with Europeans introduced diseases, such as smallpox, that drastically altered the size and structure of the Aboriginal population, whilst the expansion of settlements and establishment of farmland subsumed the traditional areas used to meet subsistence needs (Attenbrow 2002). After their arrival in Sydney Cove in 1788, the British set about exploring the surrounding area. In the first three years of settlement many areas of the region were explored including Broken Bay, Botany Bay, Rose Hill (Parramatta), Prospect Hill and overland to the Nepean, Hawkesbury and Georges Rivers. During these explorations some of the British Officers, including Governor Phillip and Captain Watkin Tench, made a number of written observations regarding the local Aboriginal people that they met and travelled with (Attenbrow 2002:13).

Early historical observations described the Cumberland Plain as a mosaic of Aboriginal groups associated with particular areas of land. These groups were described as ‘tribes’ in many historical observations, when in fact they were more likely small territorial clans or local clans consisting of extended family groups, forming larger land-using bands linked through marriage and communal participation in subsistence gathering activities (Attenbrow 2002:22, Brook and Kohen 1991:2). The British noted a difference between the dialect of the Aboriginal people along the coast compared with those further inland on the Cumberland Plain. Captain Tench observed when two Aboriginal men from the coast conversed with an Aboriginal man further inland “they conversed on a par and understood each other perfectly, yet they spoke different dialects of the same language; many of the most common and necessary words used in life bearing no similitude, and others being slightly different” (Tench 1793:122). None of the British observations from the late 18th and early 19th Century refer to any name for the different dialects or wider language groups that they noted (Attenbrow 2002:33). It was only in the late 19th Century that the name Darug (also referred to as Daruk, Dharuk, Dharook, and Dharug) was used to refer to the language of the traditional inhabitants of the Cumberland Plain (Attenbrow 2002:33). In the early 20th Century, anthropologist/linguist R H Matthews noted that “the Dharuk speaking people adjoined the Thurrawal on the north, extending along the coast to the Hawkesbury River, and inland to what are now Windsor, Penrith, Campbelltown, and intervening towns” (Matthews 1901:155 [in Attenbrow 2002: 32]).

As well as differences in the dialect spoken between the coastal inhabitants and those further inland, the British also observed differences in subsistence activities. Brook and Kohen (1991:3) noted that “the Dharug people were apparently divided into two distinct sub-tribes: those along the coast, who lived on fish; those inland, who were frequently referred to as the ‘woods tribes’”. David Collins, deputy judge advocate and lieutenant-governor of the colony, noted that the Aboriginal people living inland, who he referred to as the ‘woods tribes’, and the Aboriginal people living along the coast had different dialects, songs, dances, subsistence and some implements (Collins 1798: 557-589). Collins noted that the inland groups had spears inlaid with stones instead of oyster shell and used a type of mesh unlike the nets of the people living along the coast (Collins 1798: 589). Tench recorded differences in the food eaten and methods used to acquire these resources between the inhabitants of the coast and those to the west of Rose Hill (Parramatta). On one occasion Tench observed a method of climbing trees for animals that involved cutting notches in the trunk and using these as toe-holds to climb the tree (Tench 1793:82).

Kohen (1986:77) explains that the Aboriginal people who lived between Parramatta and the Blue Mountains were not as dependant on fish and shellfish as groups closer to the coast, but relied on small animals and plant foods in addition to seasonally available freshwater mullet and eels. Tench (1793:230) observed that ‘they depend but little on fish, as the river yields only millets and that their principal support is derived from small animals which they kill and some roots (a species of wild yam chiefly) which they dig out of the earth’. These wild yams were found in considerable quantities along the banks of the Nepean and Hawkesbury Rivers. Berries, Banksia flowers and wild honey were also recorded as foods of the local inhabitants (Collins 1798). A particularly important plant food was the Burrawong (*Macrozamia communis*), which provided a nutritious nut that was pounded and soaked in running water to leach out toxins before the flour-like extract was made into small cakes and baked over a fire (Kohen 1993:8). Small animals provided the protein component of the Aboriginal diet on the Cumberland Plain, with hunting comprising a major economic role of the men. Along the river, traps and snares were set for bandicoots and wallabies, while decoys for snaring birds were also a commonly employed technique, ‘these are formed of underwood and reeds, long and narrow, shaped like a mound raised over a grave, with a small aperture at one end for the admission of the prey’ (Tench 1793). Possums and gliders

were particularly common in the open woodland across the Cumberland Plain and probably formed the main sources of animal food. These were hunted in a number of ways, including smoking out the animal by lighting a fire in the base of a hollow tree, burning large tracts of land and gathering the stranded animals, as well as cutting toe-holds in trees mentioned above (Kohen 1993:10; Tench 1793:82).

Not only were food resources plentiful throughout the area, so too were stone sources. In the context of the Sydney Basin, the Cumberland Plain was a region where stone materials were abundant. Today, surviving artefacts generally occur as open camp sites, surface scatters or isolated finds. Most are made of silcrete, a stone which occurs in association with the St Mary's Geological Formation. Silcrete is a brittle and resistant material consisting of detrital quartz grains embedded in a replaced clay matrix. When fractured, it breaks through the quartz grains, making it ideal to produce stone tools with durable sharp edges. Sources of silcrete occur across the Cumberland Plain, often as outcrops on ridgelines. Other stone materials available across the region were indurated mudstone/silicified tuff (IMT), chert, petrified wood, quartz, basalt, hornfels and quartzite, primarily sourced from creek or river gravels. Sandstone formations located along the Parramatta and Georges Rivers were also known to contain quartz and chert sources, as were the Hornsby and Woronora Plateaus. However, the ubiquitous occurrence of silcrete artefacts at open sites indicates it was the most accessible stone material available to Aboriginal people in the region.

Flaked stone was used for many different purposes. It was essential to produce hunting gear, shields, weapons, utensils and for day to day activities, such as animal butchery, hide working, plant food preparation and craft work. The size and shape of individual flaked stone artefacts generally prescribed their particular use. At one end of the spectrum were the larger implements which were indispensable for heavy duty chopping and scraping. At the other end were smaller implements which were crucial to precision carving, piercing and incision. Certain flaked stone was also reserved for special ceremonial practices, such as scarification. As mentioned above, the Cumberland Plain was a region where stone materials were easy to come by. In most cases, an implement was selected, for immediate use, from a mass of freshly knapped stone on the basis that it possessed a suitably sharp edge and fitted the hand well. This approach to tool production was well adapted to a highly mobile hunter-gatherer lifestyle. Importantly, people were not wasteful of stone resources. Some of the larger flaked stone implements were recycled, possibly years, or even generations, after they were discarded. For example, cores were reused as choppers, axes recycled as anvils and smaller implements were made from the fragments of larger ones. However, the secondary modification (retouch) of the working edge of an implement was undertaken infrequently and it is assumed that many unmodified flaked stone implements (i.e. flakes and flake fragments) were discarded after use with little or no detectable damage to their edges.

Non-lithic material culture was also abundant however such items rarely survive in the archaeological record. Bark and fibre containers were used for gathering food including fruits, berries, tubers and vegetables and for collecting and transporting water. Bark was also used for shields and canoes. Kangaroo and possum skins were treated and sewn into cloaks and personal accessories and adornments, important items which offered an opportunity for artistic expression laden with social meaning and were practical for warmth and protection from the elements. Woven and thatched baskets were used as carry bags and for food preparation. Hafted hatchets/axes were used to chop wood, remove bark from trees and carve toeholds in tree trunks for climbing. Woven nets and traps were used for catching birds and small game, and as fish and eel traps along watercourses and in swampy areas. The use of bark for shelters was also observed. These were described as consisting "of pieces of bark laid together in the form of an oven, open at one end, and very low, though long enough for a man to lie at full length in ... they depend less on them for shelter, than on the caverns with which the rocks abound" (Tench 1793:80). Collins observed that the huts were 'often large enough to hold six to eight people' (Collins 1798:555). These shelters were often grouped together. Given the absence of suitable sandstone outcropping on the Cumberland Plain it is likely that bark shelters such as these were used by Aboriginal people as they moved around the landscape.

The study area is not mentioned directly in any historical accounts of interactions between Aboriginal people and European settlers but it forms part of a landscape where such interactions were commonplace, especially as the British presence became entrenched. During the first half of the 19th century, the Aboriginal people of the western Cumberland Plain lived in a range of circumstances that were increasingly entangled with the British economically while also remaining socially separate. The settlements and land grants restricted access to areas that were traditionally used by Aboriginal people and drove the groups who had traditionally lived in these areas to move away or to seek employment as labourers or stockmen in settlements and on the large land grants in the region.

Aboriginal culture and cultural heritage are dynamic and continues to evolve in contemporary times. The region remains important to Aboriginal people, who have maintained their traditional ties to the area. Aboriginal culture endures to this day across the Cumberland Plain and has influenced many aspects of Australian culture including in the names of animals, localities, creeks and rivers (Walsh 1993). Members of the contemporary Aboriginal community continue to experience connection with the area through cultural and family associations.

4 Archaeological Context

Several archaeological investigations have been undertaken within and in the vicinity of the study area as part of proposed infrastructure and precinct development projects. A summary of the relevant investigations is presented in this section.

Early archaeological investigations were undertaken by Laura Jane Smith in 1988 as part of an Aboriginal site planning study for the Sydney basin. The report consisted of site survey and site analysis of Aboriginal sites located on the northern Cumberland Plain. The assessment included archaeological survey of lands within the proposed Hawkesbury Nature Reserve and along Rickabys Creek and its tributaries within Londonderry. The assessment included the north western portion of the study area corridor along Londonderry Road. Seven Aboriginal archaeological sites consisting of five artefact scatters and one isolated find were identified across the surveyed area. Sites identified as a result of the archaeological survey included four sites associated with Rickabys Creek (RC 24-27) and two sites associated with the Hawkesbury Nature Reserve (HB13 & HB14). Two of these sites RC24 (AHIMS 45-5-0062) and HB13 (AHIMS 45-5-0661) are located within proximity to the current study area bordering Londonderry Road. RC25 (AHIMS 45-5-0663) was identified within the current study area corridor. The site has since been destroyed by road construction and is no longer extant.

Prehistoric Settlement in the Western Cumberland Plain: Resources, Environment and Technology - PhD Thesis
Additional early archaeological surveys of Riverstone and Schofields were undertaken by Kohen (1986b) during research conducted for a doctoral thesis. The research included surveys conducted in the Castlereagh State Forest and at South Windsor. The assessment area comprised open woodland growing on tertiary alluvium which would have provided a range of environmental resources for Aboriginal land use. The Castlereagh State Forest displayed relatively low levels of disturbance, and was located between two major creeks: Rickabys Creek in the west and South Creek in the east. A total of 26 open context artefact scatter sites and isolated finds were identified in the Castlereagh State Forest lands. Artefacts identified were primarily complete flakes and flaked pieces, with several cores, scrapers, pebble tools and pebble fragments also identified. Raw materials were silcrete, chert, basalt, quartzite and quartz.

Four of these Aboriginal sites were recorded on AHIMS and are located within close proximity to the current study area along The Northern Road: Castlereagh State Forest CSF 7 (AHIMS 45-5-0378), Castlereagh State Forest CSF 23 (AHIMS 45-5-0387), Castlereagh State Forest CSF 1 (AHIMS 45-5-0374) and Castlereagh State Forest CSF 6 (AHIMS 45-5-0377) were recorded within proximity to the study area.

A series of Aboriginal archaeological assessments were undertaken for precinct planning related to the former Australian Defence Industries (ADI) lands located at St Marys. The former ADI site was then known as the St Marys development site. Initial targeted survey was conducted by Jo McDonald CHM Pty Ltd (JMCHM) in 1996. The assessment area covered the entirety of the St Marys development site and encompassed a portion of the current study area bordering The Northern Road (JMCHM 1997). The purpose of the assessment was to provide early quantitative data on surface exposure across the assessment area to inform the proposed management model. A total of 74 surface exposures were identified as a result of the survey. Fifty of these surface exposures contained archaeological sites comprising artefact scatters and isolated finds. A total of 471 artefacts were recorded across the St Marys development site. The majority of surface artefact scatters were of low artefact density; with only 13 of these locations containing more than ten artefacts. Archaeological sites were identified on various landforms across two catchments.

A series of test excavations were then completed across the entirety of the St Marys development site in 1997. Two of these excavated areas (SA4 and SA5) were located within the proposed western precinct bordering the current study area. Sample Area 4 (AHIMS 45-5-0702) was located in the southern portion of the proposed western precinct and was present across a creekline. Sample Area 5 (AHIMS 45-5-1044) was located towards the northern fenceline and crossed a minor tributary. Both sample areas produced significant and intact assemblages.

Subsequent salvage excavations were undertaken within the St Marys development site, prior to the construction of the Xavier College High School at two previously recorded sites: ADI-47 (AHIMS 45-5-1048) and ADI-48 (AHIMS 45-5-1049). The salvage program recovered almost 5,000 artefacts from 42 dispersed test squares and two large open area excavations. Salvage excavations revealed that this area had been occupied repeatedly as a limited use and/or 'dinner-time' camp (JMCHM 2005: 31).

Further in-depth archaeological assessment was undertaken for the proposed Western Precinct of the St Marys development site and included a portion of the current study area along The Northern Road. The assessment was undertaken by JMCHM (JMCHM 2008) and included management recommendations and outcomes. The assessment determined that a total of 39 surface archaeological sites (comprising over 250 artefacts) had been identified within the Western Precinct and that a further 7,000 artefacts had been recovered from previous sub-surface investigations. The Western Precinct assessment area was then divided into four zones with different designated management outcomes.

The assessment identified that the current study area contained a mixture of low (no further work required), moderate and high archaeological potential. No areas of very high potential (with potential for inclusion in a conservation zone) were identified within the current study area.

Archaeological assessment of a proposed fauna fence for the St Marys development site was undertaken in 2004 and 2005 (JMCHM 2005). Preliminary survey identified 12 artefact scatter sites and nine isolated finds within the western and central sectors of the St Marys development site. Raw materials consisted of silcrete, silicified tuff, chert, quartz, fine grained siliceous and igneous. Artefacts identified consisted of flakes, two cores, flake fragments with retouch and usewear, one backed artefact (silcrete bondi point), flake fragments and broken flakes. Two stone hatchet head fragments were also recorded. Open artefact scatters containing over ten artefacts were recorded on gentle slopes descending to first order and second order tributaries.

Further assessment was undertaken in 2005 within the Blacktown LGA portion of the St Marys development site. The assessment identified eight Aboriginal archaeological sites within eight survey units. These sites included seven artefact scatter sites and one isolated find. Several areas of archaeological potential were also identified on the Tertiary terrace landform and generally associated with tributaries of Ropes Creek. Artefacts identified within the survey included complete flakes, retouched flakes, broken flakes, split flakes, flake fragments and flaked pieces. Three cores were also identified. Raw materials were predominantly silcrete, with silicified tuff, quartz and grey fine grained siliceous also identified. The Aboriginal sites were all identified as being impacted by the proposed fence. The assessment determined that further archaeological investigations would be required, including archaeological subsurface testing within areas identified as having potential subsurface archaeological deposits.

Archaeological assessment was undertaken for the widening of The Northern Road between Andrews Road and Borrowdale Way. The assessment included archaeological survey, Aboriginal community consultation and the preparation of a cultural heritage assessment report. One Aboriginal archaeological site, TNR-3 (AHIMS 45-5-4302) was identified during archaeological survey. The site comprised a surface artefact scatter identified on a thin veneer of gravelly, sheet washed topsoil overlying residual bitumen from the original alignment of the Northern Road. It was determined that the artefacts had likely been washed down from more intact A Horizon soils on the margins of the road, or had been imported from elsewhere in road base materials. The artefacts consisted of a silicified tuff flake, a red silcrete distal flake fragment, an orange silcrete proximal broken flake, an indurated mudstone broken flake fragment, a silicified tuff bipolar piece and a silcrete flaked piece. All artefacts were found to have been either mechanically damaged or were broken. Several additional stone pieces were possibly road base pieces. TNR-3 comprised a highly disturbed site with no scientific significance (JMCHM 2011: 17). The assessment determined that The Northern Road assessment area contained areas of low or no archaeological sensitivity. The majority of the road corridor proposed for widening had been previously impacted by road construction. The assessment confirmed that no further archaeological mitigation was required; it was recommended that an AHIP be sought for the proposal.

4.1 Stage 2 PACHCI Archaeological Survey Report (KNC 2023)

KNC was engaged by Transport to prepare an Aboriginal archaeological survey report to inform the Preliminary Environmental Investigation for the proposed works (KNC 2023). The assessment area for the Stage 2 PACHCI assessment is shown on Figures 8-11 and comprised Londonderry Road from Southee Road, Richmond to The Northern Road/ Cranebrook Road intersection, Cranebrook; and The Northern Road from Richmond Road, Bligh Park to Great Western Highway, Penrith.

The assessment included a review of the landscape context, previous archaeological investigations and an archaeological field survey. The assessment noted that previous archaeological investigations had shown that higher density artefact scatters were often located along Rickabys Creek where permanent water and associated environmental resources would have been favourable for occupation by Aboriginal people. A review of background information, AHIMS records and previous archaeological assessments identified nine previously registered Aboriginal archaeological sites within the assessment area, including: HB13, RC24, RC25, Castlereagh State Forest CSF 7, Castlereagh State Forest CSF 23, ADI 32, ADI 23, ADI 24 and TNR-3. These sites comprised low density surface artefact scatters and isolated finds (Figures 8-11).

The archaeological survey was undertaken by KNC and Deerubbin Local Aboriginal Land Council (DLALC) in November 2022 and encompassed a portion of the Londonderry Road, The Northern Road and Cranebrook Road corridors as well as an additional buffer either side of the road corridor. Despite the presence of disturbance across the study area, a number of Aboriginal archaeological sites were identified as a result of archaeological survey, including the nine previously recorded sites and six newly recorded sites. Sites identified comprised artefact scatters and isolated finds. Artefacts associated with previously recorded sites could not be relocated, the majority of previously recorded sites exhibited high levels of disturbance since their original recordings. Newly recorded sites within the assessment area included: Wianamatta Nature Reserve AFT 1, Wianamatta Nature Reserve IF 1, Wianamatta Nature Reserve AFT 2, Wianamatta Nature Reserve IF 2, Wianamatta Nature Reserve AFT 3 and Dunheved Road AFT 1.

Survey revisited the location of previously registered sites ADI 32 and RC 25 and confirmed that these sites had been destroyed by development works and road construction and were no longer extant within the assessment area. Survey confirmed ten extant sites within the assessment area.

In addition to the identified Aboriginal archaeological sites, areas of archaeological sensitivity were also recorded across the assessment area. Areas of archaeological sensitivity were recorded on landforms generally associated with good archaeological potential. These areas were located within proximity to water sources and where disturbance levels were generally low. Areas of archaeological sensitivity were designated as “LR” (Londonderry Road) “TNRN” (The Northern Road - North), “TNRS” (The Northern Road- South) and “CR” (Cranebrook Road) based on their location within the assessment corridor and which survey unit they were recorded in (Figures 8-11).

The archaeological field survey found that overall ground surface exposure across the surveyed area was low and restricted to areas where natural processes or land use practices including erosion, vehicle movement and disturbance had removed vegetation or restricted its growth. Limitations to visibility within these areas included detritus and introduced material such as blue metal adjacent to the road. The ground surface was not visible within the majority of the surveyed area due to dense grasses and other vegetation cover in addition to agricultural, commercial and residential structures and roads. The majority of the road corridor was found to be highly disturbed with low to no potential for intact archaeological deposits.

Significance assessment was undertaken of the Aboriginal archaeological sites on the basis of site intactness/integrity, landform context and archaeological research potential. One Aboriginal site was found to exhibit moderate archaeological significance, five sites exhibited low-moderate archaeological significance and nine sites exhibited low archaeological significance

Based on a assessment area wide impact assessment, any extant Aboriginal archaeological sites and the identified areas of archaeological sensitivity would have been at least partially impacted by the proposed works. Three sites identified within the Stage 2 assessment area were considered unlikely to be impacted by the preliminary design: Wianamatta Nature Reserve AFT 1, Wianamatta Nature Reserve AFT 3 and Dunheved Road AFT 1.

It was identified that additional assessment was required under Stage 3 of the PACHCI to determine impacts. It was recommended that future design for the project should take the location of the identified sites into consideration and avoid impact where possible. If impact to identified sites could not be avoided, an AHIP would be required prior to impacting Aboriginal archaeological sites.

Stage 3 PACHCI – Additional Archaeological Assessment

Additional survey was undertaken by KNC and DLALC in November 2023 to assess impacts to Aboriginal archaeological sites and areas of archaeological sensitivity identified within the refined Stage 3 PACHCI study area corridor. Additional survey refined the previously identified areas of archaeological sensitivity to confirmed areas of PAD. The locations of previously registered sites ADI 32 and RC 25 were revisited. Additional survey confirmed that these sites had been destroyed by road construction and residential development works. These sites are no longer extant and have been updated on the AHIMS database to reflect their destroyed status. These sites are not considered further for the Stage 3 PACHCI assessment.

[Figure removed from public document]

Figure 8. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023)

[Figure removed from public document]

Figure 9. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023)

[Figure removed from public document]

Figure 10. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023)

[Figure removed from public document]

Figure 11. Stage 2 PACHCI Survey results –Aboriginal archaeological sites and areas of archaeological sensitivity (KNC 2023)

5 Aboriginal Community Consultation

5.1 Stakeholder identification and registration of interest

Transport is committed to effective consultation with Aboriginal communities regarding Transport activities and their potential for impact on Aboriginal cultural heritage. The Transport PACHCI was developed to provide a consistent means of effective consultation with Aboriginal communities regarding activities which may impact on Aboriginal cultural heritage and a consistent assessment process for Transport activities across NSW.

The aim of consultation is to integrate cultural and archaeological knowledge and ensure registered Aboriginal parties have information to make decisions on Aboriginal cultural heritage. For the preparation of this CHAR, consultation with Aboriginal people has been undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010b) and the requirements of Clause 60 of the *National Parks and Wildlife Regulation 2019*.

Transport advertised in local media (Appendix A) and contacted potential Aboriginal stakeholders identified from government agency notification responses. Transport invited Aboriginal people who hold knowledge relevant to determining the cultural heritage significance of Aboriginal objects and Aboriginal places in the area in which the proposed activity is to occur to register an interest in a process of community consultation. Investigations for the project have included consultation with the 22 Aboriginal community groups and individuals as listed in Table 1 below.

Table 1. Registered Aboriginal parties

| Registered Aboriginal party | Representative and/or Contact Person |
|-------------------------------------------------------|--------------------------------------|
| Deerubbin Local Aboriginal Land Council | CEO |
| A1 Indigenous Services Pty Ltd | Carolyn Hickey |
| Amanda Hickey Cultural Services | Amanda Hickey |
| Bariyan Cultural Connections | Kayelene Terry |
| Barraby Cultural Services | Lee Field |
| Darug Custodian Aboriginal Corporation | Justine Coplin |
| Didge Ngunawal Clan | Paul Boyd & Lilly Carroll |
| Gunjee Wong Cultural Heritage Aboriginal Corporation | Shayne Dickson |
| Guntawang Aboriginal Resources Inc | Wendy Morgan |
| Kamilaroi Yankuntjatjara Working Group | Phil Khan |
| Kelvin Boney | Kelvin Boney |
| Konanggo Aboriginal Cultural Heritage Services | Robert Young |
| Mundawari Heritage Consultants | Dean Delponte |
| Muragadi Heritage Indigenous Corporation | Jesse Johnson |
| Murra Bidgee Mullangari Aboriginal Corporation | Darleen Johnson |
| Ngambaa Cultural Connections | Kaarina Slater |
| Raw Cultural Healing | Raymond Weatherall |
| Wailwan Aboriginal Group | Philip Boney |
| Widescope Indigenous Group | Donna and Steven Hickey |
| Wurrumay Pty Ltd | Vicky Slater |
| Yulay Cultural Services | Arika Jalomaki |
| Yurrandaali Cultural Services | Bo Field |
| Registered Aboriginal stakeholder (details withheld)* | Details withheld |

*NB. One stakeholder chose to withhold their contact details in accordance with item 4.1.5 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.

The formal consultation process has included:

- advertising for registered Aboriginal parties (Appendix A);
- government agency notification letters;
- invitation to potential stakeholders to consult during the assessment;
- notification of closing date for registration;
- notification of registrant list to Heritage NSW and LALC;
- provision of proposed archaeological and CHAR assessment methodology (28 day review period ending 24/11/2023) outlining the methodology;
- Aboriginal Focus Group (AFG) meeting held during review period to discuss investigation results and proposed assessment methodology (minutes attached in Appendix B);
- ongoing compilation of registrants list, through continuing to register individuals and groups for consultation on the project;
- provision of draft CHAR for review (a 28 day review period ending will be provided);
- Second AFG meeting held during review period to discuss the findings of the draft CHAR and any additional comments regarding cultural values of the study area (minutes attached in Appendix B);
- ongoing consultation with the local Aboriginal community.

A consultation log is included in Appendix D [will be attached to finalised report].

5.2 Provision of proposed assessment methodology

Registered stakeholders were provided with a copy of the proposed assessment methodology on 27/10/2023. Stakeholders were requested to review the information and provide any comments or cultural information that may affect, inform or refine the methodology. Responses were received from four stakeholders: A1 Indigenous Services Pty Ltd (A1), Darug Custodians Aboriginal Corporation (DCAC), Kamilaroi-Yankuntjatjara Working Group (KYWG) and Muragadi Heritage Indigenous Corporation (Muragadi). Responses are attached in full in Appendix C.

A1 stated that they had reviewed the methodology and information provided, and supported the recommendations within the document (email dated 20/11/2023).

DCAC stated that they did not support the proposed assessment methodology, as the document provided did not contain enough detail for them to understand the nature of the project, the potential for heritage impact or the proposed assessment methodology. DCAC requested 'clear and detailed mapping of the study area, detailed description and mapping of known Aboriginal heritage values (including AHIMS sites and areas of potential within and close to the study area), detailed description and mapping of proposed works, preliminary impact assessment management options that will be considered to avoid Aboriginal heritage impact and details of the proposed fieldwork components of the assessment. Additionally, they requested additional time to review this information once provided (letter/ email dated 14/11/2023). *A copy of the current draft CHAR will be provided to DCAC and other registered Aboriginal stakeholders. This document should provide DCAC with the information requested.*

KYWG recommended investigating the study area further and stated that they looked forward to working together on the project (email dated 27/11/2023).

Muragadi stated they had reviewed the assessment methodology and agreed with the proposed approach (email dated 22/11/2023).

Stakeholders were also invited to attend an AFG meeting during the review period to discuss the proposed assessment methodology. The AFG meeting was held on 10 November 2023 and was attended by representatives from Transport, KNC and registered Aboriginal stakeholder groups and individuals.

Stakeholder AFG attendees generally expressed agreement with the proposed assessment methodology and discussions held at the AFG did not result in any changes to the methodology.

5.3 Stakeholder responses to draft CHAR

The draft CHAR was provided to stakeholders for a 28 day review and comment period (letters dated 22/01/2024). Stakeholders were invited to comment on the Aboriginal cultural significance of the study area and the identified sites along with the management recommendations presented in the report. One formal response was received from KYWG.

KYWG stated that they agreed with and supported the recommendations for the project (email dated 16/02/2024).

5.4 Aboriginal Focus Group Meeting

An AFG was held on 7 February 2024 during the CHAR review period to discuss the project, the findings of the draft CHAR and any additional comments regarding cultural values of the study area. No specific questions regarding the Aboriginal heritage assessment and outcomes were raised by the attendees. Stakeholders were in general agreement with the outcomes for the Aboriginal heritage assessment for the project. No further comment on the cultural values of the study area were provided. AFG meeting minutes are attached in Appendix B.

5.5 Aboriginal cultural heritage values

The study area has cultural value for the local Aboriginal community. The identified cultural value includes a feeling of attachment and responsibility for the land. These values become tangible when tied to identified Aboriginal objects found at archaeological sites. In this way, the Aboriginal objects can be seen as exhibiting both scientific information and cultural meaning, knowledge about the past tied with social values and belief systems. The presence of Aboriginal objects is not required for a site to hold value for the Aboriginal community. Aboriginal sites may have social, spiritual or landscape values which are not tangible. Some of the Aboriginal cultural heritage values expressed by stakeholders for the project footprint and wider region include:

- Responsibility to look after the land, including the heritage sites, plants and animals, creeks, rivers, and the land itself
- Artefact sites and landscape features
- Culturally modified trees
- Intangible sites of spiritual significance
- Connectivity of sites and pathways throughout the landscape
- Creek lines, particularly larger landscape features and waterways such as Rickabys Creek and the Hawkesbury River
- Indigenous plants and animals
- General concern for burials, as their locations are not always known, and they can be found anywhere.

KYWG expressed the high cultural significance of the local area, particularly noting that waterways such as the Hawkesbury and Nepean rivers would have been utilised by Aboriginal people for environmental resources, camping, ceremonies and potentially burials (email dated 27/11/2023).

Specific cultural values for the identified archaeological sites within the study area have not been identified by stakeholders to date.

6 Summary and Analysis of Background Information

Analysis of the background information presented in Sections 2, 3, 4 and 5 allows an assessment of the Aboriginal cultural heritage values within the study area to be made. Combining data from historical/ethnographic sources, Aboriginal community consultation, landscape and environmental evaluation and archaeological context provides an insight into how the landscape around the study area was used and what sort of events took place in the past. This section draws together a variety of information to bring further understanding to the archaeological cultural landscape of the study area.

The study area and surrounding region are known to have been important to and extensively used by past Aboriginal people. Language group mapping places the study area within the traditional lands of the Darug language group. Interaction between groups was common as people frequently travelled across country for economic, social and ceremonial reasons. 'Borders' between clan and language groups could be fluid rather than static 'lines on a map', expanding and contracting over time to the movements of smaller family or clan groups. These boundaries ebbed and flowed through contact with neighbours, the seasons and periods of drought and abundance. Darug groups around the study area would have interacted with numerous other groups for initiation ceremonies, arrangement of marriages, corroborees, trade and exchange and the discussion and establishment of lore. The complex network of people's connections to and across Country forms a key part of the cultural landscape.

Early colonial interest in the area led to interactions between the British and the local Aboriginal people relatively soon after the arrival of Europeans to Australia. Aboriginal people's use of the wider Cumberland Plain is well-documented in historic accounts and the area has demonstrated cultural importance and value to the contemporary Aboriginal community. In particular, the cultural value of the Nepean and Hawkesbury Rivers has been identified. Stakeholders expressed that they had a responsibility to look after the land, including the heritage sites, plants and animals, creeks and the land itself. Aboriginal community consultation undertaken for the current project has demonstrated that members of the contemporary Aboriginal community continue to experience connection with the area through cultural and familial associations.

Archaeological investigations have been undertaken in the region over several decades that have revealed physical traces of a range of Aboriginal land use activities which have survived in the form of Aboriginal archaeological sites. The Aboriginal archaeological sites identified in the region have been predominantly surface artefact scatters, isolated artefacts and subsurface archaeological deposits of varying artefact density and integrity. Soil landscape, vegetation and land use practices have been identified as factors influencing the preservation of Aboriginal archaeological sites in the region. Soil landscapes subject to high levels of erosion or fluvial activity are unlikely to retain in situ Aboriginal objects while areas where sediment has been deposited often contain Aboriginal objects that are without spatial context. Stable, residual or alluvial soil landscapes with low levels of disturbance are most likely to contain intact subsurface deposits.

Previous archaeological investigations have shown that the distribution of Aboriginal archaeological sites in the region is also highly influenced by the reliability and permanence of fresh water sources in addition to underlying geology. Investigations in the region have found higher stone artefact density and site frequency along the margins of major watercourses where elevated and stable micro-topographic landforms have suffered minimal disturbance. Elevated locations on hilltops and ridge crests further from major watercourses tend to display a different archaeological signature, chiefly a sparser artefact distribution and less evidence for 'everyday' or utilitarian activities, suggesting that these areas were often used differently.

Stone tool production and maintenance took place when people spent time in these areas as well as on an ad hoc basis in response to current needs while people moved throughout the landscape. The dominance of silcrete in local assemblages is related to the ubiquity of this raw material throughout large areas of the Cumberland Plain. Landscape features such as waterways would have provided a focus for access to varied raw materials via water-transported and deposited cobbles and pebbles, as well as riparian resources and fresh water. The preservation of archaeological deposit which provides evidence for Aboriginal activities is dependent on several factors, the most important of which affecting the current study area are modern landuse practices including road construction and adjacent development. While Aboriginal objects may exist in any location within the landscape, areas of low disturbance retain the archaeological and cultural context that gives these objects meaning.

The PACHCI Stage 3 assessment identified a total of eight extant Aboriginal archaeological sites at least partially within the study area. Site locations are shown in Figures 12-13 with site descriptions given below.

[Figure removed for public document]

Figure 12. Identified Aboriginal archaeological sites within the study area

[Figure removed from public document]

Figure 13. Identified Aboriginal archaeological sites within the study area

6.1 Summary of identified Aboriginal archaeological sites within the study area

Review of background information, Aboriginal community consultation, and archaeological assessment has resulted in the identification of eight extant Aboriginal archaeological sites within the study area. These sites represent areas of Aboriginal cultural heritage value and are listed in Table 2 below.

Table 2. Identified Aboriginal archaeological features within the study area

| Name | AHIMS | Site Feature |
|---------------------------------|-------|-------------------------------|
| Wianamatta Nature Reserve AFT 3 | tbc | Artefact (surface scatter) |
| Londonderry Road PAD 11 | tbc | PAD |
| Londonderry Road PAD 13 | tbc | PAD |
| Londonderry Road PAD 15 | tbc | PAD |
| The Northern Road North PAD 7 | tbc | PAD |
| The Northern Road North PAD 21 | tbc | PAD |
| The Northern Road South PAD 10 | tbc | PAD |
| The Northern Road South PAD 12 | tbc | PAD |

Site Name: Wianamatta Nature Reserve AFT 3

AHIMS ID: tbc

Site Wianamatta Nature Reserve AFT 3 was a low density open artefact scatter

One silcrete flake was recorded on the bend in the track, with an additional artefact (silicified tuff flake) recorded a further 40 metres to the west. Visibility was approximately 50%; impeded by abundant small ironstone gravels. The site was recorded on a level tertiary terrace/flat landform. The site had been subject to land clearing activities. Vegetation within proximity to the site consisted of regrowth Broad-leaved Ironbark, with Paperbark and low native shrubs. Other nearby species included Parramatta Red Gum and Thin-leaved Stringybark. The site was assessed as having low to moderate archaeological potential. The site had been subject to some disturbance related to previous vegetation clearing, use of the track by vehicles, sheet erosion, and compaction from bikes.

Site Name: Londonderry Road PAD 11

AHIMS ID: tbc

Londonderry Road PAD 11 was initially identified as an area of archaeological sensitivity (LR 11) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was identified on a cleared, level grassy block located on an upper slope landform which descended to Rickabys Creek. Ground surface visibility at the time of survey was poor as a result of heavy leaf litter, with many pebbles and cobbles identified on the surface. Localised disturbance was present in the form of buried water and fibre optic services.

Site Name: Londonderry Road PAD 13

AHIMS ID: tbc

Londonderry Road PAD 13 was initially identified as an area of archaeological sensitivity (LR 13) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was confirmed to be located to the east of a drainage line leading to a culvert. The PAD area was characterised by regrowth and remnant native vegetation. Londonderry Road PAD 13 demonstrated low levels of visible disturbance.

Site Name: Londonderry Road PAD 15

AHIMS ID: tbc

Londonderry Road PAD 15 was initially identified as an area of archaeological sensitivity (LR 15) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was identified within an area characterised by growth and remnant native vegetation. Londonderry Road PAD 15 demonstrated low levels of visible disturbance.

Site Name: The Northern Road North PAD 7
AHIMS ID: tbc

The Northern Road North PAD 7 was initially identified as an area of archaeological sensitivity (TNRN 7) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was identified adjacent to a tributary of Rickabys Creek. Road cutting exposures showed that soils at this location overlie Rickabys Creek gravels suitable for artefact manufacture. The PAD area adjacent to the road corridor displayed relatively low levels of visible disturbance.

Site Name: The Northern Road North PAD 21
AHIMS ID: tbc

The Northern Road North PAD 21 was initially identified as an area of archaeological sensitivity (TNRN 21) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was confirmed to contain relatively undisturbed bushland, including tall, mature scribbly gums.

Site Name: The Northern Road South PAD 10
AHIMS ID: tbc

The Northern Road North PAD 10 was initially identified as an area of archaeological sensitivity (TNRS 10) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was identified within an area containing by growth and remnant native vegetation. The Northern Road South PAD 10 demonstrated low levels of visible distance.

Site Name: The Northern Road South PAD 12
AHIMS ID: tbc

The Northern Road North PAD 12 was initially identified as an area of archaeological sensitivity (TNRS 12) as a result of archaeological survey undertaken during the Stage 2 PACHCI assessment for the current project (KNC 2023). Additional survey refined the area of sensitivity to an area of potential archaeological deposit. The PAD area was refined as a result of better visibility at the time of the most recent survey and the increased visibility of existing land use disturbance.

7 Cultural Heritage Values and Statement of Significance

7.1 Significance assessment criteria

One of the primary steps in the process of cultural heritage management is the assessment of significance. Not all sites are equally significant and not all are worthy of equal consideration and management (Sullivan and Bowdler 1984, Pearson and Sullivan 1995:7). The determination of significance can be a difficult process as the social and scientific context within which these decisions are made is subject to change (Sullivan and Bowdler 1984). This does not lessen the value of the heritage approach, but enriches both the process and the long-term outcomes for future generations, as the nature of what is conserved and why, also changes over time.

Significance assessments can generally be described under three broad headings (Pearson and Sullivan 1995:7):

- value to groups such as Aboriginal communities
- value to scientists and other information gatherers
- value to the general public in the context of regional, state and national heritage.

The assessment of significance is a key step in the process of impact assessment for a proposed activity as the significance or value of an object, site or place will be reflected in resultant recommendations for conservation, management or mitigation.

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH 2010a) requires significance assessment according to criteria established in the *Australia ICOMOS Burra Charter* (Australia ICOMOS 2013). The *Burra Charter* and its accompanying guidelines are considered best practice standard for cultural heritage management, specifically conservation, in Australia. Guidelines to the *Burra Charter* set out five criteria for the assessment of cultural significance:

- Aesthetic value - relates to the sense of the beauty of a place, object, site or item;
- Historic value - relates to the association of a place, object, site or item with historical events, people, activities or periods;
- Scientific value - scientific (or research) value relates to the importance of the data available for a place, object, site or item, based on its rarity, quality or representativeness, as well as on the degree to which the place (object, site or item) may contribute further substantial information; and
- Social value - relates to the qualities for which a place, object, site or item has become a focus of spiritual, political, national or other cultural sentiment to a group of people. In accordance with the *Heritage NSW Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*, the social or cultural value of a place (object, site or item) may be related to spiritual, traditional, historical or contemporary associations. "Social or cultural value can only be identified through consultation with Aboriginal people" (OEH 2011a:8).
- Spiritual value - refers to the intangible values and meanings embodied in or evoked by a place which make it important to the spiritual identity, traditional knowledge, art or practices of a cultural group. Spiritual value is strongly connected to social value.

Significance assessment for identified archaeological sites focusses on the social/spiritual, historic, scientific and aesthetic significance of Aboriginal heritage values as identified in *The Burra Charter* (Australia ICOMOS 2013). The identification of significance is developed in consultation with the registered Aboriginal stakeholders. Assessed values for the site within the study area are detailed below.

7.1.1 Cultural / social values

This area of assessment concerns the value/s of a place, feature or site to a particular community group, in this case the local Aboriginal community. Aspects of social significance are relevant to sites, objects and landscapes that are important or have become important to the local Aboriginal community. This importance involves both traditional links with specific areas as well as an overall concern by Aboriginal people for sites generally and their continued protection. Aboriginal cultural significance may include social, spiritual, historic and archaeological values and is determined by the Aboriginal community. It has been identified during the consultation process that the local area has cultural heritage value (social value) to the registered Aboriginal stakeholders and the wider Aboriginal community.

It has been identified during the consultation process that the local area has cultural heritage value (social value) to the local Aboriginal community. No specific cultural or social values for the sites within the study area were provided by the registered Aboriginal stakeholders following the review of the draft CHAR.

7.1.2 *Historic values*

Community consultation and historical research has not identified any information regarding specific historical significance of identified Aboriginal archaeological sites in or near the study area. No specific historical values for the sites within the study area were provided by the registered Aboriginal stakeholders following the review of the draft CHAR. Archaeologically, the study area does not contain these values in relation to Aboriginal heritage.

7.1.3 *Scientific / archaeological values*

For archaeologists, scientific significance refers to the potential of a site to contribute to current research questions. Alternately, a site may be an in situ repository of demonstrably important information, for example rare artefacts of unusually high antiquity.

Scientific significance is assessed using criteria to evaluate the contents of a site, state of preservation, integrity of deposits, representativeness of the site type, rarity/uniqueness and potential to answer research questions on past human behaviour. Heritage NSW's recommended criteria for assessing archaeological significance include:

- Archaeological Research Potential - significance may be based on the potential of a site or landscape to explain past human behaviour and can incorporate the intactness, stratigraphic integrity or state of preservation of a site, the association of the site to other sites in the region (connectivity), or a datable chronology.
- Representativeness - all sites are representative of those in their class (site type/subtype) however the issue here relates to whether particular sites should be conserved to ensure a representative sample of the archaeological record is retained. Representativeness is based on an understanding of the regional archaeological context in terms of site variability in and around the study area, the resources already conserved and the relationship of sites across the landscape.
- Rarity – which defines how distinctive a site may be, based on an understanding of what is unique in the archaeological record and consideration of key archaeological research questions (i.e., some sites are considered more important due to their ability to provide certain information). It may be assessed at local, regional, state and national levels.

High significance is usually attributed to sites which are so rare or unique that the loss of the site would affect our ability to understand an aspect of past Aboriginal use/occupation of an area. In some cases, a site may be considered highly significant because it is now rare due to destruction of the archaeological record through development.

Moderate (medium) significance is attributed to sites which provide information on an established research question. Sites with moderate significance are those that offer the potential to yield information that will contribute to the growing holistic understanding of the Aboriginal cultural landscape of the project area. Archaeological investigation of moderately significant sites will contribute knowledge regarding site type interrelationships, cultural use of landscape features and occupation patterns.

Low significance is attributed to sites which cannot contribute new information about past Aboriginal use/occupation of an area. This may be due to site disturbance or the nature of the site's contents.

7.1.4 *Aesthetic values*

Aesthetic values are often closely related to the social values of a site or broader cultural landscape. Aspects may include scenic sights, smells and sounds, architectural fabric and creative aspects of a place.

Regarding Aboriginal sites identified within the study area, no specific aesthetic values have been identified by registered Aboriginal parties to date. No specific aesthetic values for the sites within the study area were provided by the registered Aboriginal stakeholders following the review of the draft CHAR. Archaeologically; the study area does not contain these values.

7.2 Statements of Significance

The project assessed eight extant Aboriginal archaeological sites within the study area. The scientific significance/potential of recorded Aboriginal archaeological sites within the study area ranges from low-moderate to moderate. This assessment is based on a consideration of the research potential, representativeness, intactness and rarity of the sites. Sites may display a combination of assessed significance values. Assessed significance/potential is listed in Table 3.

Wianamatta Nature Reserve AFT 3, The Northern Road South PAD 10 and The Northern Road South PAD 12 exhibited low-moderate archaeological significance/potential. These sites represent a commonly occurring type of site in the region (artefact scatters and isolated artefacts) and have been subject to localised land use disturbance. Despite this, these sites are located in spatially significant locations and may offer good research potential. Research potential for Wianamatta Nature Reserve AFT 3, The Northern Road South PAD 10 and The Northern Road South PAD 12 is low-moderate and further investigation would contribute to our understanding of how the resources of Rickabys Creek and its tributaries were utilised by past Aboriginal people.

Londonderry Road PAD 11, Londonderry Road PAD 13, Londonderry Road PAD 15, The Northern Road North PAD 7 and The Northern Road North PAD 21 exhibited moderate archaeological potential. These PAD areas were primarily identified on tertiary terrace landforms within proximity to Rickabys Creek and its tributaries. Archaeological potential at these PADs was attached to the relatively intact nature of the soils, low levels of visible disturbance and an expected range of artefacts. Research potential for these PADs is moderate and further investigation would contribute to our understanding of how the resources of Rickabys Creek and its tributaries were utilised by past Aboriginal people.

Based on the values assessment, the following levels of significance were attached to the Aboriginal archaeological sites within the study area, as summarised in Table 3 below.

Table 3. Summary of significance/potential of archaeological features located in the study area

| Name | AHIMS | Site Feature | Assessed significance/ potential |
|---------------------------------|-------|--------------------|-------------------------------------|
| Wianamatta Nature Reserve AFT 3 | tbc | Artefact (surface) | Low-Moderate |
| Londonderry Road PAD 11 | tbc | PAD | Moderate |
| Londonderry Road PAD 13 | tbc | PAD | Moderate |
| Londonderry Road PAD 15 | tbc | PAD | Moderate |
| The Northern Road North PAD 7 | tbc | PAD | Moderate |
| The Northern Road North PAD 21 | tbc | PAD | Moderate |
| The Northern Road South PAD 10 | tbc | PAD | Low-Moderate |
| The Northern Road South PAD 12 | tbc | PAD | Low-Moderate |

8 Impact Assessment

8.1 The proposed activity

The ‘proposal’ is the State Roads component of works under the Hawkesbury Nepean Valley Flood Resilience Road Improvements Program. The State Roads component of the Hawkesbury Nepean Valley Flood Resilience Road Improvements includes improvements to The Northern Road and Londonderry Road. The proposal area generally includes the road corridors of The Northern Road, Londonderry Road, Andrews Road and Vincent Road as follows:

- The Northern Road between the intersection with Richmond Road/Blacktown Road, Bligh Park in the north, and Borrowdale Way, Cranebrook in the south
- Londonderry Road from 270 metres south of Southee Road, Hobartville to the intersection with The Northern Road, Llandilo excluding approximately 270 metres north and 300 metres south of the existing intersection at The Driftway, Londonderry
- Route A9 (The Northern Road/Richmond Road) from 130 metres north of Andrews Road, Cranebrook south to Boomerang Place, Cambridge Gardens
- Andrews Road, Cranebrook from The Northern Road to the Andrews Road Baseball Complex west of Greygums Road, Cranebrook
- Vincent Road, Cranebrook, for approximately 70 metres west from The Northern Road
- Identified isolated areas along Route A9 (Richmond Road/Parker Street) between Gascoigne Street and Great Western Highway, Kingswood for the installation of flood evacuation signage.

The proposal area includes a buffer from the outer edge of the designed works to facilitate construction work. The buffer is generally ten metres in width but is reduced to six metres or less in specific areas, to minimise impacts on sensitive areas. Key features of the proposal include:

- Widening of the southbound shoulder pavement on the following roads, a total of approximately 20 kilometres, to provide a second outbound lane reserved for drivers to use during emergency flood evacuations. This will include culvert and drainage extensions to accommodate a wider road corridor, and connecting drainage along:
 - Londonderry Road between Southee Road and The Northern Road, Londonderry
 - The Northern Road between Richmond Road and Borrowdale Way, in Londonderry, Berkshire Park, Cranebrook, Llandilo, and Jordan Springs
- Drainage improvements including upgrades to culvert crossings, drainage channels, and pit and pipe networks at identified locations to improve resilience in localised flooding events.
- Raising of low points along sections of The Northern Road.
- Extend, replace or add new culverts at selected locations along Londonderry Road and The Northern Road to maintain property access (e.g. driveways) as required.
- Realignment of The Northern Road, Cranebrook (within the road corridor), between around 330m north of Seventh Avenue, Llandilo to around 280m south of Vincent Road, Cranebrook to reduce project impacts on adjacent sensitive receivers and improve road safety.
- Adjustments to intersections to facilitate a secondary outbound lane for drivers to use during a flood evacuation event.
- Installation of new signage to be displayed during emergency flood evacuations to facilitate a second left turn at the existing Parker Street/Great Western Highway intersection in Penrith under traffic control.
- Adjustments as required to connect Londonderry Road and The Northern Road to local roadways, side roads and access roads.
- Relocation and/or adjustments of various road furniture (such as signage, road safety barriers, street lighting, kerb and island adjustment etc) throughout the proposal area.
- Relocation of bus stops.
- Utility and driveway adjustments as required within the proposal area.
- Landscaping as required.
- Provision of temporary ancillary facilities to support the construction works including office and staff amenities, site compound and laydown areas.

8.2 Impact reduction/avoidance

Transport is committed to seeking project outcomes that protect and preserve Aboriginal heritage wherever possible. Early identification of Aboriginal heritage in the assessment process allows this to be considered during design where there is construction flexibility along the route. For the current proposal, the proposed route is largely constrained by topography/hydrology and the location of the existing road corridors. A larger study area corridor was assessed for the PACHCI Stage 2 in order to ensure Aboriginal heritage values in the immediate vicinity were captured during the assessment process. Detailed review of other archaeological investigations undertaken in the immediate area has also allowed for a clear understanding of the archaeological landscape.

Locating the proposed infrastructure improvements along the same corridor previously disturbed by road construction and various services reduces the overall environmental impact of the project, in comparison to the construction of a new road. This results in a partial level of impact to three of the moderate significance sites identified adjacent to these disturbed corridors. This reduces the overall impact to Aboriginal cultural heritage; however, some level of impact is unavoidable due to the position of the existing road.

8.3 Proposed impacts to Aboriginal archaeological sites

Background research and field assessment under Stages 2 and 3 of the PACHCI have identified eight Aboriginal archaeological sites partially within the study area. Sites display a range of archaeological value and have been assessed as displaying scientific significance varying from moderate to low-moderate.

The impact assessment is shown in Figures 14-15. While conservation and avoidance are the best approach when considering Aboriginal heritage, some level of ground disturbance and impact to the identified archaeological sites is unfortunately unavoidable due to the construction requirements of the road improvements and topographic context of the sites. Proposed impacts to the Aboriginal archaeological sites within the study area (based on a corridor-wide assessment) are detailed in Table 4.

Table 4. Impact of proposed activities on Aboriginal archaeological sites within the study area

| Name | AHIMS | Nature/Extent of Impact | Significance of Impact | Consequence of Impact |
|---------------------------------|-------|-------------------------|------------------------|-----------------------|
| Wianamatta Nature Reserve AFT 3 | tbc | Direct / Partial | Low-Moderate | Partial loss of value |
| Londonderry Road PAD 11 | tbc | Direct / Partial | Moderate | Partial loss of value |
| Londonderry Road PAD 13 | tbc | Direct / Partial | Moderate | Partial loss of value |
| Londonderry Road PAD 15 | tbc | Direct / Partial | Moderate | Partial loss of value |
| The Northern Road North PAD 7 | tbc | Direct / Partial | Moderate | Partial loss of value |
| The Northern Road North PAD 21 | tbc | Direct / Partial | Moderate | Partial loss of value |
| The Northern Road South PAD 10 | tbc | Direct / Partial | Low-Moderate | Partial loss of value |
| The Northern Road South PAD 12 | tbc | Direct / Partial | Low-Moderate | Partial loss of value |

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Figure 14. Study area (impact area) and Aboriginal heritage

[Figure removed from public document]

Figure 15. Study area (impact area) and Aboriginal heritage

9 Mitigating Harm

9.1 Ecologically Sustainable Development Principles

The CHAR has evaluated the potential harm of the project on Aboriginal archaeological heritage in terms of Ecologically Sustainable Development (ESD). The principles of ESD are defined in Section 6 of the NSW *Protection of the Environment Administration Act 1991*. The ESD principles relevant to Aboriginal cultural heritage within the proposal area are the Precautionary Principle and the Principle of Inter-Generational Equity. The application of these principles in relation to the current proposal is discussed below.

9.1.1 The Precautionary Principle

The Precautionary Principle states “that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation”.

The identified Aboriginal archaeological sites have been considered by Transport in relation to the proposed road improvements construction and associated activities. A larger area was investigated as part of the initial PACHCI Stage 2 assessment in order to provide options for Aboriginal archaeological site avoidance where possible. Refinement of the initial assessment corridor (PACHCI 2) as part of the long term project planning process has enabled avoidance of several sites. PACHCI Stage 3 assessment further clarified the nature of existing recorded sites and areas of PAD, and refined the areas identified as requiring further investigation. While conservation is the best approach when considering Aboriginal heritage, the complete avoidance of all Aboriginal archaeological sites within the study area is not possible due to the requirements of the proposal and limited area in which it could occur.

The Aboriginal sites located within the study area have all been impacted to some degree by natural processes and by past landuse activities and would continue to be impacted by these factors regardless of impacts from the proposal. Scientific confidence regarding the condition, nature and extent of the sites has been achieved through archaeological investigations including archaeological field survey and detailed review of existing data available for previously recorded sites. An Aboriginal archaeological test excavation program will also be undertaken and designed to collect additional information within the proposed impact corridor, to provide a better understanding of potential site impacts without impacting unduly on adjacent areas which are being avoided.

Aboriginal cultural heritage value confidence has been achieved through consultation with Aboriginal stakeholders. As detailed in Sections 6 and 7, it has been determined that the study area contains Aboriginal archaeological sites displaying from low-moderate to moderate assessed significance. The CHAR assessment provides a comprehensive understanding of the identified Aboriginal cultural heritage features and their significance, and enables a high level of confidence in the recommended management measures that follow.

9.1.2 The Principle of Inter-Generational Equity

The Principle of Inter-Generational Equity states “that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations”.

The archaeological sites located within the study area were evaluated in relation to intergenerational equity and in particular, the cumulative impact of the proposal on the Aboriginal heritage of the region. As discussed in Sections 4 and 6, previous archaeological investigations have identified the presence of Aboriginal archaeological sites in the local area and wider region that predominantly contain the same site features as the sites identified within the study area, being dominated by artefact sites (surface and subsurface) of varying densities and extents. These occur in landscape contexts similar to those investigated during the current study, with higher density sites located along suitable landforms in proximity to the larger creeks, and a sparser distribution on the slopes and crests dividing the creek catchments.

Many of the previously recorded Aboriginal archaeological sites have subsequently been impacted to some degree by residential development and infrastructure corridors; however, elevated landforms in close proximity to Rickabys Creek and its tributaries retain potential for archaeological deposits containing high archaeological significance and have been largely avoided by urban expansion, instead forming part of open space, vegetated lands and nature reserves. Taken together, the sites within the study area provide a cross-section of typical site types and locations across the Hawkesbury-Nepean floodplain. Moderately high levels of disturbance across the study area are also typical for an existing road corridor and adjacent lands in this part of north western Sydney, which has a long history of European settlement and alterations to the landscape.

Existing road corridors, buried infrastructure, vegetation clearance, drainage modifications and damming of creeklines, installation of vehicle tracks, erosion, and flooding have all affected the study area and its archaeology to some degree and would continue to do so regardless of whether the proposed improvements are undertaken.

The majority of the study area is located within disturbed road corridors. Improvements to the existing road alignment rather than construction of a new route reduces the overall cumulative impact of the proposal on the surrounding environment and Aboriginal cultural landscape. Management measures to ensure non-impacted portions of sites are avoided by the proposed activities will be also be implemented (protective fencing, identification in the CEMP, toolbox talks) prior to project construction works.

9.2 Mitigation measures

The proposal area contains eight extant Aboriginal archaeological sites/PADs. Recommendations for the mitigation of impacts to the identified Aboriginal archaeological sites have been developed based on the principles of ESD, environmental context and condition and background research.

The impacted portions of Aboriginal archaeological sites Wianamatta Nature Reserve AFT 3, The Northern Road South PAD 10 and The Northern Road South PAD 12 are considered to display low-moderate archaeological value and significance. These sites display higher levels of visible disturbance. However, these sites display some potential for subsurface archaeological deposits and have low-moderate research potential based on their scientific value and potential to inform on Aboriginal landscape use of Rickabys Creek and its tributaries. The significance of harm to the portions of the sites within the study area is low-moderate, given the sites' overall low-moderate archaeological significance.

The impacted portions of PAD areas Londonderry Road PAD 11, Londonderry Road PAD 13, Londonderry Road PAD 15, The Northern Road North PAD 7 and The Northern Road North PAD 21 are considered to display moderate significance/potential based on their scientific value and potential to inform on Aboriginal landscape use of Rickabys Creek, its tributaries and drainage tributaries of the Nepean River. The significance of harm to the portions of the sites within the study area is moderate, given the sites' overall moderate archaeological significance.

The archaeological value of sites of low-moderate and moderate significance is linked to the information that they contain. Recovery of this information through archaeological test excavation would help to identify the nature and extent of archaeological deposits associated with these sites/PAD areas. Test excavation would also contribute to mitigating the impact of the proposal and offer an opportunity to better understand the activities which were undertaken at these sites and the effect of land use disturbance and natural processes on subsurface archaeological deposits. The loss of intrinsic Aboriginal cultural value of impacted sites cannot be offset or mitigated; however, the acquired information from archaeological test excavation will assist in a better understanding of and future management of archaeological sites within the study area.

An AHIP will be required for impacts to land and identified sites/objects prior to the commencement of pre-construction or construction activities associated with the proposal that would affect the sites. Measures for mitigating harm to the sites are outlined in Table 5 below.

Table 5. Mitigation measures for impacted Aboriginal site

| Name | AHIMS | Significance of Impact | Mitigating Harm |
|---------------------------------|-------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wianamatta Nature Reserve AFT 3 | tbc | Low-Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |
| Londonderry Road PAD 11 | tbc | Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |
| Londonderry Road PAD 13 | tbc | Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |

| Name | AHIMS | Significance of Impact | Mitigating Harm |
|--------------------------------|-------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Londonderry Road PAD 15 | tbc | Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |
| The Northern Road North PAD 7 | tbc | Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |
| The Northern Road North PAD 21 | tbc | Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |
| The Northern Road South PAD 10 | tbc | Low-Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |
| The Northern Road South PAD 12 | tbc | Low-Moderate | <ul style="list-style-type: none"> If avoidance is not possible, then archaeological test excavation of impacted portion of site prior to AHIP application. Re-assessment of archaeological significance and impacts using test excavation results. Where Aboriginal objects are impacted, an AHIP will be required prior to commencement of works affecting the site. |

10 Summary and Recommendations

Review of background information, Aboriginal community consultation, and archaeological assessment has resulted in the identification of eight extant Aboriginal archaeological sites within the study area.

Archaeological test excavation

Following the detailed design phase of the project (where project footprint is rationalised), a program of archaeological test excavation is proposed for archaeological sites/PADs listed in Table 5 which cannot be avoided. Archaeological test excavation will take place prior to Transport seeking an AHIP for the project. Archaeological test excavation is recommended for sites/PAD areas identified as having low-moderate and moderate archaeological potential/significance.

Aboriginal Heritage Impact Permit

An application for an AHIP should be made under section 90A of the *National Parks and Wildlife Act 1974* for the land and associated objects within the boundaries of the study area. The application should be prepared in accordance with the Heritage NSW *Applying for an Aboriginal Heritage Impact Permit: Guide for Applicants* (OEH 2011b). The AHIP should be sought for the specified Aboriginal sites and Aboriginal objects contained within the study area prior to construction works for the project.

Site Protection

The boundary of any future AHIP area adjacent to the non-impacted portion of sites should be demarcated with protective fencing and listed in the CEMP. These areas should be identified as “no-go zones” on the CEMP maps and workers inducted as to appropriate protection measures and requirements to comply with conditions in the AHIP.

Salvage Excavation

Any future application for an AHIP would likely include provisions for impact mitigation through archaeological salvage. An archaeological salvage excavation program would be based upon the results of the proposed test excavation program and further cultural heritage assessment.

Salvage excavation must be completed prior to any activities (including pre-construction activities) which may harm Aboriginal objects. Salvage excavation activities would be undertaken in accordance with an appropriate salvage excavation methodology.

Salvaged Aboriginal objects

The short term management of collected Aboriginal objects would be as follows:

- Any Aboriginal objects that are removed from the land by actions authorised by an AHIP, must be moved as soon as practicable to the temporary storage location (see below) pending any agreement reached about the long term management of the Aboriginal objects.
- The temporary storage location: Kelleher Nightingale Consulting Pty Ltd, Suite 505-507, 155 King Street, Sydney NSW 2000.
- Any Aboriginal objects stored at the temporary storage location must not be further harmed, except in accordance with the conditions of the AHIP.

The long term management of collected Aboriginal objects would be determined in consultation with the project’s registered Aboriginal stakeholders and in accordance with the conditions of the AHIP.


- If objects are to be transferred under a Care and Control Agreement to an Aboriginal person or organisation representing Aboriginal people in accordance with Section 85A(1)(c) of the *National Parks and Wildlife Act 1974*, an application for a Care Agreement must be completed.
- If reburial is to be undertaken of objects, Requirement 26 “Stone artefact deposition and storage” in the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW must be complied with, unless the registered Aboriginal stakeholders agree to an alternative deposition method.
 - If reburial is to take place, registered Aboriginal stakeholders would be notified and given the opportunity to attend, and the reburial recorded on AHIMS.

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Appendix A Advertisement for registration of interest




Aboriginal Heritage
Hawkesbury-Nepean Valley
Flood Evacuation Road
Resilience Program

Transport for NSW invites Aboriginal people and Aboriginal groups who hold cultural knowledge relevant to determining the significance of Aboriginal objects and places for Hawkesbury Nepean Valley Flood Evacuation Road Resilience Program to register to be consulted.

Transport for NSW has identified road infrastructure improvements across four Western Sydney Local Government areas: Penrith, Hawkesbury, Blacktown and The Hills.

The improvement projects include road shoulder widening, new culverts and bridge structures to provide flood immunity, road raising where required, pinch point upgrades and drainage improvements.

These projects will improve the resilience of the road network so that residents can evacuate from the area safely in the event of a major flood.



The proposal may result in Transport for NSW:

- Applying for an Aboriginal Heritage Impact Permit (AHIP) under Part 6 of the National Parks and Wildlife Act 1974, and/or
- Undertaking investigations in accordance with the Code of practice for archaeological investigations in NSW 2010, and/or
- Undertaking an environmental impact assessment under the Environmental Planning & Assessment Act 1979.


To register your interest, please contact:
Noni Ross, Aboriginal Cultural Heritage Officer, noni.ross@transport.nsw.gov.au or 0476 613 136

Registrations must be received by phone or in writing by 23 September 2023.

Appeared in: *Koori Mail*, Wednesday 23/08/2022
Penrith Western Weekender, Friday 25/08/2022
Hills to Hawkesbury community News, Friday 25/08/2023

Appendix B AFG Minutes

AFG 1

|  <div> TRANSPORT </div> | |
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| Minutes Hawkesbury Nepean Valley Flood Evacuation Road Resilience Improvements (HNV) - State Roads project Aboriginal Focus Group Meeting 1 - Proposed cultural heritage assessment methodology | 10 November 2023 10:00am – 11:00am MS Teams Meeting (Online) |
| Attendees | <div> Dean Delponte Robert Young Paul Boyd Pamela Young Phil Boney Matthew Kelleher Noni Ross Lyndall Thornhill Kristen Taylor Brad Hamilton Yvonne Tsukame Devika Sitinamaluwe Shamala Krishnan </div> <div> Mundawari Heritage Consultants Konanggo Consultancy Didge Ngunawal Clan Konanggo Consultancy Wailwan Aboriginal Group Kelleher Nightingale Consulting Pty Ltd Transport (Aboriginal Cultural Heritage) Transport (Environment) Transport (Environment) Transport (HNV Program) Transport (HNV State Roads Project) Transport (HNV State Roads Project) Transport (HNV State Roads Project) </div> |
| 1.0 | Acknowledgement of Country - Noni |
| 2.0 | Welcome & Introductions - Noni Welcomed the attendees and thanked them for their time. All participants introduced themselves. |
| 3.0 | Purpose of the meeting – Noni / Devika Advised that the meeting was to provide an overview of the entire HNV Program, specifically present the HNV State Road project scope, the PACHCI stage 2 site surveys undertaken, present methodology and proposed next steps, as well as obtain stakeholders input. |
| 4.0 | HNV State Roads Project overview – Devika The Hawkesbury-Nepean Valley is exposed to flood risk requiring evacuation of people to safer/higher ground during flood events. Transport is currently undertaking the planning work to improve the resilience to local flash flooding and improve capacity of the Hawkesbury-Nepean Valley Flood Evacuation Routes. The objective is to reduce evacuation times and reduce the risk to life during a major flood event. The Concept Designs for identified improvements works on the Flood Evacuation Routes are currently being developed as two separate projects: <ul style="list-style-type: none"> • HNV State Roads Project for State Road evacuation routes (subject of this meeting); and • HNV Local/ Regional Roads Project for all other Local and Regional Roads evacuation routes. The limit of works of HNV State Roads Project are: <ul style="list-style-type: none"> ▪ Londonderry Road from Southee Road, Richmond to The Northern Road/ Cranebrook Road, Cranebrook |
| Minutes – AFG Meeting 1 – HNV State Roads 10.11.2023 | |
| OFFICIAL | |

Objective Ref: A52747562


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| | <ul style="list-style-type: none"> <i>The Northern Road from Richmond Road, Bligh Park to Great Western Highway, Penrith</i> <p>The scope of works include:</p> <ul style="list-style-type: none"> <i>Localised drainage upgrades & road raising to minimise premature road closures due to local flash flooding.</i> <i>Shoulder widening (approximately 20km) & minor intersection adjustments to be used as a second southbound traffic lane during a flood evacuation event. The widened shoulder will be used as a shoulder during everyday traffic operations.</i> <p>It is expected to display the REF (Review of Environmental Factors) mid next year, with project approval expected end of next year. Currently, funding is available to complete planning work only. Implementation of the project is subject to funding availability and project approval.</p> |
| 5.0 | <p>Field survey report, proposed archaeological investigation methodology and proposed AHIP application - Matthew</p> <p>Results of the HNV State Roads project PACHCI Stage 2 Survey report from Kelleher Nightingale was presented along with the proposed Aboriginal Cultural Heritage Assessment methodology. Footprint of the survey has evolved since the Stage 2 survey, the impacts that have been identified will be investigated in consultation with the stakeholders and added to the Stage 3 Report. Test excavation will not be done at this stage as not enough design information is available but will be done in the next stage of design when the project is further developed, and more design information is available.</p> |
| 6.0 | <p>Discussion – All</p> <p>Paul – Queried when will the study be commenced?</p> <p>Mathew – Due to evolving footprint and limited Stage 2 study, CHAR will include assessing the current footprint based on preliminary Stage 2 survey and desk study. Further consultation with the group may be required at the next design stage, as the design is further developed, and the footprint is refined. Testing if required, can be done after that stage.</p> <p>Pamela – It is important to educate the community, increase awareness about Aboriginal identity and connection to the history in the area. Most artefacts may have moved due to the flooding in the Valley. Mapping of the artifacts that have moved location will provide a clear picture of the history.</p> <p>Matthew - The CHAR will include all available such information</p> <p>Noni – A map can be provided to the registered party at that stage , to encourage them to ask questions.</p> <p>Matthew / Noni – If there are specific cultural values, please share with Matthew and it can be done in a confidential manner through Noni. They will then be incorporated into the report.</p> <p>Noni - A number of site officers may be needed in the future/next design phase. The group will be informed then</p> |
| 7.0 | <p>Meeting close - Yvonne / Devika / Noni</p> <ul style="list-style-type: none"> <i>Queried whether any other questions (nil response)</i> <i>Recapped the draft methodology has been circulated to the registered stakeholder for 28 days review and provide comments by 24 November 2023.</i> <i>Recapped the next consultation & AFG for Draft CHAR will be held in early 2024</i> |
| 8.0 | <p>Meeting closed</p> |

Minutes – AFG Meeting 1 - HNV State Roads

10.11.2023

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AFG 2



07 February 2024
10:00am – 11:00am
MS Teams Meeting (Online)

TRANSPORT

Minutes

Hawkesbury Nepean Valley Flood Evacuation Road Resilience Improvements (HNV) - State Roads project
Aboriginal Focus Group Meeting 2 – Draft Aboriginal Cultural Heritage Assessment Report

Attendees

| | |
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| <p>Arika Jalomaki Justine Coplin Jamie Currell Robert Young Pamela Young Dean Deponte Darleen Johnson</p> <p>Matthew Kelleher Noni Ross Lyndall Thornhill Kristen Taylor Brad Hamilton Yvonne Tsukame Devika Sitinamaluwe Shamala Krishnan</p> | <p>Yulay Cultural Services DCAC</p> <p>Konanggo Aboriginal Cultural Heritage Services Konanggo Aboriginal Cultural Heritage Services Mundawari Heritage Consultants Murrabidgee Mullangari Corroboree Aboriginal Corporation</p> <p>Kelleher Nightingale Consulting Pty Ltd Transport (Aboriginal Cultural Heritage) Transport (Environment) Transport (Environment) Transport (HNV Program) Transport (HNV State Roads Project) Transport (HNV State Roads Project) Transport (HNV State Roads Project)</p> |
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| 1.0 | Acknowledgement of Country - Noni |
| 2.0 | <p>Welcome & Introductions - Noni</p> <p>Welcomed the attendees and thanked them for their time. Transport & KNC participants introduced themselves.</p> |
| 3.0 | <p>Purpose of the meeting – Noni / Devika</p> <p>Advised that the purpose of the meeting was to present the study undertaken since AFG 1 meeting of the HNV State Roads project, as well as obtain stakeholders' input as part of the Draft Aboriginal Cultural Heritage Assessment Report 28 days AFG consultation.</p> |
| 4.0 | <p>HNV State Roads Project recap – Devika</p> <p>Transport is currently undertaking the planning work to improve the resilience to local flash flooding and improve capacity of the Hawkesbury-Nepean Valley Flood Evacuation Routes. The objective is to reduce evacuation times and reduce the risk to life during a major flood event.</p> <p>The Concept Designs for identified improvements works on the Flood Evacuation Routes are currently being developed as two separate projects:</p> <ul style="list-style-type: none"> <i>HNV State Roads Project for State Road evacuation routes (subject of this meeting); and</i> <i>HNV Local/ Regional Roads Project for all other Local and Regional Roads evacuation routes.</i> <p>The limit of works of HNV State Roads Project are:</p> <ul style="list-style-type: none"> <i>Londonderry Road from Southee Road, Richmond to The Northern Road/ Cranebrook Road, Cranebrook</i> |

Minutes – AFG Meeting 2 – HNV State Roads

7.02.2024

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| Objective Ref: A61832886 | |
| | <ul style="list-style-type: none"> <i>The Northern Road from Richmond Road, Bligh Park to Great Western Highway, Penrith</i> <p>The scope of works include:</p> <ul style="list-style-type: none"> <i>Localised drainage upgrades & road raising to minimise premature road closures due to local flash flooding.</i> <i>Shoulder widening (approximately 20km) & minor intersection adjustments to be used as a second southbound traffic lane during a flood evacuation event. The widened shoulder will be used as a shoulder during everyday traffic operations.</i> <p>It is expected to display the REF (Review of Environmental Factors) mid this year, with project approval expected end of the year. Currently, funding is available to complete planning work only. Implementation of the project is subject to funding availability and project approval.</p> |
| 5.0 | <p>Findings of the Aboriginal Heritage Assessment undertaken since AFG 1 -Matthew Kelleher</p> <ul style="list-style-type: none"> <i>Most impact to aboriginal artefacts, heritage and aboriginal sites will be avoided as HNV State Road project is focusing only at shoulder widening and it is not a major road upgrade.</i> <i>Two Ancillary sites (potential site compounds) impact has been removed from the draft report that has been circulated for comments.</i> <i>Rickerby Creek is located in the middle of the project where The Northern Road and Londonderry Road converge. Gravel with soil found contains plenty of raw materials. The project will be able to preserve heritage objects found along this corridor.</i> <i>Most of the area where the shoulder widening is proposed are already cleared. Two surveys conducted with the evolution of the concept design. At start of the project over 60 potential archaeological sites were identified. At the concept design stage, the team has narrowed down the impacts to 8 sites. It is likely that the design will be refined further during the next stage of the project. The number of potential impacted sites is not fixed as further design refinements undertaken during the Detail Design may indicate some sites might need to be added or taken away.</i> <i>There may be additional deductions as we try to mitigate the impacts during the detail designs stage. If the aboriginal sites are still impacted, more investigation will be undertaken including test excavations and the report will be updated. There will be another information session at that stage.</i> |
| 6.0 | <p>Discussion</p> <p>The questions from the stakeholders and the response from Transport & Matthew are appended below.</p> <p>Q. Does the extension only involve widening the existing shoulder to 3.0m?</p> <p>A. Generally, yes. Where there is road raising involved due to drainage, the whole area will be upgraded and tie into existing road.</p> <p>Q. Were all trees examined in the study area? Can someone in the community join the survey. – Transport for NSW will review this request when the time comes to examine the trees.</p> <p>A. Not all trees surveyed, but trees within the critical area. The trees of the impacted area will be assessed again in Detail Design. Approval for impacts will not be sought at concept design.</p> |

Objective Ref: A61832886

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| | <p>Q. When will the next meeting be held?</p> <p>A. At this stage there is no funding yet and the timeline for detail design is not known. Subject to funding availability, the project will move into detailed design and there will be another AFG consultation. AFG 2 (this meeting) will be the final consultation for Concept Design with comments to be submitted by 20th February 2024.</p> <p>Q. Draft CHAR documentation and comments outcome next step?</p> <p>A. The draft CHAR document (consultation and comments close 20th February 2024) was shared with all the members. The information and comments will be reviewed and the report will be updated to inform the environmental assessment for community consultation.</p> <p>Q. What is the status of the Castlereagh Flood evacuation route and study undertaken so far?</p> <p>A. The design development of HNV Local/Regional project is at the early stage. If any impacts to aboriginal heritage is identified, separate AFG consultation will be undertaken to discuss these routes. Noni is across both projects and will be the point of contact.</p> <p>General note by a stakeholder</p> <p>The project team needs to consider the urgency, the impact of previous floods and think about the stability of the landscape to ensure safety. Floods are unpredictable in the area, and the environment can change quickly. The project team to consider road materials that are suitable for flood resilience.</p> |
| 7.0 | <p>Meeting close - Yvonne / Devika / Noni</p> <ul style="list-style-type: none"> Queried whether any other questions (nil response) Recapped that the draft Aboriginal Cultural Heritage Assessment Report has been circulated to the registered stakeholders for 28 days review and to provide comments by 20 February 2024. Report will be updated by Matthew Kelleher, and findings/comments will be added to the REF and go on public display. Project Determination is estimated at the end of 2024. Recapped the detail design and construction will be subject to project approval and funding availability and the next consultation will be undertaken during detail design, upon further refinements of the design. |
| 8.0 | Meeting closed |

Minutes – AFG Meeting 2- HNV State Roads

7.02.2024

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Appendix C Aboriginal Community Consultation

[Aboriginal community details removed from public document]

Appendix D Consultation Log

Transport for NSW

Hawkesbury Nepean Valley Flood Evacuation Road Resilience Program

Record of Consultation and Consultation Log

Aboriginal cultural heritage consultation requirements for proponents 2010

| Step | Task Requirement | Action | Outcome |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.1.1 | Identify if native title exists in relation to the project area. | Conducted a search of Native TitleVision. Wrote to National Native Title Tribunal (NNTT) for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements on 30 May 2023 | Native TitleVision search showed no Native Title claimants, native title holders and registered Indigenous Land Use Agreements in the vicinity of the study area. |
| 4.1.2 | Ascertain, from reasonable sources of information, the names of Aboriginal people who may hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places. Compile a list of Aboriginal people who may have an interest for the proposed project area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places. | Wrote to various government agencies via email to obtain names and contact details of parties that may have an interest or hold cultural knowledge for the project area Deerubbin Local Aboriginal Land Council (LALC); Heritage NSW; Greater Sydney Local Land Services (GS LLS); Native Title Services Corporation (NTSCORP Limited); Office of The Registrar, <i>Aboriginal Land Rights Act 1983</i> (ORALRA) for a list of Aboriginal owners; Blacktown City Council; Penrith City Council; Hawkesbury City Council; The Hills Shire Council; | Responses received from: A list was compiled from these responses of Aboriginal people who may have an interest in the study area and may hold knowledge relevant to determining the cultural significance of Aboriginal objects and/or places. Deerubbin LALC – no response Heritage NSW – response received 13/6/23: Provided a list of Aboriginal stakeholders known to Heritage NSW that may have an interest in the project. Notes that consultation is required to identify the Aboriginal people on the list who may hold either cultural or historical knowledge relevant to determining the significance of Aboriginal objects and/or places within the proposed project area. This list detailed 4 LGA's. Penrith City Council – no response Blacktown LGA – response received 6/6/23 from Sue.galt@blacktown.nsw.gov.au: <i>Dear Noni, Thank you for your email and letter dated 30 May 2023 regarding Aboriginal stakeholders contact details relevant to the above. The then NSW Department of Planning, Industry and Environment (DPIE) has advised us that the consultation list for this purpose is confidential and may only be obtained on a project by project basis from the agency administering Aboriginal Cultural Heritage regulation (e.g. Aboriginal Heritage Impact Permits (AHIPS), Registered Aboriginal Parties, Care Agreements, etc). We have been advised that enquiries regarding Aboriginal Cultural Heritage</i> |

| Step | Task Requirement | Action | Outcome | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 4.1.2 Cont'd | | <p>NSW Aboriginal Land Council;</p> <p>The National Native Title Tribunal (NNTT) for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements;</p> <p>(emails dated 30/05/2023).</p> | <p>regulation (e.g. Aboriginal Heritage Impact Permits (AHIPS), Registered Aboriginal Parties, Care Agreements, etc) should be referred to Heritage NSW. Your enquiry regarding Aboriginal stakeholders therefore is best directed to heritagemailbox@environment.nsw.gov.au, or (02) 9873 8500.</p> <p>Regards, Sue.</p> <p>Hawkesbury City Council – no response</p> <p>NSW ALC - no response</p> <p>NNTT – response received 1/6/23: National Native Title Tribunal advised that it has undertaken steps to remove itself from the formal list of sources for information about Indigenous groups in development areas. (1/6/23)</p> <p>GS LLS – response received 31/5/2023: Advised to contact Heritage NSW</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1.3 | <p>Written notification and advertisement:</p> <p>Write to the Aboriginal people whose names were obtained in step 4.1.2 and the relevant LALC(s) to notify them of the proposed project.</p> <p>Place a notice in the local newspaper circulating in the general location of the proposed project, explaining the project and its exact location.</p> <p>Notification by letter and newspaper must include:</p> <p>(a) the name and contact details of the proponent</p> <p>(b) a brief overview of the proposed project that may be the subject of an application for an AHIP, including the location of the proposed project</p> | <p>Wrote to the Aboriginal people whose names/groups were provided by parties listed above letter/emails sent 8/08/2023).</p> <p>Advertisement placed in:</p> <p>Blacktown News – print date, 9th September 2023 – closing date 23rd September</p> <p>Western Weekender (Penrith) – print date 25th August 2023, closing date 23rd September 2023</p> <p>Hills to Hawkesbury Community News – print date 24th August 2023, closing date 23rd September 2023</p> <p>Koori Mail – print date 23rd August 2023, closing date 23rd September 2023.</p> | <p>Responses for registration of interest from written notification and advertisement were received via email from 22 Aboriginal groups/individuals:</p> <p>Deerubbin Local Aboriginal Land Council (automatic registration)</p> <table><tr><td>9.08.2023</td><td>Kelvin Boney</td></tr><tr><td>10.08.2023</td><td>Raw Cultural Healing</td></tr><tr><td>11.08.2023</td><td>Muragadi Heritage Indigenous Corporation</td></tr><tr><td>14.08.2023</td><td>Widescope Indigenous Group</td></tr><tr><td>14.08.2023</td><td>Darug Custodian Aboriginal Corporation</td></tr><tr><td>15.08.2023</td><td>Wurrumay Pty Ltd</td></tr><tr><td>15.08.2023</td><td>Bariyan Cultural Connections</td></tr><tr><td>15.08.2023</td><td>Ngambaa Cultural Connections</td></tr><tr><td>16.08.2023</td><td>Stakeholder details withheld</td></tr><tr><td>16.08.2023</td><td>Kamilaroi Yankuntjatjara Working Group</td></tr><tr><td>21.08.2023</td><td>Mundawari Heritage Consultants</td></tr><tr><td>21.08.2023</td><td>Yurrandaali Cultural Services</td></tr><tr><td>21.08.2023</td><td>A1 Indigenous Services Pty Ltd</td></tr><tr><td>21.08.2023</td><td>Guntawang Aboriginal Resources Inc</td></tr><tr><td>21.08.2023</td><td>Amanda Hickey Cultural Services</td></tr><tr><td>22.08.2023</td><td>Murra Bidgee Mullangari Aboriginal Corporation</td></tr><tr><td>22.08.2023</td><td>Barraby Cultural Services</td></tr><tr><td>22.08.2023</td><td>Konanggo Consultancy</td></tr><tr><td>22.08.2023</td><td>Gunjeewong Cultural Heritage Aboriginal Corporation</td></tr></table> | 9.08.2023 | Kelvin Boney | 10.08.2023 | Raw Cultural Healing | 11.08.2023 | Muragadi Heritage Indigenous Corporation | 14.08.2023 | Widescope Indigenous Group | 14.08.2023 | Darug Custodian Aboriginal Corporation | 15.08.2023 | Wurrumay Pty Ltd | 15.08.2023 | Bariyan Cultural Connections | 15.08.2023 | Ngambaa Cultural Connections | 16.08.2023 | Stakeholder details withheld | 16.08.2023 | Kamilaroi Yankuntjatjara Working Group | 21.08.2023 | Mundawari Heritage Consultants | 21.08.2023 | Yurrandaali Cultural Services | 21.08.2023 | A1 Indigenous Services Pty Ltd | 21.08.2023 | Guntawang Aboriginal Resources Inc | 21.08.2023 | Amanda Hickey Cultural Services | 22.08.2023 | Murra Bidgee Mullangari Aboriginal Corporation | 22.08.2023 | Barraby Cultural Services | 22.08.2023 | Konanggo Consultancy | 22.08.2023 | Gunjeewong Cultural Heritage Aboriginal Corporation |
| 9.08.2023 | Kelvin Boney | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.08.2023 | Raw Cultural Healing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11.08.2023 | Muragadi Heritage Indigenous Corporation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14.08.2023 | Widescope Indigenous Group | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14.08.2023 | Darug Custodian Aboriginal Corporation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15.08.2023 | Wurrumay Pty Ltd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15.08.2023 | Bariyan Cultural Connections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15.08.2023 | Ngambaa Cultural Connections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16.08.2023 | Stakeholder details withheld | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16.08.2023 | Kamilaroi Yankuntjatjara Working Group | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21.08.2023 | Mundawari Heritage Consultants | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21.08.2023 | Yurrandaali Cultural Services | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21.08.2023 | A1 Indigenous Services Pty Ltd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21.08.2023 | Guntawang Aboriginal Resources Inc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21.08.2023 | Amanda Hickey Cultural Services | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.08.2023 | Murra Bidgee Mullangari Aboriginal Corporation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.08.2023 | Barraby Cultural Services | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.08.2023 | Konanggo Consultancy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22.08.2023 | Gunjeewong Cultural Heritage Aboriginal Corporation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Step | Task Requirement | Action | Outcome |
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| 4.1.3 cont'd. | <p>(c) a statement that the purpose of community consultation with Aboriginal people is to assist the proposed applicant in the preparation of an application for an AHIP and to assist the Director-General of OEH in his or her consideration and determination of the application</p> <p>(d) an invitation for Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal object(s) and/or place(s) in the area of the proposed project to register an interest in a process of community consultation with the proposed applicant regarding the proposed activity</p> <p>(e) a closing date for the registration of interests.</p> | | <p>22.08.2023 Yulay Cultural Services</p> <p>24.08.2023 Didge Ngunawal Clan</p> <p>24.08.2023 Wailwan Aboriginal Group</p> |
| 4.1.4 | A minimum of 14 days from the date the letter was sent or notice published in the newspaper to register an interest. | Final closing date for registration of interest was at least 14 days from the date the letter was sent or publication of the advertisement. The final closing date for registration of interest was the 23/09/2023. | Copy of newspaper notices attached to CHAR. Please refer to attachment D. |
| 4.1.5 | Must advise Aboriginal people who are registering an interest that their details will be forwarded to Heritage NSW and the LALC unless they specify that they do not want their details released. | One Aboriginal stakeholder specified they did not want their details released. | One Aboriginal stakeholder specified they did not want their details released. |
| 4.1.6 | Make a record of the names of each Aboriginal person who registered an interest. Provide a copy of that record and copy of the notification from step 4.1.3 to Heritage NSW and LALC. | List of registered stakeholders compiled and attached. | Record of registration for the project sent to Deerubbin LALC and Heritage NSW on 28/11/23. |

| Step | Task Requirement | Action | Outcome |
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| 4.1.7 | LALCs holding cultural knowledge relevant to determining the significance of Aboriginal objects and places in the proposed project area who wish to register an interest to be involved in consultation must register their interest as an Aboriginal organisation rather than individuals. | Deerubbin LALC; letter seeking cultural knowledge holders sent on 30/05/2023. | Deerubbin LALC – no response |
| 4.1.8 | Where an Aboriginal organisation representing Aboriginal people who hold cultural knowledge has registered an interest, a contact person for that organisation must be nominated. Aboriginal cultural knowledge holders who have registered an interest may indicate they have appointed a representative to act on their behalf. Where this occurs, the registered Aboriginal party must provide written confirmation and contact details of those individuals to act on their behalf. | Inform stakeholders registering their interest as an organisation that contact information and contact person must be nominated. | Aboriginal stakeholders who have registered as an organisation name also provided contact details and names of representatives for each organisation. These contact names are on the Registration list. Receipt of registration of interest emails sent to all RAPS on 1/11/2023. |
| 4.2 | Presentation of information about the proposed project | Aboriginal stakeholders provided with specific information regarding the proposed project (letter/emails sent 8/08/2023 & 27/10/2023). Stakeholders participated in discussion of the proposed project at Aboriginal Focus Group Meetings held on 10/11/2023 and 7/02/2024. | No formal responses to the provision of project information were received. |
| 4.3.1-4.3.2 | Notification of proposed assessment methodology – sent by TfNSW | Information regarding the proposed cultural heritage assessment methodology and proposed test excavation was sent via email to all registered stakeholders with an invitation to review and provide comment – email sent on 27/10/2023. Stakeholders were provided with a 28 day period for review - closure of review period on 24/11/2023. | Responses were received from four stakeholders: A1 Indigenous Services Pty Ltd (A1), Darug Custodians Aboriginal Corporation (DCAC), Kamilaroi-Yankuntjatjara Working Group (KYWG) and Muragadi Heritage Indigenous Corporation (Muragadi). A1 stated that they had reviewed the methodology and information provided, and supported the recommendations within the document (email dated 20/11/2023). DCAC stated that they did not support the proposed assessment methodology, as the document provided did not contain enough detail for them to understand the nature of the project, the potential for heritage impact or the proposed assessment methodology. DCAC requested 'clear and detailed mapping of the study area, detailed |

| Step | Task Requirement | Action | Outcome |
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| 4.3.1-4.3.2 Cont'd. | | | <p>description and mapping of known Aboriginal heritage values (including AHIMS sites and areas of potential within and close to the study area), detailed description and mapping of proposed works, preliminary impact assessment management options that will be considered to avoid Aboriginal heritage impact and details of the proposed fieldwork components of the assessment. Additionally, they requested additional time to review this information once provided (letter/ email dated 14/11/2023). <i>A copy of the current draft CHAR will be provided to DCAC and other registered Aboriginal stakeholders. This document should provide DCAC with the information requested.</i></p> <p>KYWG recommended investigating the study area further and stated that they looked forward to working together on the project (email dated 27/11/2023).</p> <p>Muragadi stated they had reviewed the assessment methodology and agreed with the proposed approach (email dated 22/11/2023).</p> |
| | Aboriginal Focus Group (AFG) Meeting 1 | An AFG was held on 10/11/2023 to discuss the proposed assessment methodology. | Stakeholder AFG attendees generally expressed agreement with the proposed assessment methodology and discussions held at the AFG did not result in any changes to the methodology. |
| 4.3.3 | Gathering information about cultural significance | <p>Aboriginal stakeholders were invited to provide information about cultural significance of the area and identified Aboriginal archaeological sites.</p> <p>Aboriginal stakeholders invited to provide information on cultural significance at all stages of the assessment process.</p> | <p>Many registered stakeholders have been previously involved with cultural heritage assessments within the region and a high level of knowledge existed with stakeholders.</p> <p>KYWG expressed the high cultural significance of the local area, particularly noting that waterways such as the Hawkesbury and Nepean rivers would have been utilised by Aboriginal people for environmental resources, camping, ceremonies and potentially burials (email dated 27/11/2023).</p> |
| 4.4 | Review of draft cultural heritage assessment report – sent by TfNSW | <p>The completed draft <i>Cultural Heritage Assessment Report</i> was provided to registered Aboriginal stakeholders for review and comment on 22/01/2024.</p> <p>A 28 day period was provided for review and comment - closure of comment period, 20/02/2024.</p> <p>Stakeholders invited to comment on cultural significance of study area and identified Aboriginal heritage.</p> | <p>One formal response was received from KYWG.</p> <p>KYWG stated that they agreed with and supported the recommendations for the project (email dated 16/02/2024).</p> |
| | AFG Meeting 2 | An AFG was held on 7/02/2024 during the CHAR review period to discuss the project, the findings of the draft CHAR and any additional comments regarding cultural values of the study area. | No specific questions regarding the Aboriginal heritage assessment and outcomes were raised by the attendees. Stakeholders were in general agreement with the outcomes for the Aboriginal heritage assessment for the project. No further comment on the cultural values of the study area were provided. |