



**KELLYVILLE STATION PRECINCT
Aboriginal Cultural Heritage Assessment**

Prepared for Landcom

The Hills Shire Local Government Area

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Executive Summary

Landcom proposes to deliver accelerated serviced development parcels for housing supply and facilitate interim precinct activation of the Kellyville Station Precinct, one of eight station precincts along the corridor of the Sydney Metro Northwest. The Kellyville Station Precinct encompasses lands adjacent to a 900 metre section of the metro line and is located approximately 30 kilometres north west of the Sydney Central Business District within The Hills Shire Local Government Area.

Landcom is seeking concept State Significant Development (SSD) approval for the proposed redevelopment to set out the precinct concept proposal and establishes the framework for future development. Secretary's Environmental Assessment Requirements (SEARs) were issued on 11 July 2019 for the Kellyville Station Precinct (SSD 10343).

Landcom is currently undertaking detailed planning and assessment for the project, including the preparation of an Environmental Impact Statement (EIS). Landcom engaged Kelleher Nightingale Consulting Pty Ltd to prepare an Aboriginal cultural heritage assessment report (CHAR) to inform the EIS.

Aboriginal archaeological assessment identified two Aboriginal archaeological sites (comprising three AHIMS registrations) within the proposed Kellyville Station Precinct: PK/GD1 near Parklea (including duplicated recording Burns Road North IF1) and KV/CD1 and NWRL PAD 8. The two sites were surface artefact scatters with associated areas of potential archaeological deposit that were located on elevated landforms adjacent to Elizabeth Macarthur Creek. Several archaeological investigations, including a program of salvaged excavations prior to the construction of the Sydney Metro Northwest, have been undertaken within and in the vicinity of the proposed Kellyville Station Precinct. The results of the previous investigations indicate that the two sites are likely to have intact subsurface archaeological deposits and have moderate archaeological significance.

Archaeological significance of the identified Aboriginal sites was defined by the information exhibited by each site. A mitigation program comprising archaeological salvage, undertaken prior to construction, is required where portions of at least moderately significant Aboriginal sites would be impacted by the proposal. Mitigative salvage excavation would be required for the impacted portions of the two archaeological sites.

A management strategy (heritage management plan) is outlined in the CHAR to: facilitate the preconstruction mitigation plan, enable the transition to construction and then guide ongoing construction program. Aboriginal stakeholders have been consulted regarding the mitigation plan and ongoing heritage management plan to ensure upfront agreement regarding impacts to Aboriginal heritage and appropriate management of Aboriginal heritage.

Management measures should be implemented for Aboriginal objects situated outside the construction corridor to ensure avoidance of objects not covered by the project approval. Management measures to be implemented include protective fencing and identification of 'no-go zones' on maps within the Construction Environmental Management Plan.

This CHAR has been prepared in consultation with the registered Aboriginal stakeholders in compliance with the SEARs for the project and the Department of Planning, Industry and Environment requirements and guidelines.

Project approval is being sought for the entirety of the lands subject to the proposal and specifically for Aboriginal objects associated with sites:

PK/GD1 near Parklea	AHIMS 45-5-2027	Partial impact	Moderate significance
Burns Road North IF1	AHIMS 45-5-3064	Total impact	Moderate significance
KV/CD1 and NWRL PAD 8	AHIMS 45-5-2365	Partial impact	Moderate significance

Project approval is required before impacting the Aboriginal objects/site identified within the proposed impact area.

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1 Introduction

1.1 Project background

The New South Wales (NSW) Government is implementing Sydney's Rail Future, a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future. Sydney Metro is a new standalone rail network identified in Sydney's Rail Future consisting of Sydney Metro Northwest (Stage 1) which opened to the public for train services on 26 May 2019 and Sydney Metro City & Southwest (Stage 2), which is due for completion in 2024.

Under the Sydney Metro Northwest (SMNW) Places program, Landcom and Sydney Metro are working collaboratively with the Department of Planning, Industry and Environment (DPIE), local councils, other government organisations and key stakeholders to develop the long-term vision and delivery program to guide the transformation of approximately 65 hectares (ha) of surplus government owned or controlled land around new SMNW station precincts.

The Kellyville Station Precinct forms part of a network of eight station precincts along the corridor of the SMNW. The NSW Government previously announced the Kellyville Station Precinct as a Priority Precinct to support and help drive the urban renewal of traditionally rural residential land to a new urban environment that leverages positively off Australia's first metro line.

1.2 Proponent and consultants

As part of the SMNW Places program, Landcom is proposing the redevelopment of surplus government owned land surrounding the Kellyville Station to facilitate the renewal of the locality and deliver a greater supply and diversity housing and employment opportunities. Landcom is seeking concept State Significant Development (SSD) approval for the proposed redevelopment to set out the precinct concept proposal and establishes the framework for future development. Secretary's Environmental Assessment Requirements (SEARs) were issued on 11 July 2019 for the Kellyville Station Precinct (SSD 10343).

Landcom is currently undertaking detailed planning and assessment for the project, including the preparation of an Environmental Impact Statement (EIS). Landcom engaged Kelleher Nightingale Consulting Pty Ltd (KNC) to prepare an Aboriginal cultural heritage assessment report (CHAR) to inform the EIS.

1.3 Location and scope of activity

The Kellyville Station Precinct (hereafter referred to as the study area) comprise surplus government owned land surrounding the Kellyville Station. The study area is located within The Hills Shire Local Government Area (LGA) approximately 30 kilometres north west of the Sydney CBD (Figure 1). The study area is generally bound by Old Windsor Road in the east, Elizabeth Macarthur Creek in the west, Memorial Avenue in the south and Samantha Riley Drive in the north.

The proposed works would include:

- Residential dwellings comprising residential flat buildings and terraces
- Non-residential land uses including retail and commercial
- New streets and intersection connections to the existing road network
- Public open space including public domain and parks and
- Community facilities.

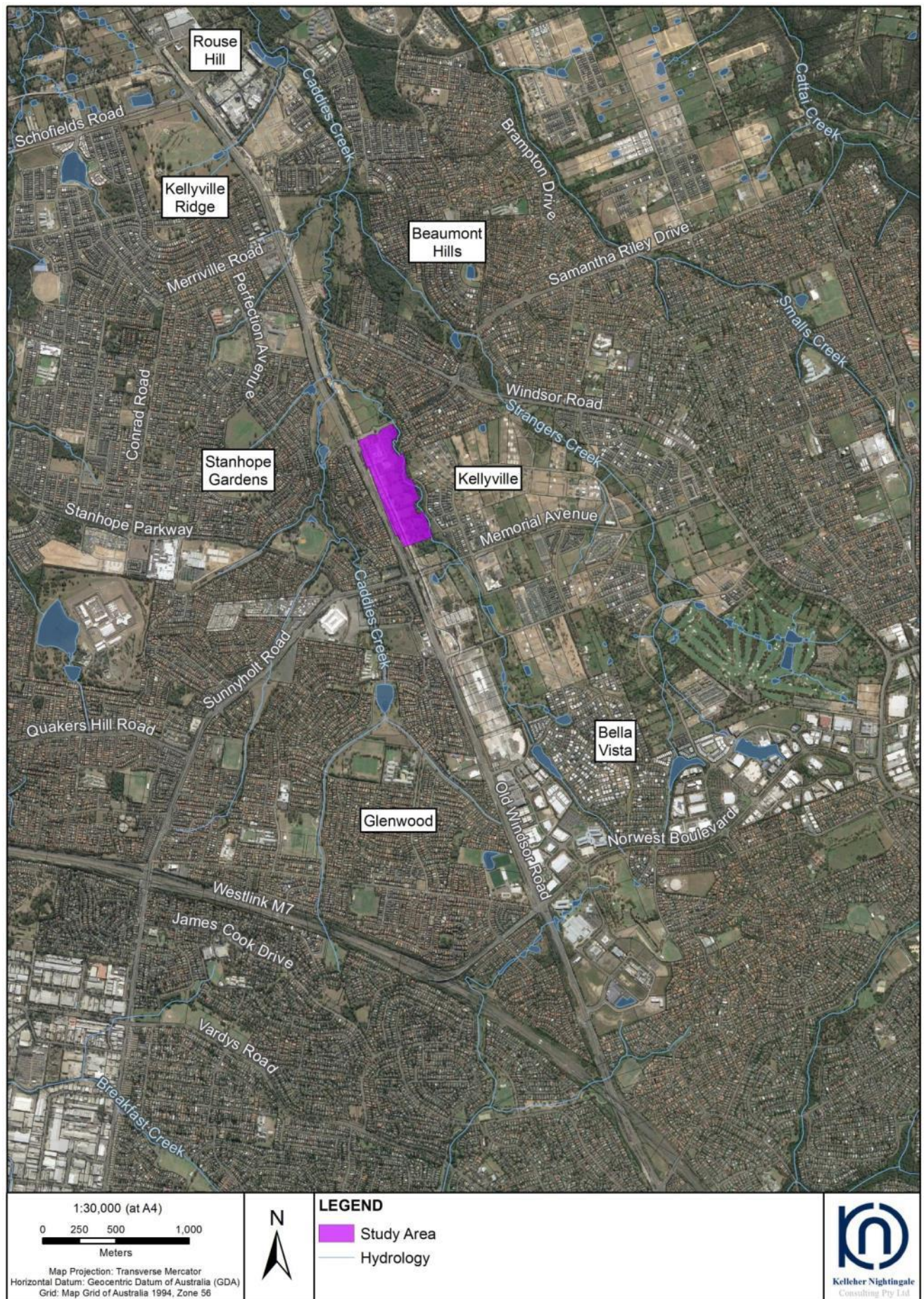


Figure 1. Location of the study area



Figure 2. Detail of study area

1.4 Project requirements

This CHAR addresses the Aboriginal heritage requirements identified in the project SEARs and DPIE [including the former Office of Environment and Heritage (OEH)]. The objectives of the CHAR combine Aboriginal community consultation with an archaeological investigation in accordance with

- Secretary's environmental assessment requirements;
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (OEH 2010); and
- *Aboriginal cultural heritage consultation requirements for proponents 2010* (OEH 2010).

Aboriginal cultural heritage assessment for the project was designed to meet the SEARs. This included:

- Assessment of impacts to Aboriginal heritage (both cultural and archaeological significance);
- Consultation with Aboriginal communities to assess impacts and develop mitigation measures;

Specific requirements of the SEARs are outlined in the table below.

Table 1. SEARs for Aboriginal heritage

Secretary's Environmental Assessment Requirements	Where addressed in this document
Aboriginal Heritage: provide a detailed Aboriginal heritage impact statement (AHIS) that identifies and addresses the extent of Aboriginal heritage impacts of the proposal on the site and the surrounding area, including objects, places or features (including biological diversity) of cultural value within the landscape. If Aboriginal Cultural Heritage is found at the site, a full Aboriginal Cultural Heritage Assessment Report together with document of required consultation must be provided.	Document is a Aboriginal Cultural Heritage Assessment Report Aboriginal community consultation in section 4

2 Landscape Context

2.1 Landform, hydrology, geology and soils

The study area is located on the Cumberland Plain, a large low lying and gently undulating 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 (Pickett and Alder 1997).

The study area is located within the catchment area of Elizabeth Macarthur Creek, a north flowing tributary of Caddies Creek. The topography of the study area is characterised by crest, elevated flat, open depression and slope landforms that form a north running low ridgeline and the creek flats and banks west of Elizabeth Macarthur Creek (Figure 4). Elizabeth Macarthur Creek and Caddies Creek are prominent hydrological features in the local landscape and are likely to have provided reliable sources of fresh water. Hydrology of the region has been highly altered since European settlement with the construction of various drainage works that have affected the natural flow and flood regime in these areas.

The underlying geology of the study area is characterised by Ashfield Shale (Rwa) within the crest and slope landforms and Quaternary Alluvium (Qal) within low lying areas adjacent to Elizabeth Macarthur Creek (Figure 5). Ashfield Shale geology forms the lowest formation of the Wianamatta Group and is present within the majority of the study area. Ashfield Shale was formed from subaqueous sedimentary deposits and consists of dark-grey to black sideritic claystone and siltstone, grading upward into a fine sandstone-siltstone laminate (Clark and Jones 1991). Quaternary Alluvium is a more recent formation deposited in association with the various major watercourses of the Cumberland Plain. It comprises fine-grained sand, silt and clay that were deposited in association with fluvial activity along the lower reaches of Elizabeth Macarthur Creek.

Previous archaeological investigations in the study area have identified silcrete cobbles on the slopes above Elizabeth Macarthur Creek (see Section 3). Silcrete is the primary raw material for stone artefacts found in the Sydney region and is found within outcrops of St Marys Formation geology which occurs across the northern Cumberland Plain and in Rickaby Creek Gravel geology (Doelman et al 2015: 498-500). While neither of these geologies have been identified within the study area, the silcrete cobbles are likely to represent remnants of St Marys Formation geology which is believed to have formed in the channels of a river system that flowed across the Cumberland Plain (Doelman et al 2015: 498-500).

The soil landscapes within the study area are linked to the topography and underlying geology (Figure 5). The residual Blacktown soil landscape is developed in situ on the gentle crests and slopes from underlying Ashfield Shale geology and consists of shallow to moderately deep hard-setting red, brown and yellow podzolic soils. It is subject to minor erosion where surface vegetation is not maintained. The soil landscape is often close to water sources and associated resources without being within areas prone to flooding. Previous archaeological investigations within the study area have shown that areas within close proximity to permanent water sources are more likely to contain high-density Aboriginal sites (see Section 3). These areas would have provided a relatively stable environment throughout the year for gathering a range of resources.

The South Creek soil landscape is present within the lower lying areas adjacent to Elizabeth Macarthur Creek that develops as sediment derived from the surrounding geology and is characterised by deep to very deep alluvial sediments, loams and clays. South Creek soils are located within a dynamic landscape of active floodplains and are subject to repeated episodes of erosion and deposition. Aboriginal land use and the associated discarding of stone artefacts are likely to have occurred in areas of South Creek soils due to their proximity to water sources; however, the dynamic nature of these areas is likely to have had a variable impact on the preservation of Aboriginal sites. Integrity of archaeological deposit in these areas is strongly dependent on topography and flooding. Sites within low lying areas adjacent to the creek lines are likely to be highly disturbed low-density scatters exposed by erosion and/or redeposited by flooding events while Aboriginal sites within (micro topographic) landforms elevated above the extent of flooding events are more likely to retain intact archaeological deposits.

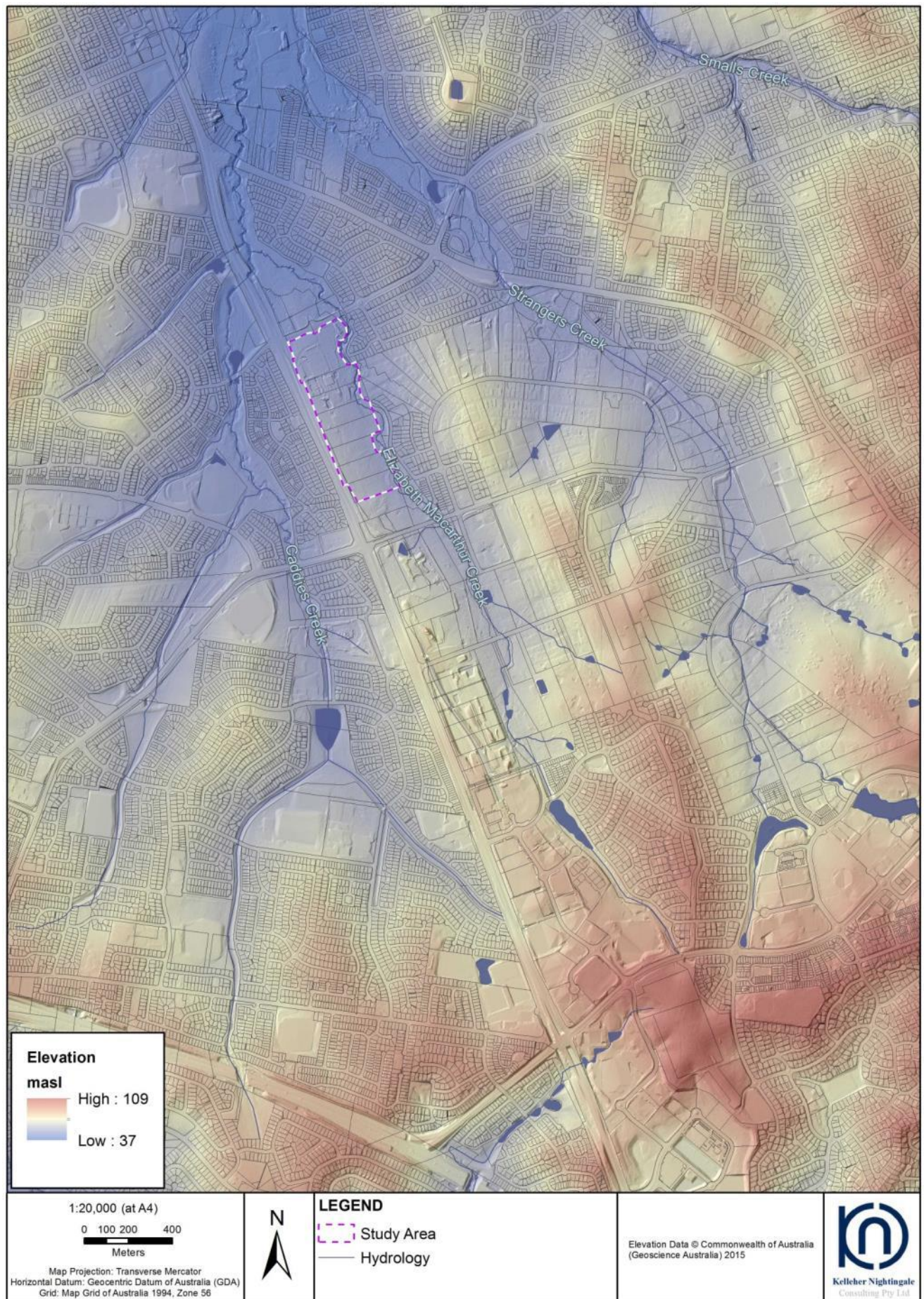


Figure 3. Relief map of study area

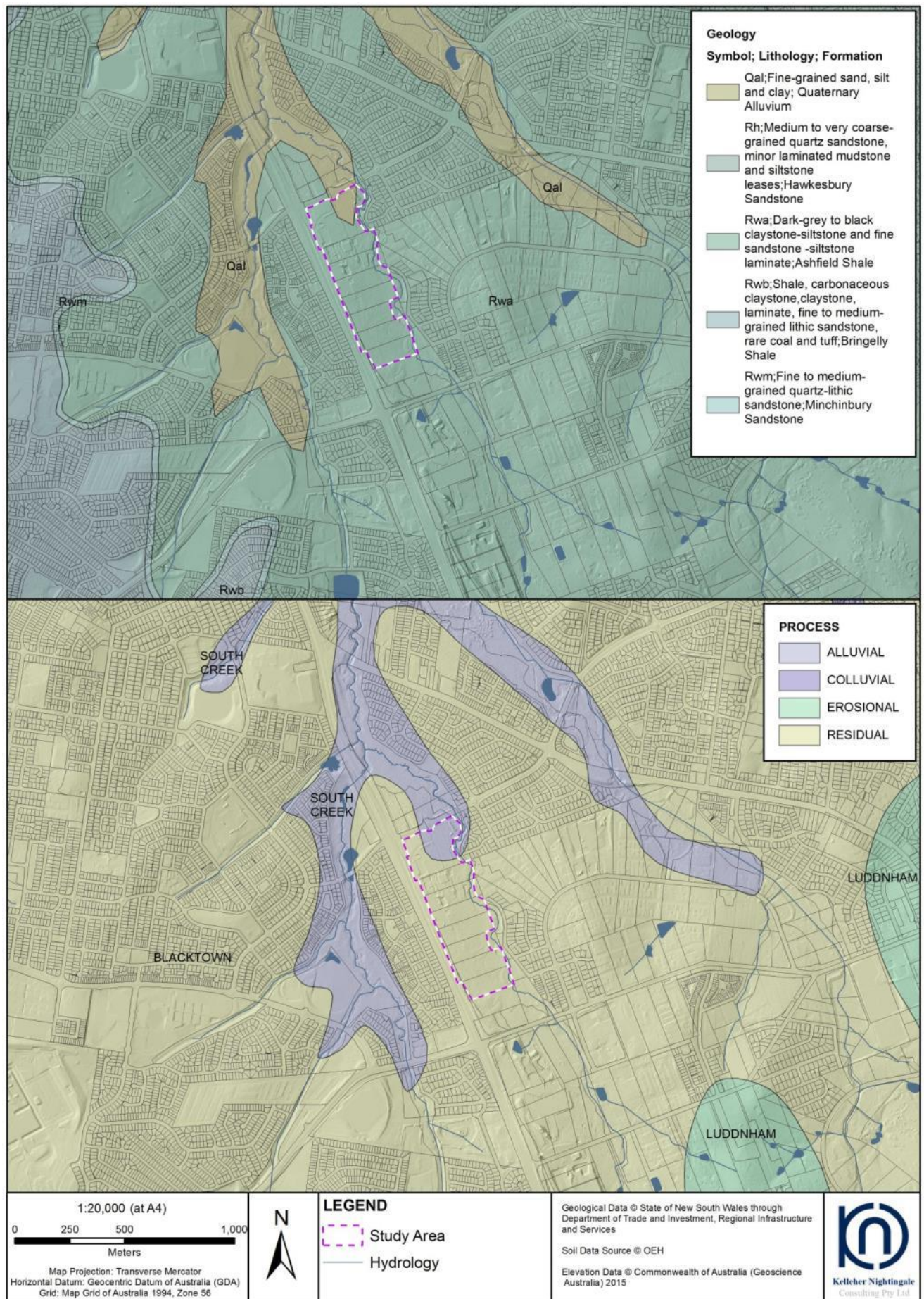


Figure 4. Geology and soil landscapes of study area

2.2 Vegetation and land use history

The distribution of native vegetation within the study area has been affected by historic and contemporary European land use practices in the region. Prior to 1788, 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 soils, topography and climate. Prior to European land clearance, vegetation within the study area would have derived from two chief communities. A study by the NSW National Parks and Wildlife Service (NPWS) in 2002 identified scattered remnant Cumberland Plain Woodland would have grown on the hills and ridges whilst the major drainage lines would have contained River-Flat Eucalypt Forest.

Cumberland Plain Woodland is characterised by a canopy of predominantly Grey Box (*Eucalyptus moluccana*) and Forest Red Gum (*E. tereticornis*) with Narrow-leaved Ironbark (*E. crebra*), Spotted Gum (*Corymbia maculata*) and Thin-leaved Stringybark (*E. eugenioides*). The undergrowth contains Blackthorn (*Bursaria spinosa*) and grasses such as Kangaroo Grass (*Themeda australis*) and Weeping Meadow Grass (*Microlaena stipoides* var. *stipoides*).

River-Flat Eucalypt Forest is characterised by an open tree layer of Forest Red Gum (*Eucalyptus tereticornis*), Cabbage Gum (*E. amplifolia*), Rough-Barked Apple (*Angophora floribunda*) and Broad-Leaved Apple (*A. subvelutina*). Smaller trees, such as White Feather Honey Myrtle (*Melaleuca decora*), Prickly-Leaved Teatree (*M. styphelioides*), Grey Myrtle (*Backhousia myrtifolia*), White Cedar (*Melia azaderach*), River Oak (*Casuarina cunninghamiana*) and Swamp Oak (*C. glauca*) may also be present. The undergrowth contains scattered shrubs including Sweet Bursaria (*Bursaria spinosa*), Forest Nightshade (*Solanum prinophyllum*) and Native Raspberry (*Rubus parvifolius*) with a groundcover of forbs, scramblers and grasses such including Weeping Grass (*Microlaena stipoides*), Kidney Weed (*Dichondra repens*) and Basket Grass (*Oplismenus aemulus*).

European settlement in the region began in the late 18th Century with land grants to ex-convicts, emancipists, retired soldiers and free settlers to the south of the study area (Brook 2008: 111). In 1794, a dirt road known as Hawkesbury Road was laid out from Parramatta, through the government farm at Toongabbie to the Hawkesbury River. The road was the primary transport route in the region and would eventually become Old Windsor Road and parts of Windsor Road. By the 1830s, large portions of the region were being used for farming (Brook 2008: 112). The area has remained predominantly semi-rural with land-use practices including low intensity cropping, grazing and pasturage. A number of large dams were constructed throughout the area and several residential and agricultural structures were also present. In the last decade, land use within the region has become increasingly urban and construction of the Sydney Metro Northwest (formerly North West Rail Link) has impacted a large portion of the study area.

2.3 Ethnohistoric context

The study area lies within a landscape which was important to, and intensively used by, past Aboriginal peoples (Attenbrow 2002). 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 (Walsh 1993: 1).

The history of the Cumberland Plain during the late 18th and early 19th centuries is heavily reliant on a small number of contemporary accounts generally written by British military officers or wealthy individuals. The information within these early British accounts regarding the Aboriginal people was reliant upon communication that was based on hand gestures and tone of voice (Troy 1993: 12). Watkin Tench, who published his account of the voyage of the First Fleet and the colony to December 1791, noted that his information on Aboriginal people was “made up of detached observations, taken at different times, and not from a regular series of knowledge of the customs and manners of a people with whom opportunities of communication are so scarce as to have been seldom obtained” (Tench 2012: 51).

As such, historical accounts from this period provide vague and at times contradictory information about Aboriginal people and some of the material within these accounts contains views that are not appropriate today and do not reflect the views of the authors of this report. It should also be noted that the early European 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. Aboriginal people transmitted information orally and the Darug Custodian Aboriginal Corporation, a Registered Aboriginal Stakeholder for the project advised that:

Knowledge of culture, lifestyle and lore have been part of Darug people's lives for thousands of years, this was passed down to the next generations and this started with birth and continued for a lifetime. Darug people spent a lifetime learning and as people grew older they passed through stages of knowledge, elders became elders with the learning of stages of knowledge not by their age, being an elder is part of the kinship system this was a very complicated system based on respect. (letter dated 19/08/2019)

The diversity of the groups living in the Sydney region was apparent to Europeans from their earliest interactions, despite having arrived with an almost total ignorance of the land and its people. Watkin Tench, a captain-lieutenant of the marines, was part of several expeditions to explore the wider Sydney area. Tench documented that on one expedition, two Aboriginal men who had been brought from the coast as guides were unfamiliar with the area west of Rose Hill (Parramatta) (Tench 1793:117-118) and that when the men 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).

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 (1793:230) noted that the inland groups ‘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’. Along the rivers and larger creeks, bandicoots and wallabies were caught in traps and snares, while birds were snared using decoys (Collins 1798: 555; Tench 1793). The open woodland of the Cumberland Plain would have played host to possums and gliders and these likely formed a major component of the diet. 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 and climbing up to reach them (Kohen 1993:10; Tench 1793:82). Berries, Banksia flowers and wild honey were also recorded as foods of the local inhabitants (Collins 1798 [Kohen 1985:9]).

The arrival of Europeans in 1788 began a cataclysmic series of events which radically changed the lifestyle of Aboriginal people on the Cumberland Plain. Contact with European introduced diseases, such as smallpox, that drastically altered the size and structure of the Aboriginal population, the expansion of settlements and establishment of farmland subsumed the traditional areas used to meet subsistence needs and successive government policies were adopted to make Aboriginal people adopt European culture, religion and lifestyle (Attenbrow 2002; Brook and Kohen 1991). European observations from the late 18th and early 19th centuries did not make reference to the Aboriginal name of the language that the ‘woods tribes’ they encountered spoke and 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 Thurawal 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]).

European settlement in the region began in the late 18th Century with land grants to ex-convicts, emancipists, retired soldiers and free settlers to the south of the study area (Brook 2008: 111). The seizure of resource gathering areas by Europeans for settlements, farmland and pastures across the Cumberland Plain in addition to droughts during the years 1803-1805 and 1814-1816 applied increasing pressure on the relationship between the Aboriginal population and European settlers. Throughout the last decade of the 18th Century, Pemulwuy, a member of the 'woods tribes' led a series of raids on farms in the Sydney region for food or as 'payback' for atrocities (Kohen 2005). In response military force was used. Collins recorded that "to check at once, if possible, these dangerous depredators, Captain Paterson directed a party of the corps to be sent from Parramatta, with instructions to destroy as many as they could meet with of the wood tribe (Bè-dia-gal); and, in the hope of striking terror, to erect gibbets in different places, whereon the bodies of all they might kill were to be hung" and that "several of these people were killed in consequence of this order; but none of their bodies being[sic] found" (Collins 1798: 416).

In March 1797, Pemulwuy led a large group of at least a hundred Aboriginal warriors in a raid on the Government Farm at Toongabbie. After the raid, Pemulwuy's group was followed to the outskirts of Parramatta by armed soldiers and settlers. During the ensuing 'Battle of Parramatta', Pemulwuy was shot at least seven times and taken to a government hospital. Although he was wearing leg irons and still had buckshot in his body and head, Pemulwuy escaped the hospital.

On 1 May 1801, Governor King issued a government and general order that Aboriginal people near Parramatta, Georges River and Prospect could be shot on sight and in November of that year he outlawed Pemulwuy and offered a reward for his capture (Kohen 2005). Pemulwuy was killed by Henry Hacking in June 1802 and Governor King ordered that his head should be preserved in spirits and sent to Sir Joseph Banks for study in England (Kohen 2005). King wrote to Banks that although Pemulwuy had been "a terrible pest to the colony, he was a brave and independent character" (Kohen 2005).

The expansion of European settlement along the Nepean and Hawkesbury Rivers in the early 19th Century and a period of drought during 1814-1816 saw another period of intensive conflict involving a series of raids and retaliatory killings between Aboriginal groups and settlers at Bringelly, Appin and along the Nepean and Hawkesbury Rivers. Many officials, including the then Governor Lachlan Macquarie, often recognised that these conflicts were initiated by the settlers; however, in 1816, Macquarie issued a proclamation that banned Aboriginal people from carrying weapons, banned traditional customs relating to punishment and limited the number of Aboriginal people allowed to gather within the colony (Campbell 1816: 1). The proclamation also stated Macquarie's intention changed how the Aboriginal people of the Cumberland Plains lived and encourage them to adopt the lifestyle of the British (Campbell 1816: 1). In addition punitive expeditions were dispatched to capture or kill those Aboriginal people involved in the conflict (Brook and Kohen 1991:23).

By the mid-19th century, the Aboriginal population of the Cumberland Plain were often forced to depend of large estates for employment and or were living within reserves and missions where their lives were often heavily controlled (Attenbrow 2002: 84, 159). New South Wales has the largest Aboriginal population in Australia and the Aboriginal people of New South Wales "continue to fight to protect cultural heritage and maintain cultural practices" (Hunt and Ellsmore 2016: 78). 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.

3 Archaeological Context

A series of extensive archaeological investigations have taken place over the last three decades within the suburb of Kellyville. The investigations pertinent to the current study area were undertaken as part of planning for infrastructure projects (Corkill 1992 and Brayshaw McDonald 1994) and the construction of the Sydney Metro Northwest (formerly North West Rail Link) (JMCHM 2006, GML 2012 and KNC 2015). These investigations are discussed in the Indigenous Heritage Assessment (KNC 2019) and a summary of the results of the Aboriginal Heritage Impact Assessment are presented below.

An Indigenous Heritage Assessment was undertaken by KNC in 2019 as part of preliminary planning for Kellyville and Bella Vista Station Precincts and included the current study area. The assessment included a review of the landscape context and previous archaeological investigations. The topography, hydrology and vegetation within the study area are likely to have shaped the types of activities undertaken by past Aboriginal people whilst topography, hydrology, soil processes and European land use practices impact the preservation of in situ archaeological material.

The assessment noted that Elizabeth Macarthur Creek and Caddies Creek would have formed focal points for past Aboriginal people due to the availability of water as well as aquatic and terrestrial flora and fauna. Locations in the vicinity of these creeks were likely to have been visited more frequently and for longer than other locations in the landscape. The residual Blacktown soil landscape was assessed as having the potential for retaining subsurface deposits due to the soils low susceptibility to erosion and surface movement where disturbance from land use practices was low. Soils within the active floodplain (1:100 year flood zone) were assessed as being unlikely to contain intact subsurface deposits due to repeated episodes of erosion and deposition caused by fluvial activity.

The assessment conducted a search of the Aboriginal Heritage Information Management System (AHIMS) and reviewed previous archaeological investigations. The assessment determined that 12 Aboriginal archaeological sites (comprising 16 AHIMS registrations) had been previously identified within assessment area (Table 2 and Figure 5). A total of three Aboriginal archaeological sites (comprising four AHIMS registrations) had been previously registered in the current study area.

The assessment noted that a large portion of the assessment area had been cleared of Aboriginal heritage prior to the construction of the Sydney Metro Northwest. As a result of the approvals, salvage excavation program and subsequent construction of the Sydney Metro Northwest within the Indigenous Heritage Assessment area, six of the identified Aboriginal archaeological sites had been destroyed, one site had been partially destroyed (NWRL PAD 7) and one area of PAD (NWRL PAD5) was found not to be an Aboriginal archaeological site. Within the current study area, one site (NWRL PAD9) had been destroyed.

Table 2. Identified Aboriginal archaeological features within the Indigenous Heritage Assessment area

AHIMS ID	Site Name	Site Type	Site Status	Relationship to Current Study Area
45-5-2027 (including duplicate recording 45-5-3064)	PK/GD1 near Parklea (including duplicate recording Burns Road North IF1)	Artefact	Valid	Partially within the current study area
45-5-2365	KV/CD1 and NWRL PAD 8	Artefact	Valid	Partially within the current study area
45-5-3063	Burns Road Compound PAD	Potential Archaeological Deposit (PAD)	Valid	Outside current study area
45-5-4262 (including duplicate recording 45-5-4841)	NWRL PAD7	Artefact	Partially Destroyed	Outside current study area
n/a	Waterstone Crescent PAD 1	Potential Archaeological Deposit (PAD)	Valid	Outside current study area
45-5-3158	WR-IF-1	Artefact	Destroyed	Outside current study area
45-5-3354	BRO1	Artefact	Destroyed	Outside current study area
45-5-4195	Cnr Taggart Way/Balmoral Road IF	Artefact	Destroyed	Outside current study area
45-5-4261 (including duplicate recording 45-5-4846)	NWRL PAD9	Artefact	Destroyed	Within current study area
45-5-4263 (including duplicate recording 45-5-4843)	NWRL PAD5	Former Potential Archaeological Deposit (PAD)	Not a site	Outside current study area
45-5-4264 (including duplicate recording 45-5-4839)	NWRL PAD4	Artefact	Destroyed	Outside current study area
45-5-4838	14 Cumbelege Lane1 and NWRL PAD 6	Artefact	Destroyed	Outside current study area

The Aboriginal archaeological features registered on the AHIMS database within the assessment area were identified as a result of previous archaeological investigations that included several archaeological surveys and a salvage excavation program. The initial identification of the sites and areas of PAD occurred due to the presence of low density surface stone artefact scatters (BRO1, PK/GD1 near Parklea, KV/CD1 and NWRL PAD 8, and 14 Cumbelege Lane1 and NWRL PAD 6), isolated artefacts (Cnr Taggart Way/Balmoral Road IF and WR-IF-1) or favourable topography and low visible disturbance that was determined to have potential for subsurface archaeological deposit (Burns Road Compound PAD, NWRL PAD4, NWRL PAD5, NWRL PAD7, NWRL PAD9 and Waterstone Crescent PAD 1). The surface stone artefact scatters were found in areas of surface erosion on landforms adjacent to Elizabeth Macarthur Creek (BRO1, PK/GD1 near Parklea, KV/CD1 and NWRL PAD 8) or on the ridge crest (14 Cumbelege Lane1 and NWRL PAD 6) while the areas of PAD were identified on landforms adjacent to Elizabeth Macarthur Creek (Burns Road Compound PAD and NWRL PAD7) or the ridge slope and crest (NWRL PAD4, NWRL PAD5 and NWRL PAD9).

A subsequent archaeological salvage excavation program was undertaken within the Indigenous Heritage Assessment area at BRO1, NWRL PAD4, NWRL PAD5, NWRL PAD7, NWRL PAD9, and 14 Cumbelege Lane1 and NWRL PAD 6 prior to the construction of the Sydney Metro Northwest. The program determined that there would be no impact to KV/CD1 and NWRL PAD 8 from the construction of the Sydney Metro Northwest. PK/GD1 near Parklea and Burns Road Compound PAD were also outside the construction boundary of the Sydney Metro Northwest. The salvage excavation found that the Aboriginal archaeological sites within the study area which were located on elevated landforms adjacent to Elizabeth Macarthur Creek (BRO1 and NWRL PAD7) contained large artefact assemblages and moderate to high subsurface artefact density with low levels of disturbance.

The Aboriginal archaeological sites within the study area which were located on the ridge slope and crest were found to be variably affected by disturbance with the deposit at NWRL PAD4 and NWRL PAD5 highly disturbed and the deposit at NWRL PAD9 shallow and deflated while the deposit at 14 Cumbelege Lane1 and NWRL PAD 6 was found to be relatively intact. The salvage excavation at NWRL PAD9 recovered a small artefact assemblage (n=179), a very small artefact assemblage (n=2) was recovered from NWRL PAD4 and no artefacts were recovered from NWRL PAD5. Conversely, site 14 Cumbelege Lane1 and NWRL PAD 6 had a large artefact assemblage containing over 1,900 artefacts that were recovered from a generally low artefact density deposit with localised areas of high artefact density.

The results of the salvage excavation at sites within the Indigenous Heritage Assessment area demonstrate that while the areas that were assessed as having potential for subsurface archaeological deposits were predominantly found to contain subsurface archaeological deposits, several areas had been impacted by disturbance that was not apparent on the surface. Overall, the subsurface deposit within elevated landforms in the vicinity of Elizabeth Macarthur Creek were found to be relatively intact while the ridge crest and slopes were predominantly more disturbed.

The assessment noted that the sites with the larger artefact assemblages (BRO1, NWRL PAD7, NWRL PAD9, and 14 Cumbelege Lane1 and NWRL PAD 6) contained different proportions of raw materials, artefact sizes and types. At BRO1, The majority of lithics recovered from the site were of silcrete (94%) followed by silicified tuff (5%) and a total of 27 whole cores were recovered during excavation, representing 2% of the assemblage. Cortical artefacts made up 31% of the assemblage overall which was the highest percentage of cortical artefacts found at any of the sites excavated as part of the salvage excavation program for the Sydney Metro Northwest. The results of the salvage excavation at BRO1 described a location utilised for the primary reduction of locally occurring silcrete cobbles and cores. Twenty backed artefacts were recovered, including one elouera. All of these were made of silcrete. The relatively high proportion of non platform debitage, larger sized flakes, high percentage of cortex and unifacially flaked cores indicated that the site was used for the primary production of artefacts. The presence of two possible heat treatment pits and a very high percentage of silcrete also support a primary production interpretation.

The majority of lithics recovered from NWRL PAD7 were also made of silcrete (90%) followed by silicified tuff (8%). Cores represented 3% of the assemblage (n=83), with a small proportion (n=5) being core fragments. Modified artefacts represented 6% of the assemblage and included 85 backed artefacts. Five of the backed artefacts, including two eloueras and one geometric microlith, were made of silicified tuff. The remainder of backed artefacts were made of silcrete. The preponderance of moderate sized silcrete flakes (trending towards the larger rather than the smaller size range) and moderate proportion of modified flakes and cores was interpreted as the mid-stage of a large silcrete production cycle, excluding the initial procurement quarrying/collection and late stage associated with a high proportion of finely made backed objects.

The artefact assemblage from NWRL PAD9 was predominantly made from silcrete (79%) followed by silicified tuff (12%); however, silcrete artefacts comprised (79%) of the assemblage, unlike the assemblages from BRO1 and NWRL PAD7 where silcrete artefacts consisted of 90% or higher. The most common reduction type was angular fragment (44%), followed by flakes (38%). Flake fragments made up only 15.5% of the assemblage. The assemblage also included five backed artefacts, two geometric microliths, three eloueras, one whole core and one core fragment. The high percentage of modified artefacts, specifically backed artefacts and geometrics was interpreted as indicating a selective use of this site. The small size of the recovered flakes, limited cores and low percentage of cortex were interpreted as representing an assemblage geared towards maintenance and selective secondary production.

Site 14 Cumbelege Lane1 and NWRL PAD 6 contained an artefact assemblage that was almost entirely made of silcrete (99%). The most common reduction type was flakes (42%) and flake fragments (40%). Cores represented 3% of the assemblage, with a large number (n=18) of these being core fragments. A total of 25 backed artefacts were recovered, including 17 geometric microliths and one elouera. All of these were made of silcrete. Modified artefacts represented 1.8% of the assemblage which was one of the lowest relative percentage of modified artefacts recovered during the salvage excavation program for the Sydney Metro Northwest. Cortical artefacts made up 27% of the assemblage overall. The results of the salvage excavation program indicate that the site was the location of primary reduction of silcrete cobbles and cores. Silcrete (unmodified) cobbles were identified on the slopes above the creek in the vicinity of the site and the relative high proportion of larger sized flakes, unifacially flaked cores and cortical artefacts all reflect the primary stage of lithic manufacture. The presence of backed artefacts, especially geometric microliths, indicates that intensive knapping for the production of tools also occurred. However, the low proportion of these artefacts would suggest their production was secondary to other activities on site.

The Sydney Metro Northwest salvage excavation program analysed seven radiocarbon samples that had been taken from contexts associated with artefacts. The radiocarbon samples returned dates range from 4,385 years ago to 570 years ago indicates that the area was being used intermittently over a time span of at least 4,000 years in duration. One charcoal sample was retrieved from BRO1 that was taken from a depth of 13 to 16 centimetres below the ground surface within an excavation square that contained six artefacts. The radiocarbon determination for the sample was 4385 ± 38 BP (Wk-38787). A charcoal sample was also retrieved from NWRL PAD7. The sample was taken from a depth of 21 centimetres below the ground surface within an excavation square that contained 202 artefacts. The radiocarbon determination for the sample was 3657 ± 22 BP (Wk-38788).

The assessment noted that the overall results of the archaeological salvage excavation program found that archaeological sites located in the Caddies Creek valley had higher artefact densities than those in the Seconds Ponds Creek valley. The two creek systems lie parallel to one another, being separated by a north/south trending ridge line. The results of the program indicate that Aboriginal occupation of the ridgeline was focussed upon select locations. These broad patterns suggest that Aboriginal people were choosing to return to specific preferred locations for specific activities.

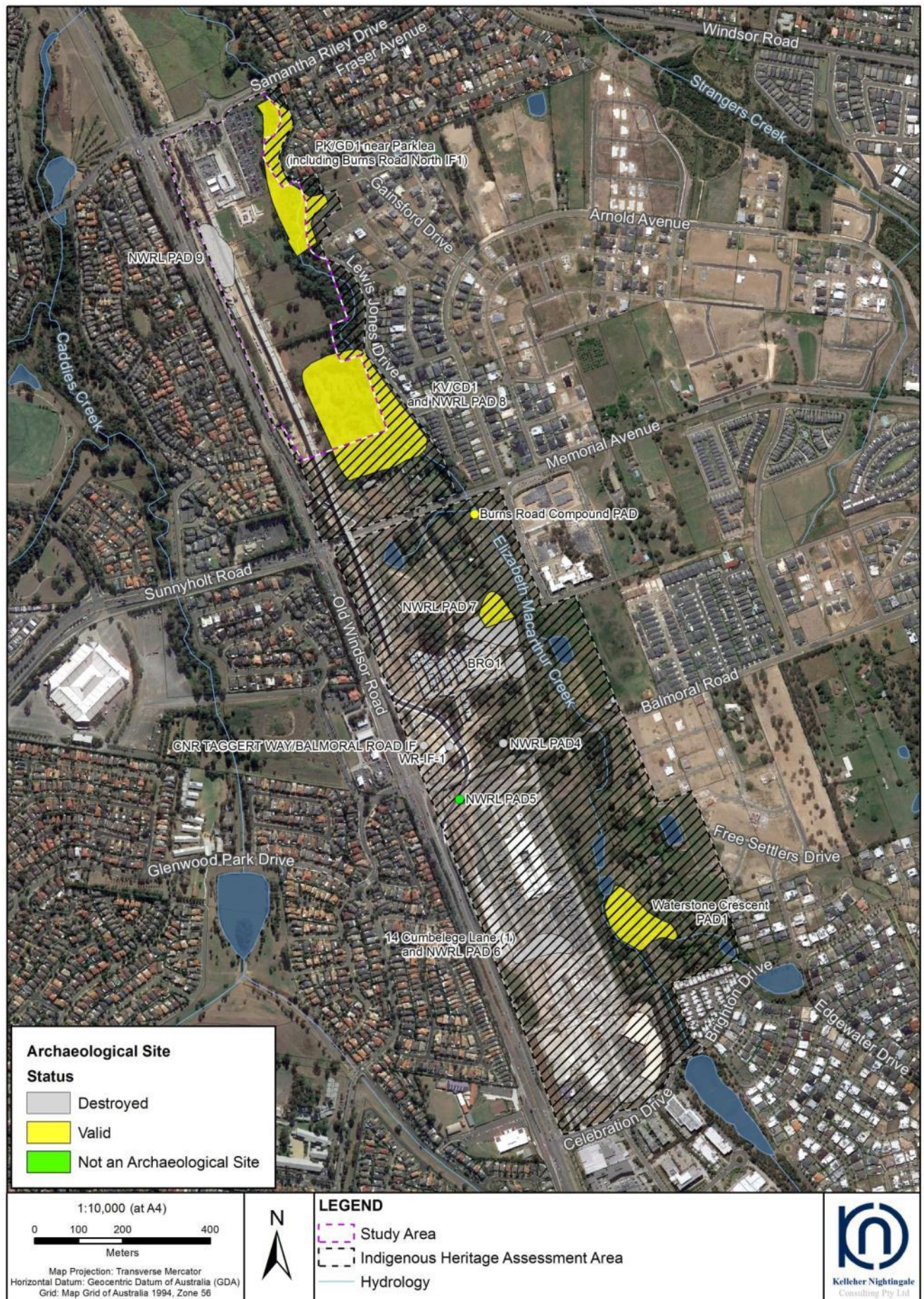


Figure 5. Identified Aboriginal archaeological sites within the Indigenous Heritage Assessment area

4 Consultation Process

4.1 Consultation for the CHAR and AHIP application

The aim of consultation is to integrate cultural and archaeological knowledge and ensure registered stakeholders 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 80C of the *National Parks and Wildlife Regulation 2009*. The formal consultation process has included:

- Government agency notification letters (letters dated 7/06/2019);
- Advertising for registered stakeholders in local media (*Hills Shire Times* 25/06/2019: refer Appendix A);
- Notification of closing date for registration (9/07/2019);
- Provision of project information and proposed cultural heritage assessment methodology (allowing for a 28 day review period);
- Provision of draft CHAR for review (allowing a minimum 28 day review period), and;
- Ongoing consultation with the local Aboriginal community.

4.2 Registration of interest

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 was to occur were invited to register an interest in a process of community consultation. Investigations for the Kellyville Station Precinct project have included consultation with 20 Aboriginal community individuals and groups as listed in Table 3.

Table 3. Registered Aboriginal stakeholders

Registered Aboriginal Stakeholder	Representative and/or Contact Person
Deerubbin Local Aboriginal Land Council	Steve Randall
A1 Indigenous Services	Carolyn Hickey
Amanda Hickey Cultural Services	Amanda Hickey
Aragung Aboriginal Cultural Heritage Site Assessments	James Eastwood
Barking Owl Aboriginal Corporation	Jody Kulakowski
Barraby Cultural Services	Lee Field
Darug Custodian Aboriginal Corporation	Justine Coplin
Darug Tribal Aboriginal Corporation	John Reilly
Didge Ngunawal Clan	Paul Boyd & Lilly Carroll
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrise
Kawul Cultural Services	Vicki Slater
Merrigarn	Shaun Carroll
Muragadi Heritage Indigenous Corporation	Jesse Johnson
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson
Tocomwall	Scott Franks
Tony Williams	Tony Williams
Wailwan Aboriginal Group	Phil Boney
Yulay Cultural Services	Arika Jalomaki
Yurrandaali Cultural Services	Bo Field
Registered Aboriginal Stakeholder [details withheld]*	Registered Aboriginal Stakeholder [details withheld]*

*One additional Aboriginal stakeholder has registered for the project but has chosen to withhold their details in accordance with item 4.1.5 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010a).

4.3 Stakeholder responses to the proposed assessment methodology for the Cultural Heritage Assessment Report

Formal responses to the proposed assessment methodology were received from A1 Indigenous Services (email received 14/07/2019), Barraby Cultural Services (email received 12/07/2019), Murra Bidgee Mullangari Aboriginal Corporation (email dated 11/07/2019), Merrigarn (email dated 23/07/2019), Muragadi Heritage Indigenous Corporation (email dated 23/07/2019), Tocomwall (email dated 25/07/2019), Yulay Cultural Services (17/07/2019) and Yurrandaali Cultural Services (17/07/2019). The respondents expressed a general support for the methodology. No cultural issues or cultural information specific to the study area was supplied. Comments and information received from stakeholders during this period is attached in full in Appendix B.

4.4 Review of draft CHAR and stakeholder responses

The draft CHAR was provided to stakeholders for a 28 day review and comment period (letters/emails dated 1/08/2019). 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. Formal responses to the draft CHAR were received from Barraby Cultural Services, Darug Custodian Aboriginal Corporation, Murra Bidgee Mullangari, Muragadi and Wailwan Aboriginal Group. Comments and information received from stakeholders during this period is attached in full in Appendix B.

Barraby Cultural Services advised that they had read and support the draft CHAR (email dated 1/08/2018). Barraby Cultural Services also advised that they agreed with the salvage excavation methodology (email dated 1/08/2018).

Darug Custodian Aboriginal Corporation (DCAC) stated that they had reviewed the draft CHAR and supported the recommendations (letter dated 19/08/2019). DCAC advised that it “has been discussed by our group and with many consultants and researches that our history is generic and is usually from an early colonists perspective or solely based on archaeology and sites. These histories are adequate but they lack the people’s stories and parts of important events and connections of the Darug people and also other Aboriginal people that now call this area home and have done so for numerous generations.” (letter dated 19/08/2019).

DCAC stated that “Darug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Darug lifestyle and occupation are all across our country, due to the rapid development of Sydney many of our sites have been destroyed, our sites are thousands of years old and within the short period of time that Australia has been developed pre contact our sites have disappeared” (letter dated 19/08/2019).

Murra Bidgee Mullangari advised that they had read the draft CHAR and endorsed the recommendations (email dated 2/08/2019).

Muragadi advised that they had read the draft CHAR and agreed with the recommendations (email dated 2/08/2019).

Wailwan Aboriginal Group stated that they had read the draft CHAR and did not identify any issues (email dated 2/08/2019).

4.5 Aboriginal cultural values

It has been identified during the initial consultation process that the wider study area has cultural heritage value to the local Aboriginal community. Some of the Aboriginal cultural heritage values expressed by stakeholders include:

- strong association with the land
- responsibility to look after the land, including the heritage sites, plants and animals, creeks and the land itself
- scarred trees
- artefact sites and landscape features
- creek lines, particularly Bonds Creek and tributaries
- indigenous plants and animals
- general concern for burials, as their locations are not always known and they can be found anywhere.

Several registered stakeholders have expressed a connection to the study area with several generations of their families living in the region.

DCAC stated that “this area is significant to the Darug people due to the evidence of continued occupation, within close proximity to this project site there is a complex of significant sites” and that “landscapes and landforms are significant to us for the information that they hold and the connection to Darug people” (letter dated 19/08/2019).

DCAC advised that “Aboriginal people (Darug) had a complex lifestyle that was based on respect and belonging to the land, all aspects of life and survival did not impact on the land but helped to care for and conserve land and the sustenance that the land provided. As Darug people moved through the land there were no impacts left, although there was evidence of movement and lifestyle, the people moved through areas with knowledge of their areas” (letter dated 19/08/2019).

5 Summary and Analysis of Background Information

Analysis of the background information presented in sections 2, 3 and 4 allows an assessment of the cultural heritage values within the study area to be made. Combining data from historical/ethnographic sources, Aboriginal community consultation, landscape 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 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. Early colonial interest in the area led to interactions between the British and the local Aboriginal people relatively soon after the arrival of Europeans. The occupation of the region from the late 18th Century by European settlers and subsequent government policies radically changed the lifestyle of Aboriginal people living in the area. Contact with the 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. Government policies further restricted the movement of Aboriginal people and actively attempted to make them adopt European culture; however, 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. Members of the contemporary Aboriginal community continue to experience connection with the area through cultural and family associations.

Archaeological investigations within the region have revealed physical traces of a range of Aboriginal land use activities which have survived in the form of archaeological sites. Recorded site types in the region include open artefact scatters (camp sites) and isolated artefacts. Previous archaeological investigations within the study area have consisted of archaeological surveys which identified several low density surface artefact scatters and areas of potential archaeological deposit (PAD). Archaeological salvage excavation at several of these sites and areas of PAD prior to the construction of the Sydney Metro Northwest found moderate to high subsurface artefact density at sites on landforms adjacent to major creeks and low to moderate subsurface artefact density at sites on ridge crest and slope landforms. Overall, the Aboriginal archaeological sites in the vicinity of creeks had low levels of disturbance while the preservation in sites identified on the ridge varied and several were found to be highly disturbed. Radiocarbon samples, taken from contexts associated with artefacts during the Sydney Metro Northwest salvage excavation program, returned dates range from 4,385 years ago to 570 years ago and indicate that the area was being used intermittently over a time span of at least 4,000 years in duration.

An Indigenous Heritage Assessment was undertaken by KNC in 2019 as part of preliminary planning for Kellyville and Bella Vista Station Precincts and included the current study area. The assessment determined that three Aboriginal archaeological sites (comprising four AHIMS registrations) had been previously identified within the current study area (Table 2 and Figure 5). The sites consisted of three artefact scatters. The assessment noted that a large portion of the current study area had been cleared of Aboriginal heritage prior to the construction of the Sydney Metro Northwest and that one of the identified Aboriginal archaeological sites (NWRL PAD 9) had been destroyed.

5.1 Summary of known Aboriginal sites within the study area

Review of background information, Aboriginal community consultation, and archaeological assessment has resulted in the identification of two Aboriginal archaeological sites (comprising three AHIMS registrations) within the study area. The Aboriginal archaeological sites are listed in Table 4 and shown on Figure 6.

Table 4. Identified Aboriginal archaeological sites within the study area

Site Name	AHIMS ID	Site Feature
PK/GD1 near Parklea (including duplicated recording Burns Road North IF1)	45-5-2027 (including duplicate recording 45-5-3064)	Artefact
KV/CD1 and NWRL PAD 8	45-5-2365	Artefact



Figure 6. Identified Aboriginal archaeological sites within the study area

5.2 Aboriginal sites within the study area

Site name: PK/GD1 near Parklea (including duplicated recording Burns Road North IF1)
AHIMS site ID: 45-5-2027 (including duplicate recording 45-5-3064)

Site PK/GD1 near Parklea was an artefact scatter situated on an elevated landform adjacent to Elizabeth Macarthur Creek. The site was located south of Samantha Riley Drive, east of Decora Drive and West of Landy Place. The artefact scatter consisted of 15 artefacts that were identified eroding from the eastern and western creek banks. The land either side of the creek had been variably disturbed by agricultural activities; however, the creek banks were assessed as having potential for in situ material.

A second AHIMS registration (Burns Road North IF1) is located within the site area. The AHIMS site card for this item is unavailable; however, the registered information indicates that it was a stone artefact site and is likely to be a duplicate recording of site PK/GD1 near Parklea.

The site was assessed as part of the Indigenous Heritage Assessment. The assessment noted that the site was located within the Elizabeth Macarthur Creek riparian corridor and was covered with dense vegetation with low levels of visible surface disturbance. An aerial photograph of the site, taken in 1943, indicates that Elizabeth Macarthur Creek had not been modified in the vicinity of the site and that while there was some evidence of historical ploughing, the area did not appear to have been subject to heavy historical disturbance. The site was assessed as having the potential for subsurface archaeological deposit and moderate archaeological significance.

Site name: KV/CD1 and NWRL PAD 8
AHIMS site ID: 45-5-2365

Site KV/CD1 and NWRL PAD 8 was an artefact scatter situated on a gentle toe slope 30 metres east of Elizabeth Macarthur Creek. The site was located on the western side of Lewis Jones Drive approximately 100 metres north of Memorial Avenue and approximately 270 metres north east of the intersection of Old Windsor Road and Memorial Avenue. The site was initially identified as a surface artefact scatter consisting of two silcrete flake fragments and one quartz bipolar flake. The artefacts were located within a small surface exposure on a creek flat adjacent to the eastern bank of Elizabeth Macarthur Creek. The area appeared to have shallow deposit and had been disturbed by past land use.

The site was revisited by GML as part of a survey for the NWRL. The survey determined that an area of PAD (NWRL PAD 8) encompassed the initial surface artefact scatter on the eastern bank of Elizabeth Macarthur Creek in addition to the slope and crest on the western side of the creek. A Phase 1 assessment of the site was undertaken by KNC in compliance with Infrastructure Approvals (SS1-5100 and SSI-5414) prior to the construction of the NWRL. The Phase 1 assessment determined that there would be no impact to the site within the NWRL impact boundary.

The site was assessed as part of the Indigenous Heritage Assessment. The assessment noted that the site was located within a former paddock and was covered with cluster of regrowth trees. An aerial photograph of the site, taken in 1943, indicates that Elizabeth Macarthur Creek had not been modified in the vicinity of the site and that the area had not been subject to heavy historical disturbance. The site was assessed as having the potential for subsurface archaeological deposit and moderate archaeological significance.

6 Cultural Heritage Values and Statement of Significance

6.1 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.

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, 1999 (Australia ICOMOS 1999). 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 four 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
- 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 *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. According to DPIE, "social or cultural value can only be identified through consultation with Aboriginal people" (OEH 2011:8).

There are two locations of recorded Aboriginal cultural heritage values within the study area. The significance assessment for the identified archaeological sites has focussed on the social/cultural, historic, scientific and aesthetic significance of Aboriginal heritage values as identified in *The Burra Charter*.

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.

It has been identified during the consultation process that the local area has cultural heritage value (social value) to the local Aboriginal community.

Regarding Aboriginal sites identified within the study area, no specific cultural or social values expressed by these sites have been identified to date.

Historic Values

Historical research did not identify any information regarding specific historical significance of identified Aboriginal archaeological sites within the study area. No specific historical significance for the sites within the study area has been provided by the registered Aboriginal stakeholders to date.

Scientific 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. 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 region. 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.

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 associated aesthetic values have been identified by registered Aboriginal community groups to date. Archaeologically, the study area does not contain these values.

6.2 Statements of Significance

The study area contains two identified Aboriginal archaeological sites as defined under the *National Parks and Wildlife Act 1974*. Based on the values assessment, the following levels of significance were ascribed to the sites within the study area:

PK/GD1 near Parklea (including duplicate recording Burns Road North IF1)

PK/GD1 near Parklea represents a commonly occurring site type, consisting of a surface artefact scatter and associated area of potential archaeological deposit on an elevated landform adjacent to Elizabeth Macarthur Creek. The artefacts at the site are typical of the region in terms of type and raw material. Previous archaeological investigations within the study area and in the vicinity undertaken as part of the Sydney Metro North West have identified several moderate to high artefact density sites on similar landforms. The archaeology present at the site offers scientific insight into past Aboriginal activities along Elizabeth Macarthur Creek and its tributaries. Based on the intactness, representativeness and research potential of the site, PK/GD1 near Parklea is determined to have *moderate archaeological significance*.

KV/CD1 and NWRL PAD 8

KV/CD1 and NWRL PAD 8 represents a commonly occurring site type, consisting of a surface artefact scatter and associated area of potential archaeological deposit on a gentle toe slope landform in the vicinity of Elizabeth Macarthur Creek. The artefacts at the site are typical of the region in terms of type and raw material. Previous archaeological investigations within the study area and in the vicinity undertaken as part of the Sydney Metro North West have identified several moderate to high artefact density sites on similar landforms. The archaeology present at the site offers scientific insight into past Aboriginal activities along Elizabeth Macarthur Creek and its tributaries. Based on the intactness, representativeness and research potential of the site, KV/CD1 and NWRL PAD 8 is determined to have *moderate archaeological significance*.

Table 5. Assessed significance of Aboriginal archaeological sites within the study area

Site Name	AHIMS ID	Site Feature	Significance
PK/GD1 near Parklea (including duplicate recording Burns Road North IF1)	45-5-2027 (including duplicate recording 45-5-3064)	Artefact	Moderate
KV/CD1 and NWRL PAD 8	45-5-2365	Artefact	Moderate

7 The Proposed Activity and Impact Assessment

Landcom is proposing to redevelopment of surplus government owned land within the Kellyville Station Precinct to facilitate the renewal of the locality and deliver a greater supply and diversity housing and employment opportunities.

The proposed works would include:

- Residential dwellings comprising residential flat buildings and terraces
- Non-residential land uses including retail and commercial
- A new primary school
- New streets and intersection connections to the existing road network
- Public open space including public domain and parks and
- Community facilities.

The proposed works would impact two Aboriginal archaeological sites. Impact to these sites is unavoidable due to the requirements of the proposal and limited area in which the proposal could be constructed. The proposed redevelopment is constrained by existing structures and the topography of the area, leaving a limited spatial area in which it could be constructed.

The expected impact and type, degree and consequences of this impact are detailed in Table 6 below.

Table 6. Proposed impact to Aboriginal archaeological sites within the study area

Site Name	AHIMS Number	Description	Significance	Type / Degree of Harm	Consequence of Harm
PK/GD1 near Parklea (including duplicate recording Burns Road North IF1)	45-5-2027 (including duplicate recording 45-5-3064)	Surface artefact scatter and associated area of PAD located on an elevated landform adjacent to Elizabeth Macarthur Creek.	Moderate	Direct / Partial	Partial loss of value
KV/CD1 and NWRL PAD 8	45-5-2365	Surface artefact scatter and associated area of PAD located on a gentle toe slope landform adjacent to Elizabeth Macarthur Creek.	Moderate	Direct / Partial	Partial loss of value



Figure 7. Proposed impact area and Aboriginal heritage

8 Mitigating Harm

The proposal would impact two Aboriginal archaeological sites: site PK/GD1 near Parklea (including duplicate recording Burns Road North IF1) and site KV/CD1 and NWRL PAD 8. The sites are considered to display moderate significance based on scientific value and potential to inform on Aboriginal landscape use in the area.

The archaeological values of the sites are linked to the physical information that the sites contain. The loss of intrinsic Aboriginal cultural value of impacted sites cannot be offset; however the salvaged information will increase our understanding, strengthen our interpretations and improve ongoing and future management of Aboriginal heritage in the surrounding area.

Management measures must also be implemented for Aboriginal objects situated within the non-impacted portions of the sites to ensure these areas are avoided by proposed construction activities. Management measures to be implemented include protective fencing and identification as 'no-go zones' on all maps, including the Construction Environmental Management Plan (CEMP). Documented toolbox talks will also be held to ensure all on-site staff and contractors are aware of obligations and requirements regarding the protection of Aboriginal heritage and adjacent site areas.

Suitable recommendations for the identified impacts to the sites have been developed based on environmental context and condition, background research and consultation with stakeholders. Measures for mitigating harm to the sites are outlined in Table 7 below.

Table 7. Mitigation measures for impacted Aboriginal sites

Site Name	AHIMS number	Mitigating Harm
PK/GD1 near Parklea (including duplicate recording Burns Road North IF1)	45-5-2027 (including duplicate recording 45-5-3064)	Archaeological salvage excavation of impacted portion of site. Management measures to be implemented to ensure non-impacted portion of site is avoided by proposed activities (protective fencing, identification in the CEMP, toolbox talks) Project Approval required.
KV/CD1 and NWRL PAD 8	45-5-2365	Archaeological salvage excavation of impacted portion of site. Management measures to be implemented to ensure non-impacted portion of site is avoided by proposed activities (protective fencing, identification in the CEMP, toolbox talks) Project Approval required.

9 Management Outcomes

The following general management outcomes would be implemented in accordance with the mitigation strategy for the proposal as outlined in Section 8.

9.1 Mitigation through archaeological salvage excavation

The Aboriginal archaeological sites in Table 8 would be partially impacted by the proposed activities and are of at least moderate Aboriginal heritage significance. Salvage excavation is required for the impacted portion of the sites and must be completed prior to any activities which may harm Aboriginal objects at these site locations. Salvage excavation can only occur after project approval is obtained.

Salvage excavation must be completed prior to any activities which may harm Aboriginal objects at these locations. Salvage excavation activities would be undertaken in accordance with the methodology attached as Appendix C.

Table 8. Aboriginal archaeological sites/PADs requiring mitigation of impacted portion

Archaeological sites requiring mitigation of impacted portion (salvage excavation)	
Archaeological Sites (requiring salvage excavation of impacted portion and protection of non-impacted portion)	PK/GD1 near Parklea (including duplicate recording Burns Road North IF1) KV/CD1 and NWRL PAD 8

9.2 Conservation of portion of Aboriginal archaeological sites outside impact area

The Aboriginal archaeological sites in Table 9 would be partially impacted by the proposed activities. The location of the portions of these sites to be conserved should be identified in the Construction Environmental Management Plan, Construction Heritage Sites Map and Project Inductions to ensure they are not inadvertently damaged as a result of construction works.

In addition, the portion of the site outside the project boundary should be fenced off prior to the commencement of construction works to ensure that the area is not inadvertently affected as a result of construction work. At a minimum the fencing should clearly define the project boundary in relation to the archaeological site. Fencing would be maintained throughout the duration of works.

Table 9. Aboriginal archaeological sites requiring protection of non-impacted portion

Archaeological sites requiring protection of non-impacted portion	
Archaeological Sites (requiring protection of non-impacted portion and salvage excavation of impacted portion)	PK/GD1 near Parklea (including duplicate recording Burns Road North IF1) KV/CD1 and NWRL PAD 8

10 Management Procedures

10.1 Management Policy for Aboriginal Heritage

The policy for the management and conservation of Aboriginal heritage in relation to salvage activities and construction activities (or fencing, geotechnical investigations, minor clearing, establishing site compounds, adjustment to services/utilities etc.) is described below:

Responsibility for compliance with Management Policy

1. The Proponent must ensure all of its employees, contractors and subcontractors and agents are made aware of and comply with this management policy.
2. The Proponent must appoint a suitably qualified and experienced environmental manager who is responsible for overseeing the activities related to this management policy.
3. The Proponent must appoint a suitably qualified and experienced Archaeologist who is responsible for overseeing, for and on behalf of the Proponent, the archaeological activities relating to the project.

Operational constraints

4. Where archaeological excavation has been nominated for impacted sites, no construction activities (or fencing, geotechnical investigations, minor clearing, establishing site compounds, adjustment to services/utilities etc.) can occur on the lands to be investigated until the relevant archaeological excavation at the nominated site have been completed.
5. Prior to the commencement of early works activity (e.g. fencing, minor clearing, establishing site compounds etc.) a construction heritage site map identifying the Aboriginal site to be excavated must be prepared..
6. All employees, contractors, subcontractors and agents carrying out early works activities (e.g. fencing, minor clearing, geotechnical investigations, establishing site compounds etc.) must undertake a Project induction (including the distribution of a construction heritage site map) to ensure that they have an understanding and are aware of the Aboriginal heritage issues affecting the activity.

Areas of Aboriginal archaeological sites and objects to be impacted

7. The areas of archaeological sites and objects identified as being impacted by construction activities are listed in Table 6 of this report and are in accordance with the Project Approval.

Human Remains

8. This management policy does not authorise any damage of human remains.
9. If potential human remains are disturbed the Proponent must follow the procedures outlined in Section 10.2 below.

Salvage Activities

10. Archaeological salvage excavation where appropriate must be carried out in accordance with the methodology specified in Appendix C and the Project Approval.

Involvement of Aboriginal groups and/or individuals

11. Opportunity must be provided to the registered Aboriginal Stakeholders to be involved in the following activities:
 - a. assist with the salvage excavation.

Conservation of salvaged Aboriginal objects

12. Department of Planning, Industry and Environment (DPIE), as the approval authority, will be consulted;
13. Aboriginal objects will be transferred to the Australian Museum in accordance with legislative requirements, Australian Museum Archaeological Collection Deposition Policy v1.0 January 2012;
14. In the event the Australian Museum is unable to accept the objects, the objects will be transferred in accordance with a Care Agreement or similar agreement to an Aboriginal community;
15. In the event that neither the Australian Museum nor the Aboriginal community are able to accept the archaeological objects, KNC will seek a Care Agreement or similar agreement to curate the objects.

Reporting requirements

16. A written archaeological report documenting the salvage excavation must be provided within a reasonable time in accordance with the Project Approval following the completion of the archaeological program.
17. An Aboriginal Site Impact Recording Form (ASIRF) must be completed and lodged for the archaeological sites listed in Table 6 within a reasonable time after the approved activities have been completed.

Notification and reporting about incidents that breach this management policy

18. Incident reporting requirements in accordance with the Project Approval is to include Aboriginal heritage.

10.2 Procedures for Handling Human Remains

- **Note that Project Approvals do not include the destruction of Aboriginal remains**

This section outlines the procedure for handling human remains in accordance with the Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the *Heritage Act 1977* (NSW Heritage Office 1998) and the Aboriginal Cultural Heritage Standards and Guidelines Kit (NPWS 1997). In the event that construction activity reveals possible human skeletal material (remains), the following procedure is to be followed:

1. as soon as remains are exposed, all work is to halt at that location immediately and the Project environmental manager on site is to be immediately notified to allow assessment and management;
 - i. stop all activities; and
 - ii. secure the site.
2. contact police, the discovery of human remains triggers a process which assumes that they are associated with a crime. The NSW Police retain carriage of the process until such time as the remains are confirmed to be Aboriginal or historic;
3. DPIE, as the approval authority, will be notified when human remains are found;
4. once the police process is complete and if remains are not associated with a contemporary crime contact DPIE. DPIE will determine the process;
 - i. if the remains are identified as Aboriginal, the site is to be secured and DPIE and all Aboriginal stakeholders are to be notified in writing; or
 - ii. if the remains are identified as non-Aboriginal (historical) remains, the site is to be secured and the DPIE is to be contacted;
5. once the police process is complete and if the remains are identified as not being human work can recommence once the appropriate clearances have been given.

10.3 Procedures for Handling Unexpected Aboriginal Objects

This section outlines the procedure for handling unexpected archaeological sites and objects. In the event that construction activity reveals possible Aboriginal objects other than those identified in Table 6, the following procedure is to be followed:

1. all work is to halt at that location immediately and the Project environmental manager on site is to be immediately notified to allow assessment and management;
 - i. stop all activities; and
 - ii. secure the site.
2. contact the project archaeologist to assess the find and determine if it is consistent with the Project Approval;
 - i. if the find is consistent, the archaeologist will allow work to continue
 - ii. if the find is inconsistent, DPIE will be notified as soon as practical providing any details of the Aboriginal object and its location. Work cannot recommence unless authorised in writing by DPIE.

10.4 Procedure for proposed changes to Approved Projects

Landcom recognises that during the construction of the project design alterations or other changes to the Approved Project may be required.

A proposed change to the Approved Project (such as an alteration of the current design, the location of ancillary facilities) within the project corridor may result in a:

- Reduced impact to Aboriginal cultural heritage; or an
- Increased impact to Aboriginal cultural heritage.

Note: the use of the word impact in this section is defined as an impact on the significance of Aboriginal cultural heritage rather than simply an increased physical impact.

To ensure consistency with the Approved Project and this document any change in the overall impact on Aboriginal cultural heritage will need to be considered. The process to determine consistency is outlined in Section 10.4.1 below.

Where a proposed change to the Approved Project occurs outside of the project boundary considered for the EIS further heritage assessment will be required to determine if there would be an impact on Aboriginal cultural heritage and whether this represents a modification to the Approved Project (outlined below).

10.4.1 *Changes in heritage impact*

Where the Proponent seeks to make a change to the design and construction of the Approved Project which changes the assessed impact on Aboriginal cultural heritage the Proponent will need to prepare an assessment of the new impacts of this work in consultation with the appointed Archaeologist. The continued involvement of the Aboriginal stakeholders in this process is outlined in Section 10.5.

- ♦ New impacts consistent with previously identified impacts

If a proposed change to the Approved Project is considered to have a neutral or lesser significant impact on Aboriginal cultural heritage than that identified in this document it would be considered a consistent impact.

If the proposed change is considered to be consistent with the Approved Project, the proponent may approve the change with no requirements to seek further approval. However, in certain circumstances, further consultation with Aboriginal stakeholders may still be required (see Section 10.5 below).

- ♦ New impacts inconsistent with previously identified impacts

If a proposed change to the Approved Project is considered to have a more significant impact on Aboriginal cultural heritage than that identified in the EIS it would be considered an inconsistent impact.

If the proposed change is considered inconsistent with the assessed impact on Aboriginal cultural heritage, as detailed in the Project Approval, an amendment to the mitigation measures agreed in this report is required. If this proposed change is considered inconsistent with the Approved Project, a modification of the Approved Project is required. Further consultation with Aboriginal stakeholders will be undertaken (see 10.5 below).

10.5 **Process for continued consultation with Aboriginal stakeholders**

The extent to which the proponent will continue to consult with Aboriginal stakeholders is dependent upon the level of impact and whether the area was assessed as part of the EIS. The types of potential impacts are identified as reduced impacts, increased impacts or unknown impacts.

a) Reduced or neutral impact

If as a result of alterations to the project design a previously identified impact to an Aboriginal heritage item is reduced or neutral then no further consultation is required.

If as a result of alterations to the project design an impact to an Aboriginal heritage item is proposed that results in a reduced impact on the overall heritage significance of the project area (i.e. the cumulative impact is reduced), then further consultation with Aboriginal stakeholders will be undertaken. This consultation may entail a phone call and phone log of comments received or the provision of a report for comment (10 working days).

b) Increased Impact

Where as a result of alterations to the project design an impact on Aboriginal heritage is considered to be greater than identified by the Approved Project further consultation will be undertaken. This consultation will either entail a phone call and phone log of comments received or the provision of a report for comment (10 working days).

c) Unknown impacts: Assessment process

Where a proposed change is an area located outside of the project boundary assessed as part of the Approved Project the impact on Aboriginal cultural heritage is considered to be unknown. This area would require preliminary assessment to determine any impacts upon Aboriginal heritage. Should no impacts be identified then no consultation with Aboriginal stakeholders is required. Should potential impacts be identified consultation with Aboriginal stakeholders will be undertaken. This consultation will entail the provision of a report for stakeholder comment (10 working days) detailing the impacts and mitigation strategies propose

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Appendix A Advertisement for registration of interest

Notice for Registration of Interest

The Sydney Metro Northwest (SMNW) Places program, Landcom and Sydney Metro are working collaboratively with the Department of Planning and Environment, local councils, other government organisations and key stakeholders to develop the long-term vision and delivery program to guide the redevelopment and urban renewal of surplus government owned or controlled land around new SMNW station precincts. The project is located in The Hills Shire local government area. The proponent is SMNW and Landcom (Kristiaan Letsch, Senior Development Manager: Level 14, 60 Station Street, Parramatta NSW 2150).

The proposal is subject to assessment and approval under the NSW Environmental Planning and Assessment Act 1979. The purpose of this consultation is to inform the preparation of an Environmental Impact Statement for the proposal and/or assist SMNW and Landcom in the preparation of an application for an Aboriginal Heritage Impact Permit and to assist the Office of Environment and Heritage in determination of the application.

SMNW and Landcom invites Aboriginal groups and/or Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places at Kellyville and/or Bella Vista, NSW to register interest in a process of community consultation with the contact shown below (on behalf of SMNW and Landcom):

Kelleher Nightingale Consulting
Level 10, 25 Bligh Street
Sydney NSW 2000
phone 9232 5373
fax 9223 0680

The closing date for registration is 9 July 2019.

Please be advised that in accordance with OEH requirements, we are required to record the names and contact details of each Aboriginal person who has registered an interest in this project and provide a copy of that record to the relevant OEH office and Local Aboriginal Land Council. If you are registering your interest, please let us know if you do not want your details forwarded to these organisations.

Appeared in: *Hills Shire Times*, Tuesday 25 June 2019, page 46

Appendix B Aboriginal Community Comments

Zac Thomas

From: [REDACTED]
Sent: Sunday, 14 July 2019 12:51 PM
To: Zac Thomas
Subject: Re: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - A1

A1**Indigenous Services**

Contact: Carolyn

M: [REDACTED]

E: [REDACTED]

A: 10 Marie Pitt Place, Glenmore Park, NSW 2745

ABN: 20 616 970 327

Hi Zac,

A1 supports the project info and methodology letter.

A1 would like to be involved in the future work.

Thank you

Carolyn Hickey

Zac Thomas

From: lee field <barrabyculturalservices@gmail.com>
Sent: Friday, 12 July 2019 4:15 PM
To: Zac Thomas
Subject: Re: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - BCS

Follow Up Flag: Follow up

Flag Status: Flagged

Thanks for the update.

I on behalf of Barraby have read and supports the proposed cultural heritage assessment methodology for this project.

Thanks

Lee

Zac Thomas

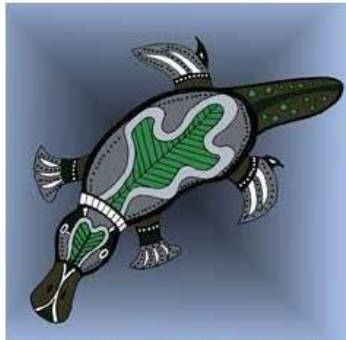
From: Ryan Johnson <murrabidgeemullangari@yahoo.com.au>
Sent: Thursday, 11 July 2019 4:16 PM
To: Zac Thomas
Subject: RE: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - MBMAC

Hi Zac,

I have read the project information and methodology and endorse your recommendations made for the Kellyville and Bella Vista Station Precincts

Thanks

Ryan Johnson | **Murra Bidgee Mullangari**



Aboriginal Corporation Cultural Heritage

A: PO Box 246, Seven Hills, NSW, 2147
E: murrabidgeemullangari@yahoo.com.au
ICN: 8112

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Zac Thomas

From: Shaun Carroll <Merrigarn@hotmail.com>
Sent: Tuesday, 23 July 2019 1:09 PM
To: Zac Thomas
Subject: RE: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - Merrigarn

Hi Zac,

I have read the proposed assessment methodology for the above project, I endorse the recommendations made by Kelleher Nightingale.

Thanks

Shaun Carroll

Sent from [Mail](#) for Windows 10

Zac Thomas

From: Muragadi <muragadi@yahoo.com.au>
Sent: Tuesday, 23 July 2019 12:55 PM
To: Zac Thomas
Subject: RE: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - MHIC

Dear Zac,
I have read the project information and Methodology for the above project, I agree with the recommendations made.
Thanks
Anthony
[REDACTED]

Zac Thomas

From: Danny Franks <danny@tocomwall.com.au>
Sent: Thursday, 25 July 2019 11:31 AM
To: Matthew Kelleher
Cc: Zac Thomas
Subject: Sydney Metro Northwest and Landcom-Kellyville and Bella vista station precincts.

Dear Zac,

I have read and agree with the methodology.

I would like to be involved on a commercial basis for the surveying, testing and salvage phases, when they arise.

Thanks Zac,

regards,

Danny Franks

Cultural Heritage Manager
Tocomwall Pty Ltd
M: [REDACTED]

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Zac Thomas

From: Arika Jalomaki <yulayculturalservices@gmail.com>
Sent: Wednesday, 17 July 2019 10:29 AM
To: Zac Thomas
Subject: Re: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - Yulay CS

Dear Zac

Yulay Cultural Services supports the methodology for this project

Thanks
Arika

Zac Thomas

From: Bo Field <yurrandaali_cs@hotmail.com>
Sent: Wednesday, 17 July 2019 2:10 PM
To: Zac Thomas
Subject: Re: 1823 Kellyville and Bella Vista Station Precincts - Project Info & Methodology Letter - Yurrandaali CS

Dear Zac

Yurrandaali Cultural Services supports the methodology for this project

Thanks
Bo Field

Zac Thomas

From: [REDACTED]
Sent: Thursday, 1 August 2019 9:00 PM
To: Zac Thomas
Subject: Re: 1823 Draft CHAR Review - Kellyville Station Precinct - BCS

Follow Up Flag: Follow up
Flag Status: Completed

Dear Zac

I on behalf of Barraby Cultural Services have read and supports the CHAR and agrees with the salvage excavation methodology for this project.

We would like the opportunity to participate in the salvage excavations.

Thank you
Lee Field



DARUG CUSTODIAN
ABORIGINAL
CORPORATION

PO BOX 81 WINDSOR 2756
PHONE: 0245775181 FAX: 0245775098
MOBILE: [REDACTED]
EMAIL: [REDACTED]

Attention: KNC

Date: 19/08/19

Subject: Draft CHAR Review - Kellyville Station Precinct

Dear Zac

Our group is a non-profit organisation that has been active for over forty years in Western Sydney, we are a Darug community group with over three hundred members. The main aim in our constitution is the care of Darug sites, places, wildlife and to promote our culture and provide education on the Darug history.

Our group promotes Darug Culture and works on numerous projects that are culturally based as a proud and diverse group. It has been discussed by our group and with many consultants and researches that our history is generic and is usually from an early colonists perspective or solely based on archaeology and sites. These histories are adequate but they lack the people's stories and parts of important events and connections of the Darug people and also other Aboriginal people that now call this area home and have done so for numerous generations.

This area is significant to the Darug people due to the evidence of continued occupation, within close proximity to this project site there is a complex of significant sites.

Landscapes and landforms are significant to us for the information that they hold and the connection to Darug people. Aboriginal people (Darug) had a complex lifestyle that was based on respect and belonging to the land, all aspects of life and survival did not impact on the land but helped to care for and conserve land and the sustenance that the land

provided. As Darug people moved through the land there were no impacts left, although there was evidence of movement and lifestyle, the people moved through areas with knowledge of their areas

and followed signs that were left in the landscape. Darug people knew which areas were not to be entered and respected the areas that were sacred.

Knowledge of culture, lifestyle and lore have been part of Darug people's lives for thousands of years, this was passed down to the next generations and this started with birth and continued for a lifetime. Darug people spent a lifetime learning and as people grew older they passed through stages of knowledge, elders became elders with the learning of stages of knowledge not by their age, being an elder is part of the kinship system this was a very complicated system based on respect.

Darug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Darug lifestyle and occupation are all across our country, due to the rapid development of Sydney many of our sites have been destroyed, our sites are thousands of years old and within the short period of time that Australia has been developed pre contact our sites have disappeared.

The *Aboriginal cultural heritage consultation requirements for proponents* Section 4.1.8 refers to "Aboriginal organisations representing Aboriginal people who hold cultural knowledge". Recent consultation meetings have revealed that many of these Aboriginal organisations and individuals do not hold cultural knowledge of the Western Sydney area. The increasing involvement of such parties in cultural heritage management means that genuine local Aboriginal organisations are unable to properly care for our cultural heritage.

Many Aboriginal organisations listed in the OEH response letter do not contribute to the Aboriginal community of Western Sydney. Individuals listed in the OEH response letter do not represent the community and while they may be consulted with, should not be employed for their own personal financial benefit.

Our organisation is committed to providing benefits back to our local Aboriginal community through such measures as funding the local Aboriginal juniors' touch football team, painting classes for the local children and donating money to various charities. Employment in cultural heritage activities is source of income that organisations such as ours can use to contribute to beneficial activities and support within the community.

Darug custodian Aboriginal Corporation's site officers have knowledge of Darug land, Darug Culture, Oral histories, landforms, sites, Darug history, wildlife, flora and legislative requirements. We have worked with consultants and developers for many years in Western

Sydney (Darug Land) for conservation, site works, developments and interpretation/education strategie

Darug Custodian Aboriginal Corporation have received and reviewed the report for Draft CHAR Review - Kellyville Station Precinct.

We support the recommendations set out in this report.

Please contact us with all further enquiries on the above contacts.

Regards



Justine Coplin

Zac Thomas

From: Ryan Johnson <murrabidgeemullangari@yahoo.com.au>
Sent: Friday, 2 August 2019 1:36 PM
To: Zac Thomas
Subject: RE: 1823 Draft CHAR Review - Kellyville Station Precinct - MBMAC

Hi Zac

I have read the project information and methodology, I endorse the recommendations made.

Thanks

Ryan Johnson | **Murra Bidgee Mullangari**



Aboriginal Corporation Cultural Heritage

A: PO Box 246, Seven Hills, NSW, 2147
E: murrabidgeemullangari@yahoo.com.au
ICN: 8112

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Zac Thomas

From: Muragadi <muragadi@yahoo.com.au>
Sent: Friday, 2 August 2019 1:46 PM
To: Zac Thomas
Subject: RE: 1823 Draft CHAR Review - Kellyville Station Precinct - MHIC

Hi Zac,

I have read the project and draft CHAR information for the Kellyville Station Precinct, I agree with the recommendations made by Kelleher Nightingale.

Thanks

Anthony

Zac Thomas

From: Phillip Boney <Waarlan12@outlook.com>
Sent: Friday, 2 August 2019 10:05 AM
To: Zac Thomas
Subject: Kellyville Station Precinct

Hi Zac,

Phil Boney here. I have reviewed this report of the said project and I don't have a problem with it. I trust there will be due diligence shown on the Aboriginal Cultural significance of this project. Thank you.

With regards, Phil Boney
Wailwan Aboriginal Group

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Appendix C Salvage Excavation Methodology

Research Aims

The main aims of the proposed salvage excavation program are:

- ♦ To salvage a representative sample of the identified archaeological sites prior to construction impact.
- ♦ To analyse the salvaged archaeological material to gain and conserve knowledge and understanding of the scientific and cultural information exhibited by the activities associated with landforms along Elizabeth Macarthur Creek.
- ♦ To use the excavation results to gain insight into the subsurface archaeology of the wider region and more specifically of adjacent areas not being impacted by the proposal. This would increase future educational opportunities and allow more informed management of Aboriginal heritage.

The further scientific aim of the salvage excavation program would be to determine the subsurface integrity, extent, spatial distribution and nature of the cultural deposit and the specific types of associated archaeological/cultural activities.

- ♦ Determining the integrity of the deposit involves assessing the degree of disturbance which is present.
- ♦ Determining the statistical extent of the sites and/or activity areas involves identifying the boundaries associated with the identified archaeological deposit.
- ♦ Assessing the spatial distribution involves identifying the presence/absence of archaeological material across the identified archaeological sites.
- ♦ The nature of the sites refers to the type of activities indicated by the artefactual material (e.g. primary production, tool maintenance, domestic knapping, hunting camps). The goal would be to retrieve entire assemblages from specific activities if such activities were present.
- ♦ Retrieved assemblages would be compared with the results from other relevant archaeological projects in order to assess significance.

Research Questions

The results of the proposed salvage excavation would increase our understanding of subsurface archaeology of the study area. In particular, research would focus on the archaeologically-identifiable cultural activities that took place on landforms along Elizabeth Macarthur Creek.

Question 1: What cultural activities are archaeologically identifiable at site PK/GD1 near Parklea and site KV/CD1 and NWRL PAD 8 compared to sites previously excavated in the vicinity of Elizabeth Macarthur Creek? Are there differences in activities between these two locations?

Question 2: What are the taphonomic features of the archaeological sites? What does this indicate about site integrity and artefact survivability for similar landforms along Elizabeth Macarthur Creek?

What can we expect?

It is anticipated that differences in stone tool assemblages may be related to different cultural activities (e.g. primary reduction vs maintenance flaking). The science of archaeology is paramount to any research question and it is important to stress that the goal for the salvage program for all excavated sites is straight forward: to retrieve a viable sample for comparative analysis using established techniques (see Field Methods below). In this regard interpretation would not precede data collection. The proposed archaeological program would systematically sample the relevant areas using standard techniques with the outcome being a viable, robust and comparable sample. Analysis of the sample would follow and interpretations would be made distinctly separate from the results.

Archaeological Salvage Areas

Salvage excavation would be undertaken on identified archaeological site PK/GD1 near Parklea and site KV/CD1 and NWRL PAD 8. Salvage excavation of each site would focus on the extraction of collections of artefacts related to activity areas and geomorphic information.

FIELD METHODS

The goal of the field excavation program is to recover significant assemblages of artefacts.

Salvage Program

In order to achieve the most robust and comparable result, KNC advocates an open area salvage excavation. The first phase in open area salvage is to establish the statistical boundaries of the previously identified archaeological deposit. In other words, recording the spread of activities across the site/landscape. This approach is designed to salvage the spatial properties of the site as shown in the lithic continuum.

Phase 1

A series of 1 m² squares are excavated on a transect grid at 15 metre intervals overlain on each site to mark the spread of lithics and related geomorphic activity. This will build on previous test excavation results.

GDA 94 coordinates would be recorded for each square to enable three dimensional modelling. Statistical salvage following this method is highly beneficial because it creates a robust inter-site sample, sufficiently random, critical for regional comparative analysis. No other method is as efficient or effective. It is anticipated that a maximum of 25m² would be excavated at each site during Phase 1.

Individual excavation squares measuring 1 m² would be hand excavated in stratigraphic units (Unit A, Unit B, etc.). Squares would be excavated until the basal layer or culturally sterile deposit is reached. Test excavation of the sites indicates no archaeological stratigraphy within units. As such the A1 and A2 soil layers are culturally one layer (suffering from cyclical soil transfer resulting in a mixed cultural profile within the soil) and can be salvaged as one unit where possible. All excavated deposit would be sieved using nested 5.0 millimetre and 2.5 millimetre sieves. Where potential micro-debitage is recovered 1.0 millimetre micromesh sieves will be utilised.

The location of each excavated square would be identified on a surveyed plan of the site. Stratigraphic sections detailing the stratigraphy and features within the excavated deposit would be drawn and all squares would be photographed. Soil samples as well as thin section profiles (where feasible) would also be collected. The stratigraphy of all excavated areas would be fully documented and appropriate records archived.

Phase 2

Open area salvage of significant deposit follows the Phase 1 assessment. Additional contiguous 1 m² squares, constituting an open area, will be excavated around information bearing deposits along the excavation grid. Information bearing deposits are identified by triggers such as: significant quantities of artefacts, variations in raw material, unusual artefacts, chronological material and/or taphonomic indicators. In this context chronologic material is anything that can be used to date artefacts or deposit: charcoal or charcoal bearing deposit (e.g. hearth ash), sandy deposit, gravels (e.g. aluminium feldspar). Taphonomic indicators are generalised to include biospherical process such as bioturbation and geomorphic features such as soil lenses and soil laminates as indicators of post-depositional factors affecting site formation.

Phase 2 open area investigation would expand to encompass entire activity areas. The location of Phase 2 open area investigation would be based on Phase 1 results. It is anticipated that up to 50m² of Phase 2 open area salvage would be excavated within each site if Phase 1 results warrant this approach. Total salvage area would be approximately 75m² for each site (combining both Phase 1 and Phase 2).

Where possible, carbon samples will be collected and analysed for material relating to both the archaeology and geomorphology. Where appropriate cosmogenic and radiometric dating of soils and rock surfaces will be applied (Nishiizumi et al. 1986, 1993).

Analysis

Artefacts would be analysed on a comparable level with previous analyses of excavated assemblages. Information derived from this analysis; in particular the identification of specific artefact types and their distributions and associations; would be used to put together interpretations about how sites were used, where sites were located across the landscape, the age of sites and to assess cultural heritage values. By comparing different areas it would be possible to determine whether there were differences in the kinds of activities carried out and if different activities were related to different landforms.

A range of stone artefacts may be present across the salvage areas and the analysis would expand accordingly to account for artefact variability. All information would be recorded in database form (MS Excel). Various types of evidence would be used to determine the kinds of activities that were carried out. A short description of the proposed analysis is outlined below.

- Field analysis would record basic data, such as material type, number and any significant technological characteristics, such as backing or bipolar techniques; added to this would be any provenance data such as pit ID and spit number. The purpose of the field recording is twofold: 1) establish a basic recording of artefacts retrieved and 2) to allow on-going assessment of the excavation regime (e.g. whether higher stratigraphic resolution is required while digging).
- Detailed (laboratory) analysis would entail recording a larger number of characteristics for each individual artefact. These details would be recorded in matrices suitable for comparative analysis (e.g. multivariate and univariate) of the excavated assemblage on a local and regional basis.
- Lithic characteristics to be recorded cover a range of basic information but are not limited to these categories (see example below). For transparency, terms and category types would in large part be derived from Holdaway and Stern (2004).

Sample Categories		
Record Number	% Cortex	Flake Type
Square ID	Length	Termination Type
Spit Number	Width	Core Type
Count	Thickness	Number of Scars (Core)
Raw Material	Weight	Scar Type (Core)
Colour	Modification	Shape of Flake
Quality	Reduction Type	Platform Type

- A detailed explanation and glossary would be provided with the final excavation report.
- Minimum Number of Flake (MNF) calculations formulated by Hiscock (2000, 2002) would be undertaken where applicable (although past experience indicates MNF calculations would not be required for this excavation program).

The analysis of artefacts recovered during the excavation program would be undertaken in a transparent and replicable fashion so as to permit the comparison of the entire excavated assemblage with data from other areas. This would also allow for an interpretation of the project area's archaeological significance.

Field Team

KNC directors, Dr Matthew Kelleher and Alison Nightingale, would be responsible for the salvage excavation program. Dr Matthew Kelleher would direct the excavation component of the Aboriginal archaeological assessment. Matthew has extensive experience in managing archaeological excavations and research projects. Matthew would also be the principal contact for the overall Aboriginal archaeological assessment for the project. The salvage excavation will be undertaken in association with registered Aboriginal stakeholders.