GREATER PARRAMATTA AND OLYMPIC PENINSULA (GPOP) WATER CYCLE MANAGEMENT PROJECT

Aboriginal Cultural Heritage Assessment Report

Prepared for Sydney Water

Parramatta and Ryde Local Government Area

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KELLEHER NIGHTINGALE CONSULTING PTY LTD
Archaeological and Heritage Management
ACN 120 187 671

Suite 505-507
155 King Street
SYDNEY NSW 2000
Phone 02 9232 5373

Document Information

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Executive Summary

Sydney Water is proposing to build and operate a new water resource recovery facility (WRRF) at Camellia-Rosehill with associated infrastructure to provide wastewater services to the Greater Parramatta and Olympic Peninsula (GPOP) growth area (the project).

As a key growth area in Sydney, the population in GPOP is projected to double in size by 2056. An increase of residents and businesses in the area will generate substantial volumes of wastewater requiring treatment. This growth would place pressure on Sydney Water's existing wastewater network which includes the Northern Suburbs Ocean Outfall Sewer (NSOOS). The NSOOS is a critical sewer main which transfers wastewater from a large catchment area to North Head WRRF for treatment. With current growth projections the NSOOS would reach capacity by 2031-32.

The project is needed to provide a water cycle management solution for the GPOP growth corridor that is efficient and cost effective for the community. The proposal avoids duplication of the NSOOS and provides a wastewater solution which is sustainable, resilient and adaptable.

The project is State Significant Infrastructure (SSI 74258485) and subject to approval under Part 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Department of Planning, Housing and Infrastructure (DPHI) approval would be required prior to any harm to Aboriginal objects. Impacts to Aboriginal heritage will be assessed in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued for the project on 24 September 2025.

To support an application for project approval, Sydney Water is preparing an Environmental Impact Statement (EIS) and has undertaken Aboriginal heritage assessment for the project. Kelleher Nightingale Consulting (KNC) was engaged by Sydney Water to assist in the preparation of an Aboriginal cultural heritage assessment report (CHAR) to assess Aboriginal heritage cultural values of the study area.

Background research and archaeological assessment including comprehensive field survey did not identify any Aboriginal objects, archaeological sites or areas of archaeological potential with the study area. Archaeological field survey confirmed the that the study area has been subject to extensive and widespread landuse disturbance.

The study area does not display any scientific/archaeological significance as it does not contain any identified Aboriginal archaeological sites or areas of potential. It has been identified during the consultation process that the wider local area has cultural heritage value (social value) to the local Aboriginal community, however, no specific Aboriginal cultural or social values have been identified to date for the study area.

No Aboriginal heritage constraints have been identified for the Project. No avoidance or mitigation measures are required for the Project on Aboriginal heritage grounds. Any unexpected finds would be managed under the specified procedures for Handling Human Remains and Handling Unexpected Aboriginal Objects (refer Chapter 10).

This CHAR has been prepared to address the Aboriginal heritage requirements identified in the SEARs for the project. The purpose of this technical paper is to identify and assess the Aboriginal heritage impacts of the project. The CHAR complies with the Heritage NSW *Code of Practice for Archaeological Investigation of Aboriginal Objects in* NSW and *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*. A consultation process has been undertaken in accordance with Heritage NSW requirements for the preparation of the CHAR.

Contents

Figures

Tables

1 Introduction

1.1 Project background

Sydney Water is proposing to build and operate a new water resource recovery facility (WRRF) at Camellia-Rosehill. The new WRRF is needed to provide additional wastewater capacity to support growth across the northern suburbs of Sydney, and in the Greater Parramatta and Olympic Peninsula (GPOP) growth corridor. The WRRF and associated infrastructure together form the GPOP Water Cycle Management project (the project).

The additional growth would place pressure on the existing northern suburbs wastewater network, which includes the Northern Suburbs Ocean Outfall Sewer (NSOOS) and the North Head WRRF. These critical assets provide wastewater services to around 1.7 million people, and with current growth projections would reach capacity by 2031.
The GPOP WCM project has been designed to be efficient, sustainable, and cost effective for the community, as well as resilient and adaptable for future water uses.
The main elements of the project include:

- a new WRRF at Camellia-Rosehill to treat wastewater to produce advanced treated water
- upgrades to the existing pumping station at Camellia
- a new wastewater transfer pipeline from Camellia pumping station to the WRRF
- a new and repurposed brine pipeline to transfer brine from the WRRF to the NSOOS
- a new river release pipeline to transfer advanced treated water from the WRRF to a release structure in Parramatta River at Meadowbank.

The project is State Significant Infrastructure (SSI 74258485) and subject to approval under Part 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Sydney Water is preparing an Environmental Impact Statement (EIS) to support an application to the Minister for Planning and Public Spaces. Impacts to Aboriginal heritage will be assessed in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued for the project on 24 September 2024.

To support an application for project approval, Sydney Water is preparing an Environmental Impact Statement (EIS) and has undertaken Aboriginal heritage assessment for the project. Kelleher Nightingale Consulting (KNC) was engaged by Sydney Water to assist in the preparation of an Aboriginal cultural heritage assessment report (CHAR) to assess Aboriginal heritage cultural values of the study area.

The project comprises the 'study area' for this assessment and spans the suburbs of Meadowbank, Wentworth Point, Sydney Olympic Park, Newington, Silverwater, Rosehill, Camellia, Parramatta, Rydalmere and Dundas, NSW (Figures 1 and 2). The study area includes the proposed impact assessment area, proposed impact area and indicative river release pipeline (trenchless portions).

1.2 Project requirements

This CHAR has been prepared to address the Aboriginal heritage requirements identified in the SEARs for the project for the purpose of seeking project approval under Part 5.2 of the EP&A Act. The purpose of this technical paper is to identify and assess the Aboriginal heritage impacts of the project. 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 2010a);
- *Guide to investigation, assessing and reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011); and
- *Aboriginal cultural heritage consultation requirements for proponents 2010* (OEH 2010b).

Aboriginal cultural heritage assessment for the project was designed to meet the SEARs. Specific requirements of the SEARs in relation to Aboriginal heritage are outlined in the table below.

Table 1. SEARs for Aboriginal heritage

	Secretary's Environmental Assessment Requirements	Where addressed in this document
9. Heritage – Aboriginal		
The design, construction and operation of the project facilitates, to the greatest extent possible, the long-term protection, conservation and management of the heritage significance of items of Aboriginal objects and places. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of Aboriginal objects and places and cultural heritage values.	1. Assess and manage all impacts to the heritage significance of: (a) Aboriginal places, objects and cultural heritage values, as defined under the *National Parks and Wildlife Act 1974* (NPW Act) and in accordance with the principles and methods of assessment identified in the current guidelines; and (b) Aboriginal places of heritage significance, as defined in the Standard Instrument – Principal Local Environmental Plan.	Sections 8-10
	2. Where impacts to Aboriginal places, and/or objects are identified, the assessment must: (a) be documented in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for survey and test excavation	This document
	(b) assess impacts on Aboriginal Cultural Heritage values (tangible and intangible) (c) outline measures to avoid and minimise those impacts during construction and operation in accordance with the current guidelines	Section 9
	(d) outline procedures to be followed if Aboriginal objects, Aboriginal burials or skeletal material are found during construction or operation, which formulate appropriate measures to manage unforeseen impacts (e) outline the long-term management framework for the ongoing protection, management and conservation of Aboriginal objects and other heritage values.	Section 10
	3. Where archaeological investigations of Aboriginal objects are proposed these must be conducted by a suitably qualified and experienced archaeologist, in accordance with section 1.6 of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010).	Document Information
	4. Where impacts to Aboriginal objects and/or places is likely, consultation must be undertaken with Aboriginal people and stakeholders in accordance with the *National Parks and Wildlife Regulation 2019* and current guidelines, including *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.	Section 7

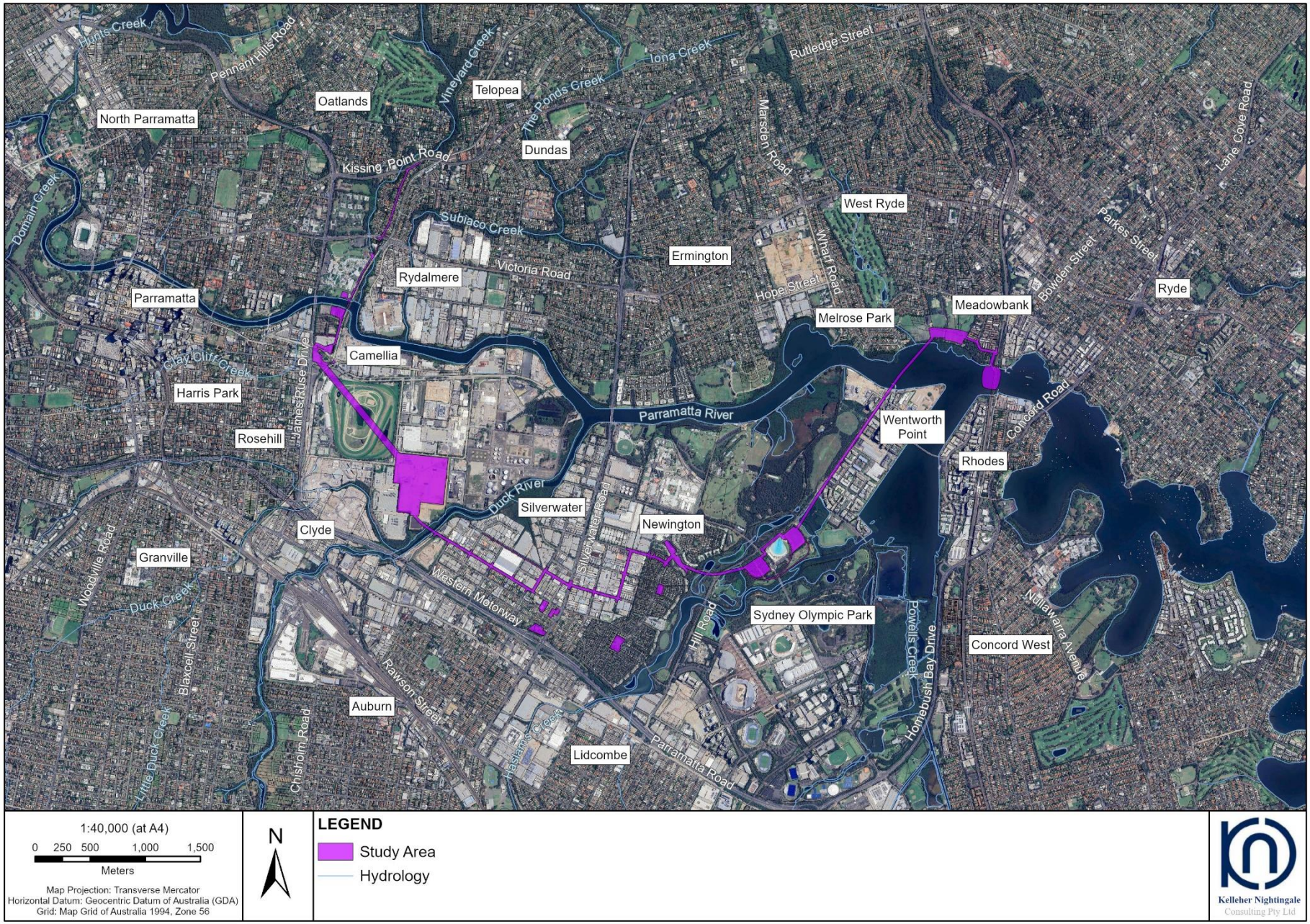

Figure 1. Overview of study area

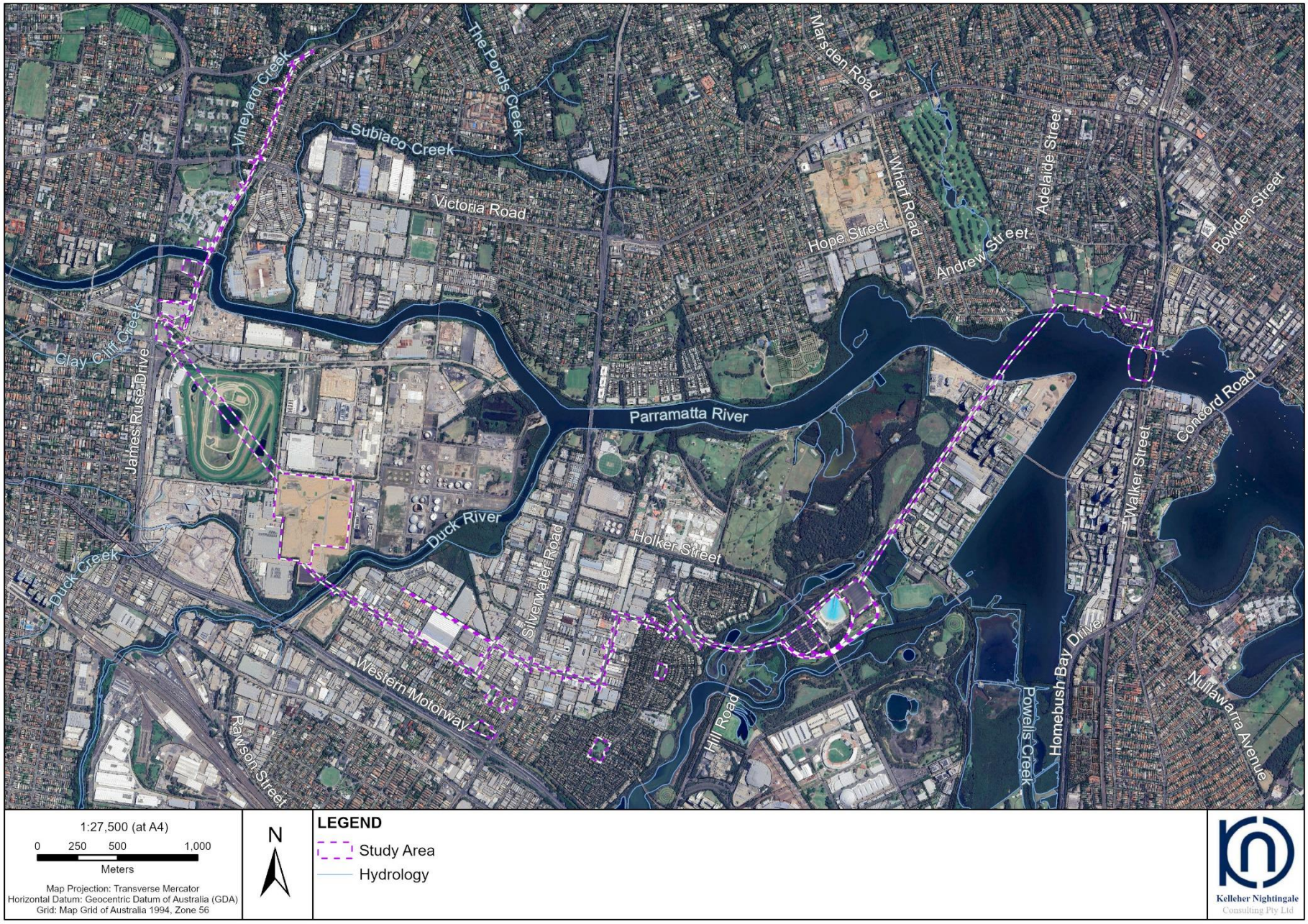

Figure 2. Detail of study area

2 Environmental Context

The study area is located on the margins of the Cumberland Plain, a large low-lying and gently undulating physiographic region of the western Sydney Basin. The northern portion of the study area intersects the elevated and highly dissected Hornsby Plateau. The higher ground of the Hornsby Plateau is composed of Hawkesbury Sandstone (Rh), a medium to very coarse-grained quartz sandstone, with minor laminated mudstone and siltstone lenses. The majority of the Cumberland Plain is underlain by late Triassic shales of the Wiannamatta Group. A portion of the study area is located atop Ashfield shale (Rwa), a dark-grey to black claystone-siltstone and fine sandstone-siltstone laminate (Figure 3). Ashfield shale tends to cap the sandstone ridgelines of the southern Plateau. Lithic resources suitable for artefact manufacture are present as conglomerate pebbles within the Hawkesbury sandstone.

More recent Quaternary fluvial deposits (Qha) associated with the drowned valley estuary of the Parramatta River are also recorded, particularly to the south of the river channel. These deposits comprise silty to peaty quartz sand, silt and clay with ferruginous and humic cementation in places and common shell layers. To the east of the Rosehill Gardens Racecourse, the study area passes through an area mapped as manmade fill mixed with older (likely Miocene epoch) estuarine deposits (mf/Tm). Large areas of disturbed man-made fill (mf/Qha) are also present further to the east, associated with extensive dredging and reclamation works around Wentworth Point, Sydney Olympic Park, Silverwater and north at Meadowbank Park. The most recent Quaternary geology of the Parramatta River and environs is related to the complex depositional history of its various environments including wetland fringes, the upper reaches of the tidal and estuarine influence and the freshwater aquatic systems further upstream (Troedson and Deyssing 2015).

One of these fluvial deposits is associated with a terrace formation known as the Parramatta Sand Body (Figure 3). The river terrace extends from the relatively narrow floodplain along the banks of the river to the base of the adjoining shale slopes, wider on the southern side of the river channel. The sand body is present beneath much of modern Parramatta. A portion of the sand body to the west of the study area is listed on the NSW State Heritage Register (SHR #01863) and contains significant Aboriginal archaeology. The relevant environmental data is reproduced below. The geomorphic origin of the sand is still unclear, but the present interpretation is that the sand body was deposited by the Parramatta River on a terrace four to six metres above normal water level. The sand body was deposited as a terrace (abandoned floodplain) over time during floods. The bulk of the sand body forms a levee located on the south side (right bank) of Parramatta River just above the 1:100 average recurrence interval (ARI) flood level. The levee is thought to extend from Church Street to Arthur Street and south from the river to the eastern end of Macquarie Street along Hassall Street from Harris Street and on the north side of Oak Street to about Arthur Street where it interfaces with the clay alluvium of Clay Cliff Creek.

The Parramatta Sand Body has a well-developed but varied soil profile. Topsoil materials are generally disturbed by European activities. Where the subsoils are intact they typically consist of yellow orange or yellow brown sandy clay with an earthy (porous) fabric that becomes paler and slightly mottled with depth. The upper parts of the soil profile are usually heavily mixed. In places the sand is cut by deposits of mottled or gleyed clay that were probably deposited in swamps or waterholes on the terrace surface. The reasonably defined levee, 50 to 100 centimetres high, along the terrace edge between Charles and Alfred Streets, comprises cleaner and very slightly coarser sand than the sand found around the margins of the levee. The profile of the sand suggests that the main body of sand is of late Pleistocene age and thermoluminescence dates obtained from an excavation undertaken at 140 Macquarie Street by Comber Consultants Pty Ltd in 2010, have shown that the top of the undisturbed sand (below the level of Aboriginal occupation) is between 50,000 to 58,000 years old. Deeper sand could be much older and may relate to a period of a higher sea level about 120,000 years ago. Much of the original sand body is likely to have been destroyed by the construction of modern buildings but patches of the sand body are preserved beneath modern development and on vacant land. The level of disturbance (and hence Aboriginal archaeological potential) is closely related to the nature of excavation works associated with modern development – in many cases deep excavation and the introduction of fill for foundations and basements has severely impacted the sand body. In other cases, where fill material has been placed on the existing surface, the sand body (and any associated archaeology) may be preserved intact beneath the modern urban landscape. The mapped extent of the Parramatta Sand Body does not extend into the current study area.

Other soil landscapes found in the study area are varied, reflecting the influence of the diverse underlying geologies of the study area. The study area comprises the Gymea, Blacktown, Lucas Heights, Birrong, Glenorie and Ettalong soil landscapes (Figure 4). The erosional Gymea soil landscape occurs north of the river, on the more elevated broad ridges with convex crests underlain by the Hawkesbury Sandstone. Localised steep slopes carry the potential for rock fall hazards, and while soils are generally stable, they are highly susceptible to erosion by both concentrated and non-concentrated flows. Preservation of archaeological deposit in Gymea soils is strongly dependent on topography and the level of surface disturbance.

Residual soils of the Blacktown soil landscape, developed in situ from the underlying Triassic shale, are present on broad rounded crests and ridges and gently inclined slopes present throughout the overall study area. This soil landscape consists of shallow to moderately deep hard setting red, brown and yellow podzolic soils. Soil fertility and soil drainage are low.

Erosional susceptibility of Blacktown soils is relatively low, but is increased where surface vegetation is not maintained (Chapman & Murphy 1989). Intact archaeological deposits may occur within these soils due to the low susceptibility to erosion and surface movement where gradient is low and the landform has not been significantly disturbed. Where steeper landforms are present, preservation of archaeological deposits is less likely, especially where combined with soil disturbance.

Lucas Heights soils occur north of the Parramatta River, on the gently undulating crests and ridges on plateau surfaces, where sandstone and shale/laminites are interbedded (Chapman & Murphy 1989). Soils consist of moderately deep hardsetting yellow podzolics and soloths, with yellow earths occurring on outer crest edges. Rock outcropping is absent although soils may be stony. Soils are generally stable but display moderate susceptibility to erosion.

Alluvial Birrong soils occur around Haslams Creek and at Wentworth Point and within a small portion of the study area located north of Parramatta River. These soils are associated with the level to gently undulating alluvial floodplain draining the surrounding Wiannamatta shales. Typical profiles comprise deep yellow podzolics and solodic soils on older alluvial terraces and yellow solonetzic soils on current, active floodplains (Chapman & Murphy 1989). This soil has a high erosion hazard with localised flooding and waterlogging. Deposits below the topsoil are highly erodible due to a high sand and silt content. Intact archaeological deposits within Birrong soils are more likely in undisturbed areas away from active floodplains. Aboriginal objects (artefacts) may occur anywhere but may be outside of their primary context due to soil movement, flooding and/or redeposition.

The Glenorie soil landscape is an erosional soil landscape that occurs north and south of the Parramatta River on low rolling and steep hills. Soils are shallow to moderately deep and consist up to 15 centimetres of dark brown loam occurring as upper topsoil (Horizon A1), overlying up to 30 centimetres of brown clay loam as lower topsoil (Horizon A2), and one metre of reddish brown clay occurring as subsoil (Horizon B). Boundaries between soil layers are usually clear with high erosion hazards.

Ettalong Soils comprise a swamp soil landscape occurring around Haslam Creek at Sydney Olympic Park (Figure 4). This soil landscape is located on level to very gently inclined closed depressions (coastal swamps) with extremely low relief. Soils comprised dark organic peats and black organic greasy sticky mud overlying black, organic sandy clay loam and grey mottled sandy clay loam. Soil materials are saturated and boundaries are generally very hard to determine. Swamp soil landscapes have permanently high water table, have shrink-swell capabilities and a high potential for surface movement. They are strongly acid and have high organic content.

A portion of the study area south of Parramatta River comprises soils mapped as Disturbed Terrain. Disturbed Terrain is characterised as land that has been extensively disturbed and modified by various human activities. Original vegetation and often soils and substrates have been completely cleared and the area may be covered by turf, grassland, or subsequent urban development. Former quarries and rubbish disposal dumps are often filled, grassed, and used as recreation areas or sports fields, usually landscaped and artificially drained. Small pockets of deeper natural sediments may remain beneath the urban and industrial landscape of this area depending on the nature and depth of construction and previous excavation.

Hydrology around the study area is dominated by the Parramatta River and the entirety of the study area falls within its catchment. The Parramatta River is a major watercourse and is the largest river entering Port Jackson. Various minor freshwater tributaries dissect the sandstone plateau to the north of the river, including Vineyard Creek, Subiaco Creek, Archer Creek and Charity Creek. South of the river, the study area crosses Duck River and Haslams Creek. The fringes of the tidal portion of the river also contain various wetlands and mangrove swamps while freshwater would have been available from tributaries or further upstream. The complex and varied hydrological features surrounding the study area would have led to a range of different environmental contexts and a diversity of available resources for the local Aboriginal groups. The floodplain and associated terraces are narrower to the north of the river, constrained by the abutting slopes descending from the Hornsby Plateau. The north western part of the study area follows the existing heavy rail line north towards Kissing Point Road, passing through a low swampy area associated with the outflow of Vineyard Creek and Subiaco Creek in the industrial western part of Rydalmere.

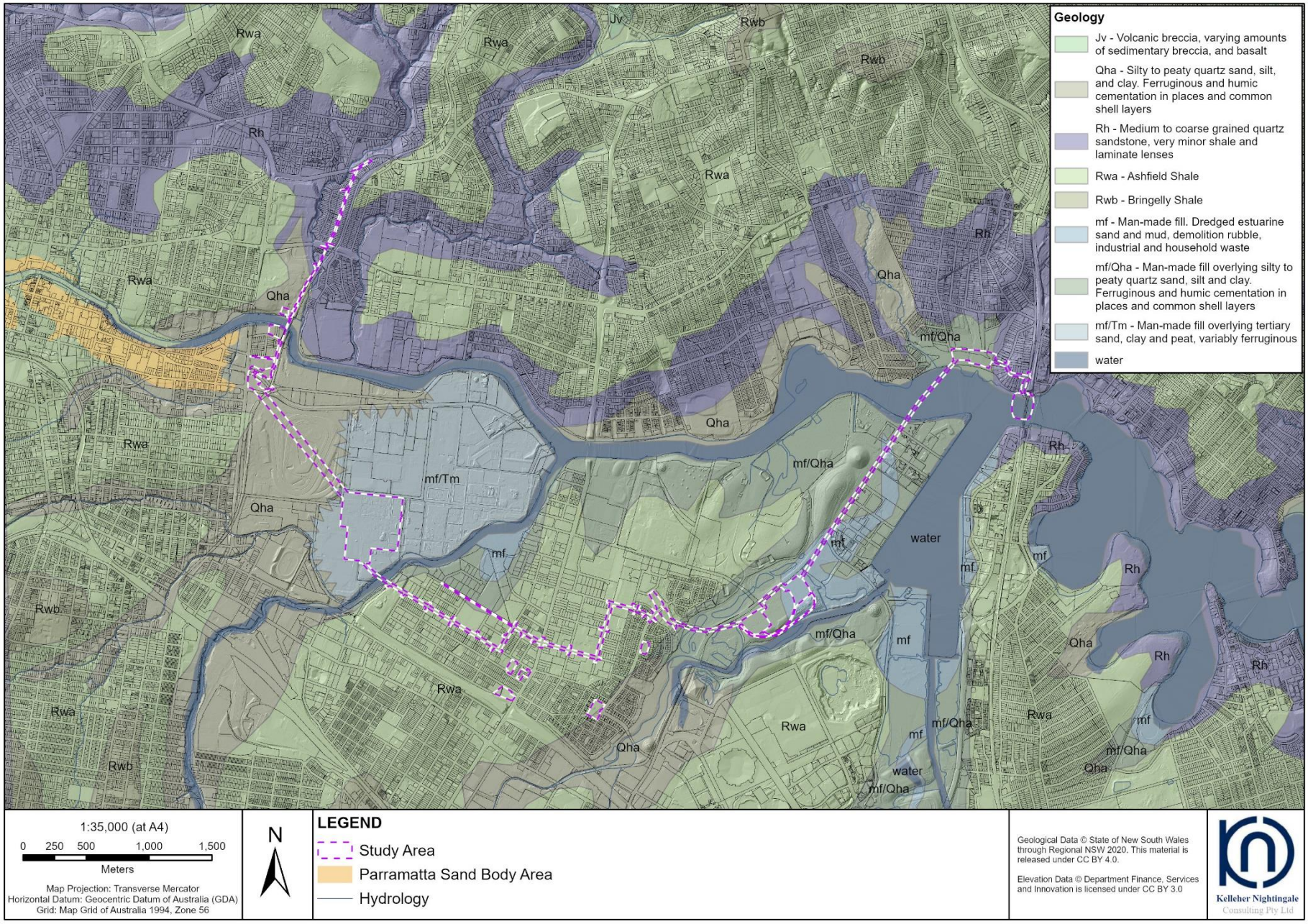

Figure 3. Geology of the study area

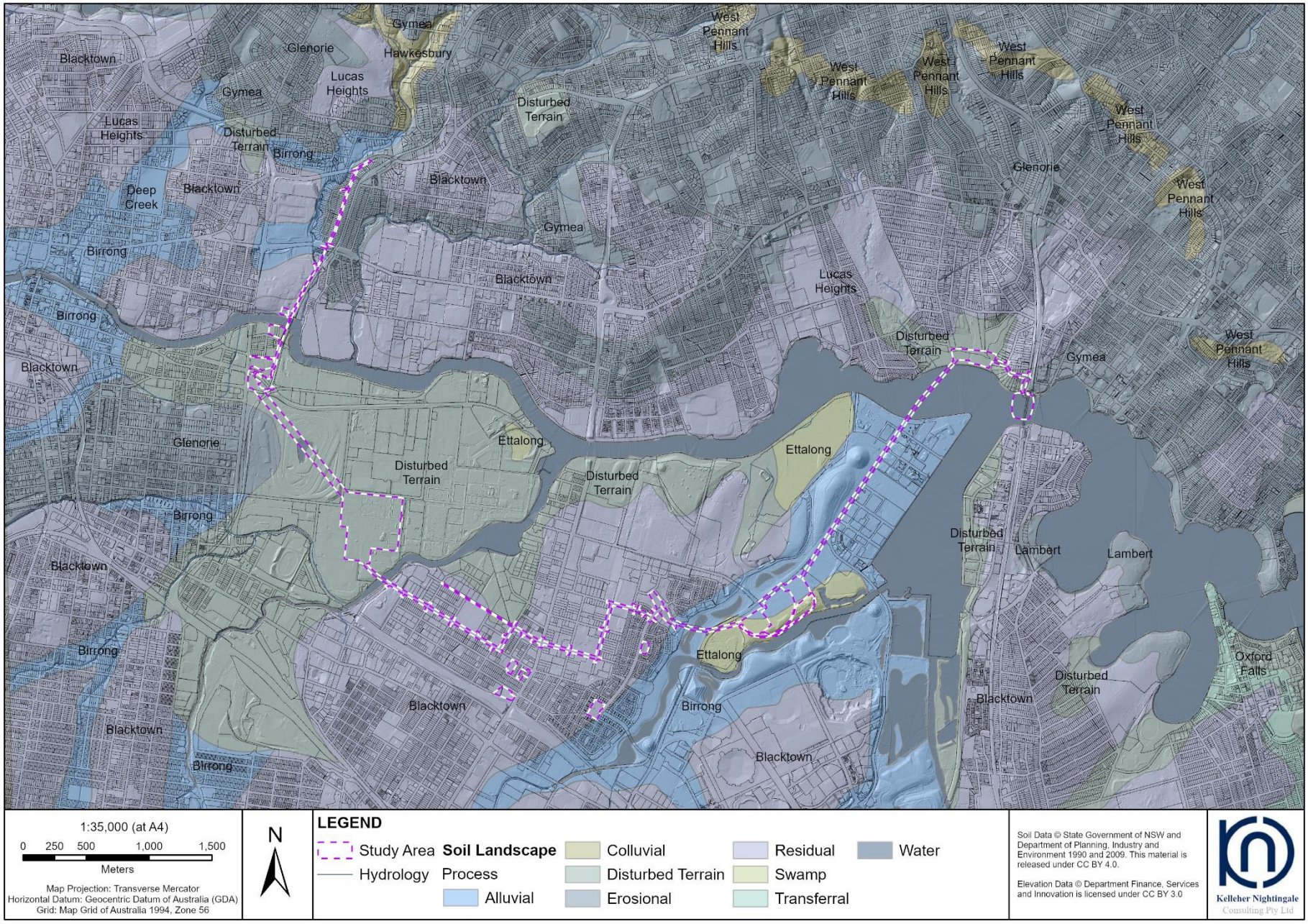

Figure 4. Soil landscapes of the study area

3 Ethnohistoric context

Aboriginal people living throughout Australia at the time of European invasion belonged to a multitude of groups that spoke approximately 250 distinct languages and several hundred dialects (Walsh 1993: 1). The information within the early British accounts regarding Aboriginal people was reliant upon limited communication. 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 1793: 51). As such, historical accounts from this period provide vague and at times contradictory information (Attenbrow 2002: 22-28). Some of the material within these accounts contains views that are not considered appropriate today.

The current study area is associated with the Wangal (alternatively Won-gal) clan on the southern side of Parramatta River and the Wallumedegal (alternatively Wallamattagal) clan on the northern side of Parramatta River. Early recordings by Governor Phillip describe the Wangal lands as, "the south side of the harbour, from the above-mentioned cove [present day Darling Harbour] to Rose Hill, which the natives call Parramatta" with the district known as Wann and the tribe as Wanngal (Philip 1790 [1892:309]). Wallumedegal lands were described as those on the opposite shore, with the name of the place "Wallumetta, and the Tribe, Wallumedegal" (Philip cited in Keith 2005: 1).

Some research suggests that the Darug, or Dharruk, language would have been spoken by the Wangal and Wallumedegal, as it was spoken across the Sydney region, from Appin in the south to the Hawkesbury River in the north, and west of the Georges River, Parramatta and Berowra Creek to the Blue Mountains, as well as along the Sydney coast between Port Jackson and Botany Bay (Attenbrow 2002:34). Whilst not definitely known, it is argued that a coastal dialect of the Darug language would have been spoken throughout the Sydney Peninsula (north of Botany Bay, south of Port Jackson and west to Parramatta); this would likely have included the country to the north of Port Jackson, and possibly as far as Botany Bay (Attenbrow 2002: 34).

Ethnohistorical sources suggest that despite differences in specific language, customs and material culture, the Wangal, Wallamedegal, and other neighbouring 'clans' would have interacted for ceremonies, intermarriage, dispute resolution, trade and access to certain resources with other language groups of the region. Early accounts report the clans of the Port Jackson area as coming together for social or religious events or to take advantage of abundant food resources. For example, a whale stranding in Manly Cove in September 1790 attracted at least two hundred Aboriginal people including members of the Wangal, Cadigal and Broken Bay clans (Tench 1793).

During the first years of the colony, the British attempted to engage with Aboriginal people living in the vicinity of the colony "through kindness and gifts" (Phillip 1914: 1:52) in order to entice some to live within the colony while at the same time deterring any resistance to their occupation and actions by demonstrating the superiority of their firearms, which the Aboriginal people called geerubber or fire sticks (Karskens 2016: 43-44). While the British defined the Aboriginal people living in New South Wales as British subjects that were entitled to the protection of British Law, in practice, protection under British Law was limited and did not extend to land ownership.

In early 1789, Governor Phillip ordered the capture and detaining of some Aboriginal people by force. The British initially kidnaped Arabanoo, an Aboriginal man who died of smallpox in April 1789 and then Coleby and Woollarwarree Bennelong (a member of the Wangal clan) whom subsequently escaped their captivity. Several months after Bennelong's escape, Phillip went to Manly Cove where Bennelong had been seen and on approaching him, was speared in the shoulder by an Aboriginal man called Willemering. It has been suggested that the spearing of Phillip, which has been interpreted as an act of 'payback' in Aboriginal Law, and Phillip's decision not to retaliate but to instead negotiate, resulted in the change in relations with Bennelong, his family and friends who moved into the colony (Karskens 2016: 48). More recent investigations have identified Bennelong's likely burial site to be located in the front yard of a residential dwelling on Watson Street, Putney, approximately 1.3 kilometres east of the study area at Charity Point.

A smallpox outbreak between March and May 1789 caused widespread fatalities amongst the Aboriginal population of the Sydney region with Governor Phillip estimating that "one half of those who inhabit this part of the country died" (Phillip 1790b: 159). The outbreak disproportionality affected the Aboriginal community and later accounts of Aboriginal people who bore smallpox scars from the outbreak indicate that the disease spread over a large area that possibly included the Wellington Valley in the west and Jervis Bay and Port Phillip in the south (Dowling 1997: 63). The reason for the outbreak of smallpox in 1789 is unclear due to the limited information in contemporary accounts; however, the virus was believed to have been brought to Australia by ship passengers (Dowling 1997: 52). The smallpox outbreak of 1789 drastically altered the size and structure of the Aboriginal population living on the Cumberland Plain and several Aboriginal children orphaned by the disease began to live in the British settlement after an outbreak.

Prior to European invasion, the harbour foreshore area was rich in natural resources and was a natural focal point for Aboriginal occupation in the landscape. Early recordings by Watkin Tench noted that "fishing, indeed, seems to engross nearly the whole of their time, probably from its forming the chief part of a subsistence" (cited in Gondwana 2006:62). Philip noted in his description of the coastal Aboriginal people, that their "huts are generally surrounded by oyster and muscle [sic] shell". Along with fish and shellfish, marine resources would have included a wide range of Crustacea such as crabs and crayfish, as well as occasionally (and seasonally), larger marine mammals such as seals and whales (Attenbrow 2002: 63). Charity Point in particular, was noted in ethnographic accounts as a popular fishing spot for Aboriginal people in the local area (Keith, K.V, 2005: 18).

Ethnographic sources suggest fishing around the shores of Port Jackson was primarily a women's activity, who used hook and lines from canoes or less commonly from rock platforms. Fishing spears were more commonly used by men, who fished in shallow water. Canoes commonly held campfires so that fish could be prepared as soon as caught. Shellfish were also widely exploited, collected from the rocky parts of the coastline, mudflats, sandy beaches and from deeper water by diving. The Port Jackson Harbour was described in February 1788 as having a 'great quantity of shellfish in the Coves, that have mudflats at the bottom, oysters very large' (Bradley 1786-92 [1969: 79-80]).

George Caley in, Smith, 2005 discusses Aboriginal landuse of the mudflats at Homebush Bay, also known as 'The Flats' (cited in Smith, K.V, 2005: 12):

> *The Flats was a 'noted fishing place for the natives; the water there is shallow, and at ebb-tide a great proportion of the sand is left bare, which, with some marshy land adjoining, forms a convenient resort for several species of bird'.*

Terrestrial resources were also important although are often overshadowed by a strong bias towards reporting of Aboriginal fish and shellfish use. Kangaroos, birds and small mammals are likely to have contributed to the protein component of the diet, with macropod, glider and possum remains all recorded in coastal shell midden sites. Early European observations mention Aboriginal people living around Port Jackson setting grass fires in order to catch small animals (Attenbrow 2002:80).

As well as food and medicine, plant resources also provided bark, resins, fibres and fronds for toolmaking, canoe and shelter construction, the weaving of nets, traps and carry bags and wood for shields, spear-throwers, digging sticks, dished and containers. Honey from native bees was also collected. Shell material was also used for implements and tools including spear barbs, scrapers, to sharpen spear points, and to carve designs into wooden implements as well as being traded with hinterland Darug clans (and others) (Attenbrow 2002:92). Within the wider region, traces of this Aboriginal landscape use tend to survive as stone artefacts, shell midden deposits and shelter sites with art and/or deposit in the Hawkesbury Sandstone.

4 Archaeological context

4.1 Database searches (AHIMS) and known information sources

AHIMS web services

The Aboriginal Heritage Information Management System (AHIMS) is a database operated by Heritage NSW and regulated under section 90Q of the *National Parks and Wildlife Act 1974*. AHIMS contains information and records pertaining to registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places (as defined under the Act) in NSW.

An updated search of AHIMS was conducted on 14 October 2025 to identify registered (known) Aboriginal sites or declared Aboriginal places within or adjacent to the study area (AHIMS Client Service ID: 1054526). The AHIMS search results are attached as Appendix C.

The AHIMS Web Service database search was conducted within the following coordinates (GDA, Zone 56):

Eastings:	316396 – 323948
Northings:	6253205 – 6258745
Buffer:	0 metres (coordinates included a buffer around the study area)

The AHIMS search results showed:

32	**Aboriginal sites are recorded in or near the above location***
0	**Aboriginal places have been declared in or near the above location**

The distribution of recorded Aboriginal sites within these coordinates is shown on Figure 5. The frequencies of site types within the AHIMS database search area are listed in Table 2.

Table 2. Site features and context from AHIMS database search

Site Context	Site Feature	Number	*Frequency (%)*
Open	Art (Pigment or Engraving)	2	*6*
	Artefact	13	*41*
	Artefact; Potential Archaeological Deposit (PAD)	3	*9*
	Artefact; Shell	2	*6*
	Grinding groove	1	*3*
	PAD	8	*25*
	Shell	3	*9*
Total		***32***	***100***

*Three AHIMS registrations have been listed as 'Not a Site' on the AHIMS database. These registrations are not included in the table above.

AHIMS records show that no previously registered Aboriginal archaeological sites are located within the study area. The AHIMS results, the nature of previously recorded sites and previous archaeological investigations in the area are discussed further in section 3.3.

Other heritage registers and databases

A search was undertaken of the following statutory and non-statutory heritage registers for Aboriginal heritage items:

- Parramatta Local Environment Plan (LEP) 2023
- Ryde LEP 2014
- Section 170 Heritage and Conservation Registers
- State Heritage Register and State Heritage Inventory
- Commonwealth Heritage List
- National Heritage List
- Australian Heritage Database (Register of the National Estate – Non-statutory archive) and
- Australian Heritage Places Inventory (Register of the National Estate – Non-statutory archive).

No Aboriginal archaeological sites or Aboriginal heritage items were recorded on these databases within the study area.

Figure 5. AHIMS search results

4.2 Discussion of AHIMS results and previous archaeological investigations

Several Aboriginal archaeological investigations have been undertaken within and in proximity to the study area, including assessments undertaken for large-scale rail and water-related infrastructure projects. Other site assessments have been undertaken during site inspections carried out by the Aboriginal Heritage Office. These have resulted in the identification of registered AHIMS sites within proximity to the study area. AHIMS registered sites are shown on Figure 5 and discussed in detail below.

[redacted] **(AHIMS 45-6-3151)**
[redacted] comprised a low density artefact scatter recorded by Streat Archaeological in 2014. [redacted] The site was assessed as having very low cultural and archaeological significance and appears to have subsequently been destroyed by development works.

[redacted] **(AHIMS 45-6-3108)**
[redacted] comprised a PAD area identified by Godden Mackay Logan (GML) as a result of a due diligence assessment undertaken in 2013. [redacted] Geotechnical testing of the property indicated that natural soils may have remained beneath a layer of introduced fill and road base. The natural soils appeared to comprise sand and clay deposits overlying sandstone deposit.

It was noted that the Parramatta Sand terrace had been mapped within 600 metres to the east of the property [redacted]. The assessment confirmed that intact sand deposits in the Parramatta region have high archaeological potential and noted only minor disturbances in the deposit identified in the assessment area. It was determined that if project works including cutting/excavation within the PAD area was to be undertaken, that further archaeological assessment (test excavation) would be required.

[redacted] **(AHIMS 45-6-2559)**
[redacted] was an artefact scatter [redacted] The site was recorded by Michael Guider in 1996 [redacted] Artefacts were identified across an area measuring approximately 60 x 9 metres and were made from silcrete, indurated mudstone, quartz and chert. Small pieces of shell (*Anadara trapezia*) and fragments of charcoal were also identified at the site.

The site was revisited by Paul Irish in 2001.The artefacts could not be relocated and the area had been subject to disturbance, including the introduction of road base and gravel. [redacted] to archaeological test excavations as part of GPOP wastewater infrastructure investigations (KNC 2021). A total of four silcrete artefacts were recovered during testing, including one heat affected angular fragment, one complete flake, one core fragment with cortex and one proximal flake fragment.

[redacted] **(AHIMS 45-6-0534) /** [redacted] **(AHIMS 45-6-3050)**
[redacted] was a shell midden and artefact scatter site recorded by E. Rich and LJ Smith in 1985. [redacted] Midden material consisted of *Anandara trapezia* (Sydney Cockle) and *Pyrazus ebeninus* (Hercules Mud Whelk) in equal parts. Soils in this area were dark brown/black in colour, with some humic content. No artefacts or bone were identified within the midden material. Several sandstone exposures were also present at the site location.

[redacted] Artefacts comprised quartz flakes and flaked pieces with pebble cortex, one multiplatform silcrete core with three negative flake scares, one silcrete flake, one silcrete flaked piece and one chert broken flake. It was determined that the small size of the artefacts was indicative of the conservation of raw material at this site.

Relocation and survey of the site [redacted] in 2010 determined that the shell midden had been heavily disturbed [redacted] No shell material was visible at the time of survey. No artefacts recorded at the time of original recording were relocated. The site area was also found to have undergone disturbance relating to landscaping activities.

[redacted] (AHIMS 45-6-3050) comprised the previously recorded surface artefact scatter identified at [redacted] (AHIMS 45-6-0534). This site recording was submitted to AHIMS as a separate entry to indicate the separation of the artefact scatter from the midden deposit. The AHIMS registration represents a duplicate recording.

[redacted] (AHIMS 45-6-3039)
[redacted] was identified as a grinding groove site by [redacted] Aboriginal Heritage Office in 2010. [redacted] The site comprised three ground hollows recorded on a sandstone rock exposure. The hollows were recorded as rounded but irregular and kidney-shaped, as opposed to the more symmetric elongate narrow ovals of grinding grooves. The site card mentions that the grinding grooves may not have been Aboriginal grinding grooves, with a note to check this. No subsequent updates were made to the site card.

Parramatta Light Rail
Archaeological assessment was undertaken by KNC for the Parramatta Light Rail project in 2017 (KNC 2017). The assessment included the proposed light rail corridor from Westmead to Carlingford via Parramatta CBD and Camellia. The assessment included a portion of the current study area north of the Rosehill Gardens Racecourse.

Background research included landscape assessment and a compilation of an ethnohistorical background and review of previous archaeological assessments for the project area. Three previously recorded Aboriginal archaeological sites were identified within the project boundary, [redacted] (AHIMS 45-6-3195), [redacted] (AHIMS 45-6-3157 / 45-6-3158) and [redacted] (AHIMS 45-6-2559). The presence of the Parramatta Sand Body (a geological formation associated with significant Aboriginal archaeology) was also identified within the project area. Archaeological field survey was undertaken to further assess the archaeological potential of the project area based on landscape context, previously identified archaeology and the extent of prior disturbance. Seven PAD areas were identified along with the three previously recorded archaeological sites.

Archaeological test excavation of the identified areas was subsequently undertaken. Testing was not undertaken at [redacted] Testing was undertaken using a combination of hand-excavated archaeological test squares and push-tubed core boreholes. Given the widespread disturbance across large portions of the project area, testing aimed to determine whether the project area contained intact subsurface Aboriginal archaeological deposit associated with the Parramatta Sand Body or other intact soil matrices. The test excavation identified intact sands containing artefacts below modern and historical disturbance in several locations within the project area. The test excavation results also concurred with previous assessments regarding the variable depth, nature and disturbance levels of the sand body. Deep excavation/removal of upper levels and replacement with fill has impacted the archaeological potential of some areas, while introduced fill above less severe disturbance has preserved artefact-bearing layers of the sands in situ at other sites.

Following testing, it was confirmed that the project area contained five identified Aboriginal archaeological sites, including the sites identified through testing, PLR AFT 1 (formerly PLR PAD 2) and PLR AFT 2 (formerly PLR PAD 4). Impact assessment determined that all five sites would be at least partially impacted by the Parramatta Light Rail project. It was determined that mitigative salvage excavation would be required for the four archaeological sites exhibiting at least moderate significance, prior to any impacts.

Parramatta Light Rail – Stage 2
Aboriginal archaeological assessment was undertaken for Stage 2 of the PLR project by RPS Group. The assessment included the proposed light rail corridor at Camelia, Rydalmere, Ermington, Melrose Park, Wentworth Point and Sydney Olympic Park (RPS Group 2023). The assessment included a process of Aboriginal community consultation, archaeological field survey and the initiation of an archaeological test excavation program. Archaeological test excavation ceased upon the identification of asbestos in soil deposits. The assessment identified Aboriginal archaeological sites comprising two shell middens, one low density subsurface artefact scatter and several identified PADs. PAD areas were identified based on their proximity to Parramatta River and relatively low levels of visible ground surface disturbance.

Ermington SHP 01 (AHIMS 45-6-4078) comprised a shell midden site recorded by an Aboriginal cultural officer at Transport for NSW in 2023 as a result of community submissions received on PLR Stage 2 EIS. [redacted] Shell types identified at the site included mostly Pippi and Ribbed Cockle, followed by Turban (Large), Periwinkle and Mud Oyster shell species.

Ermington SHL 02 (AHIMS 45-6-4079) comprised a scatter of shell [redacted] Ermington SHP 01. The site comprised a scatter of surface shell remains (mostly floating Mud Oyster) and included a large accumulation of a variety of scattered shell species, including Periwrinkle, Pippi, Turban (Large) and Ribbed Cockle. The scattered shell covered an area measuring approximately 15 metres in length and five metres in width.

PLR2 PAD5 [redacted] (AHIMS 45-6-4076) was initially identified as an area of PAD as part of the PLR Stage 2 assessment. The PAD area was subject to test excavation (prior to cessation of testing activities). A total of eight artefacts were recovered from five of 16 excavated test squares. Artefacts identified included angular fragments and distal, medial and proximal flake fragments. Raw materials included silcrete, indurated mudstone/tuff and quartz.

None of the aforementioned Aboriginal archaeological sites or PAD areas were identified within proximity to the current study area. Findings of the report recommended that further assessment of the identified PAD areas and shell midden sites would be required prior to any impacts from the proposal.

GPOP Wastewater Infrastructure Rosehill, NSW
Archaeological test excavation was undertaken for geotechnical investigations for proposed wastewater infrastructure within GPOP by KNC (2021). The assessment included lands located on the corner of James Ruse Drive and Grand Avenue North in Rosehill, NSW. One Aboriginal archaeological site, [redacted] (AHIMS 45-6-2559) was subject to testing. Test excavation was limited to areas of proposed impacts and consisted of a total 13 test squares. Most of the tested area revealed significant disturbance, with only one location on the flat landform containing natural soils from a depth of 11cm to the subsoil clay base.

The test excavation program established the presence of subsurface archaeological deposit (three silcrete artefacts) in the relatively undisturbed natural soils. All other areas subject to test excavation revealed significant fill material imported to the study area, mixed with some natural soils and deposited to the subsoil clay base levels. One additional silcrete artefact was identified in this disturbed context.

It was determined that whilst the assessment area would have been favourable for Aboriginal occupation in the past, the likelihood of evidence of this occupation preserving to the present remained sporadic and influenced by a range of factors. The factors included depth of the archaeological material and its nature, as well as levels of previous land use practices such as fill cycling and earthworks. The large-scale removal and displacement of relatively shallow soils associated with the Clay Cliff Creek alluvial levee bank was considered likely to have impacted the preservation of Aboriginal cultural material. The assessment concluded that a small portion of undisturbed ground within the assessment area exhibited intact archaeological deposits [redacted] while the remainder of the property contained no intact archaeological deposit.

The site was assessed as displaying moderate archaeological significance, with further archaeological investigations recommended if the site was to be subject to impacts. It was determined that the geotechnical works would not impact the Aboriginal archaeological site.

Newington Armory Depot and Nature Reserve
Archaeological survey was undertaken by the Aboriginal History and Connections Program (AHCP) group in 2003 in order to assess the Wanngal (Newington) woodland and the Newington Nature Reserve (Irish 2003). Particular attention was focused on three previously recorded culturally modified (scarred) trees which had been identified by Robert Paton in 1995. The survey team were able to relocate the previously recorded Scribbly Gum trees and to determine that the scars on the trees were not of Aboriginal cultural origin.

A total of three isolated finds, [redacted] (AHIMS 45-6-2683), [redacted] (AHIMS 45-6-2684) and [redacted] (AHIMS 45-6-2685) and two PAD areas, [redacted] (AHIMS 45-6-2786) and [redacted] (AHIMS 45-6-2785) were identified within the woodland reserve as a result of the archaeological survey. The assessment confirmed that the majority of the nature reserve had been subject to disturbance and that the woodland area (whilst some limited areas of potential remained) had also been subject to land clearing and burning events.

Further assessment of the Newington Armory Depot and Natre Reserve was undertaken by Australian Museum Business Services in 2011. The assessment included a review of previous archaeological studies and the environmental context and an archaeological survey. No newly recorded Aboriginal archaeological sites were identified within the assessment area. The previously registered sites could not be relocated at the time of survey. Survey also confirmed that the assessment area (including the woodland) had been severely impacted by development and use of the Newington Armory from 1895; this was found in the form of infrastructure related to electricity, water (particularly for fire management), access and ammunition storage buildings and transport (light rail) (AMBS 2011). The assessment recommended that the Aboriginal archaeological sites identified in the woodland portion of the Newington Nature Reserve be conserved under the Conservation Management Plan.

Rosehill Recycled Water Scheme

Preliminary Aboriginal heritage assessment was undertaken by AMBS for the Rosehill Recycled Water Scheme pipeline between Fairfield and Camellia (AMBS 2008). The assessment included a desktop assessment aimed at identifying whether any Aboriginal archaeological sites were located in or would be likely to occur within the proposed pipeline corridor. No ground surveys were undertaken for the assessment.

The assessment overlapped parts of the current study area at Colquhoun Street and along Devon Street. No previously recorded Aboriginal archaeological sites were identified within the current study area as a result of the assessment. The assessment recommended that further investigations (including survey) would be required for the proposed pipeline.

Sydney Olympic Park High School

Aboriginal cultural heritage assessment was undertaken for the development of the Sydney Olympic Park new high school across parts of three lots; Lot 202 DP1216628, Lot 203 DP1216628 and Lot 204 DP1216628 at Wentworth Point, NSW (Comber Consultants 2021). The assessment including a review of previous archaeological studies, archaeological survey and a process of Aboriginal community consultation. The assessment concluded that the entirety of the assessment area comprised reclaimed lands and would have previously consisted of tidal mudflats. Survey confirmed that no natural deposits remain, and that the entirety of the assessment area was subject to tidal flooding. Aboriginal archaeological potential was assessed as nil. Findings of the assessment concluded that no further Aboriginal archaeological assessment was required for the proposed development of the Sydney Olympic Park High School.

Wentworth Point, mixed Use Development

An Aboriginal cultural heritage assessment was undertaken by KNC for proposed mixed-use development at Wentworth Point in 2024. The assessment included archaeological survey and Aboriginal community consultation. The assessment confirmed that the entirety of the assessment area and the majority of the Wentworth Point peninsula had been subject to historic land reclamation activities. No Aboriginal archaeological sites or areas of archaeological potential were identified within the assessment area.

5 Regional Character and Site Predictions

Previous archaeological investigations, historical land use background and an analysis of the landscape context of an area all provide data that assists in formulating predictions of expected site types and distribution within the current study area. Previous investigations undertaken throughout the region have identified that the distribution of archaeological material around the harbour foreshores, the Parramatta LGA and the Ryde LGA is linked to a combination of environmental factors and land use practices.

A wide range of food resources would have been available to Aboriginal people from a variety of environments in the region. The study area is located along the harbour foreshores, which offer ready access to the marine resources of the lower reaches of the Parramatta River and Port Jackson, inter-tidal, beach and rock platform species, estuarine and swamp environments further upstream, and good access to the more elevated ridges and plateaux with their woodland and forest habitats.

Site types which are known to occur in the region and the local area include surface and subsurface artefact scatters, PAD areas, isolated finds and shell middens. Shell midden has been recorded within proximity to the study area at Meadowbank and is associated with the abundance of marine and estuarine resources in the local area. Preservation of archaeological deposit in open contexts (i.e. shell middens, artefact scatters, isolated finds) is variable in the region and is strongly linked to land use history and the level of disturbance to the landforms in which they occur.

Lithic materials suitable for the manufacture of stone artefacts are available from the Hawkesbury sandstone and are widely distributed across the Cumberland Plain to the west. Parramatta River and its tributaries would have provided fresh water as well as estuarine resources around the tidal limit and easy access to the marine and littoral resources of the coast. Mangroves/salt marshes and freshwater swamps and billabongs further back from the river also provided diverse flora and fauna. These landscapes have variable potential to retain archaeological evidence of Aboriginal occupation depending on topography, soils, and the effects of natural disturbances such as flooding and erosion.

Due to the long and intensive European settlement history of the Parramatta and Ryde LGAs, the study area is highly disturbed. The project alignment mostly follows the alignment of existing roads and railways through commercial, residential and industrial areas. The light rail corridor between Camellia and Carlingford is particularly disturbed, and several portions of the study area is comprised of reclaimed land. The likelihood of intact Aboriginal archaeological deposit in such areas is generally low to nil given the extent of previous excavation and construction works.

Based on the regional and local context outlined in the preceding sections, several predictions may be made about the nature of the archaeology that may be expected in the study area.

- Open artefact scatters and/or isolated finds are also possible however their occurrence within the open landscape context of the study area is dependent on the level of landform integrity.
- It can be expected that silcrete will be the most commonly encountered artefact raw material, with occasional occurrences of silicified tuff, quartz, and chert.
- Midden sites may occur and may contain shell material and/or artefacts. Where surface material is present this is generally visible (obtrusive). The integrity of midden sites will depend on soil movement/erosion and the amount of disturbance.
- Grinding grooves and engraving sites are possible where flat rock outcrops occur on the underlying Hawkesbury sandstone geology.
- Rock shelter sites are unlikely to occur within the study area given the lack of suitable landforms and type of sandstone outcrops which are known to occur.
- Clearance of the majority of original vegetation lessens the likelihood of identifying culturally modified trees, but old growth trees may be present throughout the study area and have the potential to display scars of Aboriginal origin.
- Archaeological sites are more likely to be identified in areas that have been subject to less intensive disturbance. Conversely, identification of open context sites may be aided by some measure of ground disturbance where this has increased the visibility and exposure of archaeological material.

6 Archaeological Field Survey

6.1 Sampling strategy and field methods

The aim of the archaeological survey was to conduct a full coverage, pedestrian survey of the study area and to record any Aboriginal archaeological sites or areas with potential to contain Aboriginal objects.

The study area was inspected by pedestrian survey on 3-4 April 2025 by Mark Rawson (Senior Archaeologist, KNC), Ramond Weatherall and Kevin Telford (Metro Local Aboriginal Land Council), and Kayne Moreton and Nathan Donovan (Deerubbin Local Aboriginal Land Council). The study area was divided into five survey units based on proposed construction boundaries and landform elements (Figure 6).

Survey Unit 1 comprised the portion of the study area alignment and compound areas located at Meadowbank, north of the Parramatta River. This part of the study area comprised slope, flat and open depression landforms. The majority of the survey unit comprised playing fields located within Meadowbank Park. The portion of the study area within Meadowbank Park comprised reclaimed lands. The portion of the study area crossing Memorial Park comprised slopes descending from a ridgeline to the north. This part of the study area has been extensively landscaped and subsequently revegetated.

Survey Unit 2 comprised the portion of the study area alignment and compound areas from Hill Road in the suburb of Wentworth Point to Silverwater Road in the suburb of Silverwater. The study area alignment traversed flat, slope and open depression landforms associated with Haslams Creek. Survey Unit 2 has been subject to intensive land use modification, with several of the areas comprising reclaimed land, residential and industrial development areas and altered and modified drainage tributaries (Haslams Creek).

Survey Unit 3 comprised the study area alignment and compound areas located between Silverwater Road and the Duck River watercourse in the suburb of Silverwater. This part of the study area was characterised by flats and an open depression landform associated with Duck Creek. The survey unit has been heavily disturbed and comprises residential and industrial development areas.

Survey Unit 4 comprised the study area alignment and compound areas located between Duck River and the Parramatta River in the suburbs of Rosehill and Camellia. Landforms within the survey unit comprised flats and an open depression landform associated with the Parramatta River. The survey unit has been heavily disturbed and generally comprises areas of industrial development, and the Rosehill Gardens Racecourse.

Survey Unit 5 consisted of the study area alignment and compound areas north of the Parramatta River to Kissing Point Road at Dundas. This part of the study area comprised gentle slope ascending to Kissing Point Road from the river. The survey unit was characterised by disturbed corridor associated with the Western Sydney university Parramatta campus, existing water, rail and utilities infrastructure, and residential development.

Based on the archaeological background and landform context of the study area, the survey closely inspected any areas of surface exposure for artefacts, evidence of intact soils and any mature trees for evidence of cultural modification. Assessments of soil disturbance were also made during the survey. These included an assessment of surface visibility, vegetation coverage, modern disturbance and current land use.

The survey team was equipped with high resolution aerial photography showing the boundaries of the study area. A non-differential GPS receiver was used for spatial recordings. All GPS recordings were made using the Geocentric Datum of Australia (GDA) coordinate system. Detailed notes on the condition of each survey unit were compiled by the survey including an assessment of surface visibility, vegetation coverage, modern disturbance

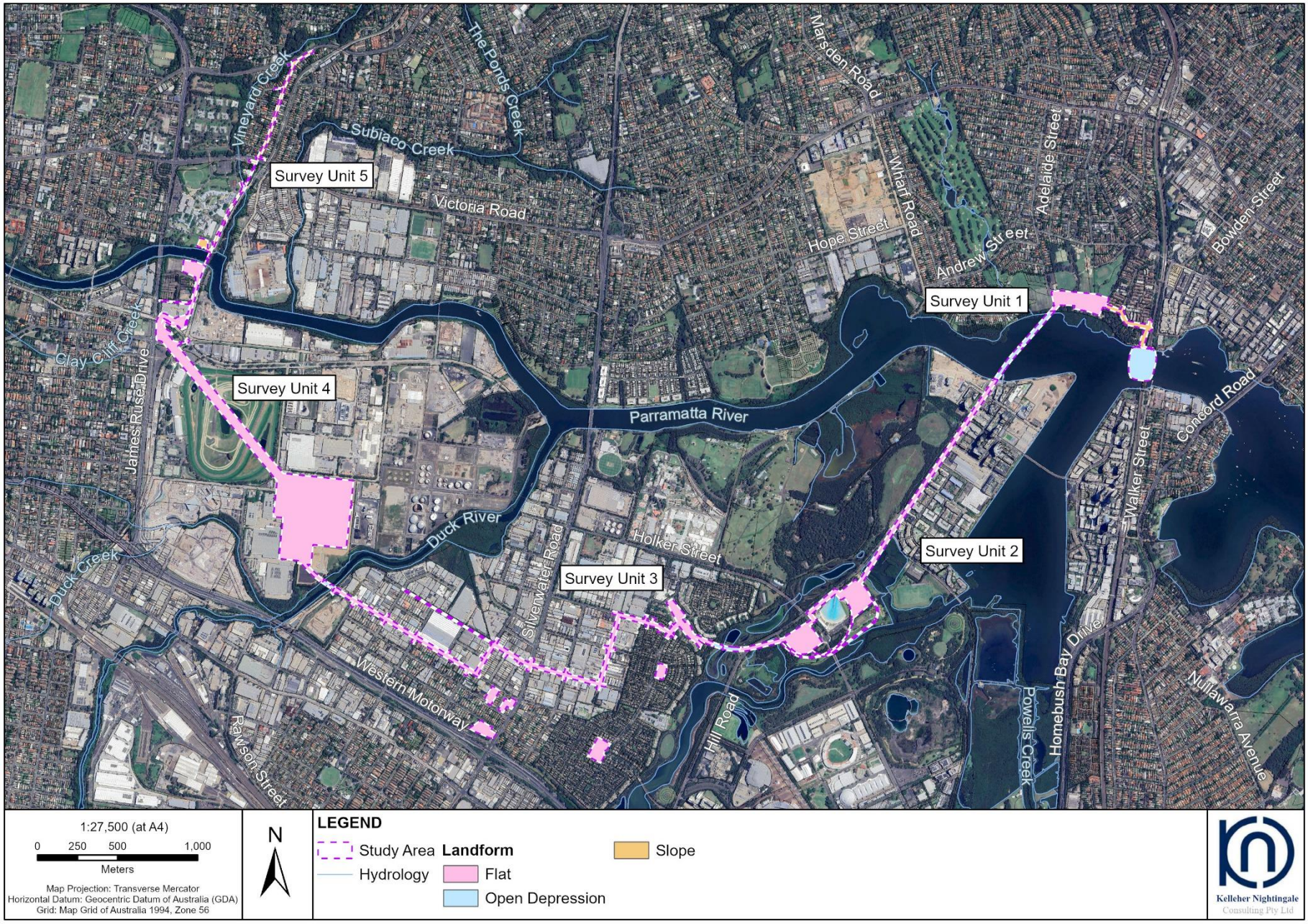

Figure 6. Survey units and landforms

6.2 Survey coverage

Survey commenced within Survey Unit 1 at Meadowbank Park, north of the Parramatta River. The study area alignment and proposed compound areas were largely characterised by reclaimed lands which have been levelled and utilised as playing fields. Ground surface visibility was mostly poor due to low mown grass. Small exposures were carefully expected for Aboriginal objects, however none were identified. Two drainage lines (Archer Creek and Charity Creek) run through the park, from north to south. Both drainage tributaries have been artificially straightened and consist of cement lined drains.

The survey continued across gentle to moderate slopes from Meadowbank Park to Memorial Park, where parklands back onto residential properties and road verges present across the crest of the ridgeline. This area had been landscaped and subject to road works. The survey team continued east along the roadway of Meadow Crescent, to Bank Street before continuing south through Memorial Park across moderate grass covered slopes to the foreshore at Charity Point. Ground surface visibility was poor. Some small bench outcrops of sandstone were identified in the vicinity across grassed slopes. No Aboriginal rock engraving sites or grinding groove sites were identified on rock exposures.

Plate 1.View to east. Meadowbank Park No.7. Open trench alignment runs across this levelled playing field to Charity Creek, now a cement lined drain.

Plate 2. View to southeast at boundary of Memorial Park. Study area alignments runs upslope to Meadow Crescent, between Memorial Park (right) and a block of units, No.12 Meadow Crescent (left).

The location of [redacted] (AHIMS 45-6-0534) / [redacted] (AHIMS 45-6-0534 was revisited to confirm that the Aboriginal archaeological site did not extend into the current study area alignment. No shell midden material or Aboriginal objects were identified at the time of survey. The survey confirmed that the site did not extend into the current study area. This portion of the study area alignment was confirmed to have been disturbed by extensive landscaping and revegetation activities

Plate 3. View to east. Meadow Crescent. This section would run in the road, towards Bank Street. At right is Memorial Park.

Plate 4. View to south at Memorial Park. The study area alignment proceeds into park, down moderate slopes to the northern foreshores of Parramatta River.

At the base of slope, the immediate riverbank had been disturbed by previous downcutting, levelling, and construction of sandstone retaining walls, and a shared pedestrian/bike path. The study area alignment continued southeast for a short distance to the John Whitton Bridge and Main Northern Railway line over the Parramatta River. Two small proposed compound areas were inspected on both sides of the bridge; these areas comprised existing sealed carparks and were heavily disturbed. No Aboriginal objects, archaeological sites or areas of archaeological potential were identified within the study area in Survey Unit 1.

Plate 5. View to south at Memorial Park. Study area crosses moderate slopes leading down to the Parramatta River. Occasional patches of sandstone were inspected between grassed areas.

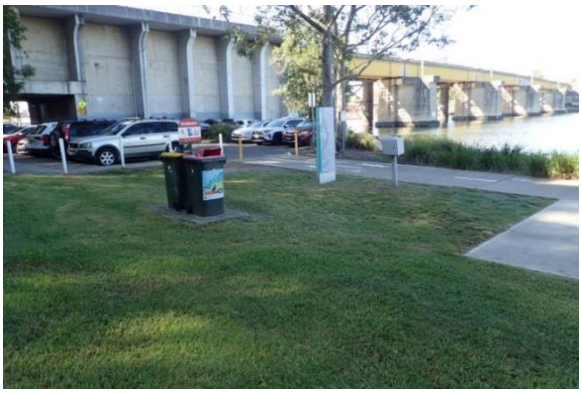

Plate 6. View to south at Memorial Park. Cars in background are located at sealed carpark area proposed as compound area.

The survey team continued within Survey Unit 2 on the southern foreshore of the Parramatta River at Wentworth Point. This part of the study area had been subject to extensive ground surface modification associated with ongoing residential development and road related infrastructure. Continuing south along Hill Road, the survey team inspected the study area alignment, proposed compound areas and proposed pipe string construction areas located within and surrounding the URBNSURF property, and associated bitumen carparks at Sydney Olympic Park. This part of the study area had been disturbed by construction of the URBNSURF property, carparks and road related infrastructure. The location of the proposed pipe string construction areas sloped east towards Haslams Creek; this area was found to have been subject to ground surface modification. Ground surface visibility was very low.

Plate 7. View to north. Photo shows disturbed URBNSURF carpark and proposed compound area.

Plate 8. View to north-east. Grass covered slopes south of the Monster BMX complex (at left). At right run is the mangrove lined Haslams Creek.

Survey continued southwest into the suburbs of Newington and Silverwater, where the study area alignment and proposed compounds areas were inspected. Proposed compound areas were located in parklands which had been disturbed by landscaping activities. Ground surface visibility was low. Small exposures present were carefully inspected for Aboriginal objects, however none were identified. The study area alignment between Newington Boulevard and Silverwater Road had been subject to ground surface modification associated with road related infrastructure and existing drainage infrastructure.

No Aboriginal objects, archaeological sites or areas of archaeological potential were identified within the study area in Survey Unit 2.

Plate 9. View to south-east at Pierre de Courbetin Park, Newington. Park area had been extensively landscaped.

Plate 10. View to west of Derby Street from Day Street intersection. Photo shows typical disturbed conditions of study area alignment in Survey Unit 2.

The survey team continued within Survey Unit 3, west of Silverwater Road to the Duck River watercourse and encompassed the study area alignment and proposed compound areas. The study area alignment had been heavily modified and disturbed by existing road-related and drainage infrastructure. Ground surface visibility was very low, with limited exposures present. Proposed compound areas were carefully inspected, the majority of these were located within existing parks, road verge or open lots utilised for truck and machinery storage. Ground surface visibility was generally low, with some exposures present. Exposures were carefully inspected; no Aboriginal objects were identified on exposures. Proposed compound areas were found to be disturbed as a result of landscaping activities or existing buried drainage infrastructure. No areas of archaeological potential were identified at these locations. No Aboriginal objects or archaeological sites were identified within the study area in Survey Unit 3.

Plate 11. View to south-west at Vore Street. Photo shows typical disturbed conditions of study area alignment in Survey Unit 3.

Plate 12. View to south-west at Hume Park. Park displayed disturbance from cement drains, buried sewer infrastructure, sealed paths and landscaping.

Plate 13. View to north-west. Proposed compound area adjacent to M4 Motorway. Area comprised disturbed mounded soil and appeared to already be in use as a compound area.

Plate 14. View to north-west at western end of Carnarvon Street. Photo shows typical disturbed conditions of study area alignment in Survey Unit 3.

Survey Unit 4 comprised the study area alignment and proposed compound areas located in the suburbs of Rosehill and Camellia. Proposed HDD pit and launch/retrieval pit locations were inspected next to Colquhoun Street, east of Unwin Street. The study area at these locations was highly disturbed, being located in a large open construction site associated with the proposed WRRF. From here the study area alignment continued to Camellia, running under the Rosehill Gardens Racecourse.

The survey team t[redacted] intended as a proposed compound, with open trenching and a launch/receival site also proposed. The study area at this location had been heavily disturbed by ongoing landuse disturbance. Previous archaeological testing undertaken by KNC i[redacted] determined that subsurface deposit comprised disturbed deposit with fill materials present (KNC 2021). One Aboriginal archaeological site, [redacted] (AHIMS 45-6-2559) was relocated adjacent to the study area corridor, [redacted]. The site was confirmed to be located outside of the current study area and remains valid. Exposures present were carefully inspected for Aboriginal objects however no new or previously recorded surface artefacts were identified on exposures. Visibility was impeded by leaf litter and introduced gravels.

A proposed launch/retrieval pit location in the informal carpark was inspected. This location had been levelled and appeared disturbed, being covered with road base and thin grass. A section of proposed open trenching was confirmed to have been disturbed by previous roadworks, and construction of the nearby Light Rail.

The team then inspected the remainder of the study area alignment and proposed compound areas in Survey Unit 4 to the Parramatta River, following a pathway along the western side of the Parramatta Light Rail. This section of the study area alignment had been previously disturbed by former industrial activity, construction of existing water-related infrastructure, railway infrastructure, and a bridge over the river. The location of the proposed compound area was across a large area of cement slab (former industrial site) on the southern banks of the river. This area was highly disturbed with no ground surface visibility.

Plate 15. View to southeast. Photo shows proposed compound area at existing disturbed sealed carpark next to Grand Avenue North.

Plate 16. View to south. Proposed compound area and launch/retrieval site. Ground surface was levelled and disturbed.

Plate 17. View to north. Photo shows existing bitumen road, running towards Parramatta River and study area alignment. Light Rail at right of photo.

Plate 18. View to north-west. Proposed compound area. This level and sealed block is on the south bank of the Parramatta River.

No Aboriginal objects, archaeological sites or areas of archaeological potential were identified within the study area in Survey Unit 4.

The remainder of the study area was inspected in Survey Unit 5, which comprised the study area alignment and proposed compound areas located between the Parramatta River in the south and Kissing Point Road at Dundas in the north. The study area alignment traversed the Parramatta campus of Western Sydney University. A proposed compound area was inspected on a grass covered slope overlooking the Parramatta River. Previous archaeological test excavation of this area was undertaken by KNC which revealed disturbed subsurfaces comprised of fill material, with no archaeological potential (KNC 2017).

The survey team continued north across an ascending slope along the study area alignment covering an existing Sydney Water pipeline easement between Railway Street and the Parramatta Light Rail. This section, running up to Vineyard Creek, was highly disturbed by existing water-related infrastructure. A proposed compound area located on a grassy bank overlooking a channelised Vineyard Creek was covered in low grass, with zero visibility. The proposed compound area had been subject to previous landuse disturbance, including landscaping activities and drainage works associated with Vineyard Creek.

Plate 19. View to south-west. Parramatta campus of Western Sydney University. Existing water pipelines on northern side of the Parramatta River. Highly disturbed ground.

Plate 20. View to north-east. Parramatta campus of Western Sydney University. Proposed compound, from bend in Railway Street. Looking down to modified Vineyard Creek at treeline. At right is Parramatta Light Rail. In foreground are existing sewer and stormwater.

The survey team continued north along the study area alignment to Victoria Road Service Road, to a proposed compound area. The proposed compound area was located across an artificial, grassed steep embankment of Victoria Road. The team then continued north of Victoria Road. A number of small compound areas were inspected, these areas were found to be disturbed, by existing landuse activities, including landscaping, play equipment construction and the introduction of artificial fill materials.

Plate 21. View to south. Southern end of Rippon Avenue. Proposed compound is located on this steep embankment next to Victoria Road.

Plate 22. View to north-east along Rippon Avenue. Study area alignment runs in the road to Kissing Point Road.

The team continued to Kissing Point Road which comprised a highly disturbed and modified road corridor. Proposed compound areas at this location were inspected along with the study area alignment. These areas had been extensively modified by existing road and water-related infrastructure. Exposures present along road verges were carefully inspected. No Aboriginal objects were identified. Some natural silcrete fragments were identified on exposures, however, these were confirmed not to be Aboriginal artefacts.

Plate 23. View to north-east on south side of Kissing Point Road. Natural silcrete fragments were identified on this patch of gravel covered ground, between two driveways.

Plate 24. View to north. Dundas. Fragments of silcrete amongst road base gravels next to sewer access point.

No Aboriginal objects, archaeological sites or areas of archaeological potential were identified within the study area in Survey Unit 5.

6.3 Survey coverage analysis

Surface exposure across the study area was generally very low to low, however visibility on exposures was low to moderate. Surface exposure did not vary greatly within the surveyed area and was dependant on vegetation density, natural processes such as erosion and modern land use disturbance. Details of survey and landform coverage are outlined in Table 3 and 4 below.

Table 3. Survey coverage

Survey Unit	Landform	Area (m^2)	Exposure (%)	Visibility (%)	Effective Coverage (m^2)	Effective Coverage (%)
1	Flat	37825	10	40	1513	4
	Open Depression	10630	10	10	106.3	1
	Slope	13370	20	40	1069.6	8
2	Flat	111855	20	40	8950	8
	Open Depression	9250	10	10	92.5	3
	Slope	8160	10	30	244.8	1
3	Open Depression	2550	10	10	25.5	1
	Flat	156825	20	40	12546	8
4	Open Depression	1540	10	10	15.4	1
	Flat	321025	30	60	57784.5	18
5	Open Depression	1420	10	10	14.2	1
	Slope	24840	20	50	2484	10

Table 4. Landform coverage

Landform	Area (m^2)	Area Effectively Surveyed (m^2)	% of Landform Effectively Surveyed	# of Sites
Flat	627530	80793.5	12.9	0
Open Depression (Major)	25390	253.9	1	0
Slope	44370	3798.4	8.6	0

Background research, AHIMS records and archaeological field survey confirmed that no Aboriginal archaeological sites or areas of archaeological potential were identified within the study area. The study area was found to have been heavily disturbed by existing landuse activities, residential and industrial development, road and water-related infrastructure and the installation of utilities. The study area represents an urban, modified environment.

7 Consultation Process

7.1 Stakeholder identification and consultation

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 Heritage NSW *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010a) and the requirements of Clause 60 of the *National Parks and Wildlife Regulation 2019*. The formal consultation process has included:

- Notification of Aboriginal persons, including register of native title determinations search and government agency notification letters;
- advertising for registered stakeholders in local print media (Appendix A);
- notification of closing date for registration (18/12/2024)
- record of registration of interest (Heritage NSW, DLALC and MLALC notified 19/12/2024);
- provision of project-specific information (3/12/2024 and 19/12/2024);
- provision of assessment methodology for review (review period was extended to 43 days to account for the December/January holiday period, review period ending on 31/01/2025)
- invitation to advise on Aboriginal cultural value of the study area;
- provision of draft CHAR for review (28 day review period ending on 16/06/2025); and
- ongoing consultation with the local Aboriginal community including regular project updates.

7.2 Registration of interest

Aboriginal people who hold knowledge relevant to determining the cultural heritage significance of Aboriginal objects and Aboriginal places in the study area were invited to register an interest in a process of community consultation. Investigations for the current project have included consultation with Aboriginal community individuals and groups as listed in Table 5*.

Table 5. Registered Aboriginal Stakeholders*

Group / Individual	Representative / Contact
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

*One 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 2010b).

7.3 Consultation regarding the land and proposed activity

Following on from Stage 1 of the consultation process undertaken by KNC (stakeholder identification and registration), project-specific consultation was undertaken. Information regarding the proposed development was provided to registered Aboriginal stakeholder groups in a letter dated 19/12/2024. Information included an outline of the proposal, location of the study area and an invitation to consult during the assessment.

Stakeholders were also provided with the proposed assessment methodology for the Cultural Heritage Assessment Report, and invited to review and provide feedback (review period was extended to 43 days to account for the December/January holiday period, review period ending on 31/01/2025). An invitation was extended for Aboriginal cultural knowledge holders and stakeholders to provide comments on the proposed cultural heritage assessment methodology, including any protocols regarding the gathering of information and any matters such as issues/areas of cultural significance that might affect, inform or refine the assessment methodology.

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

Formal responses to the proposed assessment methodology were received from [redacted] Responses generally expressed support and did not result in any changes to the assessment methodology.

[redacted]

[redacted] stated that they had a strong connection to the land, waterways and natural resources. They stated that the Parramatta River provided an abundance of resources such as food and water, adding that the river was associated with hunting, ceremonies, meeting places and potentially burials. [redacted] stated that they agreed with and supported the proposed assessment methodology (email dated 28/01/2025).

[redacted] stated that they had read the project information and the methodology for the project, they added that they endorsed they recommendations made (email dated 13/01/2025).

7.5 Stakeholder responses to the draft CHAR

The draft CHAR was provided to stakeholders for a 28 day review and comment period. Responses to the draft CHAR were received from three stakeholder groups, [redacted] Responses are included in Appendix B.

A response was received [redacted] regarding the Aboriginal history and cultural significance of the study area, queries regarding the AHIMS search results and recommendations for further archaeological assessment. These points are summarised below.

- [redacted] stated that they were disappointed with the results of the draft CHAR [that no further mitigation was required].

KNC response: No further archaeological mitigation is required for the project as there is no impact to Aboriginal objects or archaeological sites. No Aboriginal objects or archaeological sites were identified within the study area.

- [redacted] stated that the proposal was located between the Parramatta River, Duck River and Haslams Creek. They expressed that 'water was important to Aboriginal survival and people would have camped close to these creeks and river'.

- [redacted] stated that the history provided in the report did not include research about people from Parramatta or nearby, stating that 'history shows that after the invasion people from Parramatta gathered together and camped around Duck River, Prospect, Ryde and other areas, making areas such as Duck River important'.

- [redacted]ndicated that "Page 29 stated that "the study area has cultural heritage value to the local Aboriginal community" but then stated "No specific cultural values attached to the study area has been identified by stakeholders to date". They stated that this seemed contradictory.

KNC response: The cultural information provided [redacted] as a result of the draft CHAR review process has been included below in Section 7.6. No cultural values had been identified prior to issue of the draft CHAR for stakeholder review.

- [redacted] expressed concern regarding the AHIMS results provided in the report, stating the following:
  The AHIMS search shows 30 Aboriginal sites recorded near the project location (p13). Your map on page 14 shows sites exceptionally close to the location of WRRF and pipeline. It also shows three within the study area – 45-6-2559, 45-6-0534 and 45-6-3050 and others exceptionally close such as 45-6-3151, 45-6-2785 and 45-6-3039. Although these sites have been heavily disturbed, there is still the possibility that evidence may remain. Archaeological excavations in Parramatta such as at Parramatta Square show that despite disturbance artefacts can still be found. Just because there were no visible artefacts and no surface evidence of intact soils does not mean they are not there under the ground.

- [redacted] recommended that given the possibility that artefacts may remain (although in a disturbed context) and considering the cultural significance of the study area, that they would like to see archaeological testing undertaken near Duck River, Parramatta River and Haslams Creek and at the site located within and close to the study area.

KNC response: None of the Aboriginal archaeological sites identified through the AHIMS search (as shown on Figure 5) are located within the study area. The AHIMS results map has subsequently been updated to clarify that registered sites are not within the boundary. Detailed archaeological survey undertaken for the current project (see Section 6) did not identify any previously recorded sites, previously un-recorded Aboriginal objects/archaeological sites or areas of Aboriginal archaeological potential within the current study area. Previous testing undertaken for the Parramatta Light Rail project by KNC (2017) along the northern bank of the Parramatta River adjacent to the study area demonstrated severe disturbance (no natural soils) and no Aboriginal objects. As a result, and in combination with the landscape context of the study area, the likelihood of intact subsurface archaeological deposit was assessed as very low to nil. The majority of the study area was found to comprise man-made fill and disturbed terrain with no archaeological potential and no requirement for test excavation under the Code of Practice.

[redacted] stated that they agreed with and supported the management procedures put forth in the draft CHAR (email dated 6/06/2025).

[redacted] stated that they had read the project information and draft CHAR for the project. They endorsed the recommendations put forth in the report (email dated 20/05/2025).

[redacted] stated that they had read the project information and draft CHAR for the project. They agreed with the recommendations put forth in the report (email dated 20/05/2025).

7.6 Aboriginal cultural values

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

- ancestral association with the land;
- responsibility to look after the land, including the heritage sites, plants and animals, creeks, rivers and the land itself;
- artefact sites and landscape features;
- connectivity of sites throughout the landscape;
- creek lines, particularly larger landscape features and waterways such as Parramatta River;
- Indigenous plants and animals; and
- general concern for burials, as their locations are not always known and they can be found anywhere.

[redacted] provided the following information regarding the Aboriginal cultural values associated with the local area (letter dated 29/05/2025).

> This area is significant to the Dharug 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 Dharug people. Aboriginal people (Dharug) 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 Dharug 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. Dharug 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 Dharug 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. Dharug 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.

Dharug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Dharug 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. It is important that we all work together to protect the remaining sites.

8 Cultural Heritage Values and Statement of Significance

8.1 Significance assessment criteria

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

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

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

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

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH 2010b) requires significance assessment according to criteria established in the *Australia ICOMOS Burra Charter* (Australia ICOMOS 2013). The *Burra Charter* and its accompanying guidelines are considered best practice standard for cultural heritage management, specifically conservation, in Australia. Guidelines to the *Burra Charter* set out 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; and
- Social value - relates to the qualities for which a place, object, site or item has become a focus of spiritual, political, national or other cultural sentiment to a group of people. In accordance with the Heritage NSW *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*, the social or cultural value of a place (object, site or item) may be related to spiritual, traditional, historical or contemporary associations. "Social or cultural value can only be identified though consultation with Aboriginal people" (OEH 2011:8).

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

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

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

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

Scientific / archaeological significance

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

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

- Archaeological Research Potential - significance may be based on the potential of a site or landscape to explain past human behaviour and can incorporate the intactness, stratigraphic integrity or state of preservation of a site, the association of the site to other sites in the region (connectivity), or a datable chronology.

- Representativeness - all sites are representative of those in their class (site type/subtype) however the issue here relates to whether particular sites should be conserved to ensure a representative sample of the archaeological record is retained. Representativeness is based on an understanding of the regional archaeological context in terms of site variability in and around the study area, the resources already conserved and the relationship of sites across the landscape.

- Rarity – which defines how distinctive a site may be, based on an understanding of what is unique in the archaeological record and consideration of key archaeological research questions (i.e. some sites are considered more important due to their ability to provide certain information). It may be assessed at local, regional, state and national levels.

High significance is usually attributed to sites which are so rare or unique that the loss of the site would affect our ability to understand an aspect of past Aboriginal use/occupation of an area. In some cases a site may be considered highly significant because it is now rare due to destruction of the archaeological record through development. Moderate (medium) significance is attributed to sites which provide information on an established research question. Sites with moderate significance are those that offer the potential to yield information that will contribute to the growing holistic understanding of the Aboriginal cultural landscape of the project area. Archaeological investigation of moderately significant sites will contribute knowledge regarding site type interrelationships, cultural use of landscape features and occupation patterns Low significance is attributed to sites which cannot contribute new information about past Aboriginal use/occupation of an area. This may be due to site disturbance or the nature of the site's contents.

The study area comprises a disturbed landscape which has been modified by ongoing landuse activities and existing development. It does not display any scientific/archaeological significance as it does not contain any identified Aboriginal archaeological sites or areas of archaeological potential. The area displays no archaeological research potential.

Aesthetic Values

Aesthetic values are often closely related to the social values of a site or broader cultural landscape. Aspects may include scenic sights, smells and sounds, architectural fabric and creative aspects of a place. Regarding Aboriginal sites identified within the study area, no specific aesthetic values for the study area were provided by the registered Aboriginal stakeholders following the review of the draft CHAR. Archaeologically; the study area does not contain these values.

9 Discussion and Impact assessment

Sydney Water is proposing to build and operate a new water resource recovery facility (WRRF) at Camellia-Rosehill. The new WRRF is needed to provide additional wastewater capacity to support growth across the northern suburbs of Sydney, and in the Greater Parramatta and Olympic Peninsula (GPOP) growth corridor. The WRRF and associated infrastructure together form the GPOP Water Cycle Management project (the project).

The main elements of the project include:

- a new WRRF at Camellia-Rosehill to treat wastewater to produce advanced treated water
- upgrades to the existing pumping station at Camellia
- a new wastewater transfer pipeline from Camellia pumping station to the WRRF
- a new and repurposed brine pipeline to transfer brine from the WRRF to the NSOOS
- a new river release pipeline to transfer advanced treated water from the WRRF to a release structure in Parramatta River at Meadowbank.

The study area includes the proposed impact assessment area, proposed impact area and indicative river release pipeline (trenchless portions). This assessment has considered the impact to Aboriginal heritage values within the study area as a result of the project. The review of background information revealed there were no known Aboriginal archaeological sites within the study area.

Archaeological survey confirmed the extent and nature of previous disturbance and no Aboriginal objects, archaeological sites or areas of archaeological potential were identified. The study area is highly modified and disturbed due to ongoing landuse activities and existing development.

It has been identified during the consultation process that the wider local area has cultural heritage value (social value) to the local Aboriginal community. No specific cultural or social value has been identified for the study area. No historical or aesthetic values have been identified for the study area.

The study area does not display any scientific/archaeological significance as it does not contain any identified Aboriginal archaeological sites or areas of potential.

No Aboriginal heritage constraints have been identified for the Project. No avoidance or mitigation measures are required for the Project on Aboriginal heritage grounds.

10 Management Procedures

The following management recommendations have been made for the Project, based on the findings of the CHAR assessment and in consultation with Registered Aboriginal stakeholders.

No Aboriginal archaeological sites or areas of archaeological potential have been identified within the study area. No impact to Aboriginal heritage was identified for the project.

Management procedures for Human Remains and Unexpected Aboriginal Objects are outlined below.

10.1 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. DPHI, 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 DPHI. DPHI will determine the process, in consultation with Heritage NSW as appropriate;
    i. if the remains are identified as Aboriginal, the site is to be secured and DPHI and all Aboriginal stakeholders are to be notified in writing. DPHI will act in consultation with Heritage NSW as appropriate. Heritage NSW will be notified in writing according to DPHI instructions; or
    ii. if the remains are identified as non-Aboriginal (historical) remains, the site is to be secured and the DPHI is to be contacted. DPHI will act in consultation with the Heritage NSW as appropriate.
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.

10.2 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, 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, Heritage NSW will be notified as soon as practical on 131555 providing any details of the Aboriginal object and its location. Work cannot recommence unless authorised in writing by Heritage NSW.

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Appendix A Advertisement for Registration for Interest

ADVERTISEMENT

Notice for Registration of Interest

Sydney Water is proposing to build and operate a new Water Resource Recovery Facility (WRRF) in Camellia-Rosehill, in the Parramatta local government area (LGA) with an associated pump station upgrade and pipelines. The project is called the Greater Parramatta and Olympic Peninsula Water Cycle Management (GPOP WCM) project. The project is needed to service growth in the Greater Parramatta and Olympic Peninsula (GPOP) area.

The overall project traverses the suburbs of Parramatta, Camellia, Rosehill, Silverwater, Sydney Olympic Park, Wentworth Park, Melrose Park and Meadowbank located within the City of Parramatta and City of Ryde LGAs. The proponent is Sydney Water Corporation (Renee Johnson, Senior Environmental Scientist: 1 Smith Street, Parramatta NSW 2150).

Sydney Water will be seeking approval through a State Significant Infrastructure (SSI) application under the NSW Environmental Planning & Assessment Act 1979. Sydney Water proposes to carry out consultation with Aboriginal communities in accordance with the Heritage NSW Aboriginal cultural heritage consultation requirements for proponents 2010. The purpose of this consultation process is to inform the preparation of an Environmental Impact Statement (EIS) and to assist Heritage NSW in its consideration of the proposal. Kelleher Nightingale Consulting Pty Ltd has been engaged by Sydney Water to facilitate the consultation process.

Sydney Water invites Aboriginal groups and/or Aboriginal people who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places within the City of Parramatta and City of Ryde LGAs to register interest in a process of community consultation with the contact shown below (on behalf of Sydney Water):

Kelleher Nightingale Consulting
Suite 505-507, 155 King Street
Sydney NSW 2000
phone 02 9232 5373

The closing date for registration is 18 December 2024.

Please be advised that in accordance with Heritage NSW 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 Heritage NSW 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.

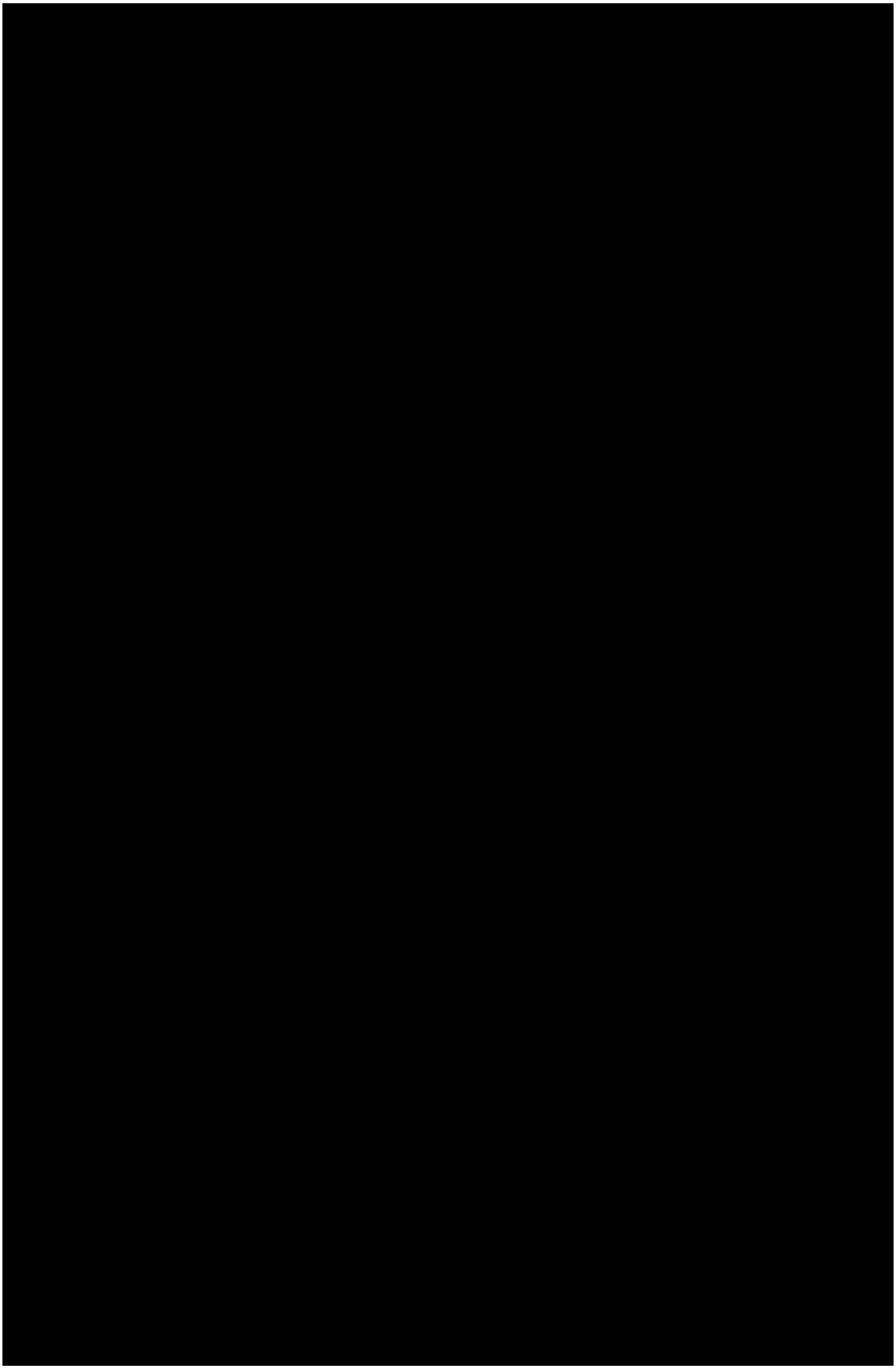
WWS629

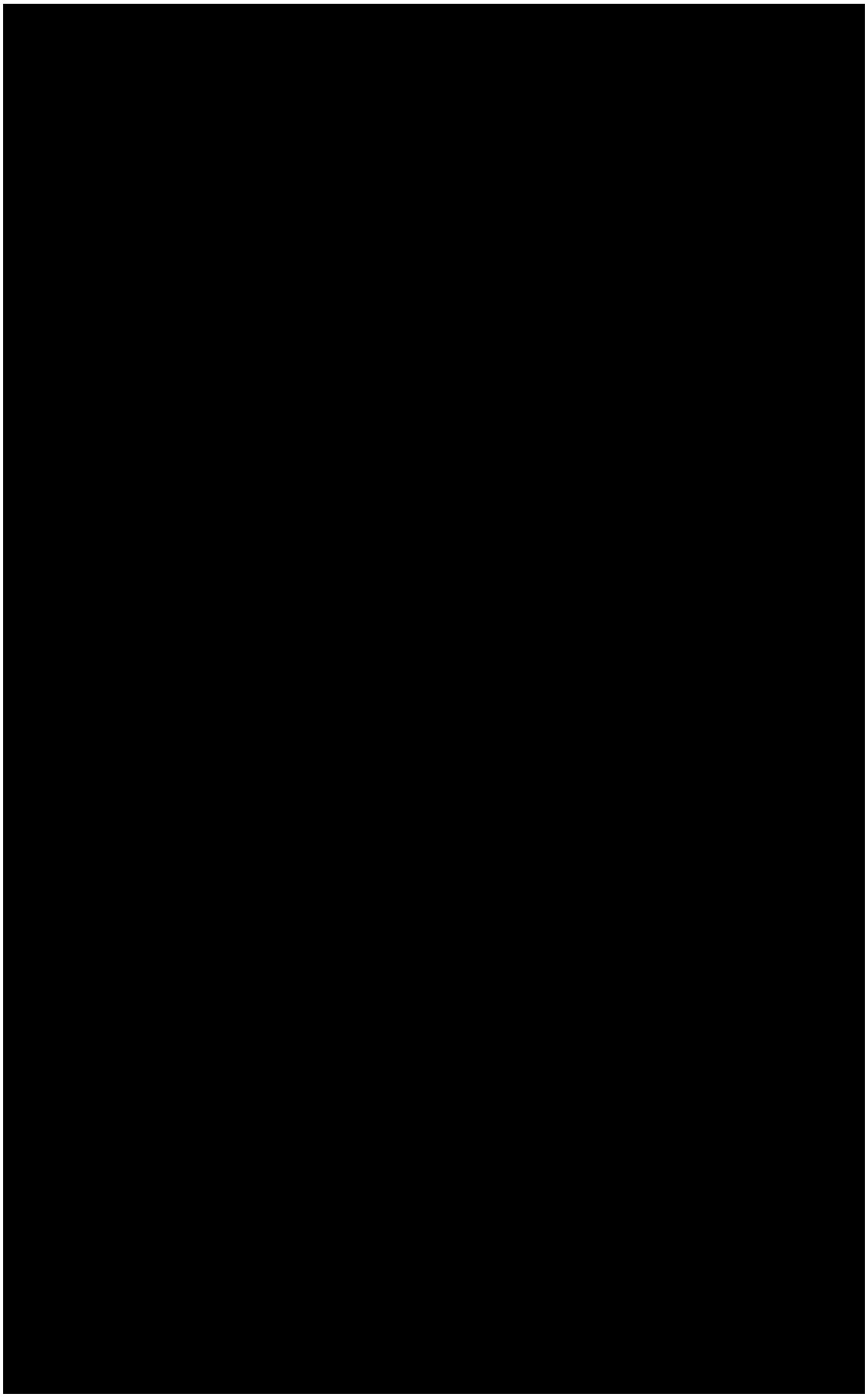
Published Tuesday December 3rd 2024, p. 38. Listed in 'Business-Directory' section of Parra News. https://www.parranews.com.au/business-directory/

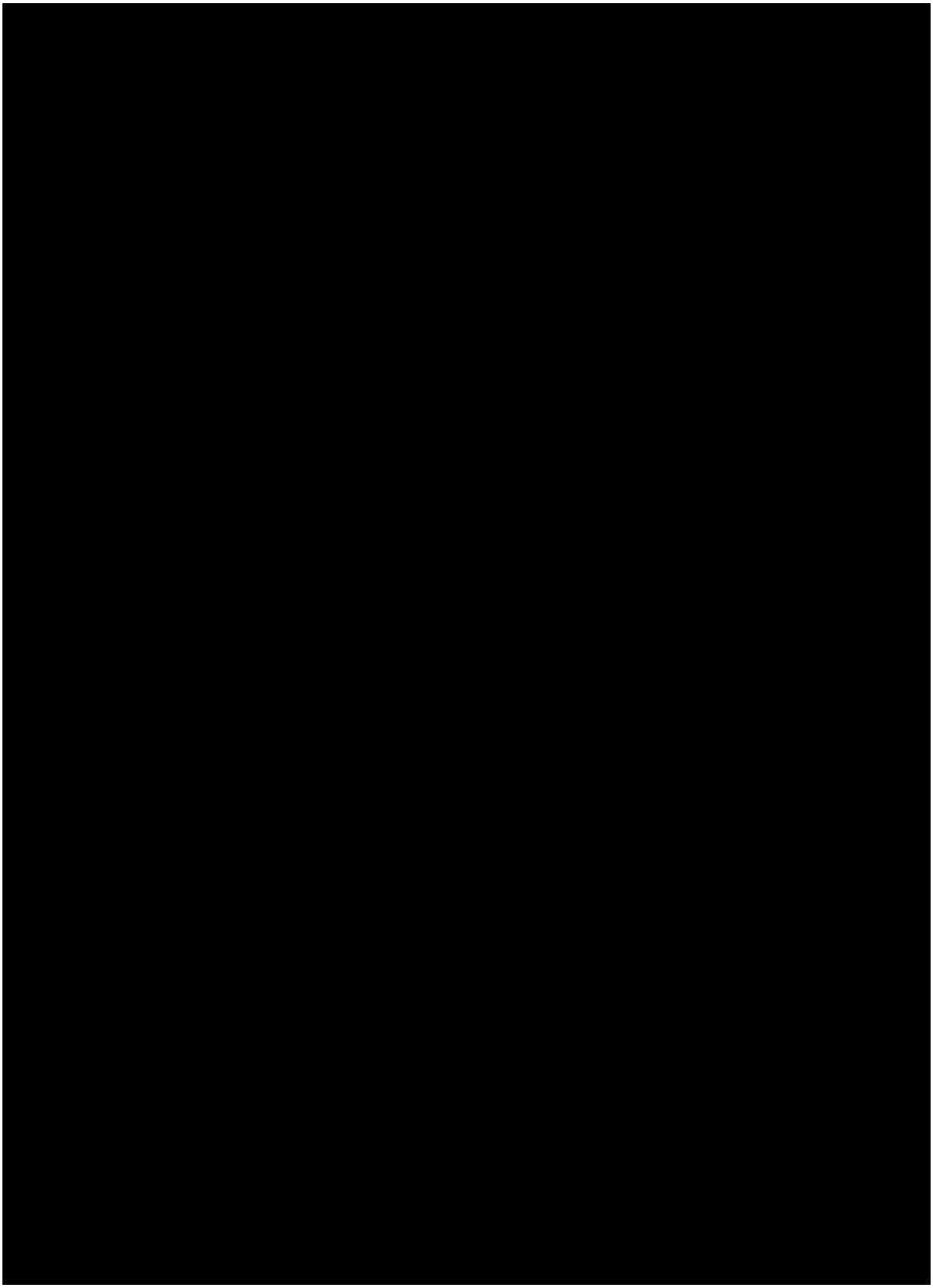
Published Wednesday December 4th 2024, p. 8. The Weekly Times.

Appendix B Aboriginal Community Consultation

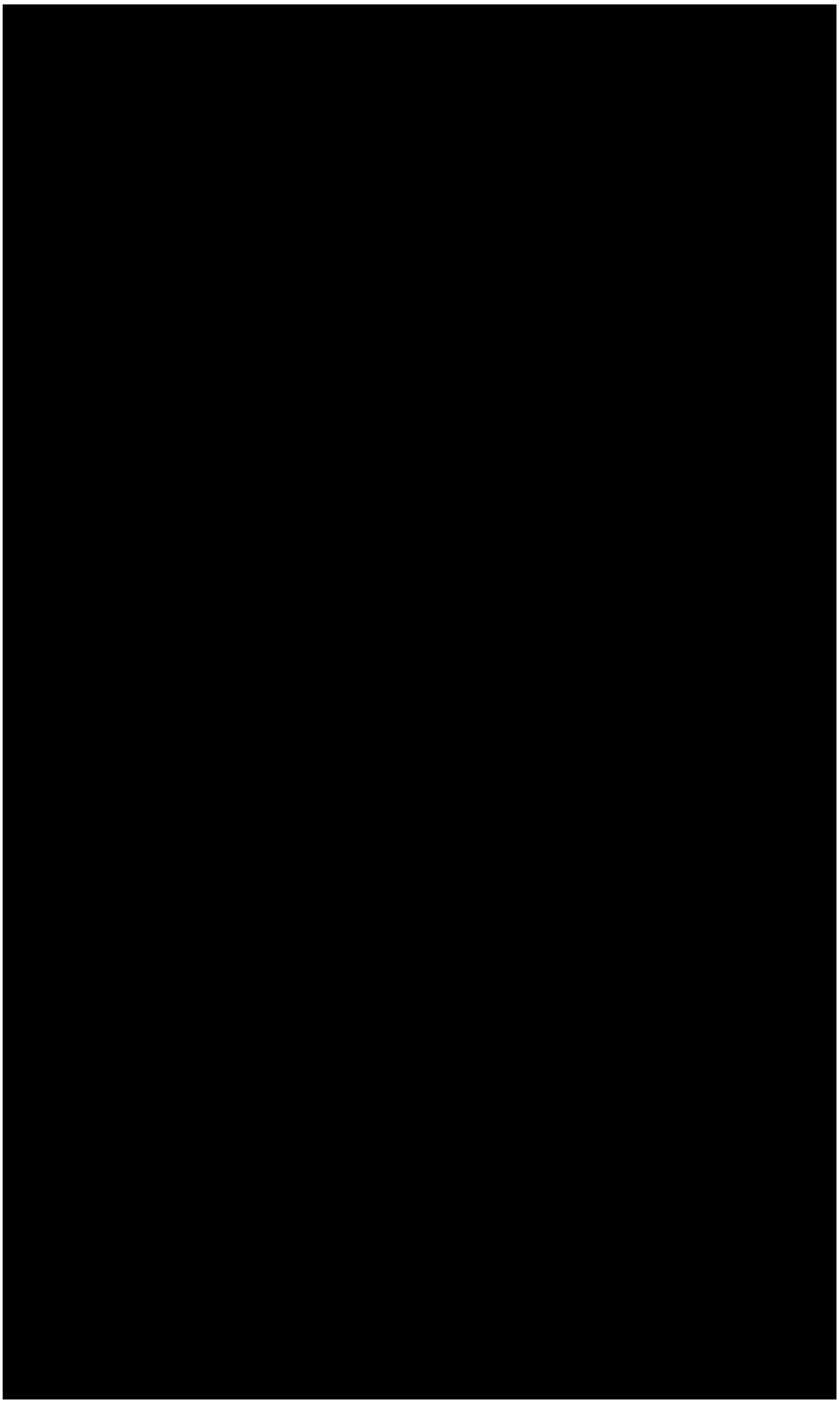
Comments on the proposed assessment methodology

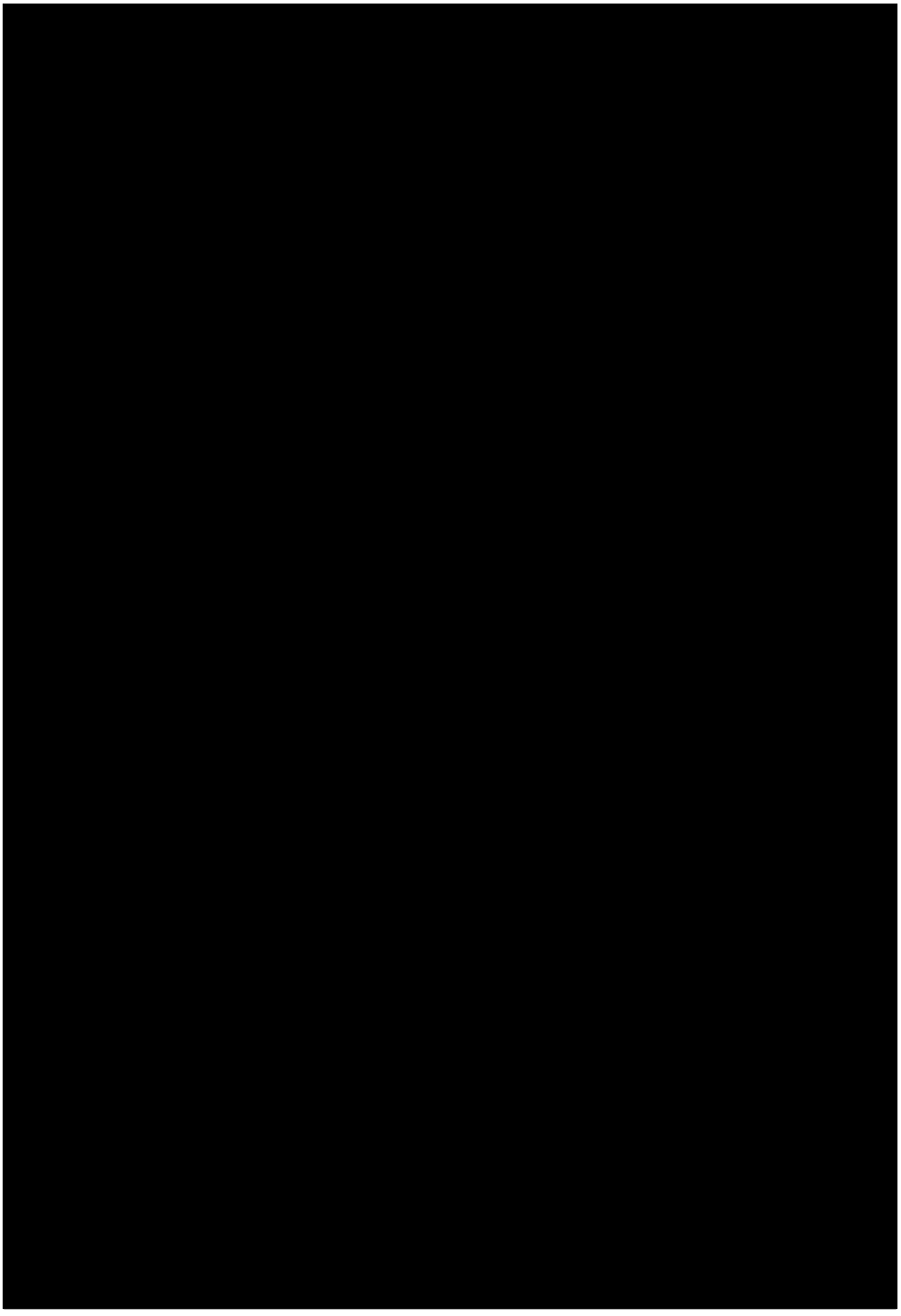


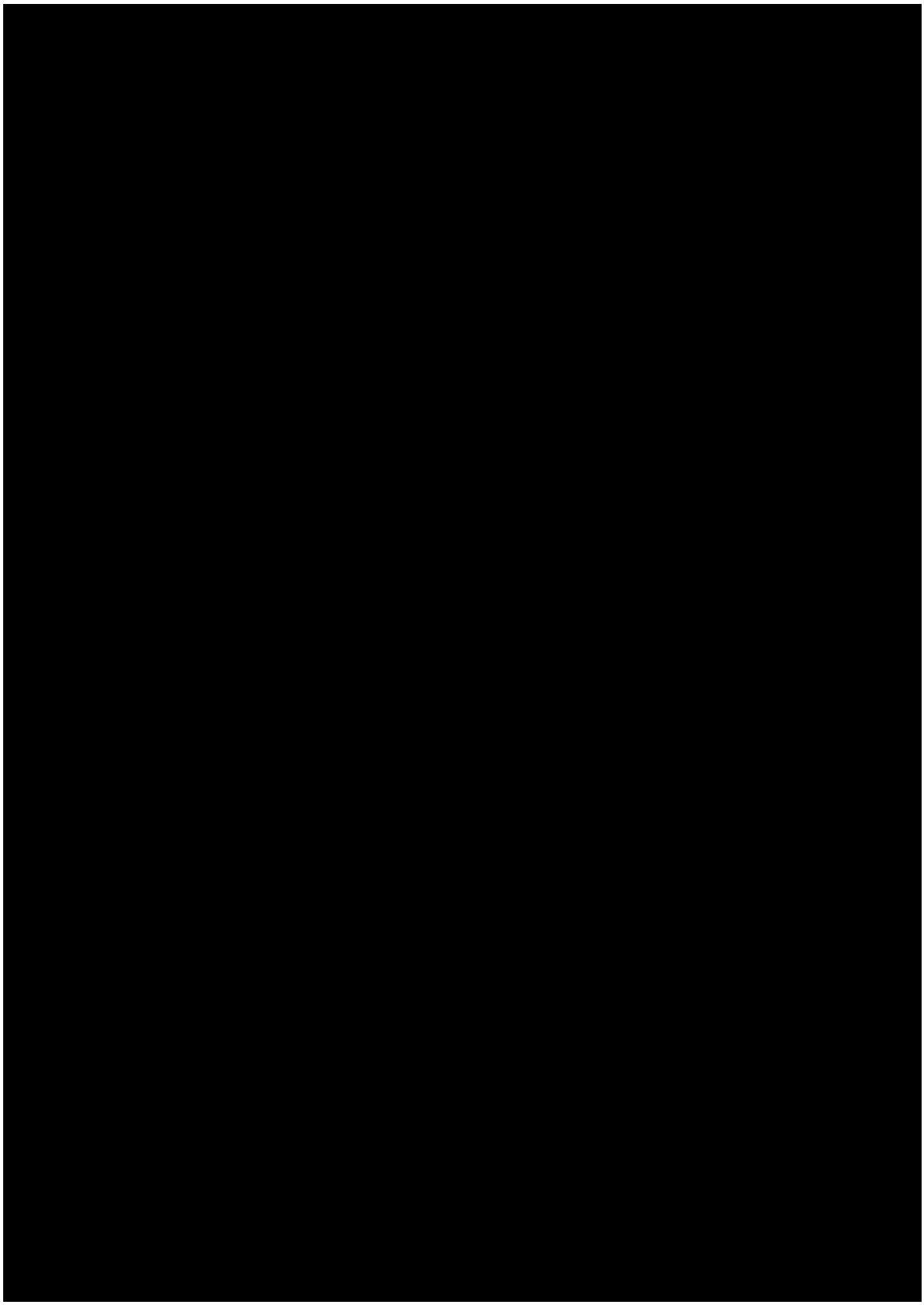


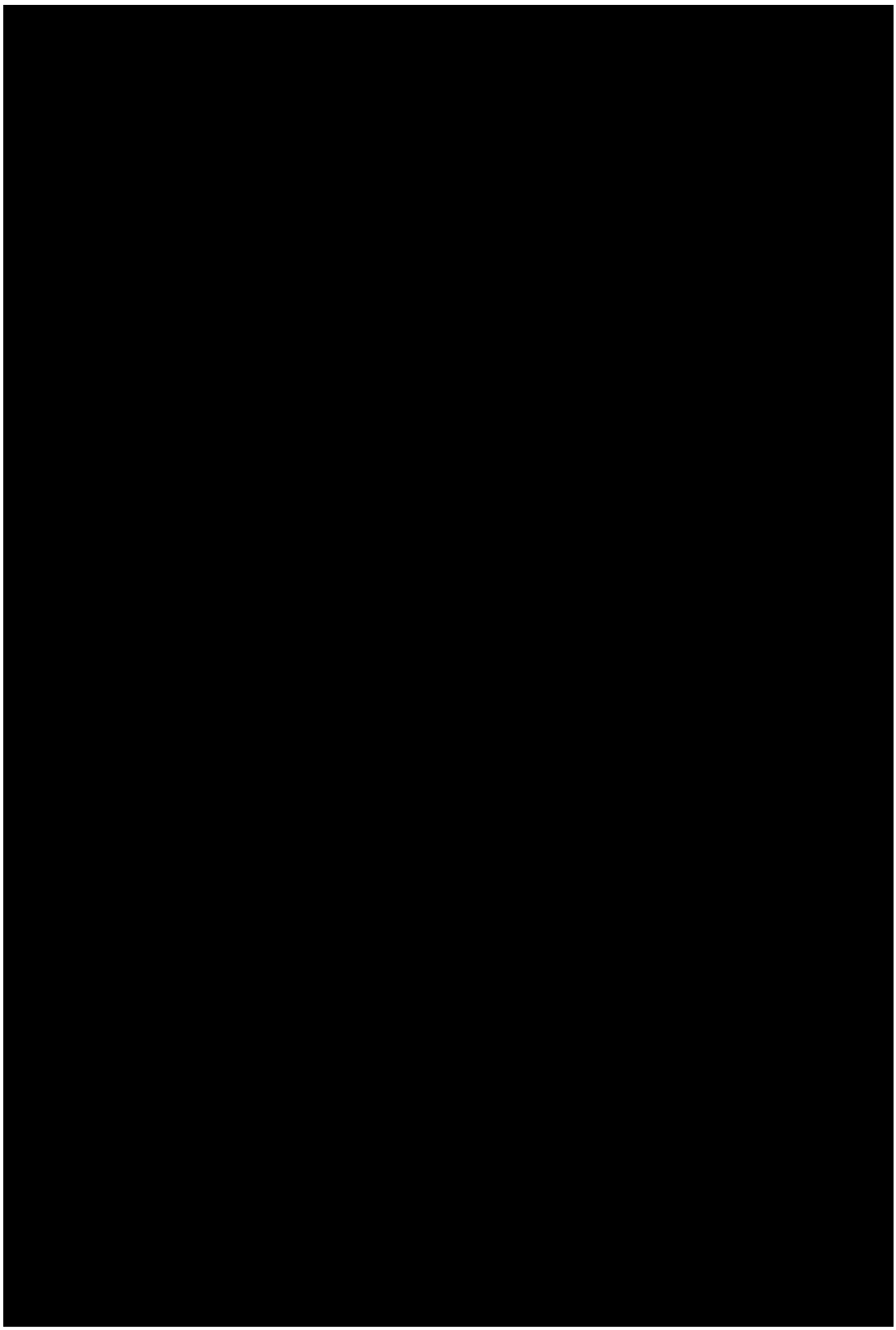


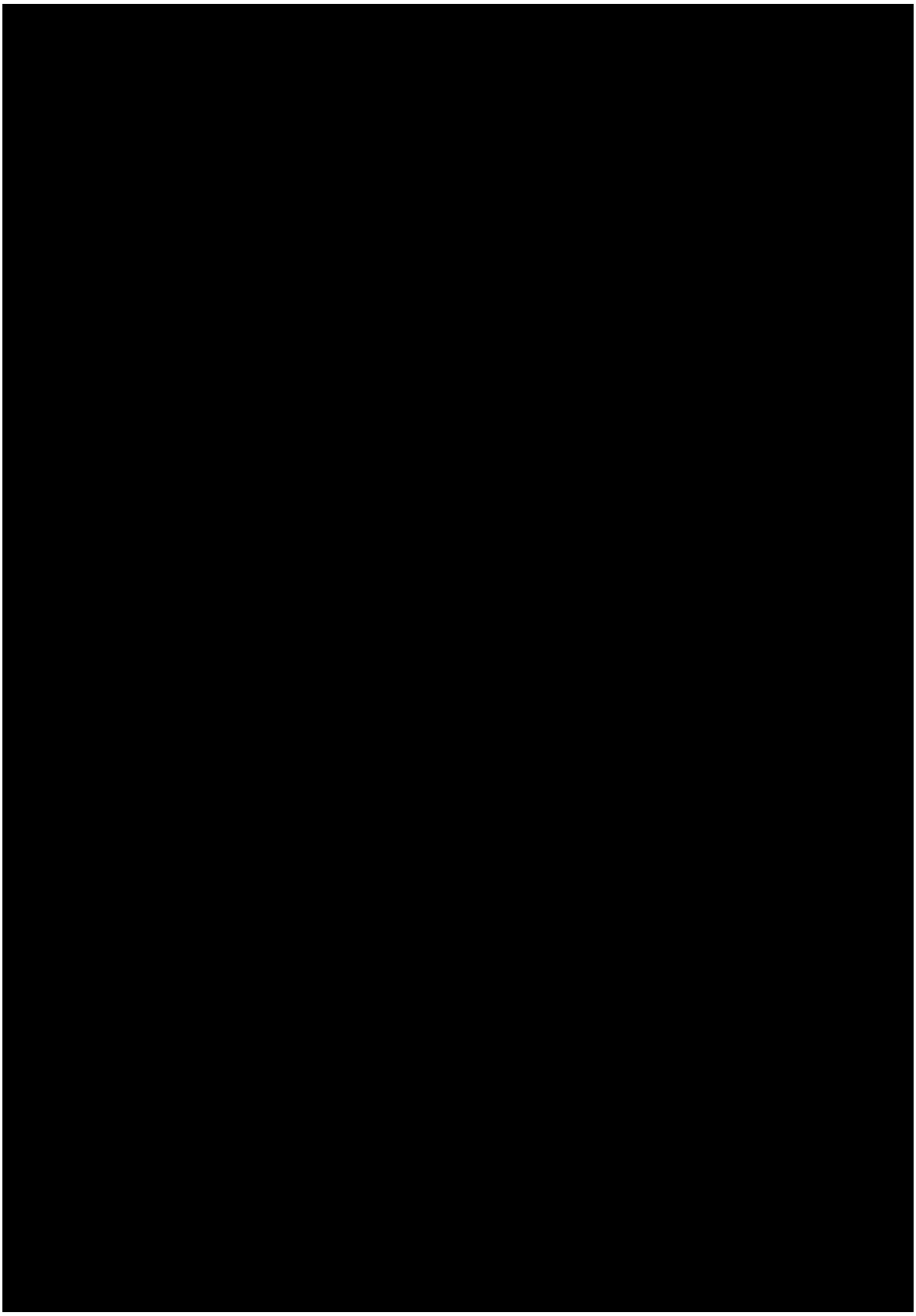
Comments on the draft CHAR



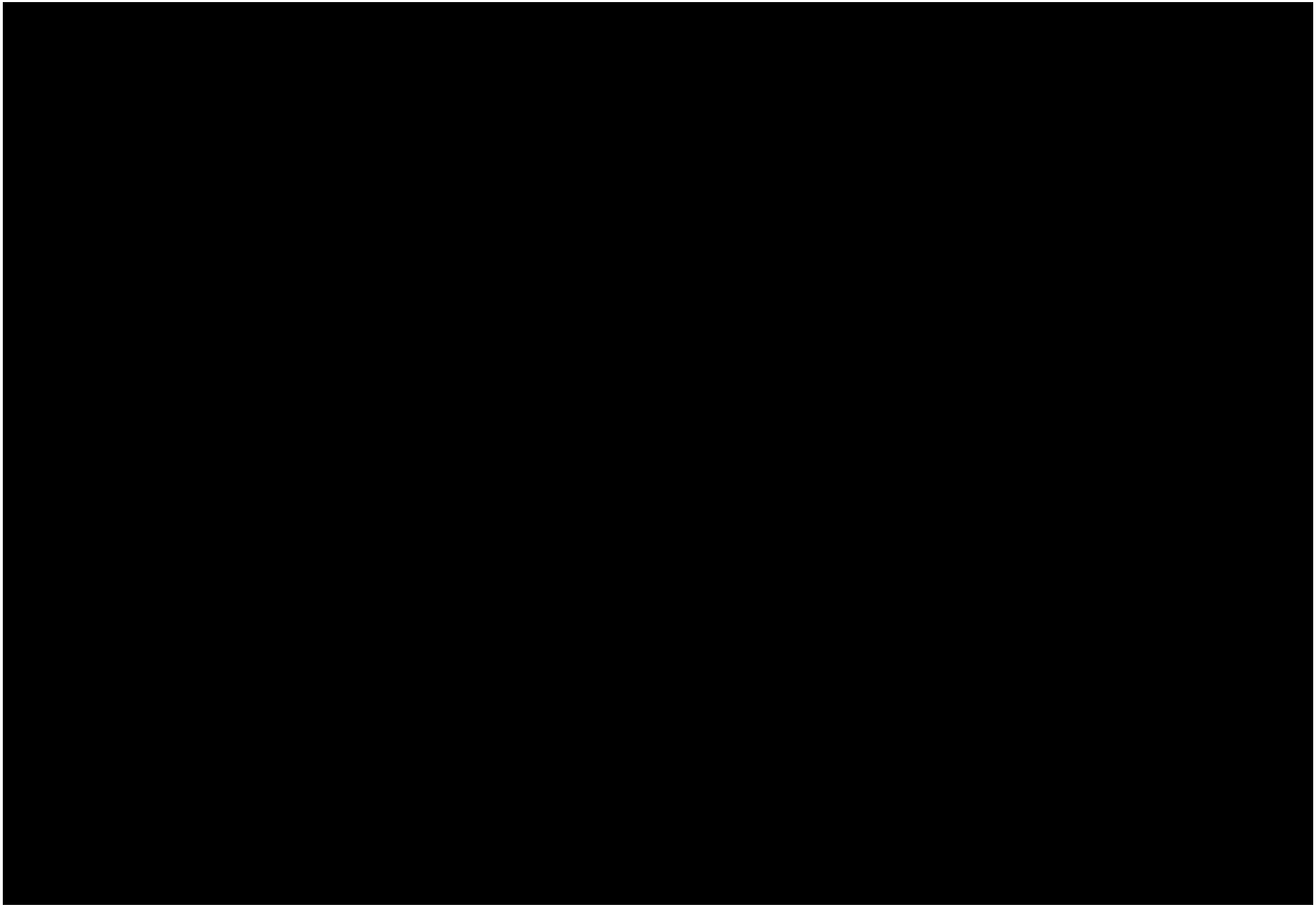


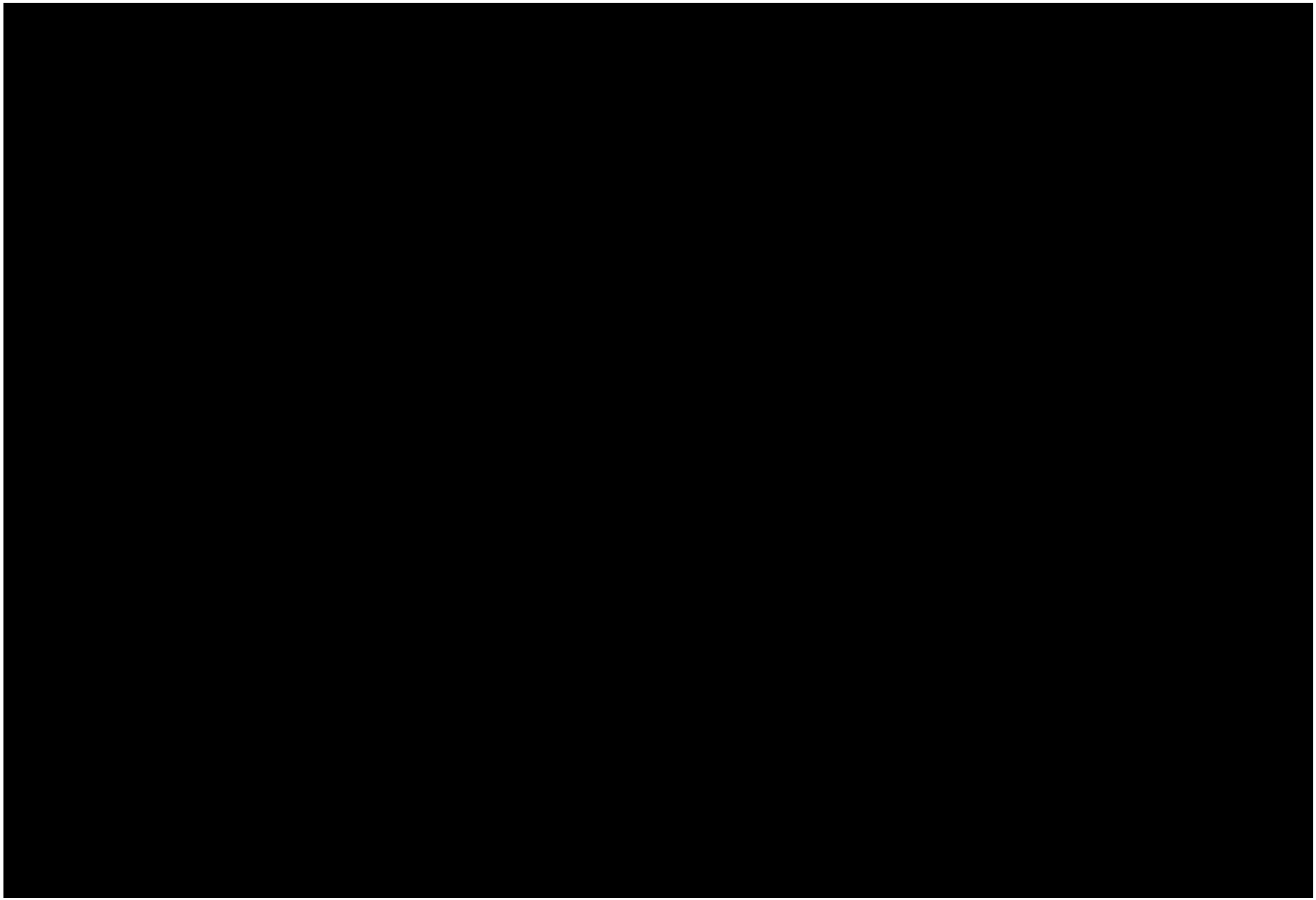






Appendix C AHIMS Search Results





**** Site Status**

Valid - The site has been recorded and accepted onto the system as valid

Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 14/10/2025 for Matthew Kelleher for the following area at Datum :GDA, Zone : 56, Eastings : 316396.0 - 323948.0, Northings : 6253205.0 - 6258745.0 with a Buffer of 0 meters.. Number of Aboriginal sites and Aboriginal objects found is 35

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 3 of 3