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EXECUTIVE SUMMARY

In December 2014, Health Infrastructure NSW was issued, was issued the Secretary's Environmental Assessment Requirements (SEARs) for Stage 1 of the Sutherlands Hospital Redevelopment for the new emergence Department (State Significant Development [SSD] 6847). Subsequently, Health Infrastructure NSW engaged Artefact Heritage Services Pty Ltd (Artefact Heritage) to prepare an Aboriginal Heritage Assessment for Stage 1 of the Sutherland Hospital Redevelopment to satisfy Requirement 6 of the issued SEARs. The Aboriginal Heritage Assessment found that the Stage 1 study area was of low archaeological potential and recommended that the works proceed without further archaeological investigations. Development Consent for the Stage 1 works was issued in October 2015 and works were completed in 2017.

Artefact Heritage has been engaged to complete an Aboriginal Archaeological Survey Report (ASR) for The Sutherland Hospital Operating Theatre Upgrade Project (TSHOTUP) to support a Review of Environmental Factors (REF) for additional works.

This ASR has found that no Aboriginal archaeological sites or areas of Potential Archaeological Deposit (PAD) are located within TSHOTUP study area. No areas of cultural heritage values were identified by the La Perouse LALC.

It is therefore recommended that:

- No further assessment is required as no known Aboriginal objects or areas of PAD will be impacted by the project.
- An unexpected archaeological finds policy be implemented, with the following conditions:
 - Stop work within the affected area, protect the potential archaeological find, and inform environment staff or supervisor.
 - Contact a suitably qualified archaeologist to assess the potential archaeological find.
 - If Aboriginal archaeological material is identified, works in the affected area should cease, and the NSW Heritage, Department of Premier and Cabinet (DPC) should be informed.
 Further archaeological mitigation may be required prior to works recommencing.
 - If human remains are found:
 - Immediately cease all work at the particular location.
 - Notify site manager and project archaeologist.
 - Notify NSW Police.
 - Notify NSW Heritage, DPC on the Environment Line on 131 555 as soon as practicable and provide available details of the remains and their location.
 - Do not recommence any work at the location until cleared.

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ABBREVIATIONS

AHC Australian Heritage Council

AHIMS Aboriginal Heritage Information Management System

AHIP Aboriginal Heritage Impact Permit

ALR Act Aboriginal Land Rights Act 1983

Artefact Heritage Artefact Heritage Services Pty Ltd

ASR Archaeological Survey Report

ATSIHP Act Aboriginal and Torres Strait Islander Heritage Protection Act 1984

BP Before Present (1950)

CHL Commonwealth Heritage List

Code of Practice Code of Practice for Archaeological Investigation of Aboriginal

Objects in New South Wales

DECCW Department of Environment Climate Change and Water (now NSW

Heritage, DPC)

EP&A Act Environmental Planning and Assessment Act 1979

EPBC Act Environment Protection and Diversity Conservation Act 1999

LALC Local Aboriginal Land Council

LEP Local Environmental Plan

LGA Local Government Area

NHL National Heritage List

NPW Act National Parks and Wildlife Act 1974

NSW Heritage, DPC NSW Heritage, Department of Premier and Cabinet (Formerly

DECCW and OEH)

OEH Office of Environment and Heritage (now NSW Heritage, DPC)

PAD Potential Archaeological Deposit

REF Review of Environmental Factors

RNE Register of the National Estate

SEARs Secretary's Environmental Assessment Requirements

SSD State Significant Development

1.0 INTRODUCTION

1.1 Background

In December 2014, Health Infrastructure NSW was issued, was issued the Secretary's Environmental Assessment Requirements (SEARs) for Stage 1 of the Sutherlands Hospital Redevelopment for the new emergence Department (State Significant Development [SSD] 6847). Subsequently, Health Infrastructure NSW engaged Artefact Heritage Services Pty Ltd (Artefact Heritage) to prepare an Aboriginal Heritage Assessment for Stage 1 of the Sutherland Hospital Redevelopment to satisfy Requirement 6 of the issued SEARs. The Aboriginal Heritage Assessment found that the Stage 1 study area was of low archaeological potential and recommended that the works proceed without further archaeological investigations. Development Consent for the Stage 1 works was issued in October 2015 and works were completed in 2017.

Artefact Heritage has been engaged to complete an Aboriginal Archaeological Survey Report (ASR) for The Sutherland Hospital Operating Theatre Upgrade Project (TSHOTUP) to support a Review of Environmental Factors (REF) for additional works.

1.2 Study area

The study area covers approximately 11.9 ha and is identified as the Sutherland Hospital (Lot 1, DP 119519 and Lot 1, DP 432283). The study area is within the Parish of Sutherland and County of Cumberland. The study area falls within the Sutherland Shire Local Government Area (LGA) and the boundaries of La Perouse Local Aboriginal Land Council (La Perouse LALC).

1.3 Description of works

The proposed works will include the following:

- Removal (or lowering) of median of Kareena Road and associated civil works for the provision of a right-hand turn into the Sutherland Hospital
- Relocation and replacement of existing in-ground services and associated civil works, including:
 - Power and comms to Seals
 - Incoming NBN, Telstra and Optus (shared corridor)
 - Cold water supply from Kareena Road (shared corridor)
 - Sewer drainage line (shared corridor)
 - Fire services supply (shared corridor)
 - Stormwater and associated works
- Replacement of glazing to western fire stairs with compliant cladding.

1.4 Study scope and objectives

The scope of this study is to undertake an Aboriginal archaeological assessment in conjunction with representatives from the La Perouse LALC. The assessment will identify Aboriginal sites or areas of Potential Archaeological Deposit (PAD) in the study area and provide recommendations in an ASR for mitigation of any proposed impacts to identified values, or where required recommendations for further assessment.

The objectives of this study are to provide an ASR which:

- Assesses the Aboriginal cultural heritage values of the study area in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (Department of Environment, Climate Change and Water [DECCW] 2010a) (the Code of Practice)
- Identifies Aboriginal archaeological and cultural heritage values that may be impacted by the project
- Identifies any further investigations, and mitigation and management measures that may be required, should the project proceed.

This ASR has been undertaken in accordance with the following requirements and guidelines:

- The Code of Practice
- Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales
 (DECCW 2010b) (the Due Diligence Code of Practice).

This report includes:

- A description of the project and the extent of the study area
- An archaeological significance assessment of the study area
- A description of the statutory requirements for the protection of Aboriginal heritage
- An impact assessment for recorded Aboriginal sites and areas of archaeological potential (if any)
- Provision of measures to avoid, minimise, and if necessary, offset the predicted impacts on Aboriginal heritage values (if any).

1.5 Limitations

Only the area within the study area was surveyed for Aboriginal sites.

1.6 Aboriginal consultation

Steven Ella (Cultural Heritage Officer, La Perouse LALC) attended the survey to inform a report of findings. No particular areas of cultural significance were identified during the survey. At the time this report was prepared, the La Perouse report had not been completed.

1.7 Authors

This report was prepared by Ryan Taddeucci (Senior Heritage Consultant, Artefact Heritage) and Michael Lever (Senior Heritage Consultant, Artefact Heritage), with management input and review from Sandra Wallace (Managing Director, Artefact Heritage).

Figure 1: Location of the study area



2.0 LEGISLATIVE CONTEXT

2.1 State heritage legislation

2.1.1 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act), administered by NSW Heritage, Department of Premier and Cabinet (DPC) provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW), and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community).

The protection provided to Aboriginal objects applies irrespective of the level of their significance or issues of land tenure. However, areas are only gazetted as Aboriginal places if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is of special significance to Aboriginal culture.

There are no gazetted Aboriginal places in the study area. All Aboriginal objects, whether recorded or not are protected under the NPW Act.

Section 86 of the NPW Act identifies that it is an offence to harm or desecrate an Aboriginal object and/or an Aboriginal place. Section 86 outlines penalty units applicable where it is identified that a person or corporation is in breach of Section 86.

The NPW Act defines harm to an object or place as any act or omission that:

- (a) destroys, defaces or damages the object or place, or
- (b) in relation to an object moves the object from the land on which it had been situated, or
- (c) is specified by the regulations, or
- (d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c)

A section 90 permit is the only Aboriginal Heritage Impact Permit (AHIP) available under the *National Parks and Wildlife Act 1974* and is granted by NSW Heritage, DPC . Various factors are considered by NSW Heritage, DPC in the AHIP application process, such as site significance, Aboriginal consultation requirements, Ecological Sustainable Development (ESD) principles, project justification and consideration of alternatives. The penalties and fines for damaging or defacing an Aboriginal object were increased in 2010.

2.1.2 Aboriginal Lands Right Act 1983

The Aboriginal Land Rights Act 1983 (ALR Act) established Aboriginal Land Councils (at State and Local levels). These bodies have a statutory obligation under the ALR Act to:

- (a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and
- (b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

The study area is within the boundary of the La Perouse LALC.



2.1.3 Environmental Planning & Assessment Act 1979

The EP&A Act establishes the framework for cultural heritage values to be formally assessed in the land use planning, development assessment and environmental impact assessment processes. The EP&A Act consists of three main parts of direct relevance to Aboriginal cultural heritage; Part 3 which governs the preparation of planning instruments, Part 4 which relates to development assessment processes for local government (consent) authorities, and Part 5 which relates to activity approvals by governing (determining) authorities.

Part 3, Division 3.4 deals with the development of Local Environmental Plans (LEPs). Planning decisions within LGAs are guided by LEPs. Each LGA is required to develop and maintain an LEP that includes Aboriginal and historical heritage items which are protected under the EP&A Act and the *Heritage Act 1977*. The study area is located within the boundaries of the Sutherland Shire Council LGA and is covered by the Sutherland Shire LEP. No Aboriginal heritage items listed on the LEP are located within the study area.

2.2 Commonwealth legislation

2.2.1 Native Title Act 1994

The main purpose of the *Native Title Act 1993* is to recognise and protect native title. Native title is the rights and interests in land and waters that Aboriginal and Torres Strait Islanders have under their traditional laws and customs.

The following list is indicative of the type of land, which might be subject to native title:

- Vacant Crown land and any other public or Crown lands including oceans and inland waterways, beaches and foreshores, State forests, national parks and public reserves
- Pastoral leases
- Land held by government agencies
- · Land held in trust for Aboriginal communities.

Under the amended Native Title Act 1993, Native Title is extinguished by the following:

- Private freehold land, valid grants of private freehold land or waters
- Residential, commercial or exclusive possession leases
- Mining dissection leases
- Community purpose leases (e.g. religious, sporting or charitable purposes)
- Scheduled interests that give exclusive possession
- Public works (e.g. schools, public amenities, hospitals etc.).

Section 24KA of the *Native Title Act 1993*, requires that native title claimants are notified of any 'future act' which may result in a change in land use for Crown lands affected by claims. 'Future act' is defined in section 233 of the Act as a proposed activity or development on land and/or waters that may affect native title, by extinguishing (removing) it or creating interests that are inconsistent with the existence or exercise of native title. If after one month there was no response, then the proponent will be deemed to have fulfilled their obligations under the Act.

A search of the National Native Title Tribunal database was completed on 7 July 2020. There are no Native Title claims currently registered in the study area.

2.2.2 Environment Protection and Biodiversity Conservation Act 1999

The Environment and Heritage Legislation Amendment Act (No.1) 2003 amends the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) to include 'national heritage' as a matter of National Environmental Significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

The Australian Heritage Council Act 2003 (AHC Act) establishes a new heritage advisory body - the Australian Heritage Council (AHC), to the Minister for the Environment and Heritage and retains the Register of the National Estate (RNE).

The Australian Heritage Council (Consequential and Transitional Provisions) Act 2003 repeals the Australian Heritage Commission Act 1975, amends various Acts as a consequence of this repeal and allows the transition to the current heritage system.

Together the above three Acts provide protection for Australia's natural, Indigenous and non-Indigenous heritage. The new features include:

- A new NHL of places of national heritage significance
- A new CHL of heritage places owned or managed by the Commonwealth
- The creation of the AHC, an independent expert body to advise the Minster on the listing and protection of heritage places
- Continued management of the RNE.

A summary of register searches is outlined below:

- No items listed on the NHL are located within the study area
- No items listed on the CHL are located within the study area
- No items listed on the RNE are located within the study area.

2.2.3 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (ATSIHP Act), deals with Aboriginal cultural property (intangible heritage) in a wider sense. Such intangible heritage includes any places, objects and folklore that 'are of particular significance to Aboriginals in accordance with Aboriginal tradition'. These values are not currently protected under the NPW Act.

There is no cut-off date and the ATSIHP Act may apply to contemporary Aboriginal cultural property as well as ancient sites. The ATSIHP Act takes precedence over state cultural heritage legislation where there is conflict. The Commonwealth Minister who is responsible for administering the ATSIHP Act can make declarations to protect these areas and objects from specific threats of injury or desecration. The responsible Minister may make a declaration under Section 10 of the Commonwealth Act in situations where state or territory laws do not provide adequate protection of intangible heritage.

Where an Aboriginal individual or organisation is concerned that intangible values within the proposal are not being adequately protected, they can apply to the Minister for a declaration over a place.

No intangible places were identified during this assessment.

3.0 ENVIRONMENTAL CONTEXT

The environmental context of the study area is to assist in the prediction of:

- The potential of the landscape over time to have accumulated and preserved Aboriginal objects
- The ways Aboriginal people have used the landscape in the past with reference to the presence of resource areas, surfaces for art, other focal points for activities and settlement
- The likely distribution of the material traces of Aboriginal land use based on the above.

3.1 Soils and geology

Soils across the study area consist of the Gymea and Blacktown soil landscape (OEH 2015). The Gymea soils are shallow to moderately deep (0.3-1 m) yellow earths and earthy sands on crests, siliceous sands on benches, and leached sands along drainage lines. The Blacktown soils are shallow to moderately deep (>1 m) hard-setting mottled texture contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and in drainage lines.

The geology underlying the hospital precinct consists of the Hawkesbury Sandstone and Shale laminate formation. Hawkesbury Sandstone underlies the southern half of Sutherland Hospital and is characterised by medium to coarse-grained quartz sandstone, very minor shale and laminate lenses. The Shale laminate deposit underlies the northern half of Sutherland hospital and is characterised by claystone, siltstone, and laminite (shale lenses) (NSW Department of Resources 1985).

The local topography consists of undulating to rolling rises and low hills on Hawkesbury Sandstone. Local relief 20-80 m, slopes 10-25%. Broad convex crests, moderately inclined side slopes with wide benches, localised rock outcrops on low broken scarps. The sandstone foreshores along the Hacking and Georges rivers have weathered into overhangs that allowed for Aboriginal inhabitants of the region to take shelter from the elements and carry out various activities including but limited to sleeping, eating, camping and sometimes burial. These rocky foreshores are often fringed by mud and sand flats.

3.2 Hydrology

The study area is situated on a broad high crest that slopes south toward Yowie Bay and into the Hacking River catchment and gently to the north toward the Georges River catchment.

The Hacking River has cut a course through foreshores of Triassic Hawkesbury sandstone formations which rise to steep escarpments around the multiple headlands along its course. The meandering tributaries leading to the river from the west converge south of the suburb of Grays Point and then snake westwards as the Hacking River. The heads of the Hacking River are found between Cronulla to the north and Bundeena to the south.

The Georges River rises on the western slopes of the Illawarra range south of Appin and meanders for 96 km to Botany Bay where the river mouth is adjacent to Dolls Point (Lawrence et al 1999, 121). Tributaries that converge into the Georges River and the wider catchment include but are not limited to: Prospect Creek, Williams Creek, Yeramba Lagoon, Salt Pan Creek, Little Salt Pan Creek, Woronora River, Forbes Creek and Boggywell Creek (Dallas 2004, 16).

3.3 Vegetation

The vegetation within the study area would have originally comprised a combination of Sydney Coastal Dry Sclerophyll Forest and Sydney Coastal Heaths (Keith 2004). The Sydney Dry Sclerophyll Forest grows on sandstone landscapes in areas below 700 m elevation, where average rainfall varies from 1 – 1.3 m (Keith 2004, 146). This vegetation type encompasses a wide range of related forest and woodland communities. The eucalypt canopy includes Sydney red gum, red bloodwood and Sydney peppermint, brown stringybark, broadleaved scribbly gum and old man banksia (Keith 2004,146). The prominent and diverse sclerophyll shrub understory is shorter and more open on ridges than in gullies, while the open ground layer is dominated by sclerophyll sedges.

The region surrounding the study area would have provided an abundance of native animals. Mammals such as kangaroos and wallabies and arboreal mammals such as possums can be used as a food source and for tool making. For example, tail sinews are known to have been used as a fastening cord, whilst 'bone points' which would have functioned as awls or piercers are an abundant part of the archaeological record (Attenbrow 2010, 118). Ethnographic observations of early European settlers noted that Aboriginal people used a variety of animal parts, such as claws, talons, bone, skin, teeth, shell, fur and feathers for a variety of tools and non-utilitarian functions. The nearby coastline would have provided an abundance of marine resources, including eels, fish, shellfish and birds. In summary, the study area would have provided a variety of resource and suitable climatic conditions for year round occupation by traditional Aboriginal groups inhabiting the area.

Aboriginal communities living within the Sutherland Shire would have had access to an abundance of food resources. Central to their diets would have been the resources gathered from the estuarine and freshwater Georges and Hacking Rivers along with their associated tributaries. Archaeological deposits from middens in the area have shown that species consumed by local Aboriginal groups were snapper and bream, along with to a lesser extent, flathead, whiting, groper, mulloway, wrasse, and leatherjacket (Turbet 2001, 31; Attenbrow 2002, 65). Midden excavations near the Georges River reveal that a variety of shellfish and crustacean were procured and utilised by local Aboriginal groups, these included rock oysters, mud oysters, cockles, mussels, spiny oysters, winks, chamas and horned shells, abalone, limpets, Hercules whelks, periwinkles, nerites and pippies.

The diets of Aboriginal communities in this region would not have been limited to sea or river foods, as animal bones recorded in middens in the Royal National Park and at Mill Creek include food species such as bandicoot, possum, wallaby, potoroo, water rat, snake, skink and lizard (Turbet 2001, 32). Smaller animals, insects, seeds, berries and fruits were collected to supplement the protein rich meats and would have enabled a varied diet to be maintained (Dallas 2004, 41).

3.4 Historical land use history

After the British colony at Sydney Cove was established in 1788, the headlands around Botany Bay were slow to be settled by Europeans. The territory that was to become the modern day Sutherland Shire was separated from the Sydney and St George District by the Georges River and Botany Bay. This physical barrier combined with tense relations between the Aboriginal peoples of the region and Europeans, significantly hindered the expansion of European activity south of the Georges River (Larkin 1998, 10).

By 1856 land within the Sutherland Shire was released for sale by the Crown. John Connell Junior purchased several large parcels of property in the Caringbah/Burraneer Bay areas. His nephew John Connell Laycock did the same. By 1860 Thomas Holt's era in the Sutherland Shire began, following the bankruptcy of John Connell Laycock. Thomas Holt's vast estate began to be subdivided around 1900 and these smaller parcels were commonly used to grow fruit or raise poultry. Prior to the First World War Caringbah had been known as Highfield. The establishment of the 'Caringbah' Post Office

in 1912 and the continual use of that name by the residents effectively displaced that of Highfield to become the suburb's name (Hutton Neve 2000, 9).

From the 1940s a campaign was made for the development of the Sutherland District Hospital. By 1955 the foundation stone for the Sutherland Hospital was laid and construction was completed on 2 April 1958. Numerous additions were made to the original four storey bow-tie hospital design throughout the following decades. By the early 2000s the building had become stretched beyond its means and the necessity of new hospital facilities saw the construction of the contemporary hospital on land behind original building. Shortly after the completion of the new hospital in 2004 the original structure (within the study area) was demolished.

4.0 ARCHAEOLOGICAL CONTEXT

4.1 Aboriginal material culture

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time. Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times, for example ground stone hatchets are first observed in the archaeological record around 4,000 years before present (BP) in the Sydney region (Attenbrow 2010, 102). It has been argued that these changes in material culture were an indication of changes in social organisation and behaviour.

The Eastern Regional Sequence was first developed by McCarthy in 1948 to explain the typological differences he was seeing in stone tool technology in different stratigraphic levels during excavations such as Lapstone Creek near the foot of the Blue Mountains (McCarthy 1948). The sequence had three phases that corresponded to different technologies and tool types (the Capertian, Bondaian and Eloueran). The categories have been refined through the interpretation of further excavation data and radiocarbon dates (Hiscock & Attenbrow 2005; JMcDCHM 2005). It is now thought that prior to 8,500 BP tool technology remained fairly static with a preference for silicified tuff, quartz and some unheated silcrete. Bipolar flaking was rare with unifacial flaking predominant. No backed artefacts have been found of this antiquity. After 8,500 BP silcrete was more dominant as a raw material, and bifacial flaking became the most common technique for tool manufacture. From about 4,000 BP to 1,000 BP backed artefacts appear more frequently. Tool manufacture techniques become more complex and bipolar flaking increases (JMcDCHM 2006). It has been argued that from 1,400 to 1,000 years before contact there is evidence of a decline in tool manufacture. This reduction may be the result of decreased tool making, an increase in the use of organic materials, changes in the way tools were made, or changes in what types of tools were preferred (Attenbrow 2010, 102). The reduction in evidence coincides with the reduction in frequency of backed blades as a percentage of the assemblage.

4.2 Aboriginal histories of the locality

Prior to the appropriation of their land by Europeans, Aboriginal people lived in small family or clan groups that were associated with territories or places. It seems that territorial boundaries were fluid, although details are not known. There is debate about the nature, territory, and range of pre-contact language groups of the Sydney region due to the serious impacts European settlement had on Aboriginal culture. More recent research indicates that Aboriginal people in the current Sydney seaboard identified as part of a large coastal population with frequent exchange and travel often over large distances (Irish 2017; Curby 2020).

Aboriginal people who inhabited the territory that would later become the Sutherland Shire belonged to two main language groups, Dharawal and Gandangarra. The Dharawal language group appears to have once extended from Kurnell to Nowra in the south, and west to Camden (Dallas 2004). The southern area of the Cumberland Plain, west of the Georges River, and to the southern Blue Mountains is believed to have been the territory in which the Gandangarra language was spoken. The language groups that abutted these territories were the Darug to the north and the Yuin to the south.

4.3 Aboriginal Heritage Information Management System

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data and GIS imagery, is removed from this report if it is to enter the public domain.

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 22 June 2020 (Client ID: 514296).

An area of approximately 4 km (east-west) by 4 km (north-south) was included in the search. The AHIMS search provides archaeological context for the area and identifies whether any previously recorded Aboriginal sites are located within or near the study area. The parameters of the search were as follows:

GDA 1994 MGA 56 323849mE – 327873mE

6230108mN - 6234147mN

Buffer 50 m Number of sites 21 AHIMS Search ID 514296

A total of 21 sites were identified in the extensive AHIMS search area. The distribution of recorded sites within the AHIMS search area is shown in Figure 2. NSW Heritage, DPC lists 20 standard site features that can be used to describe a site registered with AHIMS, and more than one feature can be used for each site. The frequency of recorded site types is summarised in Table 1. For the 21 sites within the search area, 11 site features were recorded. The majority of recorded sites were either Shell (n=4, 19.05%) or Shell and Artefact (n=4, 19.05%).

Table 1: Frequency of site types from AHIMS data (AHIMS Search ID 514296)

Site type	Frequency	Percentage (%)
Art (Pigment or Engraved), Habitation Structure	1	4.76
Art (Pigment or Engraved), Shell	1	4.76
Artefact	3	14.29
Grinding Groove	1	4.76
Habitation Structure, Hearth, Shell	1	4.76
Habitation Structure, Shell	1	4.76
Potential Archaeological Deposit (PAD)	3	14.29
Potential Archaeological Deposit (PAD), Shell	1	4.76
Shell	4	19.05
Shell, Artefact	4	19.05

Site type	Frequency	Percentage (%)
Shell, Artefact, Burial	1	4.76
Total	21	100.00

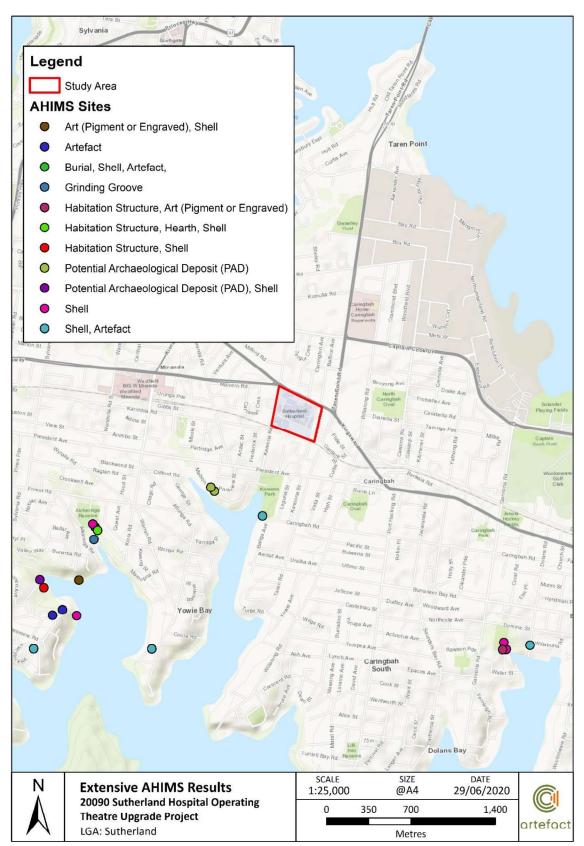
The nature and location of the registered sites is a reflection of the past Aboriginal occupation from which they derive, but is also influenced by historical land-use, and the nature and extent of previous archaeological investigations. Although Aboriginal occupation covered the whole of the landscape, the availability of fresh water, and associated resources, was a significant factor in repeated and long-term occupation of specific areas within the landscape. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation, while others, such as stone artefacts, are more resilient.

There is a particularly high density of sites around Gymea Bay, 2 km southwest of the study area, with nine sites located around the fringe of the small bay and three further sites located along Alcheringa Creek which drains into the bay from the north.

The four closest registered sites to the study area are located approximately 1 km from the study area, along the sandstone shoreline of Yowie Bay. There is a cluster of three sites recorded by Mary Dallas that are identified as PADs. These three are located on Matson Crescent on the northern shoreline of the western fork of Yowie Bay. The other site recorded as a Shell and Artefact is located within Kareena Park on the western shore of Yowie Bay (Figure 3).

The overall spatial patterning of sites indicate that most sites are situated outside of the developed areas; located within surrounding bushland and relatively under-developed local reserves with particular focus towards waterways and coastlines.

Figure 2: Extensive AHIMS search results



Waters Legend Box Rd Study Area **AHIMS Sites** Burial, Shell, Artefact, Crammond Blvd Potential Archaeological Deposit (PAD) Kumulia Rd Shell, Artefact aringbah Home Caringbah Supacenta Carrington Ave Balfour Ave. Captain Cook Dr Miranda Booyang Ave Malvern Rd Willarong Rd Drake Ave Urunga Pde Frobisher Ave Caringbah Samo Cres Gibbs St Sutherland Carabella Rd Hospital Dianella St Taronga Pde Glassop St Frederick St Rd Partridge Ave President Ave Banksia Rd Clifford Rd Caringbah 52-3-1402 52-3-1401 52-3-0109 y 52-3-1400 Burns Ln Rd Port Hacking Caringbah Baliga Ave Caringbah Rd Yarraga Pacific St. Wonga Rd Bulwarra St Amitaf Ave Uralba Ave Holly St Ultimo St 150 Burraneer Bay Rd Jellicoe St Dudley Ave Castelnau St Woodward Ave Yowie Bay Crtie Rd Burradoo St Eruga Ave Northcote Ave Actinotus Ave Coora Rd SCALE DATE SIZE Ν **AHIMS Results** 1:14,000 @A4 29/06/2020 20090 Sutherland Hospital Operating 200 400 800 0 **Theatre Upgrade Project** artefact LGA: Sutherland Metres

Figure 3: AHIMS sites within the vicinity of the study area

4.4 Previous archaeological work

Mary Dallas Consulting Archaeologists (2002) – Sutherland Shire Council Aboriginal Cultural Heritage Study.

Mary Dallas Consulting Archaeologists (2002) conducted a cultural heritage study of the Sutherland Shire Council LGA focusing on the Port Hacking Catchment (excluding Royal National Park but including Maianbar and Bundeena) and the Kurnell Peninsula to inform future planning and development control processes. The study provides a historical outline for the area, a current state of knowledge about Aboriginal archaeological sites in the district in order to produce Archaeological Sensitivity Maps for the Kurnell Peninsula and Port Hacking.

Mary Dallas Consulting Archaeologists (2004) – Sutherland Shire Council Aboriginal Cultural Heritage Study: Georges and Woranora Rivers.

Mary Dallas Consulting Archaeologists (2004) was engaged by Sutherland Shire Council to inform future land planning and development control processes and to ensure ongoing protection and management of Aboriginal places. Focus of this study is on the western portion of the Sutherland Shire and aims to compliment the previous 2002 study (above) which covered the eastern portion within the Port Hacking catchment.

4.5 Sutherland Shire Council Archaeological Potential

Sutherland Shire Council has generated online mapping of Aboriginal archaeological sensitivity, which identified where Aboriginal sites are more likely to be present (SHC 2014). The areas have been divided into four categories:

- High Archaeological sensitivity (brown) areas are generally along the foreshore and
 rivers/creeks. These are the areas where there is the greatest probability of an Aboriginal object
 being identified.
- Medium Archaeological sensitivity (yellow) areas are areas where there is some probability of an Aboriginal object being identified.
- Low Archaeological sensitivity (green) areas are areas where this is a low probability of an Aboriginal object being identified.
- Disturbed land (white) is generally urbanized, industrialized areas which have been highly
 disturbed and there is no original land surface or subsurface.

The study area is situated in a small pocket of highly disturbed land (white) within a broader landscape of low archaeological potential (green) (Figure 4).



Figure 4: Archaeological sensitivity within study area in red. Source. Sutherland Shire Council

4.6 Predictive model

Predictive models are important and provide assessments on the most likely areas of archaeological potential within a given subject site. These models also indicate the likely types of archaeological evidence, if present, with a given locations and / or subject site.

The predictive model comprises a series of statements about the nature and distribution of evidence of Aboriginal land use that is expected in the study area. These statements are based on the information gathered regarding:

- · Landscape context and landform units.
- Ethno historical evidence of Aboriginal land use.
- Distribution of natural resources.
- Results of previous archaeological work in the vicinity of the study area.

Predictive statements are as follows:

- Low density artefact scatters, isolated finds will be the most likely Aboriginal site type.
- Aboriginal sites will be located in areas of least ground disturbance.

The potential for Aboriginal sites is reduced by the high levels of ground surface disturbance across the study area.

Rock shelters and grinding features are unlikely to be present, as the study area has been previously impacted. Shell deposits are unlikely to be located within the study area, as it is elevated land that is a significant distance from the nearest waterline. Scarred trees are unlikely to be present as almost all original vegetation has been cleared from the study area. Areas of PAD would not be identified across steep slopes and areas that had been previously disturbed.

5.0 ARCHAEOLOGICAL SURVEY

5.1 Aims

The study area is located within a developed, urban environment. Therefore, this survey did not aim to identify or determine the extent of any areas of PAD. The aims of the archaeological survey were to:

- Cover the entire study area and to include all areas that will potentially be impacted by the proposed works.
- Record the landform, general soil information, surface conditions and vegetation conditions
 encountered during the survey and how these impact on the visibility of objects.
- · Record any Aboriginal objects observed during the survey.
- Identify areas of disturbance which may have impacted the presence of intact soils and archaeological features.
- Collect information to ascertain whether further archaeological investigations are required.

5.2 Timing and personnel

An archaeological survey was undertaken on 6 July 2020. The survey was supervised by Ryan Taddeucci (Senior Heritage Consultant, Artefact Heritage) with Sophie Barbera (Heritage Consultant, Artefact Heritage), Steph Rossi (Assistant Project Manager, CBRE Group) and Steven Ella (Cultural Heritage Officer, La Perouse LALC) also in attendance.

5.3 Site definition and recording

An Aboriginal site is generally defined as an Aboriginal object or place. An Aboriginal object is the material evidence of Aboriginal land use, such as stone tools, scarred trees or rock art. Some sites, or Aboriginal places can also be intangible and although they might not be visible, these places have cultural significance to Aboriginal people.

NSW Heritage, DPC guidelines state in regard to site definition that one or more of the following criteria must be used when recording material traces of Aboriginal land use:

- The spatial extent of the visible objects, or direct evidence of their location.
- Obvious physical boundaries where present, e.g. mound site and middens (if visibility is good), a ceremonial ground.
- Identification by the Aboriginal community on the basis of cultural information.

For the purposes of this study an Aboriginal site would be defined by recording the spatial extent of visible traces or the direct evidence of their location.

5.4 Survey methodology

A full coverage survey was completed within a single survey unit due to the nature of the disturbed and well defined impact area. The survey was completed on foot in accordance with the Code of Practice.

A handheld Global Positioning System (GPS) was used to track the path of the survey team and record the coordinates of survey transect. Detailed aerial maps marked with grid coordinates for the survey unit was carried by the survey team. The coordinate system projection used for all data recording was GDA94 MGA 56.

A photographic record was kept during the survey. Photographs were taken to record aspects of survey unit including disturbance and recorded Aboriginal sites. Scales were used for photographs where appropriate.

5.5 Survey coverage

A summary of survey coverage, in accordance with the Code of Practice, is outlined in Table 2 and Table 3 below.

Table 2: Survey coverage summary

Survey unit	Landform	Survey unit area (sq. m)	Visibility (%)	Exposure (%)	Effective coverage Area (sq. m)	Effective coverage (%)
1	Modified slope	119,074	0	0	0	0

Table 3: Survey landform summary

Landform	Landform Area	Effective Survey Coverage (sq. m)	% of landform effectively surveyed	Number of sites	Number of artefacts/features
Modified slope	119,074	0	0	0	0

5.6 Survey results

The study area is covered entirely by the existing buildings, access road and car park (Figures 5-8). No ground exposures or remnant vegetation was identified during the survey. The study area is situated on a broad flat crest with the terrain sloping away gently to the north. Evidence of land modification in the form of ground levelling around Carpark 3 was noticed during site visit. Evidence of underground utilises was identified and it is likely that the study area as been subject to major earthworks. No Aboriginal objects or areas of unsealed ground surface were identified during the survey.

Figure 5: View southeast of existing operating theatre



Figure 7: View south west of Carpark 3



Figure 6: View northeast of the existing Ambulance Station



Figure 8: View east of Carpark 3



6.0 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

6.1 Ground disturbance

Archaeological potential is closely related to the levels of ground disturbance within a given area. However, other factors are also taken into account when assessing archaeological potential, such as whether artefacts were located on the surface, and whether the area is within a sensitive landform unit according to the predictive statements.

This assessment has identified that a large portion of the study area has been subject to past ground disturbance. The Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH 2010) defines what comprises disturbed land:

(4) For the purposes of this clause, land is disturbed if it is has been the subject of human activity that has changed the lands surface, being changes that remain clear and observable.

This includes disturbed land via:

- (c) construction of roads, trails and tracks (including fire trails and tracks and walking tracks),
- (d) clearing of vegetation,
- (e) construction of buildings and the erection of other structures,
- (f) construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure),
- (h) construction of earthworks associated with anything referred to in paragraphs (a)-(g).

The study area has been subject to extensive land disturbance activities as described by the Code of Practice. A majority of the area has been disturbed via the development of existing structures, roads and subsurface utilities. The broad crest had been extensively excavated during the construction of the original 1950's hospital building, disturbing the natural soil profile. The subsequent demolition of the outdated facility and construction of the present configuration of carparks and services would have contributed further to the reduction of archaeological potential within the study area.

6.2 Analysis of archaeological potential

The archaeological potential of an area is determined by its landform, its location and the level of disturbance. Certain landforms, such as gentle slopes, are conducive to Aboriginal occupation while others, such as steep slopes, are not. The location of appropriate landforms in relation to natural resources, in particular their proximity to a permanent water source, increases levels of potential. Correlations between site location and proximity to a water source have been proven in previous archaeological investigations where the number of sites and their densities is highest in close proximity to a water source.

In areas where there is high level of disturbance however, the archaeological potential is lowered. It is unlikely that surface finds in these areas are in their original context and it is unlikely that subsurface archaeological deposits are intact. The archaeological potential of an area is rated high, moderate or low, based on all of the above considerations.

High - Intact archaeological material is likely to be found in this area.

- Moderate Intact archaeological material may be found in this area.
- Low It is unlikely that intact archaeological material will be found in this area.

Based on this background information, Aboriginal site distributions in the region, and known levels of disturbance at the site, it is considered that the study area has a low potential to contain Aboriginal objects or archaeological deposits.

7.0 ANALYSIS AND DISCUSSION

7.1 Regional archaeological context

The archaeological understanding of the early Aboriginal settlement of the Sydney Basin and surrounds is constantly expanding and developing. At present, the earliest dated evidence for occupation in the Sydney area is associated with deposits on the Parramatta and Nepean Rivers, which were dated to c.25-30,000 years before present (JMCHM 2005) and 36,000 years before present (AHMS 2015). The archaeological material record provides evidence of this long occupation, but also provides evidence of a dynamic culture that has changed through time.

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result, the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts, followed by bone and shell. There is potential for Aboriginal objects to occur across the landscape. The nature of the underlying geology and proximity of water sources to portions of the study area indicates the potential for the occurrence of artefact sites and/ or midden sites.

Stone artefacts are one of the most common types of Aboriginal objects remaining in the archaeological record. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time. Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times. It is argued that changes in material culture were an indication of changes in social organisation and behaviour.

Within the Sydney Basin, the most widely used terminology for the phases within what is currently known as the Eastern Regional Sequence are the Capertian, followed by the Early, Middle and Late Bondaian. This sequence continues to be refined by ongoing archaeological work in the region.

The Capertian comprises large, heavy stone artefacts. Tool types include uniface pebble tools, core tools, denticulate saws, scrapers, hammerstones, some bipolar and burins. The change from the Capertian to the Bondaian took place sometime after 5,000 years Before Present (BP) and is largely characterised by a shift in raw material use (and the proportions of raw materials), in addition to a developing predominance of smaller implements.

The three phases which are generally recognised within the Bondaian sequence are primarily based upon the introduction and subsequent decline of backed implements and the use of a bipolar flaking technique. Other technological innovations which are evident during the Bondaian include the introduction of ground-edge implements around 4,000 years BP and shellfish hooks during the last 1,000 years.

During the Early Bondaian, which is dated to between approximately 5,000 years BP and 2,800 years BP, the predominant raw materials for artefact manufacture appear to have been fine-grained siliceous cherts and silcretes. Features of the Capertian appear to have continued in many sites but backed and edge ground implements were also introduced.

The Middle Bondaian which dates between approximately 2,800 years BP and 1,600 years BP, displays a greater percentage of Bondi points (backed and pointed artefacts which are generally characteristic of Bondaian assemblages) to bipolar pieces. The proportion of quartz artefacts (a raw material which is frequently 'reduced' by employing bipolar techniques) appears to increase within assemblages of this time frame. Some sites have also produced edge-ground implements.

The Late Bondaian which dates from approximately 1,600 years to the present, is dominated by artefacts of quartz, although other raw materials are present. Bondi points are absent. Eloueras and bipolar pieces are predominant within assemblages of this period. Edge-ground implements are also more common. Bone and shell implements occur in some sites.

At contact, European observations of Aboriginal life around the Sydney region suggest that toolkits were fashioned largely on organic materials, such as wood, bark, palm leaves, shell and bone. The use of stone does not figure prominently within the early-European descriptions.

7.2 Local archaeological context

No Aboriginal archaeological objects or areas of PAD were identified within the study area. However, archaeological evidence indicates that Botany Bay, the Georges River and its tributaries were a focus for intensive Aboriginal occupation, due to the combination of maritime, estuarine and terrestrial resources available in the area. The terraces surrounding these waterways are likely to have functioned as camp sites from which past Aboriginal people could have exploited these resources. The survivability of this archaeological evidence is dependent on low levels of soil disturbance (from both natural and anthropogenic factors).

8.0 SIGNIFICANCE ASSESSMENT

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. The OEH (2011) provides guidelines for heritage assessment with reference to the Burra Charter (Australia ICOMOS 2013) and the Heritage Office guidelines (2001). OEH requires consideration that includes the following:

- Research potential: does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- Representativeness: how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
- Rarity: is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- Education potential: does the subject area contain teaching sites or sites that might have teaching potential?

It is important to note that heritage significance is a dynamic value.

8.1 Archaeological significance assessment

The survey did not result in the identification of any Aboriginal sites or areas of PAD. No particular areas of cultural significance were identified by the La Perouse LALC. Therefore, the study area is of no archaeological significance.

9.0 IMPACT ASSESSMENT

9.1 Proposed works

The proposed works will include the following:

- Removal (or lowering) of median of Kareena Road and associated civil works for the provision of a right-hand turn into the Sutherland Hospital
- Relocation and replacement of existing in-ground services and associated civil works, including:
 - Power and comms to Seals
 - Incoming NBN, Telstra and Optus (shared corridor)
 - Cold water supply from Kareena Road (shared corridor)
 - Sewer drainage line (shared corridor)
 - Fire services supply (shared corridor)
 - Stormwater and associated works
- · Replacement of glazing to western fire stairs with compliant cladding.

9.2 Potential impacts to Aboriginal heritage

No Aboriginal places or objects were identified within the study area. Due to the highly disturbed nature of the study area, intact archaeological deposits are not likely to be present below the ground surface. Therefore, the project is unlikely to impact any Aboriginal heritage items or places, or potential Aboriginal archaeology.

As no impacts to Aboriginal sites, places or archaeology associated with the project have been identified, direct and/or indirect impacts (including cumulative impacts and visual impacts) to Aboriginal places or objects are considered unlikely.

4. KAREENA RD ROAD WIDENING WORKS , PLEASE REFER TO TRAFFIC ENGINEERS DWG. LEVEL 02 SITE PLAN - SCHEDULE OF ANDERSON WORKS 5. COMBINED SERVICES CORRIDOR: UPGRADED STORMINATER AND SERVICES. REFER CIVIL ENGINEERS DIVIG FIRE, POTABLE WATER, SEWER REFER HYDRAULICS ENGINEERS DIVIG 2 INDICATIVE VIEW OF FIRE STAIR WORKS 2. EXISTING NBN, TELSTRA AND OPTUS 3. NEW NBN, TELSTRA AND OPTUS 3 FIRE STAIR SCOPE THE SUTHERLAND HOSPITAL OPERATING THE SUTHERLAND HOSPITAL OPERATING KNOSMAT A KATERMA ROMO.
OKNOSMAT 1X 2239 FLIM (e) [0] NSW 0 1 LEVEL 02 - SITE PLAN SCHEDULE OF WORKS INTO PERSONAL SER COL SECULO

Figure 9: Proposed design

artefact.net.au

10.0 MANAGEMENT MEASURES

The proposal is unlikely to impact any Aboriginal objects therefore no further archaeological investigation or mitigation is required.

An unexpected finds policy would be implemented in the event of any unexpected finds of Aboriginal sites, objects or archaeological deposits being identified during construction.

An unexpected archaeological finds policy would involve the following actions:

- Stop work within the affected area, protect the potential archaeological find, and inform environment staff or supervisor.
- Contact a suitably qualified archaeologist to assess the potential archaeological find.
- If Aboriginal archaeological material is identified, works in the affected area should cease, and NSW Heritage, DPC should be informed. Further archaeological mitigation may be required prior to works recommencing.
- If human remains are found:
 - Immediately cease all work at the particular location.
 - Notify site manager and project archaeologist.
 - Notify NSW Police.
 - Notify NSW Heritage DPC on the Environment Line on 131 555 as soon as practicable and provide available details of the remains and their location.
 - Do not recommence any work at the location until cleared.

11.0 RECOMMENDATIONS

The following recommendations were based on consideration of:

- Statutory requirements under the National Parks and Wildlife Act 1974.
- The requirements of the relevant guidelines: Code of Practice (DECCW 2010a), and the Due Diligence Code of Practice (DECCW 2010b).
- The results of the background research and archaeological survey results.
- The currently unknown nature of impacts of the proposal.

It was found that no Aboriginal archaeological sites or areas of PAD are located within the study area. No areas of cultural heritage values were identified by the La Perouse LALC.

It is therefore recommended that:

- No further assessment is required as no known Aboriginal objects or areas of PAD will be impacted by the project.
- An unexpected finds policy would be implemented, as outlined in Section 9.2.

12.0 REFERENCES

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- Department of Environment, Climate Change and Water 2010a. Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales.
- Department of Environment, Climate Change and Water 2010b. Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales

13.0 APPENDICES

APPENDIX 1 – AHIMS SEARCH RESULTS

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number: 20090 Client Service ID: 514296

			l					i	
SiteID	SiteName	Ш			Context	Site Status	SiteFeatures	SiteTypes	Reports
52-3-0070	Miranda;Gymea Bay;	AGD	56 323852	6230232	Closed site	Valid	Artefact:-	Shelter with	
								Deposit	
	Contact	Recorders	ASRSYS				Permits		
52-3-0072	Miranda;Gymea Bay;	AGD	56 323935	6230276	Closed site	Valid	Artefact:-	Shelter with	
	Contact	Recorders	ASRSYS				Permits	Deposit	
52-3-0074	Miranda;	AGD	56 324196	6230860	Open site	Valid	Grinding Groove : -	Axe Grinding	
	Contact	Recordere	мером S VI				Permits	Groove	
ביים כי כיד	Wind - C	404	7.0000000000000000000000000000000000000	270000	7 1	17-1:4		6-14	
52-3-0075	Miranda; uymea Bay;	AGD	56 324207	6230963	Closed site	Valid	Artefact:-	Snelter with Deposit	
	Contact	Recorders	ASRSYS				<u>Permits</u>		
52-3-0149	Port Hacking;Burraneer Bay;	AGD	56 327814	6229982	Closed site	Valid	Shell:-, Artefact:-	Shelter with	
	Contact	Recorders	I.V.S Megaw				Permits	Midden	
52-3-1221	Gymea Bay baths - Shelter	AGD	56 323780	6230460	Open site	Valid	Habitation Structure		
					•		:-, Shell:-		
	Contact	Recorders	Mr.Brendon Graham	aham			Permits		
52-3-1368	Alcheringa Shelter	AGD	56 324186	6230988	Closed site	Valid	Shell:-		
	Contact Searle	Recorders	Mary Dallas Co	Mary Dallas Consulting Archaeologists (MDCA)	ologists (MDCA)		Permits		
52-3-1373	Bunarba Road midden	AGD	56 324071	6230522	Closed site	Valid	Art (Pigment or		
							Engraved): -, Shell:-		
	<u>Contact</u> Searle	Recorders	Mr.David Ingre	Mr.David Ingrey, Mr.Paul Irish			Permits		
52-3-1396	Gymea Midden	AGD	56 324052	6230228	Open site	Valid	Shell:-		
	Contact Searle	Recorders	Mary Dallas Co	Mary Dallas Consulting Archaeologists (MDCA)	ologists (MDCA)		<u>Permits</u>		
52-3-1400	Matson Crescent 1	AGD	56 325196	6231260	Closed site	Valid	Potential		
							Archaeological Deposit (PAD):-		
	Contact Searle	Recorders	Mary Dallas Co	Mary Dallas Consulting Archaeologists (MDCA)	ologists (MDCA)		Permits		
52-3-1401	Matson Crescent 2	AGD	56 325196	6231260	Closed site	Valid	Potential		
							Deposit (PAD): -		
	Contact Searle	Recorders	Mary Dallas Co	Mary Dallas Consulting Archaeologists (MDCA)	ologists (MDCA)		Permits		
52-3-1402	Matson Crescent 3	AGD	56 325166	6231292	Closed site	Valid	Potential		
							Archaeological Deposit (PAD) : -		
	Contact Searle	Recorders	Mary Dallas Co	Mary Dallas Consulting Archaeologists (MDCA)	ologists (MDCA)		<u>Permits</u>		

Report generated by AHIMS Web Service on 22/06/2020 for Michael Lever for the following area at Datum :GDA, Zone: 56, Eastings: 323849 - 327873, Northings: 6230108 - 6234147 with a Buffer of 50 meters. Additional Info: Inform assessment. Number of Aboriginal sites and Aboriginal objects found is 21

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

acts or omission.

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number: 20090 Client Service ID: 514296

<u>SitelD</u> 52-3-1770	<u>SiteName</u> Gymea Bay Midden	Datum Z	Zone Easting 56 323748	Northing 6230527	Context Closed site	Site Status Valid	SiteFeatures Potential Archaeological Deposit (PAD): 1,	SiteTypes	Reports
	Contact Local Aboriginal La	Recorders	Miss.Jessica Herder	.der			Permits		
52-3-0109	Miranda;	AGD	56 325594	6231055	Closed site	Valid	Shell:-, Artefact:-	Shelter with Midden	
	Contact	Recorders	Australian Museum	mn			Permits		
52-3-0082	Gymea Bay;Port Hacking;	AGD	56 324676	6229951	Closed site	Valid	Shell: -, Artefact:-, Burial:-	Burial/s,Shelter with Midden	
	Contact	Recorders	J.V.S Megaw				Permits		
52-3-0083	Gymea Bay;Port Hacking;	AGD	56 324676	6229951	Closed site	Valid	Shell: -, Artefact:-	Shelter with Midden	
	Contact	Recorders	J.V.S Megaw				<u>Permits</u>		
52-3-1231	Gymea Bay - Flat Rock Road	AGD	56 323696	6229952	Open site	Valid	Artefact:-, Shell:-		
	Contact	Recorders	Doctor.Susan Mcintyre-Tamwoy	cintyre-Tamwoy			Permits		
52-3-2046	Wonga Shelter	GDA	56 324331	6231125	Open site	Valid	Habitation Structure : 1, Hearth : 1, Shell : 1		103777
	Contact	Recorders	Sutherland Shire Council, Paul Styman	e Council, Paul St	yman		<u>Permits</u>		
52-3-2053	Burraneer Park's Sandstone Shelter with Shell Midden	GDA	56 327721	6230137	Closed site	Valid	Shell:-		
	Contact	Recorders	Sutherland Shire Council, Mr. Graham Avery	e Council,Mr.Gra	ham Avery		<u>Permits</u>		
52-3-2054	Burraneer Park's Shell Midden Under Smalll Shelter	GDA	56 327701	6230195	Closed site	Valid	Shell:-		
	Contact	Recorders	Sutherland Shire Council, Mr. Graham Avery	e Council,Mr.Gra	ham Avery		Permits		
52-3-2056	Burraneer Park's Sandstone Shelter with Hand Stencils and Hand Prints	GDA	56 327692	6230135	Closed site	Valid	Art (Pigment or Engraved): ., Habitation Structure		
	Contact	Recorders	Sutherland Shire Council, Mr. Graham Avery	e Council,Mr.Gra	ham Avery		<u>Permits</u>		

Report generated by AHIMS Web Service on 22/06/2020 for Michael Lever for the following area at Datum :GDA, Zone: 56, Eastings: 323849 - 327873, Northings: 6230108 - 6234147 with a Buffer of 50 meters. Additional Info: Inform assessment. Number of Aboriginal sites and Aboriginal objects found is 21

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

acts or omission.



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