



**NGH**

# **Aboriginal Cultural Heritage Assessment**

**42 Fullerton Cove Road, Fullerton Cove**

**July 2022**

**Project Number: 21-592**



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# Table of contents

<b>1. Introduction.....</b>	<b>9</b>
1.1. Project Proposal .....	9
1.2. Project Personnel .....	9
1.3. Report format.....	10
<b>2. Legislative context .....</b>	<b>12</b>
<b>3. Aboriginal consultation process .....</b>	<b>13</b>
3.1. Aboriginal community feedback .....	14
<b>4. Background information.....</b>	<b>15</b>
4.1. Review of landscape context.....	15
4.1.1. Geology and topography .....	15
4.1.2. Soils .....	17
4.1.3. Hydrology, Fauna and Flora .....	17
4.1.4. Historic land use and disturbance factors .....	18
4.1.5. Landscape Context .....	21
4.2. Review of Aboriginal Archaeological Context .....	23
4.2.1. Ethnographic setting .....	23
4.2.2. AHIMS Search .....	25
4.2.3. Additional searches.....	26
4.2.4. Regional Archaeological studies.....	31
4.2.5. Local archaeological studies.....	35
4.2.6. Summary of Aboriginal land use .....	37
4.3. Aboriginal site location prediction .....	37
4.4. Comment on existing information .....	39
<b>5. Archaeological investigation results.....</b>	<b>40</b>
5.1. Survey strategy.....	40
5.2. Survey coverage.....	42
5.3. Survey results.....	45
5.4. Discussion .....	49
<b>6. Cultural heritage values and statement of significance.....</b>	<b>50</b>
6.1. Social or cultural value .....	50
6.2. Scientific value.....	51
6.3. Aesthetic value .....	51
6.4. Historic value .....	51
6.5. Other values .....	51

6.6. Summary of significance .....	51
<b>7. Proposed activity.....</b>	<b>53</b>
7.1. Proposed development activity .....	53
7.2. Assessment of harm.....	53
7.3. Impacts to values.....	54
<b>8. Avoiding or mitigating harm .....</b>	<b>57</b>
8.1. Consideration of ecologically sustainable development principles .....	57
8.2. Consideration of harm .....	57
8.3. Mitigation of harm .....	58
<b>9. Recommendations .....</b>	<b>61</b>
<b>10. References .....</b>	<b>63</b>
A.1 Consultation log.....	A-I
A.2 Newspaper advertisement .....	A-I
A.3 Letters to agencies .....	A-II
A.4 Example letter to HNSW/ LALC identified parties.....	A-I
A.5 Expressions of interest.....	A-I
A5.1 A-VIII .....	
A.6 RAP list to HNSW and LALC .....	A-I
A6.1 HNSW .....	A-I
A6.2 LALC .....	A-I
A.7 Methodology .....	A-I
A.8 Responses to methodology.....	A-II
A8.1 A-II .....	
A8.2 A-II .....	
A8.3 A-III .....	
A.9 Draft ACHA to RAPs .....	A-I
C.1 Human skeletal remains .....	C-I

## Figures

Figure 1-1 Location of the Project Site .....	11
Figure 4-1. Landforms within the Project Site .....	22
Figure 4-2 AHIMS overview.....	28
Figure 4-3 AHIMS in proximity to Project Site .....	29
Figure 4-4 Historic heritage in proximity to Project Site .....	30
Figure 5-1 Survey units.....	41
Figure 5-2 Results of survey.....	48



Figure 8-1 Proposed AHIP boundary .....	59
Figure 8-2 Indicative testing layout.....	60

## **Tables**

Table 4-1 Descriptions of soil landscapes in the Project Site (Mitchell 2002) .....	16
Table 4-2 Description of soil landscapes found within the Project Site (DPIE 2020). .....	17
Table 4-3 AHIMS registered sites.....	25
Table 4-4 Sites adjacent to the Proposal Site .....	26
Table 4-5 Aboriginal site prediction statements .....	37
Table 5-1 Transect information.....	44
Table 6-1 Summary of significance assessment.....	52
Table 7-1. Identified risk to known sites by the proposed subsurface testing programme .....	55

## **Appendices**

Appendix A Aboriginal consultation .....	A-I
Appendix B Testing Methodology .....	B-I
Appendix C Unexpected finds protocol .....	C-I

## Acronyms and abbreviations

ACHA	Aboriginal Cultural Heritage Assessment
ACHCRP	Aboriginal Cultural Heritage Consultation Requirements for Proponents
AHD	Australian Heritage Database
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
MP	Monteath & Powys Pty Limited
cm	centimetres
EIS	Environmental Impact Statement
EP&A Act	NSW Environmental Planning and Assessment Act 1979
ha	hectares
HNSW	Heritage NSW
Km	kilometres
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan
LGA	Local Government Area
M	metres
NGH	NGH Pty Ltd
NPW Act	National Parks and Wildlife Act 1974 (NSW)
NSW	New South Wales
PAD	Potential Archaeological Deposit
SHI	State Heritage Inventory

# Executive summary

## Introduction

NGH Pty Ltd (NGH) was contracted by Monteath & Powys (MP) on behalf of Christine Jordan to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed rezoning and subsequent works at Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove, New South Wales (Figure 1). The Project Site is located approximately 8 kilometres (km) north of Newcastle, within the Port Stephens Local Government Area (LGA).

The proposed development subsequent to the rezoning of Lot 14 DP 258848 will involve ground disturbance works that may have the potential to impact Aboriginal cultural heritage sites and objects which are protected under the NSW *National Parks and Wildlife Act 1974* (NPW Act). The purpose of the ACHA will be to investigate the presence of any Aboriginal sites and their values; and to assess the potential impacts to these values, providing recommendations for management measures that may mitigate, reduce, or prevent impact.

## Project proposal

The proposed rezoning of Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove Figure 1-1. The area proposed for rezoning is currently zoned RU2 Rural Landscape and the proposal intends to rezone 2.5 hectares to B1 Neighbourhood Centre and the remaining 4.2 hectares to be rezoned as E2 Environmental Conservation to accommodate the environmental attributes of the site. Following the rezoning of the property the future development proposal includes but is not limited to the construction of a supermarket and shops and its associated infrastructure.

Specifically, the planning proposal involves:

- Rezoning part of Lot 14 DP 258848 from RU2 Rural Landscape to E2 Environmental Conservation.
- Rezoning part of Lot 14 DP 258848 from RU2 Rural landscape to B1 Neighbourhood Centre.
- Removing Minimum Lot Size requirement of the proposed B1 zone from AB2 20 hectares.
- Introducing a height of building limit of 9 metres to the B1 zone; and.
- Introducing a new local provision limiting future retail development to a maximum gross floor area of between 1,500 – 5,000 square metres.

## Aboriginal community consultation

The consultation with Aboriginal stakeholders was undertaken in accordance with clause 60 of the *National Parks and Wildlife Amendment Regulation 2019* following the consultation steps outlined in the guidelines. The full list of consultation steps, including those groups and individuals that were contacted and a consultation log, is provided in Appendix A. As a result of this process, eight Aboriginal groups registered their interest in the project, including the entities and individuals recommended by statutory bodies and NSW government heritage departments. The fieldwork components of this assessment included the participation of Aboriginal community representatives. A copy of the draft report was provided to all the registered parties for comment.

## Archaeological context

While no previously recorded AHIMS sites are within the Project Site in 2021 a preliminary investigation of the Project Site was undertaken by members of the Aboriginal community undertaking a walkover for Port Stephens Council. During this preliminary investigation cultural material in the form of shell middens and potential stone artefacts were identified and it was determined that further assessment in the form of an ACHA was required. The results of previous archaeological surveys in the region demonstrate there are numerous Aboriginal sites present throughout the region with shell middens the dominant site type in the local area.

## Survey results

On the 31 May 2022 the survey of the Project Site was undertaken by an NGH archaeologist with Aboriginal community representatives. Four areas of Potential Archaeological Deposit (PAD) were recorded within the Project Site as 42 Fullerton Cove Road PAD 1 and 42 Fullerton Cove Road Middens 1 and 2. An additional PAD may exist adjacent to the location of AHIMS 38-4-0333 in the west of the Project Site. There is a possibility that these locations may be a single site however sub-surface testing will need to be carried out to determine connectivity of the areas. The surface expressions of cultural material with shell and stone artefacts was observed within two of the PADs (42 Fullerton Cove Road Midden 1 and 42 Fullerton Cove Road Midden 2).

- PAD 1 is on a sandy rise adjacent to a swampy depression with no surface expression of material
- Midden 1 is on a sandy rise between two minor drainage lines and adjacent to a swampy depression. This Midden has previously been disturbed. Shell types observed at this location included mud whelk (*Pyrazus* sp.), cockle (*Anadara trapezia*) and *Katelsysia* sp.
- Midden 2 is on a sandy rise adjacent to a swampy depression. This location has previously been disturbed. The surface expression of shell material was spread across the area. Three tuff artefacts were recorded and the shell types observed included mud whelk (*Pyrazus* sp.), cockle (*Anadara trapezia*) and *Katelsysia* sp..

## Potential Impact

The current archaeological investigation of the Project Site shows that there is Aboriginal shell midden material and stone artefacts and areas of PAD within the Project Site.

Until an archaeological subsurface test excavation programme is undertaken the true impacts to the sites 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 by the proposed works is not able to be determined. Requirement 14 of the Code of Practice states that test excavations within 50 metres of known or suspected shell midden sites are not permitted without an Aboriginal Heritage Impact Permit (AHIP). Consequently, an AHIP must be obtained prior to testing being undertaken.

The Registered Aboriginal Parties (RAPs) who participated in the fieldwork for this project have indicated that they are in support of the proposed subsurface investigation of these PADs.

## Recommendations

It is recommended that:

1. Rezoning of the lot could occur but no development can occur until the following recommendations are carried out.
2. Test excavation is required to establish the extent and scientific significance of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 if they are unable to be avoided by the proposed works.
3. Test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 cannot be carried out in accordance with the requirements of the Code of Practice for Archaeological Investigation in NSW. Therefore, an Aboriginal Heritage Impact Permit (AHIP) is required to permit any subsurface testing of the PADs within the Project Site.
4. The proponent must apply to Heritage NSW and receive an Aboriginal Heritage Impact Permit (AHIP) to allow test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 if they are unable to be avoided by the proposed works.
5. This report must accompany an AHIP application for the test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 located within the Proposal Site, as outlined in Applying for an Aboriginal Heritage Impact Permit: Guide for Applicants.
6. Once an AHIP is approved by Heritage NSW for the test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 the methodology as outlined in Appendix B of this report should be followed.
7. Aboriginal community representatives as chosen by the Proponent should be invited to participate in the test excavation programme.
8. All cultural material recovered during test excavation works under an approved AHIP will be held in temporary care at the appointed consultants' office for recording and analysis, until an appropriate time when it can be returned to Country. This material must be buried in line with Requirement 26 of the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales and/or in accordance with the wishes of the Aboriginal community in an appropriate location that will not be subject to any ground disturbance. The location of this material will be submitted to the AHIMS database.
9. An Aboriginal Site Impact Recording Form must be completed and submitted to AHIMS following the test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2.
10. In the unlikely event that human remains are discovered during the subsurface testing, all work must cease in the immediate vicinity. The local police must be notified to determine if the remains were Aboriginal or non-Aboriginal. If the remains are deemed to be Aboriginal in origin the Heritage NSW must be advised. The Registered Aboriginal Parties should be advised of the find as directed by Heritage NSW. Heritage NSW would advise the Proponent on the following appropriate actions required.
11. The subsurface testing results for 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 located within the Proposal Site should be detailed in an additional Aboriginal Cultural Heritage Assessment Report. This report can then be used in support of an AHIP for the proposed works, pending the recommendations noted.

12. Further archaeological assessment would be required if the proposal activity extends beyond the area of the current investigation. This would include consultation with the registered Aboriginal parties and may include further field survey.

Port Stephens Council are reminded that it is an offence under the NPW Act to harm an Aboriginal object without a valid AHIP.

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# 1. Introduction

NGH Pty Ltd (NGH) was contracted by Monteath & Powys on behalf of Christine Jordan, to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed rezoning and subsequent works at Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove, New South Wales Figure 1-1. The Project Site is located approximately 8 kilometres (km) north of Newcastle, NSW within the Port Stephens Local Government Area (LGA).

The proposed development subsequent to the rezoning of Lot 14 DP 258848 will involve ground disturbance works that may have the potential to impact Aboriginal cultural heritage sites and objects which are protected under the NSW *National Parks and Wildlife Act 1974* (NPW Act). The purpose of the ACHA will therefore be to investigate the presence of any Aboriginal sites and their values; and to assess the potential impacts to these values, providing recommendations for management measures that may mitigate, reduce, or prevent impact.

## 1.1. Project Proposal

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- Rezoning part of Lot 14 DP 258848 from RU2 Rural landscape to B1 Neighbourhood Centre.
- Removing Minimum Lot Size requirement of the proposed B1 zone from AB2 20 hectares.
- Introducing a height of building limit of 9 metres to the B1 zone; and.
- Introducing a new local provision limiting future retail development to a maximum gross floor area of between 1,500 – 5,000 square metres.

## 1.2. Project Personnel

Research, preparation and Aboriginal community consultation for this ACHA report was completed by NGH Heritage Consultant Kirwan Williams. Principal Heritage Consultant Kirsten Bradley reviewed the report for quality assurance purposes.

Consultation with the Aboriginal community was undertaken following the process outlined in the *Aboriginal cultural heritage consultation requirements for proponents* 2010. Seven Aboriginal groups and an individual registered their interest in the proposal. These included:

- Worimi Local Aboriginal Land Council
- Worimi Traditional Owners Indigenous Corporation
- Mur-Roo-Ma Inc.
- Nur-Run-Gee Pty Ltd
- Karuah Indigenous Corporation

- Woka Aboriginal Corporation
- Robert Syron
- Redacted Group #1

The survey fieldwork was conducted with Aboriginal community representatives by NGH Heritage Consultant Kirwan Williams on 31 May 2022. The Aboriginal community representatives who participated in the survey fieldwork included:

- Bec Young (Mur-Roo-Ma Inc.)
- Luke Knight (Nur-Run-Gee Pty Ltd)
- Brendan Lilley (Karuah Indigenous Corporation)
- Jamie Merrick (Worimi Local Aboriginal Land Council)

Further detail and an outline of the consultation process is included in Chapter 3 of this report.

### 1.3. Report format

The purpose of this ACHA report is to provide an assessment of the Aboriginal cultural values associated with the Proposal Site and to assess the cultural and scientific significance of any identified Aboriginal heritage sites identified.

The assessment objectives were to:

- Conduct Aboriginal consultation as specified in clause 60 of the *National Parks and Wildlife Amendment Regulation 2019*, using the consultation process outlined in the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (ACHCRP);
- Undertake a field survey of the Proposal Site to identify and record any Aboriginal heritage objects;
- Undertaken an assessment of the archaeological and cultural values of the Project Site and any Aboriginal sites therein;
- Assess the cultural and scientific significance of any archaeological material;
- Assess the potential impacts of the proposal on the heritage objects; and
- Provide management recommendations for any objects found.

This report was prepared in accordance with the following:

- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011)
- *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW NSW 2010a) and
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (ACHCRP) (DECCW NSW 2010b).

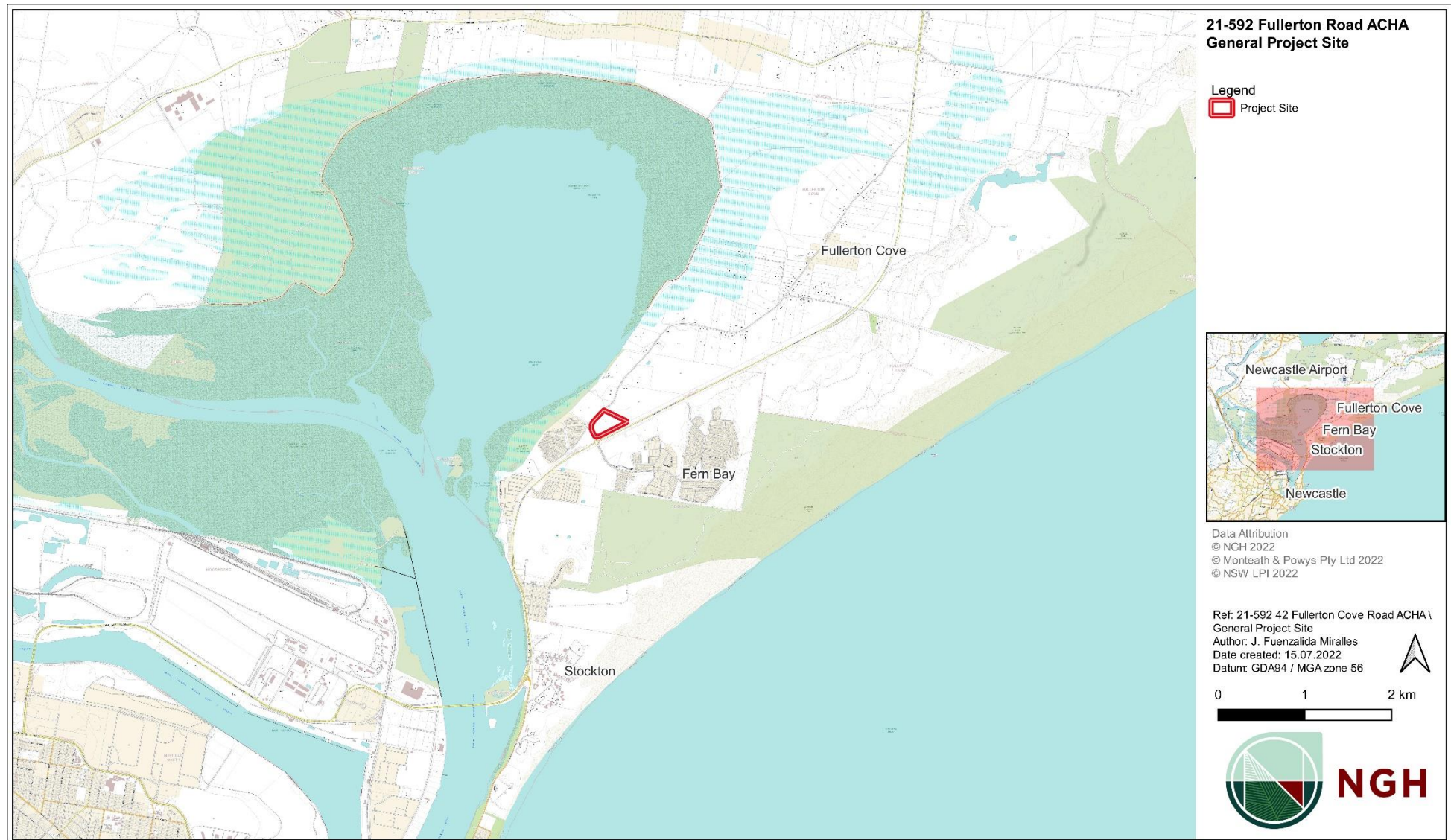


Figure 1-1 Location of the Project Site

## 2. Legislative context

Aboriginal heritage is primarily protected under the NPW Act and as subsequently amended in 2010 with the introduction of the *National Parks and Wildlife Amendment (Aboriginal Objects and Places) Regulation 2010*.

The aim of the NPW Act includes:

‘The conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including but not limited to places, objects and features of significance to Aboriginal people.’

An Aboriginal object is defined as:

‘Any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains.’

Part 6 of the NPW Act concerns Aboriginal objects and places and various sections describe the offences, defences and requirements to harm an Aboriginal object or place. The main offences under s 86 of the NPW Act are:

- A person must not harm or desecrate an object that the person knows is an Aboriginal object.
- A person must not harm an Aboriginal object.
- For the purposes of this section, ‘circumstances of aggravation’ are:
  - That the offence was committed in the course of carrying out a commercial activity or
  - That the offence was the second or subsequent occasion on which the offender was convicted
  - Of an offence under this section.
- A person must not harm or desecrate an Aboriginal place.

Under section 87 of the NPW Act, there are specified defences to prosecution including authorisation to harm in accordance with an AHIP or through exercising due diligence or compliance through the regulation.

Section 89A of the Act also requires that a person who is aware of an Aboriginal object must notify the Director-General in a prescribed manner. In effect, this section requires the completion of an AHIMS site card for all sites located during heritage surveys.

Section 90 of the NPW Act deals with the issuing of an AHIP, including that the permit may be subject to certain conditions.

Aboriginal heritage is primarily protected under the NPW Act and the National Parks and Wildlife Amendment Regulation 2019. The NPW Act is administered by the NSW Department of Planning and Environment (DPE). However, it is understood that the protection and management of Aboriginal objects is the responsibility of Heritage NSW.

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is legislation for the management of development in NSW. It sets up a planning structure that requires consent authorities to consider the environmental impacts of new projects. Under this Act, cultural heritage is considered to be a part of the environment. This Act requires that Aboriginal cultural heritage and the possible impacts to Aboriginal heritage that development may have are formally considered in land-use planning and development approval processes.



### 3. Aboriginal consultation process

The consultation with Aboriginal stakeholders for this project was undertaken in accordance with clause 60 of the *National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2019* and following the process outlined in the ACHCRP. The guide outlines a four-stage process of consultation as follows:

- Stage 1 – Notification of project proposal and registration of interest.
- Stage 2 – Presentation of information about the proposed project.
- Stage 3 – Gathering information about cultural significance.
- Stage 4 – Review of the draft cultural heritage assessment report.

The full list of consultation steps, including those groups and individuals who were contacted, and a consultation log is provided in Appendix A. This will be redacted in all public versions of this report. A summary of actions carried out in following these stages is as follows.

**Stage 1** – Letters outlining the rezoning and subsequent proposed works and the need to carry out an ACHA were sent to Heritage NSW, Port Stephens Council, Hunter Local Land Services, Worimi Local Aboriginal Land Council (LALC), Native Title Services and the Registrar of Aboriginal Owners as statutory authorities as identified under the ACHCRP advising of the project and seeking known interested parties. An advertisement was placed in the local newspaper, the Port Stephens Examiner on the 9 December 2021 seeking registrations of interest from Aboriginal people and organisations. A further series of letters were sent to other organisations identified by Heritage NSW in correspondence with NGH. In each instance, the closing date for submission was 14 days from receipt of the letter.

As a result of this process, seven Aboriginal groups and an individual registered their interest in the project.

These included:

- Worimi Local Aboriginal Land Council (Worimi LALC)
- Worimi Traditional Owners Indigenous Corporation (Worimi TOIC)
- Mur-Roo-Ma Inc.
- Nur-Run-Gee Pty Ltd
- Karuah Indigenous Corporation
- Woka Aboriginal Corporation
- Redacted Group #1
- Robert Syron

No other party registered their interest, including the other entities and individuals recommended by HNSW.

**Stage 2** – On 11 February 2022, an *Assessment Methodology* document for the 42 Fullerton Cove Project was sent to the eight RAPs listed above. This document provided details of the background to the proposal, a summary of previous archaeological surveys, and the proposed heritage assessment methodology. The document invited comments regarding the proposed methodology and sought any information regarding known Aboriginal cultural significance values associated with

the Project Site and/or any Aboriginal objects contained therein. A minimum of 28 days was allowed for a response to the document.

None of the registered parties raised any objections to the methodology and many expressed their interest in participating in fieldwork.

**Stage 3** – The *Assessment Methodology* outlined in Stage 2 included a written request to provide any information that may be relevant to the cultural heritage assessment of the Project Site. It was noted that sensitive information would be treated as confidential.

The following response was received via email from Mur-Roo-Ma Inc on the 28<sup>th</sup> of February 2022 which noted that while there was not site identified on AHIMS within the Project Site the recent walkover the areas for Port Stephans Council identified several midden sites which were advised to Council and it was noted that there is a very important ridge line in the area that would contain more sites.

The survey fieldwork was organised, and four of the eight registered groups were selected for fieldwork participation by the Proponent. The survey fieldwork was carried out on 31 May 2022 by one archaeologist from NGH (Kirwan Williams) and four Aboriginal community representatives. The Aboriginal community representatives who participated in the fieldwork were:

- Bec Young (Mur-Roo-Ma Inc.)
- Luke Knight (Nur-Run-Gee Pty Ltd)
- Brendan Lilley (Karuah Indigenous Corporation)
- Jamie Merrick (Worimi Local Aboriginal Land Council)

**Stage 4** – In July 2022 a draft version of this ACHA report (this document) was sent to the RAPs inviting comments on the results, significance assessment and the recommendations. A minimum of 28 days will be allowed for responses to the document and all responses will be incorporated into the final version of this document.

### 3.1. Aboriginal community feedback

Community consultation occurred throughout the project. The initial draft ACHA report was provided to each of the RAPs via email and feedback was sought on the recommendations, the assessment and any other issues that may have been important.

**Any comments on the draft ACHA will be included in this section once comments period closes.**



## 4. Background information

### 4.1. Review of landscape context

Understanding the landscape context of the Project Site assists us to better understand both the archaeological modelling of the area, and in identifying local resources which may have been used by Aboriginal people in the past. This information can then potentially be used to predict the nature of Aboriginal occupation across the landscapes within the Project Site.

Examination of environmental context is valuable for predicting the type and nature of archaeological sites which might be expected to occur. Factors that typically inform the archaeological potential of landscape include the presence or absence of water, animal and plant foods, stone and other resources, the nature of the terrain and the cultural meaning associated with a place. The landscape context assessment is based on classifications of geology, topography, hydrology, flora and fauna and past land disturbances that inform the archaeological modelling within and adjacent to the Project Site.

The Project Site is approximately 6.7 hectares (ha) in area and is located on the north-west corner of Nelson Bay Road and Fullerton Cove Road at Fullerton Cove (Figure 1 1). The Project Site is currently used for residential purposes and has been largely cleared around the existing structures.

The Project Site is located to the northern edge of the Fern Bay urban area where the land transitions from urban to rural use with some conservation reservation. Within 1km of the Project Site to the south and east are existing dwellings and new dwellings being constructed in the 'Seaside Estate' residential release. Further south are manufactured home estates and a caravan park. The planning proposal states there is sufficient demand for commercial development at the site at Fullerton Cove. The Project site is close to the Hunter Wetlands National Park to the west and contains low lying areas of local wetlands. Fullerton Cove is approximately 500m to the west of the site.

#### 4.1.1. Geology and topography

The landscape context of the Project Site is based on a number of classifications that include the National Interim Biogeographic Regionalisation for Australia (IBRA) system, Mitchell soil landscapes and NSW geological maps. The combination of these differing resolutions of landform data provides a comprehensive and multi scaled understanding of the landscape within the Project Site and its immediate surroundings.

Archaeologically, the geology of any location is important as it informs as to whether there any potential for in-situ deposits of stone material traditionally used for the manufacture of stone tools or whether these materials would have to have been sourced from further afield or even traded with other groups of people.

The national Interim Biogeographic Regionalisation of Australia (IBRA) system identifies the Project Site as located within the NSW North Coast (DE&E 2016). The dominant IBRA subregion affected by the proposal is the Karuah Manning subregion. The bioregion comprises the strip of land in northern NSW between the Great Escarpment and the coastline. The bioregion is characterised by Devonian and Permian bedrocks which are closely faulted, particularly where they superimpose on one another to the north of the Sydney Basin.

The proposed works area is located within the Newcastle Bight region of NSW which is characterised by gravel, silt, sand, clay, and sand Quaternary freshwater deposits on long recurved quartz sand

beaches between rocky headlands backed by sand dunes and intermittently closed and open lagoons. Outcroppings of Tomago Coal Measures occurs consisting of shale, coal, conglomerate, tuff, and sandstone as well as Maitland and Dalwood Groups including siltstone, basalt, tuff, mudstone, shale, sandstone, tillitic and conglomerate are noted to occur throughout the Newcastle Bight region (Dean-Jones 1990). The various tuffs from the local area, was a favoured stone type for the manufacture of stone tools by Aboriginal people.

The NSW 1:150000 simplified surface mapping identifies the geology underlying the Project Site as comprises of Quaternary costal dune deposits with the sand deposited by both wind (aeolian) and ocean currents. Older (Pleistocene) dunes are vegetated and stable while the younger (Holocene) dunes are not vegetated and may be highly mobile depending on wind and wave action.

Elevation of the Project Site ranges between 5-10m. The Newcastle Bight area is characterised by distinct geomorphological features for the region. The characteristic geomorphology of the Newcastle Bight Embayment is referred to as part of a “dual barrier system” where the back-barrier sand flats and dune, with the north portion partially covered by Holocene tidal flats (Thom et al 1992). This “dual barrier system” formed a transgressive field dune within the area. The proposed works area within the Project Site is located within the “Outer Barrier” of the system. The “Outer Barrier” has emerged as a result of climatic changes and developed during the Holocene over the last 9,000 years, with the stabilisation of sea level occurring approximately 6,500 years. This resulted in the stabilisation of this Outer Barrier system (Gilmore 2014).

Further landscape modelling as part of the Mitchell landscapes system (DECC 2002) shows the Proposal Site is located in the Sydney – Newcastle Barriers and Beaches (Snb). The Mitchell Landscape description is provided in Table 4-1 below.

Table 4-1 Descriptions of soil landscapes in the Project Site (Mitchell 2002)

Landscape Name	Description (DECC 2002)
Sydney – Newcastle Barriers and Beaches (Snb)	Quaternary coastal sediments on long recurved quartz sand beaches between rocky headlands backed by sand dunes and intermittently closed and open lagoons. Includes areas of more extensive high dunes often located on top of the headlands. General elevation 0 to 30m, local relief 10m. Cliff top dunes may be found as high as 90m above sea level. Distinct zonation of vegetation and increasing soil development from the beach to the inland dunes. At the beach; spinifex ( <i>Spinifex hirsutus</i> ), spiky mat-rush ( <i>Lomandra longifolia</i> ), coast wattle ( <i>Acacia longifolia</i> ssp. <i>sophorae</i> ) and coast tea-tree ( <i>Leptospermum laevigatum</i> ) colonise the frontal dune in which there is little soil development. Coast banksia ( <i>Banksia integrifolia</i> ) and old man banksia ( <i>Banksia serrata</i> ) are found on the second dunes and these merge with more complex forest containing blackbutt ( <i>Eucalyptus pilularis</i> ), red bloodwood ( <i>Corymbia gummifera</i> ), grass trees ( <i>Xanthorrhoea</i> sp.) and numerous understorey shrubs on deep sands that have an organic rich A horizon, a bleached A2 horizon and the initial development of weak iron or organic pans in the sandy subsoil. Well-developed, deep podsol profiles are present in cliff top dunes with swampy swales indicating that these forms are probably older than the coastal dunes. Vegetation of <i>Banksia aemula</i> heathland and open scrub of coast banksia ( <i>Banksia integrifolia</i> ), coast rosemary ( <i>Westringea fruticosa</i> ), coast tea-tree and grass tree, with dwarfed smooth-barked apple ( <i>Angophora costata</i> ) and red bloodwood. Freshwater sedge

Landscape Name	Description (DECC 2002)
	swamps in larger areas of sand. In the lagoons salinity varies depending on tidal flushing and they are often surrounded by broad-leaved tea-tree ( <i>Melaleuca quinquenervia</i> ) and swamp oak ( <i>Casuarina glauca</i> ). Water margins are occupied by <i>Juncus sp.</i> and common reed ( <i>Phragmites australis</i> ) in freshwater areas. Grey mangrove ( <i>Avicennia marina</i> ) may occur in some tidal inlets.

#### 4.1.2. Soils

Soil landscape mapping shows the majority of the Proposal Site falls into the Lower Pindimar (lp) soil landscape, with a minor portion of the Proposal Site extending into the Hawks Nest (hn) soil landscapes (DPIE 2020). These landscapes are described in detail in Table 3 2 below.

Table 4-2 Description of soil landscapes found within the Project Site (DPIE 2020).

Soil Landscape	Descriptions (soil landscape report)
Lower Pindimar Soils	Characterized by topsoil of loose brown blackish loamy sand, underlain by a thin layer of bleached loose sand followed by an organic coffee coloured pan and underlain by coarse loose saturated smelly brown sand. The Lower Pindamar soil landscape has high erodibility with low wet strength and water holding capacity.
Hawks Nest Soils	Deep (>300 cm), well-drained Podzols (Uc2.3) and Siliceous Sands/Podzols (Uc2.21) on dunes, deep (>200 cm), poorly drained Humus Podzols (Uc5.1) on sandsheet

In addition to this there are three soil profiles available on eSpade from lands adjacent to the Project Site which provide further insight into the soils which likely extend into and across the Proposal Site. These are summarised below.

- 0-40cm below the surface is a black loam at 40 to 50 cm becoming a dark brown loamy sand.
- 0-40cm below the surface is a black sapric peat at 40 to 120 cm becoming a brownish black coarse sandy loam.
- 0-20 cm below the surface is a coarse light sandy clay loam at 20 to 40 cm becoming a greyish yellow brown medium clay which overlies at 40 to 80 cm a dark grey brown coarse sandy loam which then at 80 to 100 cm becomes a black peat before a 100 cm to 140 cm transitions back into a coarse brownish grey loamy sand.

The high erosion hazard of the Lower Pindamar soils indicates that durable archaeological material, such as stone artefacts, will have likely been displaced from their original position. Moreover, the permanent waterlogging and poor drainage likely contributes to inaccessibility to some of the areas.

#### 4.1.3. Hydrology, Fauna and Flora

Water supply is often suggested as being the most significant factor influencing Aboriginal peoples' prior land-use strategies. The Project Site is located within 200m of Fullerton Cove which is fed by

the North Arm of the Hunter River. This watercourse would not have provided potable water, as it contains brackish waters, however it would have provided numerous other plant and animal resources such as shellfish (oysters), birds and rushes and herbs which grow in the saltmarshes. Freshwater would have been available in nearby swales formed by sand dunes to the west of the cove, prior to development of the area.

The information provided herein is intended as a generalised summary of the endemic flora and fauna present within the Project Site and is not to be used as a substitute for detailed ecological studies and assessments.

According to broad-scale vegetation mapping by Keith (2006), the area would originally have been characterised by the Mangrove Swamps, Coastal Swamp Forests and the Coastal Dune Dry Sclerophyll Forest vegetation communities which overlap one another to the north of Fullerton Cove and north-west of the Stockton sand dunes.

Characteristic vegetation species along the beach areas of Sydney-Newcastle Barriers and Beaches Mitchell landscape include Spinifex (*Spinifex hirsutus*), coast wattle (*Acacia longifolia* ssp. *sophorae*), coast tea-tree (*Leptospermum laevigatum*), spiky mat-rush (*Lomandra longifolia*). Second dunes comprise a variety of old man banksia (*Banksia serrata*) and Coast banksia (*Banksia integrifolia*) which join to more complex forest vegetation including red bloodwood (*Corymbia gummifera*), blackbutt (*Eucalyptus pilularis*) and grass trees (*Xanthorrhoea* sp.). The heathlands comprise species such as *Banksia aemula* an open scrub of the coast includes coast rosemary (*Westringea fruticosa*), coast tea-tree and grass tree, red bloodwood, banksia (*Banksia integrifolia*) and with dwarfed smooth-barked apple (*Angophora costata*). Lagoons include species such as swamp oak (*Casuarina glauca*) and broad-leaved tea-tree (*Melaleuca quinquenervia*) with water margins and tidal inlets bordered by grey mangrove (*Avicennia marina*), common reed (*Phragmites australis*) and *Juncus* sp. (Mitchell 2002).

There are abundant and varied faunal species in the area that would have formed part of the terrestrial and marine mixed resource pool for Aboriginal people as food, medicines, and materials for the manufacture of implements and clothing. It is expected that the sandy rises adjacent to the swampy areas would be likely to have formed a small part of a larger resource-rich area in which flora and fauna resources were abundant.

#### 4.1.4. Historic land use and disturbance factors

The Project Site is currently used for residential purposes and has been largely cleared around the existing structures. Much of the original transgressive dune system has changed due to human activity since European colonisation.

The contemporary use of the property is for rural agriculture, predominantly characterised by grazed pasture with some open forests along the perimeters of the site. Wildthing (2004) indicated previous historic disturbance of the area in relation to rubbish dumping, continual grazing, and vegetation clearance of the area. Additionally, extensive disturbance in the form of 'the placement of fill' to level out the land along the west of the site to manage the access and contours of the existing salt marsh (Wildthing 2004).





Plate 4-1 Historic imagery showing Project Site in 1954



Plate 4-2 Historic imagery showing Project Site in 1966 (note addition of powerline easement)





Plate 4-3 Historic imagery showing Project Site in 1976 (note addition of Nelson Bay Road and east-west track along the northern boundary)



Plate 4-4 Historic imagery showing Project Site in 1993 (note addition of residences and sheds)



#### 4.1.5. Landscape Context

Most archaeological surveys are conducted in areas with topographic variation, and this can lead to differences in assessments of archaeological potential and site modelling for the location of Aboriginal objects. The Project Site falls within two landforms which are listed below and shown in Figure 4-1.

The landforms within the Project Site were determined based on topographic identification during the visual inspection of the Project Site and the review of detailed aerial mapping and contour lines.

- Low sandy rises; and
- Low swampy ground

Given the Project Site is located near to the confluence of a variety of resources the area as a whole would have been a major focus on Aboriginal people for the exploitation of coastal, estuarine, lacustrine and terrestrial resources. Consequently, the areas of the low sandy rise within the Project Site that have not been modified and disturbed by existing residential features and associated services are considered to be archaeologically sensitive, particularly any remaining portions of the low sandy rise landform.

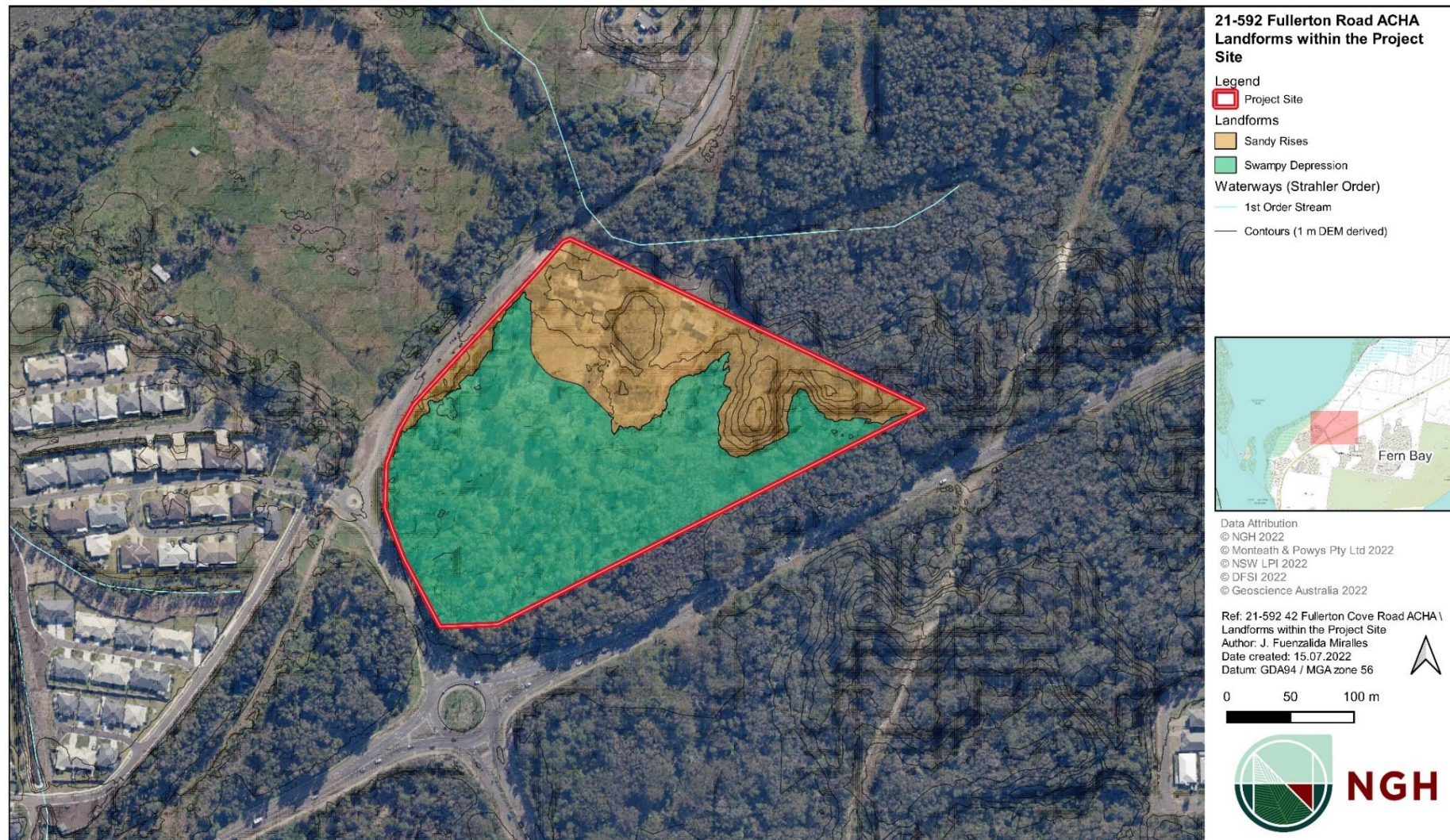


Figure 4-1. Landforms within the Project Site



## **4.2. Review of Aboriginal Archaeological Context**

To adequately understand the nature of archaeological resources within an area, it is necessary to also understand the cultural context of the area. Cultural context is obtained from ethnohistoric information regarding how Aboriginal people lived in the region prior to non-Aboriginal settlement, and from archaeological investigations conducted within the region.

### **4.2.1. Ethnographic setting**

Cultural areas are difficult to define and ‘must encompass an area in which the inhabitants have cultural ties, that is, closely related ways of life as reflected in shared meanings, social practices and interactions’ (Egloff, Peterson & Wesson 2005). Depending on the culture-defining criteria chosen – i.e., which cultural traits and the temporal context (historical or contemporary) – the definition of the spatial boundary may vary. In Australia, Aboriginal ‘marriage networks, ceremonial interaction and language have been central to the constitution of regional cultural groupings’ with the distribution of language speakers being the main determinate of groupings larger than a foraging band (Egloff, Peterson & Wesson 2005).

### **Tribal boundaries**

Aboriginal people have occupied the Hunter Valley for at least 20,000 years (Koettig 1987). Karuah is located within lands traditionally inhabited by the Worimi people. Worimi territory extended from north of the Hunter River to Forster near Cape Hawke along the coastline, encompassing Port Stephens and stretching inland close to Gresford and as far south as Maitland (Tindale 1974). The Worimi were hunter-gatherers and Sokoloff (1977) argues that the territories of the Worimi were established to include a variety of habitats rich in raw materials and food resources. Trade, intermarriage, and the sharing of ceremonial places were central to the Worimi nation’s interaction with neighbouring tribal groups such as the Awabakal, Kamilaroi, Gringai, Wonnarua, and other tribes of the region.

Little is known about the size of the population of the Worimi tribe within Port Stephens before white settlement, however it is agreed that numbers declined rapidly after contact (Dean-Jones 1990). Sources from the early 1800s to the 1840s vary in their estimates, from 120 at a single campsite (Ebsworth 1826), to 500 Worimi individuals within the Port Stephens Area in 1837. Threkeld (in Dean- Jones 1990) even reports that by 1839, the population of the Awabakal People around the Lake Macquarie area, to the south of Worimi territory had declined to as low as 20. Exposure to diseases brought by white settlers, the destruction of food resources, and instances of hostile relations between white settlers/ Europeans and the Worimi people would have contributed significantly to this decline.

### **Material culture, food and resources**

Aboriginal people used plant resources in a variety of ways. Fibres were twisted into string, which was used for many purposes, including the weaving of nets, baskets and fishing lines. String was also used for personal adornment. Bark was used in the provision of shelter; a large sheet of bark being propped against a stick to form a gunyah (Attenbrow 2002). Robert Dawson, an agent of the Australian Agricultural company in 1825, notes the Grass Tree *Xanthorrhoea* spp. was used for a variety of purposes. The stalks of the grass tree were used in the manufacturing of spears, and a wax-like gum could be extracted from the grass tree and used as a glue for various implements.

When flowering, the grass tree also acted as a sweet food source (Dawson in Haslam 1984). The grass tree was also used in the making of fire sticks. Fire sticks were an important tool that would be carried from place to place and used in daily life and sacred ceremonies (Scott in Haslam 1984). Sokoloff notes that the 'firing' of vegetation at periodic intervals, also allowed the Worimi to influence the environment and available resources. Various types of eucalypts were used by Aboriginal people and were a valuable resource. Stringybark, was used in the construction of canoes by the Worimi. A single sheet of its bark would form the hull of a single canoe according to Scott (in Haslam 1984). The bark from eucalypts could also be used in the construction of shelters (gunyahs), and in the fashioning other objects used in everyday life. The fragrant oil-bearing leaves were further used for medicinal purposes, whilst the seeds, barks, nectar, galls, sap, water and manna of certain species could be eaten (Percival & Stewart 1997).

Kangaroo, wallaby, possum, flying fox, koala, kangaroo-rat and the echidna were also abundant traditional terrestrial food sources for the Worimi and would have been valuable sources of fat and protein during the colder months. As well as being important food sources, animal products were also used for tool making and fashioning a myriad of utilitarian and ceremonial items. For example, tail sinews are known to have been used to make fastening cord, while 'bone points', which would have functioned as awls or piercers, are often an abundant part of the archaeological record (Attenbrow 2002).

## Early contact period

The earliest account of contact between Europeans and the Worimi is recorded by David Collins. It was reported that five convicts who had escaped from Parramatta in 1790 were shipwrecked at Port Stephens. The convicts lived among the Worimi for five years until they were recaptured (Bramble 1981). Following this, a small garrison of soldiers was established in the 1820's at a place now known as Soldiers Point to aid in the recapture of convicts who had escaped from Port Macquarie. According to Bramble, relations between escaped convicts and local tribes were good and signified the introduction of products of European civilisation.

Colonel Paterson upon exploring the Hunter region in 1801 commented upon the possible use of European axes by Aboriginal tribes, and perhaps convicts who lived among them, to cut down trees (in Bramble 1981). This introduction to European resources would have led to the establishment of more fruitful relations between the Aboriginal people of the Hunter region and European penal authorities, in aiding in the recapture of escaped convicts.

Hostile relations between Europeans and the Worimi tribes of Port Stephens seemed to have originated from early interactions with timber-getters exploiting good quality cedar along the coastal regions of NSW. Accounts of hostilities between timber-getters and the Aboriginal people in the region are recorded from as early as 1804. Dawson, having arrived in Newcastle in 1825 after free-settlement was made available in the Hunter region in 1820, comments upon the hostile relations which existed between European timber-getters and the Worimi Tribe of Port Stephens. This consequently set a precursor to relations between Europeans or white settlers and local tribes within the Port Stephens Area:

*'The timber-cutting parties... were the first people who came in contact with the natives in the neighbourhood of the sea; and as they were composed of convicts and other people not remarkable either for humanity or honesty, the communication was not at all to the advantage of the poor natives, or subsequently to the settlers who succeeded those parties. The consequence of the behaviour of the cedar getters was, that the natives inflicted vengeance upon almost every white man they met, and as convicts were*

*frequently running away from the penal settlement of Port Macquarie to Port Stephens ...numbers of them were intercepted by the natives and sometimes detained whilst those who fell into their hands and escaped with life, were uniformly stripped of their clothes'* (Dawson 1831).

#### 4.2.2. AHIMS Search

The Aboriginal Heritage Information Management System (AHIMS) is a database of previously recorded Aboriginal heritage sites in NSW. A search provides basic information about any Aboriginal sites previously identified within a search area. However, a register search is not conclusive evidence of the presence or absence of Aboriginal heritage sites, as it requires that an area has been inspected and details of any sites located have been provided to add to the register. As a starting point, the search will indicate whether any sites are known within or adjacent to the investigation area.

An extensive search of the AHIMS database was conducted over an area approximately 6km east-west x 6km north-south centred on the Project Site on the 13 July 2022. The AHIMS client service ID was: 700004. There were 115 Aboriginal sites and no declared Aboriginal Places recorded in the search area. The results of the AHIMS search are summarised in Table 4-3 below.

Table 4-3 AHIMS registered sites

Site Type	Number	%
Midden/ PAD	64	55.6
Artefact/ Open Camp	27	23.5
Artefact Scatter	9	7.9
Isolated Find	6	5.2
Burials	6	5.2
Aboriginal Resource and Gathering	2	1.7
Stone Quarry	1	0.9
TOTAL	115	100

None of the 115 registered AHIMS sites are located within the Project Site. There are eight registered sites within 250m of the Project Site refer to Table 4-4.

Table 4-4 Sites adjacent to the Proposal Site

Number	AHIMS ID	Site name	Site type	Proximity to Project Area
1	38-4-0126	NBR10	Shell/ Artefact/ Midden	235m north of the Project Site
2	38-4-0135	NBR1	Shell/ Artefact/ Midden	200m east of Project Site
3	38-4-0333	Fullerton Cove Road; site 1	Shell/ Artefact/ Midden	5m west of Project Site
3	38-4-0542	Site 2	Shell/Artefact	135m east of Project Site
3	38-4-0723	Fullerton Cove Site 1	Shell/Artefact	220m west of the Project Site
6	38-4-0857	Fern Bay Estate 5	Artefact	150m east of the Project Site
7	38-4-0953	Fern Bay Estate 6	Artefact	140m east of the Project Site
8	38-4-1644	Fullerton Cove Midden 1	Shell/Artefact	150m north of the Proposal Site

During works documented by NGH 2021 at 21 Fullerton Cove Road several locational issues were noted relating to a number of sites on the AHIMS register. This inspection was able to ground-truth the locations of AHIMS Site #38-4-0723 and #38-4-0333 were indeed further south than the AHIMS provided locations. On 20 February 2020, site card updates for each of these two sites was submitted to AHIMS reflecting these ground-truthed locations. Of these, AHIMS# 38-4-333 which maps to the road reserve on the eastern side of Fullerton Cove Road has some potential to extend into the Project Site. These sites are predominantly midden sites with shell and stone artefacts. Refer to Figure 4-3.

Information received from the RAP groups following a recent walk-over of the Proposal Site for Port Stephens Council have informed NGH and the Proponent of the potential for the existence of cultural material with shell midden material and stone artefacts within the Project Site however this site/s have yet to be added onto AHIMS.

#### 4.2.3. Additional searches

Other heritage register searches were also undertaken to identify any items or places in proximity to the Project Site, with a focus on the Project Site and surrounding landscape. The following resources were used as part of this assessment:



- The NSW State Heritage Inventory (SHI) includes items on the State Heritage Register and items listed by state agencies and local Government, to identify any items currently listed within or adjacent to the Project Site.
- The Australian Heritage Database (AHD) includes items on the National and Commonwealth Heritage Lists, to identify any items that are currently listed within or adjacent to the Project Site.

The results of the NSW SHI database search indicated that there are two previously recorded Aboriginal Places listed under the National Parks and Wildlife Act within the Port Stephens LGA. None of these sites are located within or adjacent to the Proposal Site. The results of the NSW SHI database search indicated there are eight previously recorded heritage site listed under the NSW Heritage Act within the Port Stephens LGA. None of the sites are located within or adjacent to the Proposal Site.

The results of the NSW SHI database search indicated there are 121 previously recorded heritage sites listed by the Local and State Agencies within the Port Stephens LGA. None are located within or adjacent to the Proposal Site with the nearest sites the Stanley Park House located 150 m north of the Proposal Site and the Stockton Beach Dune System 540 m to the south of the Proposal Site.

The results of the Australian Heritage Database search indicated that there are nil sites located within the Port Stephens LGA. None located within or in adjacent to the Proposal Site.

No other known previously recorded heritage sites are located within or adjacent to the Proposal Site. Non-Aboriginal heritage is outside the scope of this document.

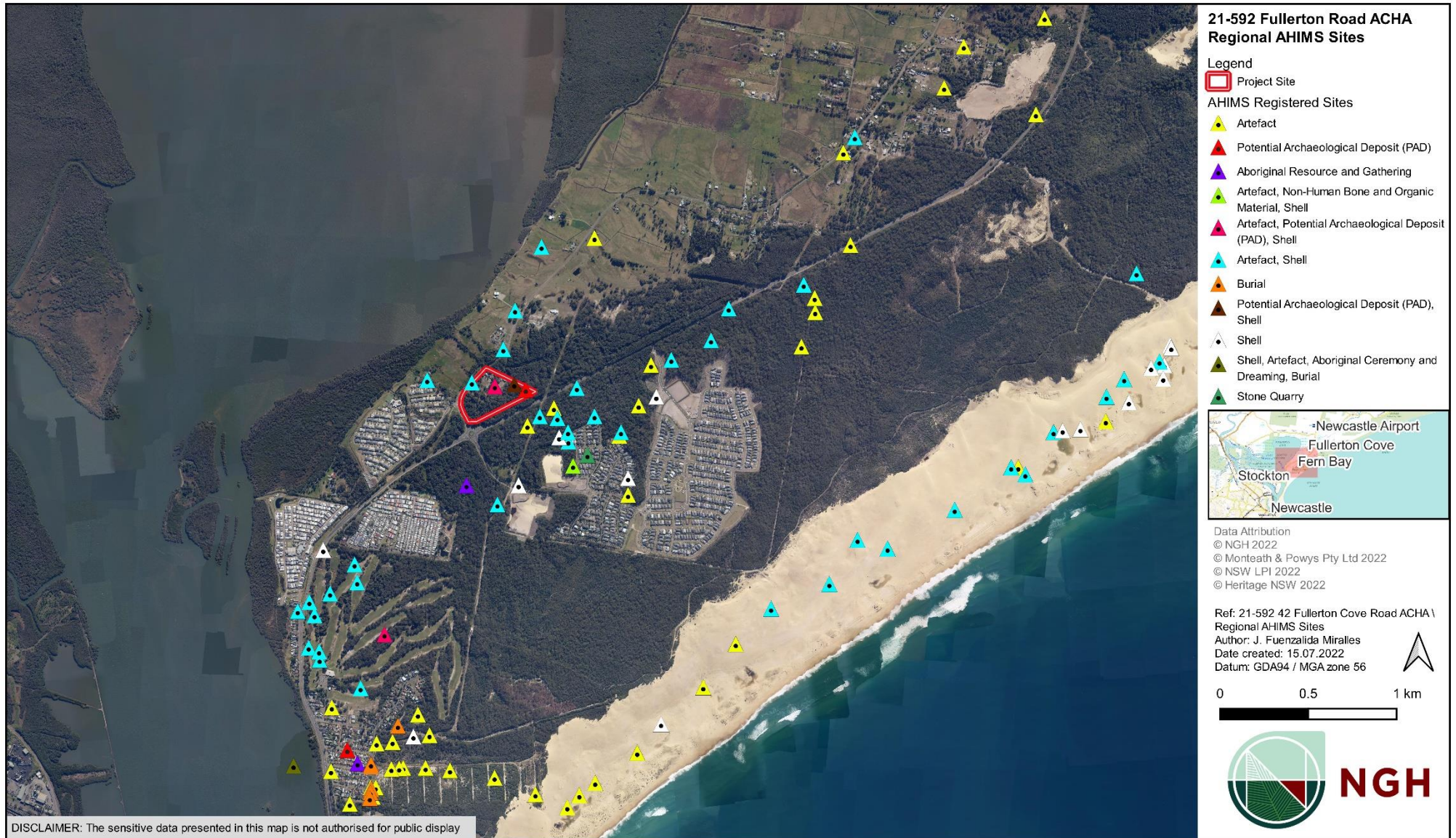


Figure 4-2 AHIMS overview



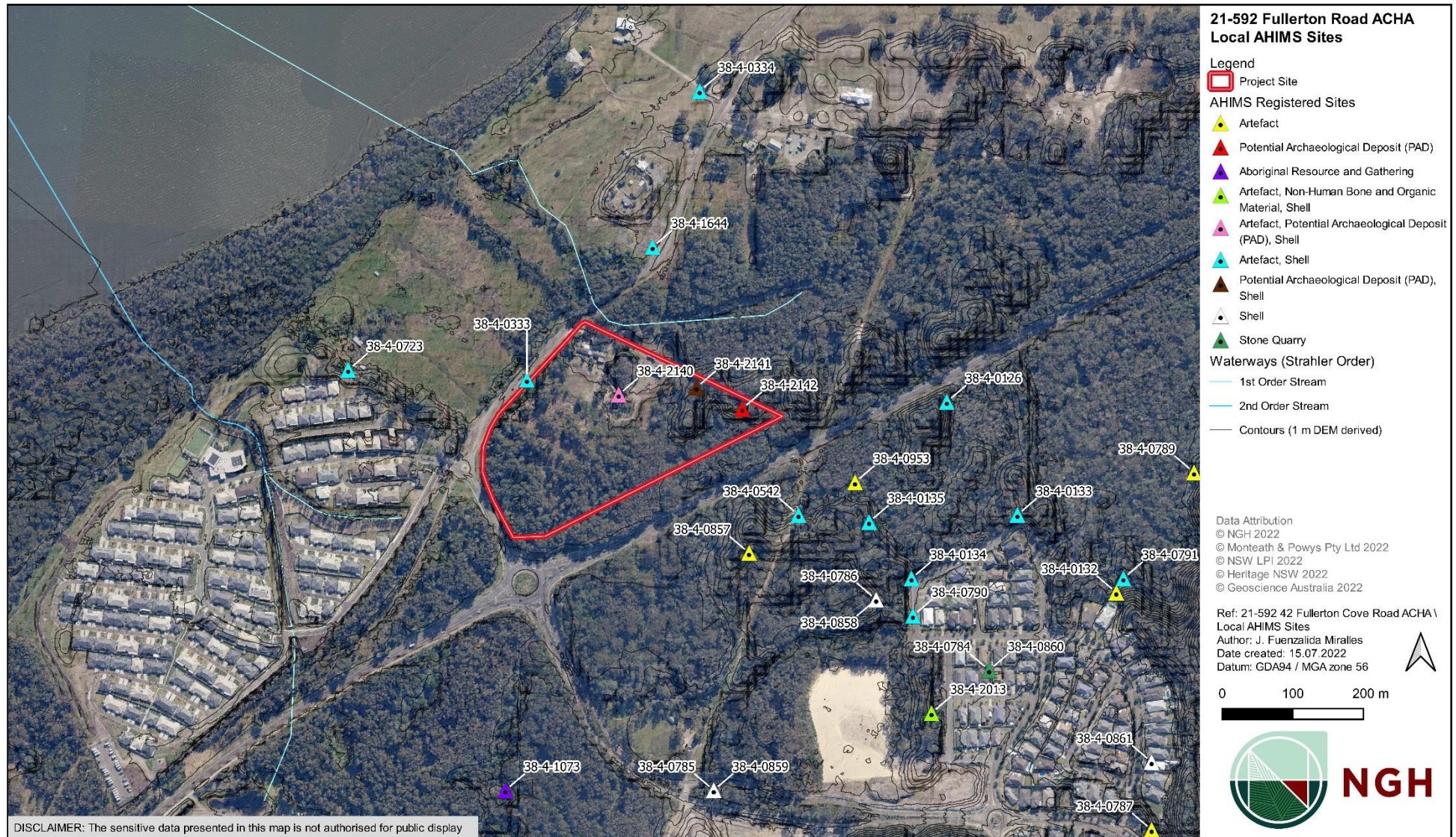


Figure 4-3 AHIMS in proximity to Project Site





Figure 4-4 Historic heritage in proximity to Project Site

#### 4.2.4. Regional Archaeological studies

There have been several previous archaeological assessments undertaken within the Newcastle Bight, Stockton, Fern Bay and Fullerton Cove area. The summaries of each of these archaeological investigations are included below.

Koettig (1987) conducted an archaeological assessment near Nelson Bay Road near Stockton towards the western end of the Newcastle Bight. The survey comprised the inner side of the Outer Barrier and described three dune-building episodes approximated to be less than 4,500 years Before Present (BP). The archaeological assessment undertaken by Koettig (1987) indicated a wide distribution of archaeological material throughout the Outer Barrier area, however, dense vegetation hindered approximation of site extent. These were generally found to be located along vehicle tracks and dune crests within the area. Artefacts identified during the survey, were predominantly characterised by mudstone material (also known as Merewether or Nobby's tuff material).

Dean-Jones (1990) identified a total of 119 sites during a regional survey of Newcastle Bight and noted an additional 40-50 middens which were unable to be properly recorded owing to time constraints of the survey. Of the 119 sites recorded, many sites identified included shell middens, with some artefact scatters also present. Dean-Jones (1990) indicated that the shell material observed was a mixture of natural and anthropogenic related remains comprising both estuarine and marine shell species. Most of the sites identified were located along transgressive sand dune/active blow outs with some evidence of sites occurring along the foredune and outer deflation basins.

An assessment by Dean-Jones (1992) comprised shovel testing and survey across an area located at Fern Bay, NSW, approximately 800m south of the current Project Site. Shovel testing was employed to ascertain the geomorphology of the area and provide further insight regarding the location and age of archaeological sites within the region. Based on the findings of the testing, Dean-Jones (1992) indicated that the archaeological sites identified within the Project Area were likely to be dated at approximately 4500 Before Present and that aeolian modification of the barrier surface may have destroyed any archaeology pre-dating this accretion event. Most of the sites identified were located along the higher ridges of the dune field. Sites identified included shell and flaked stone or shell or flaked stone. Shell species identified as part of the deposits included pipi, oyster, and mud whelk. Many shovel pits excavated were dug to approximately 30-60cm, with only one pit excavated to a depth of 90 centimetres (cm).

An archaeological assessment of the Stockton Rifle Range 2.2 kilometres (km) south of the current Project Site was conducted by Silcox in 1999. Two sites were identified during the field inspection component of the assessment. These included Site S1 and Site S2. However, neither of these sites were included on the NPWS register. Site S1 comprised a low-density artefact scatter including a total of 10 artefacts. Site S2 is comprised of fragmented oyster shells located along the access tracks. Owing to the disturbed nature of each of the sites and the minimal archaeological material identified, Silcox indicated that each of the sites had low archaeological significance. However, he also recommended further archaeological assessment once vegetation was cleared for the area to enhance visibility.

To inform an opportunities and constraints planning study Umwelt (2003) conducted an Aboriginal archaeological survey and heritage assessment for the proposed development of part of Lot 5 of the Stockton Rifle Range Fern Bay. During the survey, two artefact scatters were identified. These included Site Stockton Rifle Range 1 (AHIMS #38-4-0692) and Site Stockton Rifle Range 2 (AHIMS #38-4-0693). Site Stockton Rifle Range 2, originally identified by Silcox. This was reidentified but the assessment concluded that the oyster remains were likely from commercially grown oysters and

therefore not Aboriginal cultural material. Located along the crest and slope of a beach ridge along Popplewell Road, Stockton Rifle Range 1 comprised a low-density artefact scatter. All but one of the seven artefacts identified as part of the scatter were composed of Nobbys tuff raw material, with a single inclusion of silcrete. Umwelt (2003) reported that the artefacts likely became exposed owing to the recreational disturbance of the vehicle and bike tracks and wind movement of the sandy deposit. Site Stockton Rifle Range 2 was situated within the levelled and mounded modified rifle range. The artefacts associated with Site Stockton Rifle Range 2 were also posited to have been exposed and translocated through vehicle and bicycle use of the area previously. These artefacts formed four discrete locations within the site. Section 1 of SSRR2 comprised three Nobbys tuff flakes and 1 Nobbys tuff flaked piece. Section 2 of SSRR2 included three flakes, six flaked pieces. One retouched flake and four broken flakes all composed of Nobbys tuff material located along a loose sandy mound. Section 3 of the SSRR2 site comprised one Nobbys tuff flake located along a sandy vehicle track. Section 4 of the SSRR2 site included two flakes and one core, all of which were also comprised of Nobbys tuff material.

Following on from the Stage One test excavations conducted for the area, McCardle (2005) undertook archaeological test excavation of select areas at Fern Bay. This assessment was located approximately two km south-west of the Project Site. Excavations included two 1 x 1 metre test pits (FD8 and FB14) and two 2 x 2 metre test pits (PS1A and PS1B) which were manually excavated in spits of 5-10cm. Pit FD8 comprised both midden and artefactual material as did FB14 and were described as heavily disturbed through root protrusion throughout the assemblage. Conversely, only shell midden material was recovered from PS1A and PS1B with modern rubbish inclusions prevalent throughout the upper layers. Material composition of the artefacts recovered during the excavation were predominantly characterised by tuff materials with lesser inclusions of silcrete. The typology of the artefacts identified included flaked pieces (n=49), followed by flakes (n=39), then broken flakes (n=4), and one inclusion of a flake and core. Despite the highly fragmented nature of the midden material, the majority shell species identified included rock oyster (*Saccostrea glomerata*) and possibly mud oyster (*Ostrea angasi*). Other species recorded included *Bembicium* sp. *Batillaria australis*, *Pyzarus* sp. *Anadara* sp., *Spisula trigonella*, *Iris crenatus*, *Trich hirsute*, *Patelloida mimuli*, *Bedevea* sp., *Nassarius jonasii*, snail, as well as some bone, burnt shell and undiagnostic fragments. Additionally, the presence of backed artefacts within the assemblage may further support and mid-late Holocene occupation period.

ERM (2008) prepared an Aboriginal heritage assessment to report the findings of an archaeological excavation undertaken within Lot 16, DP 258848, No. 85 Nelson Bay Road, Fern Bay, less than two km south-west of the current Project Site. The assessment was divided into three Phases. Phase 1 would sample five previously recorded sites through test excavation including Fern Bay Estate 7, Fern Bay Estate 8, Fern Bay Estate 11, Fern Bay Estate 16 and Fern Bay Site C. Phase 2 was based on the results of auger testing conducted by Dean-Jones (1992) indicating that subsurface archaeological material of the area typically occurred between 300 millimetres (mm) and 600 mm depths. As such, a sampling strategy based on the topography of the area was employed using ten 100m transects across different ridges and slopes with auger tests carried out at 10m intervals across each transect. Phase 3 comprised controlled 1 x 1 metre excavation of locations where subsurface archaeological material was identified in the auger testing locations during phase 2 of the assessment. The results of each of the assessment phases is detailed below.

Excavation of Site 7 (Dean-Jones 1992) comprised twelve auger holes and recovered no subsurface archaeological material. Three small shell fragments were, however, identified on the surface and it was therefore concluded that the site should be classified as a surface shell scatter.



During earlier survey work, Site C was identified by Jim Wheeler and Len Anderson in 2000. Site C comprised a variety of shell and artefactual scattered material. The subsurface investigations of Site C included five test augers and two 1x1m trenches were excavated. The results of the Site C excavations indicated intact A-horizon soils interspersed with high densities of stone artefacts and shell material. The trenches were excavated to a depth of 800mm, totalling a series of 9 spits. Except for TT1 which included higher concentrations of artefacts across the lower spits, higher artefact densities characterised the upper spits. The subsurface excavation recovered a total of 798 stone artefacts and 97 shell pieces, and the surface collection recovered 293 stone artefacts and 333 shell pieces. It was noted by ERM (2008) that shell frequencies were substantially higher for surface recording contrary to subsurface recovered material. Whereas the frequencies of stone artefacts were higher for subsurface and lower for surface recorded materials.

Fern Bay Estate Site 8 was also originally identified by Dean-Jones 1992 and comprised five *Pyzarus* shells exposed along a vehicle track within a low dune ridge. The surface inspection and auger testing conducted by ERM (2008) at Site 8 recovered one stone artefact and four shell fragments. A subsequent test excavation of the site included one 2 x 2 metre test trench and three 1 x 1m test trenches were undertaken. Similarly, to Site C another intact series of A-horizon soils were identified, and pits were excavated to a depth of 800mm (9 spits total). The excavation recovered 51 stone artefacts and 15 shell pieces, averaging an artefact density of 4.4 per m<sup>3</sup>. Additionally, an Aboriginal hearth was also identified at a depth of 600-700mm as part of TT3. The hearth was characterised by charcoal and greasy ash material within an oval shaped deposit. Charcoal material extracted from the hearth was submitted for Radiocarbon dating and returned a conventional determination of 2584±45BP (Wk-13446). The oval morphology of the charcoal, its contextual association to the recovered stone artefacts, the discrete nature of the charcoal feature as well as its isolation from linear or structural orientation supported the identification of an Aboriginal hearth. A large stone artefact, identified as a 'Worimi Cleaver,' was recovered from spit six of square B4 of the TT1 pit.

The 'Worimi Cleaver' is characterised by large triangular morphology with a backed margin and thin working edge. This artefact was composed of Nobbys tuff material. Along the working edge of the artefact, a distinct greasy black residue was identified. Following residue and function analysis of the artefact by Dr Richard Fullagar (upon permission of the WLALC), the residue was identified to likely be from plant processing of the Bungwall fern (*Blechnum indicum*) which is a dominant species of swamp forests within the broader Project Area.

Fern Bay Estate Site 11 was also identified by Dean-Jones 1992 and comprised six pieces of flaked Nobby's tuff material. Relocation of the site indicated that the original coordinates provided by Dean-Jones were off by about 200m which place it beyond the boundary of the ERM (2008) Project Area. Owing to the research permit requiring excavation within the Project Area, the testing was undertaken adjacent to the recorded location of Site 11 but still within the study area. This subsurface investigation included ten augers and two 1x1 m trenches. No surface or sub-surface archaeological material was recovered.

Fern Bay Estate Site 16 (Dean-Jones 1992) was recorded as scatter of 11 flakes. Excavation undertaken by Dean-Jones (1992) included four 1 x 1m test pits, from which stone artefacts were recovered from two of the pits. Subsurface investigations of the site by ERM (2008) included 15 test augers from which no archaeological material was recovered.

Auger transects excavated as part of Phase 2 of the assessment recovered no archaeological material from transects 1-5 and transect 8. However, one flake was recovered from auger 1 of transect 6, one shell fragment from auger 10 of transect 10, two shell fragments from auger 2 and 3 of transect 8 and from transect 7 one shell fragment from auger 10, one flaked piece from auger 5 and one flaked piece from auger 6 were recovered.

Phase 3 involved controlled 1 × 1m test excavation of each of the sites identified during Phase 2 of the assessment. Despite archaeological material being identified in Transect 9 and 10, owing to the disturbed nature of the deposit, no further investigation was determined to be warranted. Transects 6 and 7 comprised undisturbed soils and therefore were subject to controlled excavation. Transect 7 was subsequently named 'Site E' and Transect 6 named 'Site F'. Additionally, a previously unidentified stone and shell scatter was identified for excavation and named 'Site D.' Site D comprised a total of 28 flaked stone artefacts was situated along a low ridge crest and excavation comprised series of 11 auger holes.

Additionally, a 1 × 1m test trench was also excavated at the centre of the surface deposit. The excavation included 84 artefacts including flakes, flaked pieces and cores across the none spits excavated. No shell was recovered from the subsurface excavation material. Excavation of Fern Bay Site E was located along a ridge line and recovered a total of 355 shell fragments and 49 stone flakes across nine spits. Higher densities of shell and stone material were recovered from spits three and four. Fern Bay Site F was also excavated to a depth of 800 mm, but no subsurface archaeological material was recovered.

An archaeological assessment for the proposed sand extraction operation at Fullerton Cove was undertaken by McCardle (2008), approximately 2.8km north-east of the current Project Area. The Project Area for this investigation comprised four distinct survey units. SU1 comprised the northern section of the Project Area, SU2 comprised the middle section, SU3 comprised the northern area of the western section and SU4 comprised the southern area of the western section. All survey units were described as heavily disturbed in relation to mining, clearing, and housing activities. During the survey, a single archaeological site was identified and recorded as Fullerton Cove Sand Extraction 1.

Fullerton Cove Sand Extraction 1 comprised a high-density artefact scatter with more than 50 artefacts. McCardle (2008) indicated that although the artefact scatter was widely dispersed this was likely due to the highly disturbed nature of the sites and that the high density of artefacts may reflect several previously distinct individual sites. Artefact types included tuff manufactured backed artefacts, core, flakes, and flaked pieces. Ethnographic accounts from representatives of the WLALC are also included in this report and indicated burials were generally located in areas that overlooked working areas or campsites or near middens. As such, there is potential for burials to occur in proximity to other sites within the area.

An Aboriginal heritage due diligence assessment was conducted by AMBS (2012) to ascertain any potential constraints for the proposed construction of the ammonium nitrate facility on Kooragang Island, NSW. This Project Area was located approximately 5km south-west of the Fullerton Cove Project Area. No Aboriginal archaeological material was identified during the survey component of this assessment. AMBS (2012) indicated the nature of the area to be highly disturbed with soils described as coarse grey-brown gritty sand material with shell and pebble inclusions interspersed throughout.

RPS (2012) conducted an archaeological due diligence assessment for the proposed replacement of two power poles located at Fern Bay, NSW. The site inspection component of the assessment determined the area to be highly disturbed owing to the original construction of the power pole, road construction, vehicle use of the area as well as the residential development of the area. Archaeological potential, given the disturbed nature of the site, was low. The field inspection was undertaken alongside representatives of the LALC. No Aboriginal archaeological material was identified during the field assessment. While these representatives agreed they were satisfied with the conclusions of this due diligence assessment it was also raised that there are known highly

significant sites including burials within the general area but likely none within the proposed Project Area but further towards Popplewell Road.

A due diligence assessment was undertaken by RPS (2015) for the proposed installation of a sewerage pipeline extending between Nelson Bay Road and into Williamtown Drive, Williamtown. The desktop component of this assessment identified six registered AHIMS sites within the region. Five of the six registered AHIMS sites were identified outside the Project Area and would therefore not be impacted. However, one site AHIMS #38-4-1160 was identified within the proposed Project Area. AHIMS #38-4-1160 comprised a low-density artefact scatter including two artefacts. The field inspection revisited the recorded location of AHIMS #38-4-1160 but identified no archaeological material at the recorded location nor along the proposed extent of the Project Area. The original recorded location of the site was observed by RPS (2015) as being highly disturbed owing to the construction of Williamtown Drive and indicated that the site may have been destroyed during this construction process. Owing to no Aboriginal archaeological material being identified during the course of the due diligence survey and no risk to Aboriginal objects being concluded the assessment recommended that the development may proceed without any AHIP application.

#### **4.2.5. Local archaeological studies**

The archaeological assessments previously been undertaken within close proximity to the Proposal Site are outlined below:

An archaeological assessment was undertaken by Davies (1993) for the proposed Inter Exchange Network Fibre Cable between Gosford and Wauchope, NSW. The assessment proposed installation of ten network optic fibre cables and subsequently divided the proposed locations of these areas into five study areas. The study area relevant to the Project Site was Study Area B Williamtown and in particular Route 4 Stockton to Williamtown located immediately to the west of Fullerton Cove Road. The survey undertaken for Route 4 of Study Area B examined a 6-metre-wide corridor along the proposed optic fibre cable alignment. No archaeological material was identified within the proposed corridor. However, three midden sites were identified within proximity to the proposed alignment located along low dune landforms on the west side of Fullerton Cove Road. The midden material associated with Midden 1 had previously been bisected during the original road construction works, however, the southern section of the dune appeared to remain intact at the time of inspection. Midden 2 also demonstrated signs of significant disturbance related to the construction of a house and outbuildings nearby. Midden 2 comprises a sparse scatter of midden material along the slope of the dune, however, Davies (1993) notes that the top of the dune appears flattened and as such the midden material may have shifted and therefore should not necessarily be considered in situ material. Midden 3 included a sparse scatter of shell material, predominantly characterised by Cockle (*Anadara trapezia*) species with some inclusions of Whelk (*Pyzarus ebininus*) and Oyster (*Saccostrea commercialis*). This midden was located along the crest of a dune which appears to have been bisected by the construction of Fullerton Cove Road.

An Aboriginal heritage impact assessment for the proposed construction of a retirement village was undertaken by Wildthing Environmental Consultants (2004). This Project Area was located immediately to the west of the Project Site at 21 Fullerton Cove Road. During the field survey component of this assessment, one Aboriginal archaeological site was identified. Fullerton Cove Site 1 comprised an artefact scatter and shell midden. Species comprised within the shell midden material predominantly included oyster shells with some inclusions of mud whelk and cockle shell. The artefact scatter component of the site included a total of 13 stone artefacts. All artefacts were composed of mudstone material and included four cores and nine flakes. Wildthing Environmental

Consultants (2004) described the deposit as moderately disturbed due to its location within a livestock paddock and evidence of an old barn/building evident in the surface material.

An Aboriginal Due Diligence assessment was undertaken by NGH (2020) for the proposed development Lot 186 DP749482 at 21 Fullerton Cove Road, Fullerton Cove to support a modification to the Development Approval (DA 16-2013-564-1) for use of the site as a caravan park. The visual inspection relocated AHIMS Site #38-4-0333 and AHIMS #38-4-1644 and determined that both these sites were outside the development area and would likely not be disturbed. However, two exposures of midden material associated with AHIMS #38-4-0723 were within the proposed development area. Following the Due Diligence Assessment, an ACHA was undertaken at 21 Fullerton Cove Road, Fullerton Cove recommending subsurface testing in order to further investigate the archaeological potential and significance of the sites proposed to be impacted.

The subsurface testing was completed under AHIP 4672, and an Archaeological Test Excavation Report was prepared (NGH 2021). Six separate surface expressions of midden and artefactual material associated with AHIMS #38-4-0723 (Fullerton Cove Site 1) were recorded within the Project Area. AHIMS #38-4-0333 (Fullerton Cove Road, Site 1) was also inspected within the road reserve on both sides of the road and found to be highly disturbed because of the construction of Fullerton Cove Road. Shell remains and one artefact were identified within mounded sand adjacent to the road reserve, in private property to the east of the Project Area. This site potentially extends to the east for an unknown distance and potentially into the Project Site.

Twenty-three test pits were excavated from which 100 Aboriginal artefacts were identified and over 100 kilograms of shell material was recovered for analysis. All but a single artefact identified within the Project Area during the survey and test excavation program form part of registered site 38-4-0723. A single artefact was identified on the western side of Fullerton Cove Road which is associated with AHIMS #38-4-0333. The artefacts recovered were primarily manufactured from tuff, with chert, silcrete and quartz material also present. Only two cores were present, and no formal tools were recorded. Flakes and flake fragments made up the majority of the assemblage. Test pit FC TP19 contained 69% of the total artefact assemblage. Midden layers were identified only in pits within the extent of AHIMS 38-4-0723. This included dense lenses of oysters, with occasional occurrences of cockle, mud whelk and various unidentified small shells. The investigations identified most artefacts occurring within the upper 40 centimetres (spits 1 to 4) of the pits, and the shell layers were primarily contained between 10 and 30 -centimetres depth, with the exception of the crushed shell layer identified in FC TP19. During the excavation of this pit, which contained shells in a much more fragmented condition than others, and a shell layer which extended for nearly 70 centimetres in depth, it was noted by the representatives of Worimi LALC, Mur-roo-ma and Nur-run-gee who were on site that crushed shell layers such as this have been identified in association with burials in the local area.

Although no registered sites appearing in the AHIMS search within the Project Site, a walkover of the Project Site was undertaken by Aboriginal community members on 9 June 2021 with Port Stephens Council. During the inspection of the Project Site the following observations were made:

- Shell material was observed on many areas of the site and appeared to be more concentrated across the sandy ridge area toward the centre of the rezoning site. The amount and concentration of shell material indicates a midden located on the site.
- It was noted that the sandy ridgeline had potential to contain burial sites.
- A few stone artefacts were also found scattered around the site.
- The grassed area behind the house has been disturbed in the past so it is more difficult to identify any remnant cultural material there.



- Some of the area had poor visibility due to thick grass and so it was not possible to check these areas fully without site clearing being undertaken.
- Excavations have an increased chance of uncovering artefacts and so is an appropriate management technique to be used.
- To date this cultural material has not been recorded on AHIMS.

#### 4.2.6. Summary of Aboriginal land use

The results of previous archaeological surveys in the area show there are Aboriginal sites and objects are present throughout the region and that archaeological sites in coastal environments are most likely to consist of shell middens and stone artefact scatters. There appears to be a strong association between the presence of potential resources for Aboriginal land-use and the presence of archaeological sites. Areas directly associated with water, lower slopes and ridges, and elevated ground, with high resource availability appear to have the highest potential for the presence of Aboriginal cultural material.

While there are no registered AHIMS sites within the Project Site the previous walk over the area by the Aboriginal community in 2021 identified shell midden material and stone artefacts. Furthermore, the results of previous archaeological surveys and studies in the local area including Fullerton Cove, Fern Bay and Stockton, show the presence of both surface and subsurface stone artefacts and shell middens, in varying densities, present across the dune system between the ocean and Fullerton Cove. Within the wider area studies have demonstrated there are numerous Aboriginal sites present throughout the region. Shell middens are the dominant site type with artefact sites also comprising a large proportion of them. The dominant lithology within the area is tuff with smaller amounts of other materials such as chert, silcrete and quartz represented. Tool typologies characteristic to the area are predominantly cores and flake tools with occasional occurrences of other types.

A detailed understanding of Aboriginal land use of the region is lacking, as few in depth studies have been completed in close proximity to the Proposal Site. It is possible, however, to ascertain that proximity to water sources and raw materials was a key factor in the location of Aboriginal sites. It is also reasonable to expect that Aboriginal people ventured away from these resources on a seasonal basis to utilise the broader landscape, but the current archaeological record of that activity is limited.

#### 4.3. Aboriginal site location prediction

The Aboriginal site modelling for the region to date suggests that the most archaeologically sensitive areas are located along lower slopes and ridges in association with water. Previous investigations have shown that there is Aboriginal archaeological material and areas of archaeological sensitivity within and surrounding the Proposal Site. Based on the previous archaeological investigations in the region, it is possible to predict the likely archaeological site types that may occur within the Project Site. These are outlined in Table 4-5 below.

Table 4-5 Aboriginal site prediction statements

Site Type	Site Description	Potential
Artefact scatters	Artefact scatter sites can range from high-density concentrations through to sites containing two artefacts. The size of these sites usually correlates with proximity to sources of fresh water.	High potential to occur in low to moderate densities on deflation basins, dunes, crests and adjacent to water courses.

Site Type	Site Description	Potential
		This site type has been identified in the Proposal site during a site inspection undertaken by the Aboriginal community in 2021
Isolated Finds	These sites consist of a single artefact and usually represent accidental discard or disposal. Can occur anywhere.	High potential within the Project Site. This site type has been identified in the Proposal site during a site inspection undertaken by the Aboriginal community in 2021
Middens	An accumulation or deposit of shellfish from beach, estuarine, lacustrine, or riverine species resulting from Aboriginal gathering and consumption. Usually found in deposits previously referred to as shell middens. Can be found in association with other objects like stone tools, fish bones, charcoal, fireplaces/hearths, and burials. Will vary greatly in size and components.	High potential to occur in the area close to coastal waterways and on dunes. This site type has been identified in the Proposal site during a site inspection undertaken by the Aboriginal community in 2021
Burials	Aboriginal burial sites most often found in association with middens and areas of sand dunes.	Potential to occur where preservation conditions and sand deposits are present
Potential Archaeological Deposits (PADs)	Potential subsurface deposits of archaeological material. These sites require the existence of undisturbed stratigraphy.	Some potential to occur within Project Site especially in areas of elevated flat land associated with ephemeral drainage lines and/or sandy rises and deposits.
Aboriginal Resource and Gathering Note: This is not Aboriginal object and therefore, not included in the legislative process	Related to everyday activities such as food gathering, hunting, or collection and manufacture of materials and goods for use or trade.	Some potential to occur however these intangible site types are identifiable only through consultation with Aboriginal people.
Aboriginal Ceremony and Dreaming Note: This is not Aboriginal object and therefore, not included in the legislative process	Previously referred to as mythological sites these are spiritual/story places where no physical evidence of previous use of the place may occur, e.g., natural unmodified landscape features, ceremonial or spiritual areas, men's/women's sites, dreaming (creation) tracks, marriage places etc	Some potential to occur however these intangible site types are identifiable only through consultation with Aboriginal people.

In summary, stone artefact scatters, isolated artefacts and midden deposit are the most likely site types to occur along low gradient slopes and rises within the Project Site. There is potential for areas

of PAD to exist in association with such areas. Assemblages from the area are dominated by tuffs and mudstones with smaller proportions of chert, silcrete and quartz. Flakes and flake fragments tend to dominate the artefact classes present within the stone artefact assemblages.

The Hunter River is located 2km to south of the Proposal Site and would have provided an alluvial source for much of the material with the tuff component sourced from outcrops along the coast. Proximity to Fullerton Cove likely facilitated reliable terrestrial resources.

#### 4.4. Comment on existing information

The AHIMS database is a record of Aboriginal heritage sites that have been identified and had site cards submitted to Heritage NSW. It is not a comprehensive list of all places in NSW as site identification relies on an area being surveyed and on the submission of site forms to AHIMS. There are likely to be many areas within NSW that have yet to be surveyed and therefore have no sites recorded. However, this does not mean that sites are not present in those areas. A review of the AHIMS sites previously recorded in the local area does show that sites containing artefacts and shell middens are the most common site type in the area and such sites have previously been recorded within proximity to the Proposal Site.

Within the general vicinity of the current Project Site, there has been limited previous archaeological assessment however the studies previously undertaken tend to be mostly driven by residential and urban development and associated services. However, the information relating to site patterns, their age and geomorphic context is not well understood. The robustness of the AHIMS survey results is therefore considered to be only moderate for the present investigation. There are likely to be many existing sites that have yet to be identified. Past land-use activities have also greatly disturbed the archaeological record and there are unlikely to be many places that retain *in situ* archaeological material in their original context.

With regard to the limitations of the information available, archaeologists rely on Aboriginal parties to impart information about places with cultural or spiritual significance in situations where nonarchaeological sites may be threatened by development. To date, we have not been told of any such places specifically within the Proposal Site however there is always the potential for such places to exist but insofar as the current proposed works area, no such places or values have been identified.

## 5. Archaeological investigation results

### 5.1. Survey strategy

The survey conducted for the purposes of this assessment was undertaken on 31 May 2022. The survey team comprised one NGH archaeologist and four representatives from the Aboriginal community. The survey strategy was to cover as much of the ground surface within the Proposal Site as possible, focusing on areas of visibility such as existing tracks and exposures however, upon arrival at site it became apparent that due to the low-lying nature of the majority of the Proposal site a large portion was completely submerged due to recent heavy rain and several months of a La Niña wet weather event. As a result of this the survey strategy was amended in consultation with the Aboriginal community representatives onsite and the thorough survey of the much smaller portion (but area of higher archaeological sensitivity) of the property was undertaken.

As a result of this, much of the survey effort was placed on the northern section of the Proposal Site where the height of the landform kept above the flood level. The remaining portion of the Project Site was inundated and was assessed from the roadside. These low lying inundated swampy areas were considered as less likely to have been utilised by Aboriginal people and are not conducive for camping by Aboriginal people.

The northern portion of the Proposal Site was surveyed utilising meandering transects across the more heavily vegetated sections and a targeted approach around the existing structures where little vegetation remained. The northern portion of the Project Site was characterised by three sandy rises extending to the south from the northern boundary with minor drainages intervening. The westernmost and largest of these rises is occupied by existing residential structures and sheds. The middle rise has been utilised by Optus for the installation of a radio tower in recent times and it was noted while on site that the RAPs, who had visited the property recently, knew nothing of its construction..

Accessible areas where remnant old growth trees were present within the Project Site were also inspected for any evidence of Aboriginal scarring (as identified in Long 2005).

NGH believe the survey strategy within the northern portion of the Project Site is within the most archaeologically sensitive portion of the Proposal Area. Given this the survey of the northern portion of the Proposal Site was comprehensive and the most effective way to identify the presence of Aboriginal objects given the inundation of the low-lying areas within the Proposal Site which hindered the survey. Discussions were held in the field during the survey between the archaeologists and the Aboriginal community representatives to ensure all were satisfied and agreed with the spacing, coverage and methodology. No issues were raised at the time by the Aboriginal community representatives who participated in the field work

The Proposal Site was divided into two landforms which included low swampy ground and low sandy rises based on the landscape and visual inspection of the area during the field survey. The landforms are shown in Figure 5-1.

During the survey notes were taken about visibility, photographs were taken, and any possible objects were inspected, assessed, and recorded if deemed to be Aboriginal in origin or possible to be Aboriginal in origin.





Figure 5-1 Survey units



## 5.2. Survey coverage

The survey was impeded by poor visibility across the eastern portion of the Proposal Site and the inundated of the southern portion of the Proposal Site. Due to these factors the south portion of the Proposal Site was assessed from the surrounding roads and swamp margins which were accessible. It was apparent that these low-lying areas in the southern portion of the Proposal Site would have been subject to inundation on a regular basis and would not have been a focus of human activity in the past.

A farm track runs parallel the northern boundary of the Proposal Site and it was from this track that the remainder of the property was accessed. Broadly the surveyed northern section of the Proposal Site consisted of three areas of sandy rise separated by two south facing drainages that feed into the swampy zone in the southern portion of the Proposal Site. Visibility within the eastern portion of the surveyed area was generally very poor with an average visibility of 5% owing to dense undergrowth and leaf litter. Episodic exposures (~2%) were observed throughout the grass cover with varying visibility ranging between 20 and 70%. Visibility in proximity to the disturbed areas was 50-80%. Within the surrounding undeveloped areas of the northern portion of the Proposal Site the visibility was also very poor at about 5%. The western sandy rise has been largely cleared of vegetation and portions of this landform are currently occupied by sheds and a residence dwelling.

Table 5-1 below shows the calculations of effective survey coverage and Figure 5-1 shows the division of landforms across the Project Site. Plates 1-8 show examples of the landforms and visibility for the Proposal Site.

Overall, it is considered that the surface survey had sufficient and effective survey coverage to assess the northern portion of the Proposal Area which is considered to be of higher archaeological sensitivity compared to the lower lying areas which were inundated by flood waters. The results identified are considered a true reflection of the nature of the Aboriginal archaeological record present within the Proposal Site.



Plate 5-1 View south-east along farm track on northern boundary



Plate 5-2 View south-east along farm track on northern boundary





Plate 5-3 View south from the eastern corner of the Project Site



Plate 5-4 View south along access track toward the Optus Tower



Plate 5-5 Low swampy area along southern margin of the sandy rise landform



Plate 5-6 View north toward sandy rise

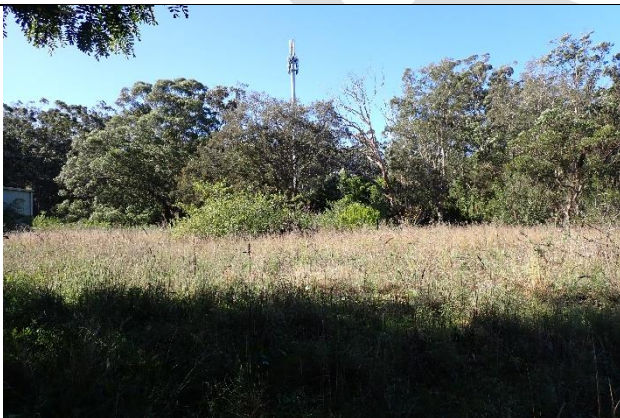


Plate 5-7 View east from the western rise toward the Optus Tower



Plate 5-8 View north into the Project Site from the intersection of Fullerton Cove and Nelson Bay Roads



Table 5-1 Transect information

Landform	Number of survey transects	Exposure type	Landform area (m <sup>2</sup> )	Surveyed area (m <sup>2</sup> )	Visibility	Effective coverage (area × visibility) m <sup>2</sup>	Landform area surveyed (m <sup>2</sup> )	Percentage (%) of Project Site effectively surveyed
Sandy Rises	5	Mostly cleared/ Disturbed areas	22,811 m <sup>2</sup>	18,993 m <sup>2</sup>	95%	18,043 m <sup>2</sup>	18,900 m <sup>2</sup>	27%
	1	Open forest/ dense undergrowth		2,417 m <sup>2</sup>	5%	121 m <sup>2</sup>	2,400 m <sup>2</sup>	3%
<b>Total surveyed area</b>	6		22,811 m <sup>2</sup>	21,410 m <sup>2</sup>		18164 m <sup>2</sup>	21,300 m <sup>2</sup>	30%
Swampy depression (unable to be surveyed due to inundation)	Nil	N/A	45,714 m <sup>2</sup>	N/A	N/A	N/A	N/A	N/A



### 5.3. Survey results

While the survey of the northern portion of the Proposal Site was impeded by poor visibility due to a dense leaf litter, shell and stone artefacts were recorded within the Project Site. Review and inspection of the landforms within the northern portion of the Proposal Site also identified that the surface cultural material recorded was within a humic sandy deposit which is considered to have potential for subsurface deposit.

The field survey of the northern portion of the Proposal Site, in conjunction with an assessment of contour data, archaeological modelling and consideration of the comments from the RAP while in the field and as part of this assessment has resulted in the identification of three areas which were considered to have potential to contain subsurface material.

The three sites were recorded within the Project Site. There is a possibility that these PADs may be a single site however sub-surface testing will need to be carried out to determine connectivity of the PADs. A description of these sites is provided below with photos show in Plate 9 to 16.

**42 Fullerton Cove Road PAD 1-** this potential site lies in the south-eastern corner of the Proposal Site. It is approximately 100 m east to west and 60 m south to north and lies upon a sandy rise adjacent to a swampy depression. This PAD potentially extends into the adjacent property to the north. While no surface expression of cultural material was seen at this location, this humic sandy deposit and a slightly raised landform was determined to have potential for subsurface cultural material.

**42 Fullerton Cove Road Midden 1-** this site lies in the northern central section of the Proposal Site. It is approximately 60 m east to west and 70 m south to north and lies upon a sandy rise between two minor north to south oriented drainages and adjacent to a swampy depression to the south. This PAD potentially extends into the adjacent property to the north. This PAD area appears to have been highly disturbed in part as a result of the construction of an OPTUS telecommunications tower and an access track to it. The surface expression of the midden shell material was observed in a cutting on the southern side of a farm track that runs parallel to the northern boundary of the Proposal Site. Large amounts of shell material were identified among the sediment disturbed by the construction of the telecommunication tower and also among the imported blue metal gravels used for surfacing the access track. Shell types observed included mud whelk (*Pyrazus* sp.), cockle (*Anadara trapezia*) and *Katelysia* sp. This humic sandy deposit and a slightly raised landform was determined to have potential for subsurface cultural material.

**42 Fullerton Cove Road Midden 2-** this site lies in the north-western proportion of the Proposal Site. It is approximately 120 m east to west and 120 m south to north and lies upon a sandy rise adjacent to a swampy depression to the south. The ground surface within this PAD area appears to have been highly disturbed in part as a result of the initial vegetation clearance and the construction of sheds and residences. The surface expression of shell material was spread across the entire site area. Three tuff artefacts were recorded within the boundary of the site. Shell types observed included mud whelk (*Pyrazus* sp.), cockle (*Anadara trapezia*) and *Katelysia* sp. Artefact types included flakes and flaked pieces manufactured from tuff. This humic sandy deposit and a slightly raised landform was determined to have potential for subsurface cultural material.





Plate 5-9 View south-west across 42 Fullerton Cove PAD 1



Plate 5-10 View north-west across 42 Fullerton Cove PAD 1



Plate 5-11 View north toward 42 Fullerton Cove Midden 1



Plate 5-12 View south across 42 Fullerton Cove Midden 1 showing disturbance caused by Optus Tower installation



Plate 5-13 Whelk shell among blue metal gravels on Optus Tower access track within 42 Fullerton Cove Midden 1



Plate 5-14 View south across 42 Fullerton Cove Midden 2





Plate 5-15 Tuff artefact and shell material from 42 Fullerton Cove Midden 1



Plate 5-16 View west across PAD 3 toward residences within 42 Fullerton Cove Midden 1





Figure 5-2 Results of survey



## 5.4. Discussion

Based on the site modelling it was generally predicted that stone artefacts and shell middens were the most likely evidence of past Aboriginal occupation to be present within the Proposal Site. Such evidence was considered most likely to occur adjacent to waterways, along the dunes, deflation basins and crests. The identification of surface artefacts and shell midden material associated with the sandy rises and along elevated landforms has substantiated the modelling for this area. The results of this Aboriginal heritage assessment have confirmed that there are still Aboriginal objects within the Proposal Site despite the existing disturbance to some portions of the northern portion of the Proposal Site.

The coastal context of the area would have supported abundant and varied faunal species in the area. These would have formed part of the terrestrial and marine mixed resource pool for Aboriginal people as food, medicines and materials for the manufacture of implements and clothing. Furthermore, the availability of some raw stone materials suitable for the manufacture of tools such as tuff in the wider area, would also have been an important factor for the local Aboriginal people.

Consistent with previous archaeological investigations undertaken within the Newcastle Bight the most common raw materials identified among the artefact assemblages were tuff (Nobby's or Merewether tuff sourced from the southern side of the Hunter River). The presence of tuff is a demonstration of the movement of Aboriginal people within the Hunter Valley and Port Stephens region. The midden material identified included mud whelk (*Pyrazus* sp.), cockle (*Anadara trapezia*) and *Katelysia* sp. which are common for the area and support the use of the area for subsistence procurement and or preparation purposes by Aboriginal people. In general, the middens identified in the local area tend to contain similar species indicating consistent use and access to shellfish such as cockle, oyster and mud whelk.

Previous studies in the local area also support subsurface potential along the dune ridge and raised sandy landforms with previous excavation in the local area recovering high densities of stone artefacts and shell material. Previous excavations indicate a relative depth of approximately 800 mm in some of these dune areas and generally demonstrate higher artefact densities characterised the upper spits (McCardle 2005; ERM 2008).

Directly across the Fullerton Cove Road from the Project Site NGH 2021 identified most artefacts occurring within the upper 40 centimetres (spits 1 to 4) of the pits, and the shell layers were primarily contained between 10 and 30 -centimetres depth, with the exception of the crushed shell layer identified in FC TP19. During the excavation of this pit, which contained shells in a much more fragmented condition than others, and a shell layer which extended for nearly 70 centimetres in depth, it was noted by the representatives of Worimi LALC, Mur-roo-ma and Nur-run-gee who were on site that crushed shell layers such as this have been identified in association with burials in the local area.

## 6. Cultural heritage values and statement of significance

The assessment of the significance of Aboriginal archaeological sites is currently undertaken largely with reference to criteria outlined in the ICOMOS Burra Charter (Australian ICOMOS 2013). Criteria used for assessment are:

- *Social or Cultural Value*: In the context of an Aboriginal heritage assessment, this value refers to the significance placed on a site or place by the local Aboriginal community – either in a contemporary or traditional setting.
- *Scientific Value*: Scientific value is the term employed to describe the potential of a site or place to answer research questions. In assessing Scientific Value issues such as representativeness, rarity and integrity are addressed. All archaeological places possess a degree of scientific value in that they contribute to understanding the distribution of evidence of past activities of people in the landscape. In the case of flaked stone artefact scatters, larger sites or those with more complex assemblages are more likely to be able to address questions about past economy and technology, giving them greater significance than smaller, less complex sites. Sites with stratified and potentially *in situ* sub-surface deposits, such as those found within rock shelters or depositional open environments, could address questions about the sequence and timing of past Aboriginal activity and will be more significant than disturbed or deflated sites. Groups or complexes of sites that can be related to each other spatially or through time are generally of higher value than single sites.
- *Aesthetic Value*: Aesthetic values include those related to sensory perception and are not commonly identified as a principal value contributing to management priorities for Aboriginal archaeological sites, except for art sites.
- *Historic Value*: Historic value refers to a site or place's ability to contribute information on an important historic event, phase or person.
- *Other Values*: The Burra Charter makes allowance for the incorporation of other values into an assessment where such values are not covered by those listed above. Such values might include Educational Value.

All sites or places have some degree of value, but of course, some have more than others. In addition, where a site is deemed to be significant, it may be so on different levels or contexts ranging from local to regional to national, or in very rare cases, international. Further, sites may either be assessed individually or where they occur in association with other sites the value of the complex as a whole should be considered.

### 6.1. Social or cultural value

While the true cultural and social value of Aboriginal sites can only be determined by local Aboriginal people, as a general concept, all sites hold cultural value to the local Aboriginal community. An opportunity to identify cultural and social value was provided to all the registered Aboriginal stakeholders for this proposal through the draft reporting process.

The following information has been provided to NGH regarding cultural significance of the Proposal Site to date during the period to respond to the methodology.

It was clear from the conversations held in the field with the Aboriginal community representatives that all sites hold cultural value to the local Aboriginal community. The Aboriginal community representatives also reiterate the point that Aboriginal community members must be present when the subsurface testing occurs.

## **6.2. Scientific value**

The several exposures of shell and stone artefacts associated with the sites 42 Fullerton Cove Road Midden 2 and Midden 3 and the PAD associated with AHIMS 38-4-0333 as recorded within the Proposal Site. While individual stone artefacts and surface exposures of shell midden are interesting, the midden sites are considered typical of the local and broader archaeological record. Though the individual stone artefacts themselves are intrinsically interesting in terms of the base technical information recorded the current lack of temporal and stratigraphic context and the absence of information about local resources makes further conclusions about them difficult beyond the presence within an area associated with shell midden material and that the typology and lithologies recorded are common for the local area.

While subsurface testing has been undertaken in the local area the research potential of the sites 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 is considered to be moderate and additional information about the sites could be obtained through a limited subsurface testing programme that is in line with NSW Aboriginal Heritage guidelines. The subsurface testing of these site would provide an opportunity to extrapolate information about the use of the Stockton Beach dunes by past Aboriginal people and provide information about the presence and extent of Aboriginal objects which may be obscured beneath the aeolian sands within the Proposal Site. Moreover, the areas within all three site areas exhibit subsurface archaeological potential and test excavation is required to determine the nature and extent of these deposits. Until such time of the subsurface testing of the PAD areas are undertaken it is not possible to accurately access the scientific value or significance of 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3.

## **6.3. Aesthetic value**

There are no specific aesthetic values associated with the archaeological sites, apart from the presence of Aboriginal artefacts and shell midden material in the landscape and the outlook of some site locations over Fullerton Cove. However, the urban development of the surrounding area detracts from this aesthetic setting.

## **6.4. Historic value**

There are no known historic values associated with the Proposal Site or the sites identified.

## **6.5. Other values**

There are no other known heritage values associated with the Proposal Site. The area may have some educational value (not related to archaeological research) through possible provision of educational material to the public about the Aboriginal occupation and use of the area. Educational material could be presented as an information board following the development of the area. The presentation of educational material about the Aboriginal occupation and use of the area could be developed in consultation with the local Aboriginal community.

## **6.6. Summary of significance**

A summary of the significance assessment is provided below in Table 6-1.

Table 6-1 Summary of significance assessment

AHIMS ID	Site	Site type	Cultural value	Scientific value	Aesthetic value	Historic value	Other values	Rarity
38-4-0333	Fullerton Cove Road;site1;	PAD, Shell midden material and artefact scatter	High	Unknown	Low	NA	NA	Unknown
38-4-2142	42 Fullerton Cove Road PAD 1	PAD	High	Unknown	Low	NA	NA	Unknown
38-4-2141	42 Fullerton Cove Road Midden 1	PAD and shell midden material	High	Unknown	Low	NA	NA	Unknown
38-4-2140	42 Fullerton Cove Road Midden 2	PAD, Shell midden material and artefact scatter	High	Unknown	Low	NA	NA	Unknown



## 7. Proposed activity

### 7.1. Proposed development activity

The proposed rezoning of Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove. The area proposed for rezoning is currently zoned RU2 Rural Landscape and the proposal intends to rezone 2.5 hectares to B1 Neighbourhood Centre and the remaining 4.2 hectares to be rezoned as E2 Environmental Conservation to accommodate the environmental constraints of the site. Following the rezoning of the property the future development proposal includes but is not limited to the construction of a supermarket and shops and its associated infrastructure.

Specifically, the planning proposal involves:

- Rezoning part of Lot 14 DP 258848 from RU2 Rural Landscape to E2 Environmental Conservation.
- Rezoning part of Lot 14 DP 258848 from RU2 Rural landscape to B1 Neighbourhood Centre.
- Removing Minimum Lot Size requirement of the proposed B1 zone from AB2 20 hectares.
- Introducing a height of building limit of 9 metres to the B1 zone; and.
- Introducing a new local provision limiting future retail development to a maximum gross floor area of between 1,500 – 5,000 square metres.

### 7.2. Assessment of harm

The current archaeological investigation of the Project Site shows that there is Aboriginal shell midden material and stone artefacts and areas of PAD within the Project Site.

Until an archaeological subsurface test excavation programme is undertaken the true impacts to the sites 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 by the proposed works is not able to be determined. Given that test excavations permitted by the Code of Practice are limited in their scope, Requirement 14 of the Code of Practice states that test excavations within or within 50 metres of known or suspected shell midden sites are not permitted without an AHIP. Consequently, an AHIP must be obtained prior to testing being undertaken.

Without impacting the sites 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 to some degree through a test excavation programme the true archaeological significance and extent of the site is unable to be established. Consequently, an accurate assessment of harm to the sites by the proposed development work at this time cannot be provided. However, it can be assumed that impact to the sites as a result of the proposed testing programme is likely to be most extensive where the test pits will be excavated and where the proposed development earthworks would occur which may involve the removal, breakage or displacement of artefacts and/or shell midden material. Any impacts from the limited subsurface testing programme and/or the proposed development works would be considered a direct impact on the site and the Aboriginal objects contained within. Until the testing programme is completed however it is not possible to accurately assess the significance or harm to any remaining portions of 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 within the Proposal Site by the development works which are proposed to be undertaken subsequent to the rezoning of Lot 14 DP 258848.

### 7.3. Impacts to values

The values potentially impacted by the development include scientific or archaeological values identified during the site assessment within the three identified site areas and any social and cultural values attributed to the Aboriginal objects and sites by the Aboriginal community. These areas will be impacted by the proposed works within the Project Site. The RAPs for this project who were onsite for the fieldwork have indicated that they are in support of the proposed subsurface investigation of these sites.

The values potentially impacted by the proposed limited subsurface testing programme and/or the proposed development works subsequent to the rezoning of Lot 14 DP 258848 within the Proposal Site are any social and cultural values attributed to the sites 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 by the local Aboriginal community. The extent to which the total or further partial loss of the sites would impact on the community is only something the Aboriginal community can articulate.

The impact to scientific values for this development are summarised in Section 6 and detailed in Table 6 1. Until the testing programme is completed however it is not possible to accurately assess the significance or harm to the sites 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 by the proposed works proposed to occur subsequent to the rezoning of Lot 14 DP 258848.

The research potential of any remaining portions of 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 outside the areas of existing extensive disturbance is considered to be moderate. Until the limited subsurface testing programme is undertaken the true impacts to the scientific value of the sites 42 Fullerton Cove Road PAD 1 the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 is unable to be determined.

It is however argued that any impact to the sites 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and Fullerton Cove Middens 2 and 3 as part of the subsurface testing programme is likely to be outweighed by the scientific value that is gained. Additionally, while there are likely to be a number of similar midden sites with artefacts and shell in the local area which are also likely to have been partially or completely impacted by historic disturbance, the potential for *in situ* midden material within the Proposal Site requires further assessment which can only be undertaken following the approval of an AHIP to impact the known midden sites.

The stone artefacts recorded during the current field inspection are noted to have little research value beyond what has already been gained during the present assessment. The intrinsic values of the stone artefacts may be affected by the development of the Proposal Area however the stone artefacts are not proposed to be impacted by the subsurface testing programme. Any removal or impact to the stone artefacts by the proposed development works subsequent to the rezoning, including artefact breakage would reduce their already low scientific value however NGH considers that this would impact only minimally on the archaeological record of the area.

No other values have been identified that would be affected by the proposed subsurface testing programme and until the testing is undertaken the impact to the scientific values of the site 42 Fullerton Cove Road PAD 1 and Fullerton Cove Middens 2 and 3 by the proposed development is unable to be determined.

Table 7-1. Identified risk to known sites by the proposed subsurface testing programme

AHIMS #	Site name	Site feature	Site integrity	Scientific significance	Type of harm	Degree of harm	Consequence of harm	Recommendation
38-4-0333	Fullerton Cove Road;site1;	PAD, Shell midden material and artefact scatter	Moderate	Unknown	Direct harm to any stratified deposits and Aboriginal objects within testing areas	Partial	Partial loss of value but gaining scientific value through testing	Obtain an AHIP to undertake a limited programme of subsurface testing on site with 50 m of a midden
38-4-2142	42 Fullerton Cove Road PAD 1	PAD	Moderate	Unknown	Direct harm to any stratified deposits and Aboriginal objects within testing areas	Partial	Partial loss of value but gaining scientific value through testing	Obtain an AHIP to undertake a limited programme of subsurface testing on site with 50 m of a midden
38-4-2141	42 Fullerton Cove Road Midden 1	PAD and shell midden material	Moderate	Unknown	Direct harm to any stratified deposits and Aboriginal objects within testing areas	Partial	Partial loss of value but gaining scientific value through testing	Obtain an AHIP to undertake a limited programme of subsurface testing on the known midden site



AHIMS #	Site name	Site feature	Site integrity	Scientific significance	Type of harm	Degree of harm	Consequence of harm	Recommendation
38-4-2140	42 Fullerton Cove Road Midden 2	PAD, Shell midden material and artefact scatter	Moderate	Unknown	Direct harm to any stratified deposits and Aboriginal objects within testing areas	Partial	Partial loss of value but gaining scientific value through testing	Obtain an AHIP to undertake a limited programme of subsurface testing on the known midden site

## 8. Avoiding or mitigating harm

### 8.1. Consideration of ecologically sustainable development principles

Consideration of the principles of Ecologically Sustainable Development (ESD) and the use of the precautionary principle was undertaken when assessing harm to the sites and the potential for mitigating impacts to the sites recorded within the Fullerton Cove Project Site. The main consideration was the cumulative effect of the proposed impact to sites and the wider archaeological record. The precautionary principle in relation to Aboriginal heritage implies that proposed works should be carefully evaluated to identify possible impacts and assess the risk of potential consequences.

In broad terms, the archaeological material located during this investigation is similar to what has been found previously within the Fern Bay area and broader Newcastle and Port Stephens region. Currently it is known that there are a large number of sites similar in nature to those identified within the Project Site present throughout the coastal areas of Fullerton Cove/ Fern Bay area. However, many of these similar sites have been subject to significant disturbance as a result of development, particularly around Fern Bay. As such, the presence of sites which have been subject to somewhat more limited disturbance in the form of vegetation clearance and the construction of dwellings is important for the archaeological record as well as culturally significant for local Aboriginal people.

The results of this Aboriginal Cultural Heritage Assessment have confirmed that the proposed model of site location and distribution whereby sites can be expected to occur within the dunes and in proximity to waterways. The results also suggest that it can be reasonably expected that many more such sites are present within the Stockton Beach but are currently covered by aeolian sands.

As noted above, the scientific values of the sites within the development footprint considering the scientific, representative and rarity values, were assessed to be unknown. It is believed however, that the proposed impacts to the sites through the proposed subsurface testing programme would not significantly adversely affect the sites themselves or the archaeological record for the local area or the broader region. The testing programme would sample the PAD areas, thereby providing an insight into the nature, extent, integrity and content of any sites present without completely impacting the sites. This will allow a more complete determination of the significance of the sites.

The sustainability principle of inter-generational equity as applied to the archaeological resource requires that the present generation takes measures to ensure that the health and diversity of the archaeological record is maintained or enhanced for the benefit of future generations. Subsurface midden material associated with the surface expressions identified at Middens 2 and 3 may provide an opportunity to extrapolate information about the use of the area between Fullerton Cove and Stockton Beach by past Aboriginal people. The testing programme would not significantly affect the principle of sustainability or inter-generational equity as the programme would only sample a small proportion of the overall land form and midden, thus providing an opportunity for preservation of midden through a development context, if deemed to be warranted. Identifying the significance of the archaeological material is the first necessary step to being able to address the issues around sustainability principles.

### 8.2. Consideration of harm

Avoiding harm to all the sites within the proposal is technically possible with reference to the presence of artefacts and midden material as well as the PAD areas, through complete avoidance

and rejection of any rezoning or development. However, without undertaking subsurface investigations, the true nature and significance of the PADs are unknown and therefore it is not warranted at this stage to prevent the testing programme from proceeding. It should also be noted that the majority of the Project Site is disturbed with no cultural heritage sites.

The RAPs have indicated that they are in support of the proposed subsurface investigation of these PAD areas.

### **8.3. Mitigation of harm**

Mitigation of harm to cultural heritage sites generally involves some level of detailed recording to preserve the information contained within the site (or within the portion of the site to be impacted) or setting aside areas as representative samples of the landform to preserve a portion of the site. Mitigation can be in the form of minimising harm, through slight changes in the development plan or through direct management measures of the Aboriginal objects. It is noted that mitigation of harm is not considered warranted here as there needs to be a programme of sub-surface testing across the locations of 42 Fullerton Cove Road PAD1, the PAD associated with AHIMS 38-4-0333, 42 Fullerton Cove Road Midden1 and 42 Fullerton Cove Road Midden 2 to identify the significance of each location before mitigation works at each site is considered. A proposed testing strategy and AHIP boundary are presented in Figure 8-1 and Figure 8-2 below. The proposed testing methodology has been provided in Appendix B.





Figure 8-1 Proposed AHIP boundary



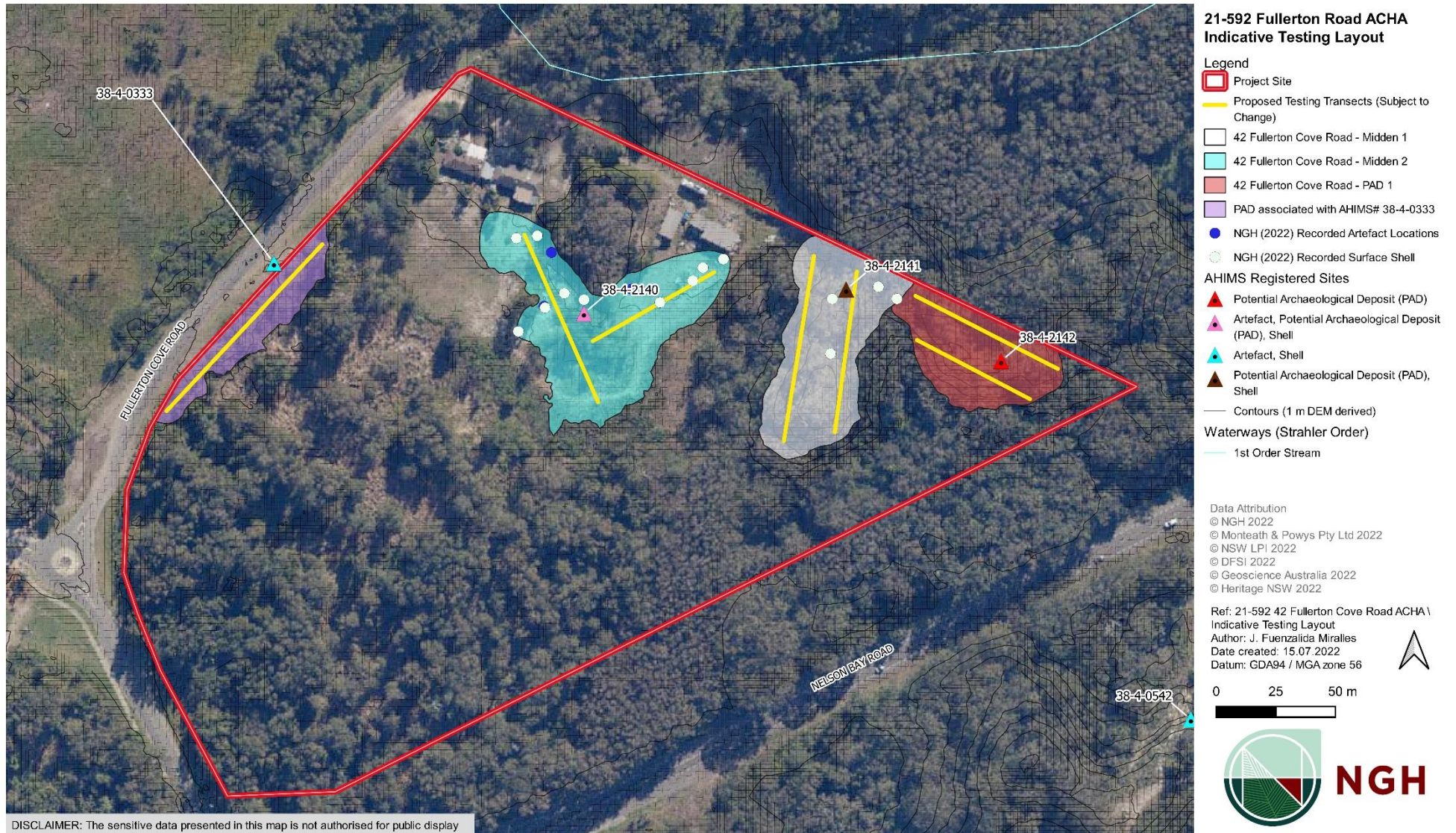


Figure 8-2 Indicative testing layout



## 9. Recommendations

It is recommended that:

1. Rezoning of the lot could occur but no development can occur until the following recommendations are carried out.
2. Test excavation is required to establish the extent and scientific significance of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 if they are unable to be avoided by the proposed works.
3. Test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 cannot be carried out in accordance with the requirements of the Code of Practice for Archaeological Investigation in NSW. Therefore, an Aboriginal Heritage Impact Permit (AHIP) is required to permit any subsurface testing of the PADs within the Project Site.
4. The proponent must apply to Heritage NSW and receive an Aboriginal Heritage Impact Permit (AHIP) to allow test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 if they are unable to be avoided by the proposed works.
5. This report must accompany an AHIP application for the test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 located within the Proposal Site, as outlined in Applying for an Aboriginal Heritage Impact Permit: Guide for Applicants.
6. Once an AHIP is approved by Heritage NSW for the test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 the methodology as outlined in Appendix B of this report should be followed.
7. Aboriginal community representatives as chosen by the Proponent should be invited to participate in the test excavation programme.
8. All cultural material recovered during test excavation works under an approved AHIP will be held in temporary care at the appointed consultants' office for recording and analysis, until an appropriate time when it can be returned to Country. This material must be buried in line with Requirement 26 of the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales and/or in accordance with the wishes of the Aboriginal community in an appropriate location that will not be subject to any ground disturbance. The location of this material will be submitted to the AHIMS database.
9. An Aboriginal Site Impact Recording Form must be completed and submitted to AHIMS following the test excavation of 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2.
10. In the unlikely event that human remains are discovered during the subsurface testing, all work must cease in the immediate vicinity. The local police must be notified to determine if the remains were Aboriginal or non-Aboriginal. If the remains are deemed to be Aboriginal in origin the Heritage NSW must be advised. The Registered Aboriginal Parties should be advised of the find as directed by Heritage NSW. Heritage NSW would advise the Proponent on the following appropriate actions required.
11. The subsurface testing results for 42 Fullerton Cove Road PAD 1, the PAD associated with AHIMS 38-4-0333 and 42 Fullerton Cove Road Middens 1 and 2 located within the Proposal Site should be detailed in an additional Aboriginal Cultural Heritage Assessment Report. This



report can then be used in support of an AHIP for the proposed works, pending the recommendations noted.

12. Further archaeological assessment would be required if the proposal activity extends beyond the area of the current investigation. This would include consultation with the registered Aboriginal parties and may include further field survey.

Port Stephens Council are reminded that it is an offence under the NPW Act to harm an Aboriginal object without a valid AHIP.

DRAFT

## 10. References

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# APPENDIX A ABORIGINAL CONSULTATION

## A.1 Consultation log

Date	Organisation	Contact Name	Action	Date Due	Reply Date	Replied by	Response
	<b>STAGE 1 Notification of Project Proposal &amp; Registration of Interest</b>						
	NNTT search on 5 Dec 2021		No claims or determinations over Project Site	15/12/2021			
	Heritage NSW		Letter via Email	15/12/2021			
	Worimi Local Aboriginal Land Council		Email	15/12/2021			
	The Registrar, <i>Aboriginal Land Rights Act 1983</i> (ORALRA)		Email	15/12/2021			
	National Native Title Tribunal		Search of Native Title Vision undertaken	15/12/2021			
	Native Title Services Corporation Limited (NTSCORP Limited)		Email	15/12/2021			
	Local Land Services Office (Hunter)		Email	15/12/2021	1/12/2021	Min Response Period (days)	Recommends contacting LALC and NNTT
	Port Stephens Local Council		Email	15/12/2021	3/12/2021	Min Response Period (days)	Provided list: Worimi LALC, Karuah Indigenous, Nurungee, Murrooma, Worimi Conservation Lands.
	<b>Place Ad in Local Newspapers</b>						
	Port Stephens examiner		Advert placed	9/12/2021	23/12/2021		
	<b>Responses from newspaper add</b>						
	<b>Heritage NSW list of possible stakeholders</b>						

	A1 Indigenous Services	Carolyn Hickey	NGH Letter via Email		2/02/2022		
	AGA Services	Ashley, Gregory & Adam Sampson	NGH Letter via Email		2/02/2022		
	Cacatua Culture Consultants	Donna & George Sampson	NGH Letter via Email		2/02/2022		
	Corroboree Aboriginal Corporation	Carroll-Johnson Marilyn	NGH Letter via Email		2/02/2022		
	Crimson-Rosie	Jeffery Matthews	NGH Letter via surface mail		4/02/2022		
	Didge Ngunawal Clan	Paul Boyd & Lilly Carroll	NGH Letter via Email		2/02/2022		
	Hunters & Collectors	Tania Matthews	NGH Letter via Email		2/02/2022		
	Karuah Indigenous Corporation	David Feeney	NGH Letter via Email		2/02/2022		
	Karuah Local Aboriginal Land Council	CEO	NGH Letter via Email		2/02/2022		
	Kawul Pty Ltd trading as Wonn1 Sites	Arthur Fletcher	NGH Letter via Email		2/02/2022		
	Lakkari NTCG	Mick Leon	NGH Letter via Email		2/02/2022		
	Lower Hunter Aboriginal Incorporated	David Ahoy	NGH Letter via Email		2/02/2022		
	Lower Hunter Wonnarua Cultural Services	Lea-Anne Ball	NGH Letter via surface mail		4/02/2022		

# Aboriginal Cultural Heritage Assessment

42 Fullerton Cove Road, Fullerton Cove

	Michael Green Cultural Heritage Consultant	Michael Green	NGH Letter via surface mail		4/02/2022		
	Mindaribba Local Aboriginal Land Council	CEO	NGH Letter via Email		2/02/2022		
	Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson & Darleen Johnson- Carroll	NGH Letter via Email		2/02/2022		
	Mur-Roo-Ma Inc.	Anthony Anderson	NGH Letter via Email		2/02/2022	2/02/2022	
	Nur-Run-Gee Pty Ltd	Leonard Anderson OAM	NGH Letter via Email		2/02/2022		
	Wattaka Wonnarua CC Service	Des Hickey	NGH Letter via Email		2/02/2022		
	Widescope Indigenous Group	Steven Hickey	NGH Letter via Email		2/02/2022		
	Wonnarua Elders Council	Richard Edwards	NGH Letter via surface mail		4/02/2022		
	Worimi Local Aboriginal Land Council	CEO	NGH Letter via Email		2/02/2022		
	Worimi Traditional Owners Indigenous Corporation	Candy Lee Towers	NGH Letter via Email		2/02/2022	2/02/2022	
	Carol Ridgeway- Bissett	Carol Ridgeway- Bissett	NGH Letter via surface mail		4/02/2022		
	Robert Syron	Robert Syron	NGH Letter via surface mail		4/02/2022	2/02/2022	



	Steve Talbott	Steve Talbott	NGH Letter via Email		2/02/2022		
	Tamara Towers	Tamara Towers	NGH Letter via Email		2/02/2022		
	Sent List of RAPs to LALC and HNSW		NGH Letter via Email				
11022022			NGH Letter via Email				
11022022	Sent methodology to RAPs		NGH Letter via Email	25/02/2022			
17022022	Response From Worimi TOC						Support
23022022	Response From Karuah Indigenous Corporation						Support
28022022	Response from Murrooma						Support
Stage 2_3 (Fieldwork)							
18/05/2022	Invitation to fieldwork for 31st May	Murrooma	Email				Confirmed
		Nurrungee,	Email				Confirmed
		Karuah Indigenous Corporation	Email				Confirmed
		Worimi LALC	Email				Confirmed

## A.2 Newspaper advertisement

portstephensexaminer.com.au

Thursday, December 9, 2021 PORT STEPHENS EXAMINER 31

# Connect with Classifieds

Phone: 131 696  
Email: classifieds@newcastleherald.com.au

### Index

- Accessories and Spare Parts.....51
- Adult Services.....52
- For Sale.....51
- Funeral Notices.....51
- Garage Sales.....51
- In Memoriam.....51
- Massage.....52
- Motor Vehicles.....51
- Personal Notices.....52
- Positions Vacant.....52
- Public Notices.....51-52
- To Let & Wanted.....51
- Trade Services.....52
- Trades & Services.....49-50
- Wanted to Buy.....51

### Funeral Notices

#### MALONE

**Brian James**  
Late of Bulahdelah.  
Passed away peacefully on Friday 3rd December 2021.  
**Aged 86 years**  
Devoted husband of Mona. Loving father and father-in-law to Melissa & Rod. Proud and loving grandfather of Mitchell & Torry. Relatives and friends are respectfully invited to attend Brian's Funeral Mass to be held at St Brigid's Catholic Church, Bulahdelah on Wednesday 15th December 2021 commencing at 10.30am prior to interment in Bulahdelah Cemetery.

**WT HOWARD FUNERALS**  
5 Fleet Street, TAREE  
Ph: (02) 6552 1057

### Funeral Notices

#### ROSS Graham

**"Scotty"**  
1.12.2021  
Late of Soldiers Point Formerly of Sydney  
Dearly loved partner of Marlene (dec'd). Loving father of Ryan, Daniel and Simone. A loving poppy, and a good friend to many.  
Aged 78 years  
Family and friends are invited to attend a Celebration of Scotty's Life this Friday 10th December 2021, at 10am, in the Port Stephens Unitarian Church, 174 Salamander Way, Salamander Bay. Current COVID regulations apply.

**WHITE LADY FUNERALS**  
BALAHDELAH BAY 6140A 2001

### In Memoriam

#### GILES Christine

16/3/49 - 13/12/21  
Forever in our hearts, sadly missed by husband Geoff and son Jarrod.

### For Sale

#### A1 Varied Market Lot.

Have retired will be selling everything  
Please call  
0407 999 507 or  
0493 566 207

### Garage Sales

#### COLETTIE, 10 Ebbetts Way

Sat 8am-12pm, \$5 clothes, plants, linen, lamps & Bric-a-Brac.

### Wanted to Buy

#### \* CARAVANS \* CAMPERVANS \* POP TOPS

\* Any Condition \* Cash 7 days  
Eric: 0418 165 899

### Tools

TOOLS old tools, guitars, fishing items, old model trains, cars, jewellery, DVD/CD. Rte 0431296741

### Motor Vehicles

#### 1 CASH FOR CARS

If you've got old cars or commercial vehicles that you just can't bear, give Yogi a ring and he'll give you some dough. Then along will come Boo-Boo and give them a tow. You can say Yabba Dabba Do when you see them all go!  
**0487 810 022**

### Accessories and Spare Parts

#### TYRES

Secondhand 1000's IN STOCK 12" to 22"  
Car, LT & 4WD  
★ BP New Lambton  
**4957 5327**  
Greg/lan

### To Let & Wanted

#### HAMILTON North

Fully furnished room with fridge in quiet, clean, friendly over 50s share home. \$170/week incl exp, WiFi  
0408 419 890

### Public Notices

#### WE NEED YOUR HELP

NELSON BAY TAXIS, like many local businesses in the area, is struggling to attract enough drivers to fill all available shifts to adequately service the needs of our travelling public, 24 hours a day and seven days a week. Unfortunately, if we are unable to recruit sufficient extra drivers to fill our vacant shifts, there may be delays at times, particularly on the weekends, in getting a taxi to you. If you, or anyone you know, would be interested in work as a taxi driver, please help us out and earn yourself some extra income. Please contact Nelson Bay Taxis on 498 46699 during office hours for more information.

### Public Notices

#### Open public info meeting of the Newcastle Sahaholics Anonymous.

13th Dec, 12 Tudor St Hamilton at 6pm. Please contact newcastlesahagroup@gmail.com

### Public Notices

#### Notification for Registration of Interest for Aboriginal Stakeholders

NGH has been engaged by Montath & Powys 125 Bull Street Newcastle West NSW 2302 (on behalf of Christine Jordan) to undertake an Aboriginal Cultural Heritage Assessment (ACHA) to support the application for the proposed rezoning of Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove. The Project Area is located in the Port Stephens LGA and will be assessed by Port Stephens Council as a development application under Part 4 of the EPA Act.

The ACHA includes completion of consultation in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010. The purpose of this consultation is to provide an opportunity for Aboriginal community stakeholders to:

- assist in the preparation of the ACHA;
- be involved in consultation regarding Aboriginal cultural heritage; and
- be involved in the assessment of sites and management of potential impacts to those sites which may result from the proposal.

In order to fulfil the requirements set out in the Aboriginal cultural heritage consultation requirements for proponents 2010, NGH is seeking information about interested Aboriginal parties who hold cultural knowledge of the assessment area to assist in the determination of cultural significance of any Aboriginal objects or places located there.

NGH is therefore seeking any information you may hold about Aboriginal people who may hold cultural knowledge regarding Aboriginal objects or places within the study area. If you know of any Aboriginal parties who may hold cultural knowledge, could you please provide this information in writing to:

NGH Pty Ltd  
Level 1, 31-33 Beaumont Street Hamilton NSW 2303  
Or Via Email to: ngh@nghonsulting.com.au

Closing date for registrations is Thursday 29<sup>th</sup> December 2021  
Those registering interest will be contacted to discuss the project further. Those who do register are advised that their details will be provided to Heritage NSW and the LALC, unless they specifically advise that their details are not to be forwarded.

### Funeral Notices

#### JAHNSEN RON

Late of Eagleton  
Aged 76 Years  
Dearly beloved husband of Vera. Much loved father and father-in-law of Julie and David Parker, Rogina and Radford Steep, Deirdre and Jason Snowden. Loving Pop of Tegan and Luke, Brittany and Jack, Caleb, Victoria and Liam, Lucinda, and Byron. Loved brother, brother-in-law and uncle of the Jahnson and Kolanok families. Loved and well respected friend to many.  
Relatives and friends of Ron are welcome to join the family at the Junction Inn Hotel, William Street, Raymond Terrace tomorrow Friday afternoon at 2.15 to continue the celebration of Ron's life.

**Melghans**  
02 49629099

### Funeral Notices

#### PRESTON (BOOTS) Pauline Veronica

Passed away peacefully 4.12.2021  
Aged 86 years  
Formerly of Raymond Terrace  
Loving mother and mother-in-law to PAUL (dec'd) & KYLE, COLLEEN & DOUG, JENNIFER & BRIAN, TERRANCE, MARK & GAYE. Much loved grandmother and great grandmother to their families.  
Relatives and Friends of PAULINE are warmly invited to attend her Funeral Service in the Chapel of Lance Boots Funerals, 3 Johnson Close, Raymond Terrace this MONDAY 13.12.2021 at 11.00am. Thanks for interment in Raymond Terrace Cemetery.  
Please be advised COVID restrictions apply all attendees must be fully vaccinated.

**LANCE BOOTS FUNERALS**  
Phone: 4067 2101  
www.lancebootsfunerals.com.au

### Port Stephens & Surrounding Car Removals

Unwanted Cars, Vans, Trucks, etc.  
Top cash on the spot \$\$\$ Fast pick up  
\$250 - \$25000\* Call Jim now 0404 045 993  
100% Free towing We are local  
\*conditions apply

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### SAVE TIME - SUBMIT ONLINE

Placing your classified ad through our self-service portal  
**addirect.com.au**

- Submit your ad at any time of the day
- Select multiple publications across all Australian Community Media papers and receive up to 25% discount.
- Access the portal from anywhere in Australia
- It's easy!

### Create an account with your email or quickly log in with your favourite social network and then follow the four easy steps.

1. Publication
2. Section
3. Details
4. Payments

1. Select the region and the publication that you wish to advertise in  
2. Select the Section and classification that you want to advertise within  
3. Build your advertisement and put in the dates you want your ad to run. You can add colour, images, photos, logos - whatever you require to build your eye catching advertisement.  
4. Put in your payment details.

Connect with Classifieds  
It's that easy!



## A.3 Letters to agencies

1 December 2021

Heritage NSW  
NSW Department of Premier and Cabinet  
Level 6, 10 Valentine Avenue  
Parramatta NSW 2150



heritagemailbox@environment.nsw.gov.au

Dear Madam/Sir

**Re: 21-592 Aboriginal Cultural Heritage Assessment 42 Fullerton Cove Road Fullerton Cove**

NGH has been engaged by Monteath & Powys (125 Bull Street Newcastle West NSW 2302) on behalf of Christine Jordan require an Aboriginal Cultural Heritage Assessment (ACHA) to support the application for the proposed rezoning of Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove (Figure 1-1). The Project Area is located in the Port Stephens LGA and will be assessed by Port Stephens Council as a development application under Part 4 of the EP&A Act.



Figure 1 Location of subject site



**NEWCASTLE**

Level 1, 31-33 Beaumont Street Hamilton NSW 2303

T. (02) 4929 2301 E. [ngi@nghconsulting.com.au](mailto:ngi@nghconsulting.com.au) W. [www.nghconsulting.com.au](http://www.nghconsulting.com.au)

**NSW • ACT • QLD • VIC**

ABN 31 124 444 622 ACN 124 444 622



The ACHA includes completion of consultation in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010*. The purpose of this consultation is to provide an opportunity for Aboriginal community stakeholders to:

- assist in the preparation of the ACHA;
- be involved in consultation regarding Aboriginal cultural heritage; and
- be involved in the assessment of sites and management of potential impacts to those sites which may result from the proposal.

In order to fulfil the requirements set out in the *Aboriginal cultural heritage consultation requirements for proponents 2010*, NGH is seeking information about interested Aboriginal parties who hold cultural knowledge of the assessment area to assist in the determination of cultural significance of any Aboriginal objects or places located there.

NGH is therefore seeking any information you may hold about Aboriginal people who may hold cultural knowledge regarding Aboriginal objects or places within the study area. If you know of any Aboriginal parties who may hold cultural knowledge, could you please provide this information in writing by Wednesday 15 December 2021 to:

Kirwan Williams

NGH Pty Ltd

Level 1, 31-33 Beaumont Street Hamilton NSW 2303

Or Via Email to: [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)

Yours sincerely,



**Ali Byrne**

Senior Heritage Consultant  
02 4917 3971 / 0428 747 615  
NGH

## A.4 Example letter to HNSW/ LALC identified parties

19 January 2022



To Whom it may Concern

**Re: 21-592 – Aboriginal Cultural Heritage Assessment 42 Fullerton Cove Road Fullerton Cove**

NGH has been engaged by Monteath & Powys (125 Bull Street Newcastle West NSW 2302) on behalf of Christine Jordan to prepare an Aboriginal Cultural Heritage Assessment (ACHA) to support the application for the proposed rezoning of Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove (Figure 1-1). The Project Area is located in the Port Stephens LGA and will be assessed by Port Stephens Council as a development application under Part 4 of the EP&A Act. The ACHA includes completion of consultation in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010*. The purpose of this consultation is to provide an opportunity for Aboriginal community stakeholders to:

- assist in the preparation of the ACHA;
- be involved in consultation regarding Aboriginal cultural heritage; and
- be involved in the assessment of sites and management of potential impacts to those sites which may result from the proposal.

In order to fulfil the requirements set out in the *Aboriginal cultural heritage consultation requirements for proponents 2010*, NGH is seeking information about interested Aboriginal parties who hold cultural knowledge of the assessment area to assist in the determination of cultural significance of any Aboriginal objects or places located there.

NGH is therefore seeking any information you may hold about Aboriginal people who may hold cultural knowledge regarding Aboriginal objects or places within the study area. If you know of any Aboriginal parties who may hold cultural knowledge, could you please provide this information in writing by Wednesday 02 February 2022 to:

Kirwan Williams  
NGH Pty Ltd  
Level 1, 31-33 Beaumont Street Hamilton NSW 2303  
Or Via Email to: [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)

Yours sincerely,

Ali Byrne  
Regional Manager – Heritage (NSW)  
0428 747 615



**NEWCASTLE**  
Level 1, 31-33 Beaumont Street Hamilton NSW 2303  
T. (02) 4929 2301 E. [ng@nghconsulting.com.au](mailto:ng@nghconsulting.com.au) W. [www.nghconsulting.com.au](http://www.nghconsulting.com.au)  
NSW • ACT • QLD • VIC  
ABN 31 124 444 622 ACN 124 444 622

## A.5 Expressions of interest

**From:** [BS](#)  
**To:** [Kirwan Williams](#)  
**Subject:** RE: Guringai Language group  
**Date:** Thursday, 3 February 2022 11:38:21 AM  
**Attachments:** [image001.png](#)

---

Dear Kirwan

Yes would like to register an interest in the project please

Kind regards Bob Syron

---

**From:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Sent:** Wednesday, 2 February 2022 2:19 PM  
**To:** B S <[bobsam1@bigpond.net.au](mailto:bobsam1@bigpond.net.au)>  
**Cc:** Ali Byrne <[ali.b@nghconsulting.com.au](mailto:ali.b@nghconsulting.com.au)>  
**Subject:** RE: Guringai Language group

Dear Robert,

Thank you very much for the information. Would you be able to clarify whether you would like to register an interest in the project please.

Kind Regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
BA(Archaeology)  
T. 04917 3938 D. 04917 3959 M. 0491766910  
E. [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)  
Level 1, 31-33 Beaumont St  
Hamilton NSW 2303



NSW · ACT · QLD · VIC  
[WWW.NGHCONSULTING.COM.AU](http://WWW.NGHCONSULTING.COM.AU)

OK



**From:** [Corroboree Aboriginal Corporation](#)  
**To:** [Kirwan Williams](#)  
**Subject:** Re: EOI 21-592 Fullerton Cove  
**Date:** Tuesday, 8 February 2022 3:40:51 PM  
**Attachments:** [image001.png](#)  
[21-592-Fullerton Cove ROI letter 20210119.pdf](#)

---

Please register Corroboree Aboriginal Corporation. We have worked on projects as Cultural Heritage Officers in the project area. My family and other family members have lived in the area and family currently reside in the surrounding areas. We are registering in a full capacity. We are aboriginal people who are culturally & heritage aware. We have the necessary ability, experience, skills, insight and the knowledge to identify artefacts on field work. And as Aboriginal People we connect thru the land, thru our ancestors and our heritage. Therefore we are able participate on all levels. We have worked with many archaeologists across a broad landscape. We have consulted with most archeological companies over many years on projects. We have all the relevant insurances and safety gear. We are all fit, capable and adapt to a vast landscape.

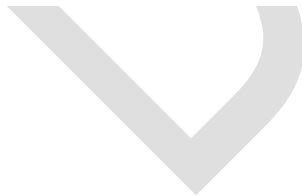
Contact is preferred via email: [corroboreecorp@bigpond.com](mailto:corroboreecorp@bigpond.com). The contact number, email and contact person is also listed in the signature.

**Please do not disclose any of our details to LALC.** We have responded for inclusion, to participate on all levels. Thanks.

Kind regards  
Marilyn Carroll-Johnson  
Director  
Corroboree Aboriginal Corporation  
Mob: [0415911159](tel:0415911159)  
Ph: [0288244324](tel:0288244324)  
E: [corroboreecorp@bigpond.com](mailto:corroboreecorp@bigpond.com)  
Address: [PO Box 3340](#)  
[ROUSE HILL NSW 2155](#)

CAC acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, sea & community. We pay our respects to them and their cultures, to the Elders past and present, and emerging.

On 19 Jan 2022, at 4:05 pm, Kirwan Williams  
<[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)> wrote:



**From:** [David Feeney](#)  
**To:** [Kirwan Williams](#)  
**Subject:** RE: 21-592 Fullerton Cove ROI letter  
**Date:** Thursday, 3 February 2022 1:27:34 PM  
**Attachments:** [image001.png](#)

---

Hi Kirwan;

Karuah Indigenous Corporation would like to register for the project at 21-592 Fullerton Cove, and like to give some cultural information when on site at the project

Thanks

Dave Feeney  
CEO  
Snr Aboriginal Cultural Officer  
Karuah Indigenous Corporation  
0421114853

---

**From:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Sent:** Thursday, 3 February 2022 9:15 AM  
**To:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Cc:** Ali Byrne <[ali.b@nghconsulting.com.au](mailto:ali.b@nghconsulting.com.au)>  
**Subject:** 21-592 Fullerton Cove ROI letter

Good morning,

Just letting you know that the opportunity to register for this project is ending. Please let me know by return email ASAP if you would like to register.

Warm regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
BA(Archaeology)  
T. 04917 3938 D. 04917 3959 M. 0491768910  
E. [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)  
Level 1, 31-33 Beaumont St  
Hamilton NSW 2303

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[WWW.NGHCONSULTING.COM.AU](http://WWW.NGHCONSULTING.COM.AU)



**From:** [jennie.anderson011@nghi.com.au](mailto:jennie.anderson011@nghi.com.au)  
**To:** [kirwan.williams@nghi.com.au](mailto:kirwan.williams@nghi.com.au)  
**Subject:** Re: 21-592 Fullerton Cove ROI letter  
**Date:** Thursday, 3 February 2022 10:13:40 AM

---

Hi Kirwan,

Most definitely will Nur-Run-Gee Pty Ltd be interested in this Project. We have sent previous confirmation of our interest.

Thanking You

Lennie Anderson OAM  
Worimi Traditional Custodian  
Senior Fellow in Ceremony  
Native Title Recipient  
Indigenous Archaeologist  
Nur-Run-Gee Pty Ltd (Director)

----- Original Message -----

From: "Kirwan Williams" <[kirwan.w@nghiconsulting.com.au](mailto:kirwan.w@nghiconsulting.com.au)>  
To: "Kirwan Williams" <[kirwan.w@nghiconsulting.com.au](mailto:kirwan.w@nghiconsulting.com.au)>  
Cc: "Ali Byrne" <[ali.b@nghiconsulting.com.au](mailto:ali.b@nghiconsulting.com.au)>  
Sent: Thursday, 3 Feb, 2022 At 9:15 AM  
Subject: 21-592 Fullerton Cove ROI letter

OK



**From:** [Tara Dever](#)  
**To:** [Kirwan Williams](#)  
**Cc:** [Andrew Smith](#); [Tammy Vesely](#); [Ali Byrne](#)  
**Subject:** FW: 21-592 Fullerton Cove ROI letter  
**Date:** Thursday, 20 January 2022 11:04:20 AM  
**Attachments:** [image001.png](#)  
[image004.png](#)  
[21-592-Fullerton Cove ROI letter 20210119.pdf](#)  
**Importance:** High

---

Hi Kirwan,

Thank you for the email.

Confirm that the project area sits outside of the Mindaribba LALC's delegated area; and all correspondence and engagement should occur directly with the Worimi LALC.

Warm Regards

**Tara Dever**  
**Chief Executive Officer**  
**Mindaribba Local Aboriginal Land Council**  
PO Box 401, East Maitland, NSW 2323  
Ph: 02 4015 7000

I acknowledge the Traditional Owners and Custodians of the land I work on, the Wonnarua People; and pay my respect to all Aboriginal Elders Past, Present and Emerging.

**"Our Spirituality is a oneness and an interconnectedness with all that lives and breathes ....  
even with all that does not live or breath" Mudrooroo Narogin**



---

**From:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Sent:** Wednesday, 19 January 2022 4:05 PM  
**To:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Cc:** Ali Byrne <[ali.b@nghconsulting.com.au](mailto:ali.b@nghconsulting.com.au)>; Tammy Vesely <[tammy.v@nghconsulting.com.au](mailto:tammy.v@nghconsulting.com.au)>  
**Subject:** 21-592 Fullerton Cove ROI letter

Good afternoon,

Please find attached a letter regarding proposed rezoning at Fullerton Cove, NSW.

Regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
BA(Archaeology)  
T. 04917 3938 D. 04917 3959 M. 0491766910  
E. [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)

**From:** [Anthony Anderson](#)  
**To:** [Kirwan Williams](#)  
**Subject:** Re: 21-592 Fullerton Cove ROI letter  
**Date:** Wednesday, 2 February 2022 1:51:02 PM  
**Attachments:** [image001.png](#)  
[EOI- NGH Fullerton Cover re-zone.docx](#)

---

Hi Kirwan

Please find attached Murrooma's EOI for Community Consultation on this project.

Thanks

Bec

On Wed, Jan 19, 2022 at 4:05 PM Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)> wrote:

Good afternoon,

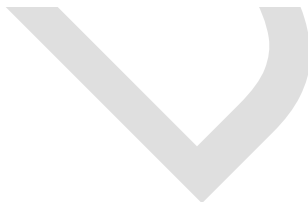
Please find attached a letter regarding proposed rezoning at Fullerton Cove, NSW.

Regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
BA(Archaeology)

T. 04917 3938 D. 04917 3959 M. 0491766910  
E. [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)  
Level 1, 31-33 Beaumont St  
Hamilton NSW 2303

NSW · ACT · QLD · VIC  
[WWW.NGHCONSULTING.COM.AU](http://WWW.NGHCONSULTING.COM.AU)



**From:** [Steven Johnson](#)  
**To:** [Kirwan Williams](#)  
**Subject:** Re: Registering for 21-592 Fullerton Cove  
**Date:** Tuesday, 8 February 2022 3:40:20 PM

---

Woka Aboriginal Corporation  
Preservation of Culture & Heritage  
Mob: 0406991221  
Email: wokacorp@yahoo.com

Attention: Kirwan

Re: Expressing Interest - 21-592 Fullerton Cove

We are submitting our registration of Woka Aboriginal Corporation for full process on this project. We are all aboriginal people. We are all experienced Aboriginal Cultural Heritage Site Officers. We have worked with the National Parks & Wildlife, WaterNSW, RMS/TFNSW on numerous projects. We have our history & stories passed down to us by our Elders. We have assisted in surveys, salvage & consulting with archaeologists over a vast number of years. We are experienced in the field of identifying artefacts, including our learned history and knowledge passed down. We appreciate the opportunity to be part of protecting and preserving our Aboriginal heritage. We are very proud of our heritage and culture passed to us by our Ancestors. We are therefore pleased with being a part of this research and to provide our experience and knowledge.

Our organisation has the current Public liability insurance and is WHS compliant, with all member's holding white cards and required PPE.

All our members are extremely experienced in the identification of Aboriginal artefacts and have worked with numerous Archeologists in field surveys, including test and salvage excavations on fieldwork. We are very passionate about our ancestral land and our conservation of our history matters the upmost to us. We hold strong links to our ancestors, our culture and our heritage. We are motivated to share our history with our current generation and future generations to pass down to our Mob.

Please note we do not want our details forwarded to LALC, please do not release our correspondence. Please register Woka Aboriginal Corporations name for this project. Please feel free to contact me if you have any questions.

Sincerely  
Steve  
Aboriginal Heritage Custodian  
Mob: 0406991221  
Email: wokacorp@yahoo.com



## A5.1

**From:** [Worimi TOC](#)  
**To:** [Kirwan Williams](#)  
**Subject:** Re: 21-592 Fullerton Cove ROI letter  
**Date:** Saturday, 22 January 2022 6:33:13 PM  
**Attachments:** [image001.png](#)  
[Outlook-1519596851.png](#)

---

Hi Kirwan,

On behalf of Worimi Traditional Owners Indigenous Corporation, I would like to register for the consultation for the project of 21-592 Fullerton Cove NSW, as we do hold Cultural knowledge of the purposed project site.

I'll say cheerio for now,

*Candy Towers*

Granddaughter of Leonard Dates

Worimi Traditional Owners Indigenous Corporation

ph: 0412 475 362

e: worimitoc@hotmail.com



WORIMI TOIC

*Guudji Yiigu, I am a Worimi and Yorta Yorta woman from Newcastle NSW, I acknowledge and pay my respects to the traditional owners and custodians of the land on which I live and work, to their continuing connection to land, water, culture and community and pay my respects to the Elders past, present and to our future generations.*

---

**From:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Sent:** Wednesday, 19 January 2022 4:05 PM  
**To:** Kirwan Williams <[kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)>  
**Cc:** Ali Byrne <[ali.b@nghconsulting.com.au](mailto:ali.b@nghconsulting.com.au)>; Tammy Vesely <[tammy.v@nghconsulting.com.au](mailto:tammy.v@nghconsulting.com.au)>  
**Subject:** 21-592 Fullerton Cove ROI letter

Good afternoon,

Please find attached a letter regarding proposed rezoning at Fullerton Cove, NSW.

Regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
BA(Archaeology)  
T. 04917 3938 D. 04917 3959 M. 0491766910

## A.6 RAP list to HNSW and LALC

### A6.1 HNSW

**From:** [Kirwan Williams](#)  
**To:** [heritagemailbox@environment.nsw.gov.au](mailto:heritagemailbox@environment.nsw.gov.au)  
**Cc:** [Ali Byrne](#); [Tammy Vesely](#)  
**Subject:** 21-592 RAP list for 42 Fullerton Cove Aboriginal Heritage Investigation  
**Date:** Friday, 11 February 2022 10:13:00 AM  
**Attachments:** [21-592-Fullerton Cove ROI letter 20210119.pdf](#),  
[image001.png](#),  
[21-592 Aboriginal Archaeological Investigation 42 Fullerton Cove Road Notification of RAPs HNSW, 20220211.pdf](#)

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Good Morning,

Please find attached a notification of registered groups for this project and an example of the ROI letter.

Regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
BA(Archaeology)  
T. 04917 3938 D. 04917 3959 M. 0491766910  
E. [kirwan.w@nghconsulting.com.au](mailto:kirwan.w@nghconsulting.com.au)  
Level 1, 31-33 Beaumont St  
Hamilton NSW 2303



NSW · ACT · QLD · VIC  
[WWW.NGHCONSULTING.COM.AU](http://WWW.NGHCONSULTING.COM.AU)

### A6.2 LALC

**From:** [Kirwan Williams](#)  
**To:** [andrew@worimi.org.au](mailto:andrew@worimi.org.au)  
**Cc:** [Ali Byrne](#); [Tammy Vesely](#)  
**Subject:** 21-592 RAP list for 42 Fullerton Cove Aboriginal Heritage Investigation  
**Date:** Friday, 11 February 2022 9:59:00 AM  
**Attachments:** [image001.png](#),  
[21-592 Notification of RAPs LALC 20220211.pdf](#),  
[21-592-Fullerton Cove ROI letter 20210119.pdf](#)

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Good Morning,

Please find attached a notification of registered groups for this project and an example of the ROI letter.

Regards

**KIRWAN WILLIAMS**  
**HERITAGE CONSULTANT**  
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T. 04917 3938 D. 04917 3959 M. 0491766910  
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## **A.7 Methodology**

DRAFT



## A.8 Responses to methodology

### A8.1

**From:** [David Feeney](#)  
**To:** [Kirwan Williams](#)  
**Subject:** RE: 21-592 42 Fullerton Cove Rezoning Aboriginal Cultural Investigation Methodology  
**Date:** Wednesday, 23 February 2022 7:54:39 AM  
**Attachments:** [image001.png](#)

---

Hi Kirwan;

I have read the methodology for the project at Fullerton Cove rezoning, all looks great

Thanks

Dave Feeney  
CEO  
Snr Aboriginal Cultural Officer  
Karuah Indigenous Corporation  
0421114853



### A8.2

**From:** [Anthony Anderson](#)  
**To:** [Kirwan Williams](#)  
**Subject:** Re: 21-592 42 Fullerton Cove Rezoning Aboriginal Cultural Investigation Methodology  
**Date:** Monday, 28 February 2022 9:22:10 AM  
**Attachments:** [image001.png](#)

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Hi Kirwan,

Apologies for the late response -

Murrooma Inc is happy with the Methodology for the re-zoning.

I just thought I'd point out for your info- That although there are no sites identified in AHIMS when we went out and completed the due diligence for PS Council we identified several midden sites which we advised council of. At the time the recommendations for the site we were to meet the Cultural Heritage officer back onsite and complete the recordings - however since then this person has left council (Daryl Rigby). So please be aware that we have identified several sites on the surface and believe there is a very important ridge line in this area that could contain more sites. I have forwarded to you our correspondence with the Council for this area.

Thanks  
Bec

### A8.3

**From:** [Worimi TOC](#)  
**To:** [Kirwan Williams](#)  
**Subject:** Re: 21-592 42 Fullerton Cove Rezoning Aboriginal Cultural Investigation Methodology  
**Date:** Thursday, 17 February 2022 2:27:51 PM  
**Attachments:** [image001.png](#)  
[Outlook-1519596851.png](#)

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Hi Kirwan,

I support the methodology purposed for 42 Fullerton Cove.

I'll say cheerio for now,

*Candy Towers*

Granddaughter of Leonard Dates

Worimi Traditional Owners Indigenous Corporation

ph: 0412 475 362

e: worimitoc@hotmail.com



**WORIMI TOIC**

*Guudji Yiigu, I am a Worimi and Yorta Yorta woman from Newcastle NSW, I acknowledge and pay my respects to the traditional owners and custodians of the land on which I live and work, to their continuing connection to land, water, culture and community and pay my respects to the Elders past, present and to our future generations.*



## **A.9 Draft ACHA to RAPs**

DRAFT



# APPENDIX B TESTING METHODOLOGY

## Introduction

NGH Pty Ltd (NGH) was contracted by Monteath & Powys on behalf of Christine Jordan, to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed rezoning and subsequent works at Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove, New South Wales Figure 1-1. The Project Site is located approximately 8 kilometres (km) north of Newcastle, NSW within the Port Stephens Local Government Area (LGA).

The proposed rezoning of Lot 14 DP 258848, 42 Fullerton Cove Road, Fullerton Cove Figure 1-1. The area proposed for rezoning is currently zoned RU2 Rural Landscape and the proposal intends to rezone 2.5 hectares to B1 Neighbourhood Centre and the remaining 4.2 hectares to be rezoned as E2 Environmental Conservation to accommodate the environmental constraints of the site. Following the rezoning of the property the future development proposal includes but is not limited to the construction of a supermarket and shops and its associated infrastructure.

The inspection of the Project Site determined that the proposed works area is likely to impact four areas of Potential Archaeological Deposit (PAD) across a sandy rise adjacent to Fullerton Cove part of which is associated with an artefact scatter and deposits of shell material and also associated with AHIMS#38-5-0333. A programme of subsurface testing is therefore considered to be warranted to establish the true archaeological significance and extent of any material within the location the Project Site.

Given that the test excavations permitted by the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales are limited in their scope, in accordance with Requirements 14-16, an Aboriginal Heritage Impact Permit (AHIP) must be obtained by the Port Stephens Council prior to testing being undertaken within the proposed impact areas. Consequently, until an AHIP is issued that allows a subsurface testing programme to be undertaken, the true impacts to PADs are unable to be determined.

The development of this subsurface testing methodology therefore forms part of an ACHA, which will be submitted in support of the AHIP to undertake testing within the Project Site.

## Aims

The purpose of the subsurface testing programme is to provide an assessment of the potential extent and significance of subsurface cultural material within the Project Site.

A subsurface testing programme of the proposed impact area for the 42 Fullerton Cove Project Site would aim to:

- Comply with current NSW legislation and heritage guidelines.
- Identify the presence or absence of any Aboriginal sites within the PAD across the sandy rise landform within the Project Site.
- Define the nature and extent of Aboriginal subsurface objects in order to understand their significance.
- Determine if and how the proposed works would impact any sites and determine any appropriate mitigation measures.
- Undertake a basic analysis of shell material and any artefacts recovered to record species of shell and any technological or other artefactual features of the site.
- Date any material deemed *in situ* to establish the age of the Aboriginal site.

If possible, identify if there are any conclusions to be drawn about land use by past Aboriginal people. The proposed subsurface testing is intended to provide a representative sample across the proposed impact area for the Project Site and provide comparative information to understand the significance and potential impact on Aboriginal objects and values within the proposed development/construction area.

The most likely Aboriginal objects to be present are stone artefacts and shell material. Middens may also be present. Burials are also noted to possibly be present.

### **Methodology outline**

The following methodology is provided as a general proposed methodology that should be modified as required following consultation with Heritage NSW and RAPs. Test excavations will be undertaken across the area which may be impacted by the proposed development.

The subsurface testing programme would be undertaken by hand and be guided by the Code of Practice for Archaeological Excavations in NSW (DECCW 2010). Following the subsurface testing programme, the results will be incorporated into the archaeological report which would include:

- Details of the findings including analysis of materials recovered.
- Undertaking a significance assessment of any subsurface Aboriginal cultural objects; and
- Recommendation of ways to avoid or mitigate any impact, if possible.

Subsurface testing excavations will involve the following elements.

- Test pits will be placed on transects across the landform within the proposed impact area for the Project Site at 10 m to 20 m intervals along a transect line. The spacing of test pits will be determined in the field after consideration of a number of factors including:
  - Location of existing infrastructure and any underground services
  - Location of the proposed works for the area
  - Timing and budget considerations.
- The proposed transects and test pit locations across the Project Site is shown in Figure 8-2
- If necessary, other test pits may be excavated to confirm patterns in the distribution of material or to clarify the stratigraphic integrity of the deposits. Triggers for expanding test excavation may include:
  - The identification of stratified midden;
  - The relative density of midden and/or artefact frequencies. If higher numbers of shells and/or artefacts are identified in one or more parts of the initial excavation, they will be further explored;
  - Variations of shell types and/or raw materials that warrant further investigation;
  - Unusual artefact types are found, e.g., complete flakes, tools, cores, other types such as ground edged implements etc;
  - Evidence of artefact manufacture is found, e.g., conjoining artefacts, flaking debitage, micro-debitage, complete flakes, broken flakes; tool manufacture or maintenance;
  - Evidence of different activities, indicated by different artefact types e.g., backed artefacts, partly made backed artefacts and backing debitage, tool retouching debitage, debitage with dorsal grinding and retouched and/or used tools, different raw materials and raw materials with distinctive banding or inclusions;
  - Chronological material (any materials that can be used to date artefactual materials);

- Taphonomic/ site formation indicators;
  - Any other relevant features appropriate for further investigations, e.g., archaeological features such as evidence of burning in a hearth; shell middens; stone features; clay features etc; and
  - Soils are deep enough that manual test excavation in a 50 cm x 50 cm area is not practical or safe, and a larger excavation area is required.
- It is estimated that approximately 20 to 40 test pits would be excavated across the area.
  - Hand excavation using shovels and trowels, pits to be a minimum of 50 cm x 50 cm in area.
  - If a number of artefacts or dense cultural features are uncovered within a pit, then the pit may be extended out to an appropriate area to determine the artefact density and features in the area.
  - Some flexibility for the placement of test pits is required to ensure adequate assessment of the possible impact areas, the identification of archaeological features and to allow for avoidance of any areas of significance that are identified during testing.
  - The first test pit excavated will be excavated in 5 cm levels or 'spits', with all subsequent test pits excavated in 10 cm spits unless features are identified that require the continuation of 5 cm spits.
  - Placement of excavated deposit in buckets labelled by spit and test square.
  - Dry sieving of deposits through a 5 mm to 3 mm sieve.
  - Removal of Aboriginal objects from sieves, bag and label for analysis. The recording and collection of any Aboriginal objects encountered through the testing will be bagged with clear labelling indicating the provenance (test pit, spit level and any further necessary details).
  - Proceed with excavation until completed to basal or sterile layers and depending on accessibility within the pit depth.
  - Photography of excavated sections and at the completion of the excavation work.
  - Scale-drawn records of the typical stratigraphy/soil profile features and information on Aboriginal objects recovered for each test pit.
  - At completion of excavation, backfill test pits (with sieved material).
  - In the event that human bone is located an Unexpected Finds Procedure for burials would be followed in accordance with Requirement 25 of the Code of Practice. This includes stopping work at that location and making the area secure for further assessment. The police and Heritage NSW would be notified. If the remains were determined to be Aboriginal, further discussion and assessment of options would be considered by all parties.
  - Cultural shell material and charcoal suitable for C14 carbon dating purposes may be retained for the purpose of dating. Any shell material from a stratified deposit will be dated. Additionally, following review of the results, some further selected samples should be dated if determined to be appropriate. This would be dependent on the results of the testing and analysis of the recovered material.
  - Following the completion of the fieldwork, the material retrieved from the testing programme will be transported and stored temporarily within the Newcastle NGH office in a locked cabinet where it will be appropriately recorded and analysed. The report will then be prepared. Once NGH has completed the analysis of any material retrieved from the testing programme the return and burial of the material can be arranged.
  - Consultation with the RAPs and Port Stephens Council would be undertaken to determine the preferred and appropriate management of any excavated artefactual material after it has been analysed by NGH. It would be preferred that the material is buried onsite outside

the area of any proposed disturbance. A new AHIMS site card would then be submitted to ensure the location of the reburied material is recorded appropriately.

Post fieldwork analysis will involve the following elements:

Sort the sieved material and the identification of cultural items recovered.

Aboriginal artefacts will then be recorded with the following characteristics:

- Raw material type and colour.
- Dimensions (percussion length, width, thickness for complete items).
- Technological characteristics (platform surface, platform type and termination type).
- Presence and extent of the cortex.
- Presence and extent and type of edge damage (use wear, retouch).
- Comments e.g., Production method.

Shell midden material may be recorded with the following characteristics:

- Genus.
- Weight.
- Minimum number of individuals.
- Comments.

Send material, if suitable, for Radiocarbon dating (likely to be the University of Waikato).

## **Reporting**

A report detailing the results of the investigation will be prepared. The report will be structured to provide the following information:

Introduction

Aboriginal consultation

Project setting

Archaeological setting

Archaeological methods

Results

Analysis

Significance assessment

Impact assessment

Conclusions

The report will include appendices containing descriptions of soils, artefact attributes and photographs. A draft copy of the report will be provided to Monteath & Powys and the Aboriginal stakeholders for comment. The report will then be finalised could be submitted in support of an AHIP for works in the area in addition to any previous ACHA reports.



## APPENDIX C UNEXPECTED FINDS PROTOCOL

### C.1 Human skeletal remains

If any human remains or suspected human remains are discovered during any works, all activity in the immediate area must cease immediately. The following plan describes the actions that must be taken in instances where human remains, or suspected human remains are discovered. Any such discovery at the activity area must follow these steps.

#### Discovery:

If any human remains or suspected human remains are found during any activity, works in the **immediate vicinity** must cease and the Project Manager must be contacted immediately.

The remains must be left in place and protected from harm or damage.

All personnel should then leave the immediate vicinity of the area.

#### Notification:

The NSW Police must be notified immediately. Details of the location and nature of the human remains must be provided to the relevant authorities.

If there are reasonable grounds to believe that the remains are Aboriginal, the following must also occur.

- a. HNSW must be contacted as soon as practicable and provide any available details of the remains and their location. The Environment Line can be contacted on 131 555.
- b. The relevant project archaeologist may be contacted to facilitate communication between the police, HNSW and Aboriginal community groups. Aboriginal community groups must be notified throughout the process once the remains are confirmed to be Aboriginal in origin.

#### Process:

If the remains are considered to be Aboriginal by the Police and HNSW no work can recommence at the particular location of the find unless authorised in writing by HNSW.

Recording of Aboriginal ancestral remains must be undertaken by, or be conducted under the direct supervision of, a specialist physical anthropologist or other suitably qualified person.

Archaeological reporting of Aboriginal ancestral remains must be undertaken by, or reviewed by, a specialist physical anthropologist or other suitably qualified person, with the intent of using respectful and appropriate language and treating the ancestral remains as the remains of Aboriginal people rather than as scientific specimens.

If the remains are considered to be Aboriginal by the Police and HNSW, an appropriate management and mitigation, or salvage strategy will be implemented following further consultation with the Aboriginal community and HNSW.