



Lower Hunter Lands Development Heritage Impact Assessment

Nords Wharf Estate

for Coal & Allied

7 June 2011

0111477

www.erm.com

Approved by:	<u>Diana Neuweger</u>
Position:	Project Manager
Signed:	
Date:	<u>7 June 2011</u>
Approved by:	<u>Steve Laister</u>
Position:	Partner Director
Signed:	
Date:	<u>7 June 2011</u>

Lower Hunter Lands Development

Heritage Impact Assessment

Nords Wharf

Coal & Allied

7 June 2011

Environmental Resources Management Australia Pty Ltd Quality System



Quality-ISO-9001-PMS302

0111477_NordsWharf_Heritage

www.erm.com

This disclaimer, together with any limitations specified in the report, apply to use of this report. This report was prepared in accordance with the contracted scope of services for the specific purpose stated and subject to the applicable cost, time and other constraints. In preparing this report, ERM relied on: (a) client/third party information which was not verified by ERM except to the extent required by the scope of services, and ERM does not accept responsibility for omissions or inaccuracies in the client/third party information; and (b) information taken at or under the particular times and conditions specified, and ERM does not accept responsibility for any subsequent changes. This report has been prepared solely for use by, and is confidential to, the client and ERM accepts no responsibility for its use by other persons. This report is subject to copyright protection and the copyright owner reserves its rights. This report does not constitute legal advice.

Coal & Allied

Lower Hunter Lands
Development
Heritage Impact Assessment
Nords Wharf
Final

June 2011

Reference: 0111477_NordsWharf_Heritage

**Environmental Resources Management
Australia**

Building C, 33 Saunders Street
Pyrmont, NSW 2009
Telephone +61 2 8584 8888
Facsimile +61 2 8584 8800
www.erm.com

CONTENTS

1	INTRODUCTION	
1.1	PROJECT AND PLANNING CONTEXT	1
1.2	THE STUDY AREA	2
1.3	METHODOLOGY	3
1.4	EXISTING HERITAGE STATUS	4
1.5	REPORT LIMITATIONS	4
1.6	REPORT STRUCTURE	4
1.7	AUTHORSHIP	5
2	DETAILS OF COMMUNITY CONSULTATION	
2.1	BACKGROUND – ABORIGINAL CONSULTATION	8
2.2	ABORIGINAL GROUPS CONSULTED	8
2.3	COMMUNITY MEETING	10
2.4	REQUIREMENTS FOR FUTURE ABORIGINAL CONSULTATION	10
3	ENVIRONMENTAL AND ABORIGINAL ARCHAEOLOGICAL CONTEXT	
3.1	ENVIRONMENTAL CONTEXT	11
3.1.1	PHYSICAL DESCRIPTION	11
3.1.2	GEOLOGY	11
3.1.3	TOPOGRAPHY AND LANDFORM	11
3.1.4	DRAINAGE	12
3.1.5	FLORA AND FAUNA	12
3.2	ABORIGINAL ARCHAEOLOGICAL CONTEXT	13
3.2.1	REGIONAL ABORIGINAL HERITAGE	13
3.2.2	LOCAL ABORIGINAL HERITAGE	16
3.2.3	DISCUSSION RELATING TO ABORIGINAL MIDDEN SITES	17
3.2.4	PREDICTIVE ABORIGINAL HERITAGE STATEMENT	18
3.2.5	SYNOPSIS OF ENVIRONMENTAL AND ABORIGINAL ARCHAEOLOGICAL BACKGROUND	20
4	HISTORICAL BACKGROUND OF NORDS WHARF	
4.1	EARLY REGIONAL SETTLEMENT	22
4.2	HISTORICAL OVERVIEW OF THE STUDY AREA	22
4.3	SYNOPSIS OF HISTORICAL BACKGROUND	26
5	STUDY AREA SURVEY	
5.1	SURVEY METHODOLOGY	27
5.1.1	BUILT HERITAGE	27
5.1.2	HISTORICAL ARCHAEOLOGY	27
5.1.3	ABORIGINAL HERITAGE	27
5.1.4	FIELDWORK CONSTRAINTS AND OPPORTUNITIES	28

CONTENTS

5.2	<i>SURVEY TRANSECTS</i>	28
5.3	<i>FIELD SURVEY RESULTS</i>	31
5.3.1	<i>BUILT HERITAGE</i>	31
5.3.2	<i>HISTORICAL ARCHAEOLOGY</i>	33
5.3.3	<i>ABORIGINAL HERITAGE</i>	33
5.3.4	<i>MIDDEN SITE 45-7-0177</i>	34
5.3.5	<i>DISCUSSION - ARCHAEOLOGICAL POTENTIAL AND ARCHAEOLOGICAL ZONING</i>	36
5.4	<i>SYNOPSIS OF FIELD SURVEY RESULTS</i>	38
6	<i>HERITAGE SIGNIFICANCE ASSESSMENT</i>	
6.1	<i>HISTORICAL HERITAGE ASSESSMENT</i>	40
6.1.1	<i>HISTORICAL ASSESSMENT CRITERIA</i>	40
6.1.2	<i>NORDS WHARF CONCEPT PLAN AREA</i>	41
6.2	<i>ABORIGINAL HERITAGE ASSESSMENT</i>	41
6.2.1	<i>ABORIGINAL ASSESSMENT APPROACH</i>	41
6.2.2	<i>SITE MIDDEN 45-7-0177</i>	41
7	<i>PROPOSED CONCEPT PLAN</i>	
8	<i>ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)</i>	
8.1	<i>PREAMBLE TO ESD</i>	41
8.1.1	<i>AVOIDING OR REDUCING IMPACT TO ABORIGINAL SITES</i>	41
8.1.2	<i>PRINCIPLES OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT</i>	41
8.2	<i>PROPOSED CONSERVATION (AVOIDANCE) OF HERITAGE SITES</i>	41
8.3	<i>PROPOSED IMPACTS TO HERITAGE SITES</i>	41
8.4	<i>HISTORICAL HERITAGE</i>	41
8.5	<i>ABORIGINAL HERITAGE</i>	41
8.6	<i>SUMMARY OF HERITAGE IMPACTS</i>	41
9	<i>STATUTORY CONTEXT</i>	
9.1	<i>NSW LEGISLATION</i>	41
9.1.1	<i>ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 (NSW)</i>	41
9.1.2	<i>NATIONAL PARKS AND WILDLIFE ACT 1974 (NSW)</i>	41
9.1.3	<i>HERITAGE ACT 1977 (NSW)</i>	41
9.2	<i>NSW PLANNING CONTROLS AND GUIDELINES</i>	41
10	<i>HERITAGE MITIGATION MEASURES</i>	
10.1	<i>HISTORICAL HERITAGE MITIGATION MEASURES</i>	41
10.2	<i>ABORIGINAL HERITAGE MITIGATION MEASURES</i>	41
10.2.1	<i>GENERAL ABORIGINAL HERITAGE MITIGATIONS</i>	41
10.2.2	<i>ABORIGINAL HERITAGE INTERPRETATION</i>	41
10.2.3	<i>REQUIRED FUTURE ABORIGINAL ARCHAEOLOGICAL WORKS</i>	41

CONTENTS

10.2.4	CONSERVATION ZONE WITHIN THE DEVELOPMENT FOOTPRINT	41
10.2.5	PROTECTION OF THE CONSERVED ABORIGINAL MIDDEN SITE	41
11	CONCLUSION	

LIST OF TABLES

TABLE 3.1	LITERATURE REVIEW OF RELEVANT ARCHAEOLOGICAL REPORTS FROM THE AHIMS DATABASE	14
TABLE 3.2	ABORIGINAL ARCHAEOLOGICAL SITE TYPES (IN ORDER OF LIKELY OCCURRENCE)	19
TABLE 5.1	DESCRIPTION OF TRANSECTS SURVEYED	29
TABLE 5.2	DEFINITIONS OF ARCHAEOLOGICAL POTENTIAL	37
TABLE 8.1	SUMMARY OF IMPACTS TO ABORIGINAL HERITAGE RESULTING FROM THE PROPOSED DEVELOPMENT	53
TABLE A.1	CONSULTATION STAGE 1: ADVISORY REQUESTS	A1
TABLE A.2	CONSULTATION STAGE 1: ABORIGINAL GROUP REGISTRATIONS RECEIVED	A2
TABLE A.3	CONSULTATION STAGE 2: BRIEFING AND METHODOLOGY ADVICE SENT	A2
TABLE A.4	CONSULTATION STAGE 2: ABORIGINAL COMMENTS RECEIVED	A3
TABLE B.1	EFFECTIVE COVERAGE	B1

LIST OF FIGURES

FIGURE 1.1	NORDS WHARF SITE IN ITS REGIONAL SETTING	6
FIGURE 1.2	NORDS WHARF SITE IN ITS LOCAL SETTING	7
FIGURE 3.1	AHIMS SITES WITHIN THE LOCALITY OF NORDS WHARF SITE	21
FIGURE 4.1	1914 WALLARAH PARISH MAPS. IMAGE SOURCE: DEPARTMENT OF LANDS, PARISH MAPS PRESERVATION PROJECT, IMAGE ID 10870001.	23
FIGURE 4.2	1954 AERIAL PHOTOGRAPH OF NORDS WHARF	24

<i>FIGURE 4.3</i>	<i>1975 AERIAL PHOTOGRAPH OF NORDS WHARF</i>	<i>25</i>
<i>FIGURE 5.1</i>	<i>SURVEY TRANSECTS AND LANDFORMS</i>	<i>30</i>
<i>FIGURE 5.2</i>	<i>OBSERVED LOCATION OF MIDDEN 45-7-0177 AND ARCHAEOLOGICAL ZONING PLAN</i>	<i>39</i>
<i>FIGURE 7.1</i>	<i>NORDS WHARF CONCEPT PLAN</i>	<i>47</i>

LIST OF PHOTOGRAPHS

<i>PHOTOGRAPH 4.1</i>	<i>CANOE PRACTICE AT CAMP KANANGRA, NORDS WHARF 1975</i>	<i>26</i>
<i>PHOTOGRAPH 5.1</i>	<i>MAIN ENTRY TO CAMP KANANGRA</i>	<i>31</i>
<i>PHOTOGRAPH 5.2</i>	<i>WARDENS OFFICE</i>	<i>32</i>
<i>PHOTOGRAPH 5.3</i>	<i>CAMP KITCHEN AND FACILITIES</i>	<i>32</i>
<i>PHOTOGRAPH 5.4</i>	<i>ACCOMMODATION</i>	<i>32</i>
<i>PHOTOGRAPH 5.5</i>	<i>CAMP FACILITIES</i>	<i>33</i>

<i>ANNEX A</i>	<i>ABORIGINAL CONSULTATION LOG</i>
<i>ANNEX B</i>	<i>EFFECTIVE COVERAGE TABLES</i>
<i>ANNEX C</i>	<i>DISCUSSION PAPER - CONSERVATION OF ABORIGINAL MIDDEN SITES</i>

EXECUTIVE SUMMARY

Environmental Resources Management Australia (ERM) was commissioned by Catylis Pty Ltd on behalf of Coal & Allied Industries Limited (Coal & Allied) to prepare a Heritage Impact Assessment (HIA) for lands at Nords Wharf, which are subject to proposed development under Part 3A of the NSW *Environmental Planning and Assessment Act* (EP&A Act) 1979. The HIA considers the Aboriginal heritage and archaeology, historical archaeology and built heritage of the lands, the potential heritage impacts of the proposed development and identifies a heritage impact mitigation strategy.

The overall aim of this HIA was to identify any heritage values at the Nords Wharf Site that may be affected by the proposed development, and provide, if required, relevant mitigation measures for impacts to any heritage values during any future development.

One Aboriginal shell midden had been previously recorded within the Nords Wharf Site. Archaeological survey has confirmed the extent and integrity of this midden site. The assessment of significance indicates that the site has high social value to the Aboriginal community, high/moderate archaeological potential and high scientific value. For the purposes of appropriately managing Aboriginal heritage the Nords Wharf Site has been divided into three archaeological zones (see *Figure 5.2*).

Archaeological Zone 3 (area of low archaeological potential) is unlikely to be impacted and thus unlikely to impact Aboriginal heritage sites. This report recommends that all development impacts within Archaeological Zone 1 (high archaeological potential) and Archaeological Zone 2 (moderate archaeological potential) be mitigated prior to ground breaking or site construction works. Specific mitigation measures are recommended for each zone. In addition, general Aboriginal heritage mitigation measures are proposed for unexpected finds, which should be provided in a simple 'Aboriginal Heritage Plan of Management' (PoM) for the development. It is also recommended that Aboriginal heritage interpretation options be explored and implemented by Coal & Allied and the detailed midden protection guidance (see *Annex C*) be followed.

Provided mitigation is followed, the potential impacts of the proposed development on Aboriginal heritage can be satisfactorily avoided or managed.

This report has also found that no previously recorded historical heritage sites exist within the Nords Wharf Site. The development will not impact any historical heritage values of the Nords Wharf Site or the local region.

ABBREVIATIONS

AHIMS	Aboriginal Heritage Information Management System
ADTOAC	Awabakal Descendants Traditional Owners Aboriginal Corporation
ATOAC	Awabakal Traditional Owners Aboriginal Corporation
AZP	Archaeological Zoning Plan
BLALC	Bahtabah Local Aboriginal Land Council
Burra Charter	Australian best heritage practice reference that provides guidance for the conservation and management of places of cultural significance (cultural heritage places).
Coal & Allied	Coal & Allied Industries Limited
DECCW	Department of Environment, Climate Change and Water
DGEARs	Director General Environmental Assessment Requirements
ERM	Environmental Resources Management
ESD	Ecologically Sustainable Development
LHRS	Lower Hunter Regional Strategy
GTLAC	Guringai Tribal Link Aboriginal Corporation
PAD	Potential Archaeological Deposit
PoM	Plan of Management
SHI	State Heritage Inventory
SHR	State Heritage Register
SOHI	Statement of Heritage Impact
RNE	Register of the National Estate

Environmental Resources Management Australia (ERM) was commissioned by Catylis Pty Ltd on behalf of Coal & Allied Industries Limited (Coal & Allied) to prepare a Heritage Impact Assessment (HIA) for land at Nords Wharf, which is subject to proposed development under Part 3A of the NSW *Environmental Planning and Assessment Act* (EP&A Act) 1979. The HIA considers the Aboriginal heritage and archaeology, historical archaeology and built heritage of the lands, the potential impacts of the proposed development and identifies an impact mitigation strategy.

This report builds upon a preliminary desktop review undertaken for the Nords Wharf Site in January 2007 (ERM 2007). A draft of this report (following site investigations) was used during a stakeholder meeting for the Southern Estates. The community output (in terms of heritage considerations) from that process has been used to finalise this report.

This report provides the results of a detailed site survey, comprehensive heritage values assessments, heritage impact analysis and Aboriginal consultation undertaken during June to September 2007, for the Nords Wharf Nords Wharf Site (see *Figure 1.1* and *Figure 1.2*).

1.1**PROJECT AND PLANNING CONTEXT**

It is proposed that the entire Coal & Allied owned Nords Wharf site be rezoned/listed as a 'State Significant Site' (SSS) in Schedule 3 of State Environmental Planning Policy (Major Development). A draft Schedule 3 listing will be prepared with the Concept Plan Application.

The Concept Plan for a residential subdivision and conservation land transfer of the Nords Wharf site applies to the entire 127ha Nords Wharf site. The key parameters for the proposed development of the site are as follows:

- dedication of 116.6ha of conservation land to the New South Wales Government (NSWG) that is identified in the Lower Hunter Regional Strategy and Lower Hunter Regional Conservation Plan, comprising approximately 92% of the Nords Wharf site.
- Maximum dwelling yield of 90 dwellings over 10.18ha.
- Indicative development staging. Depending on market forces, it may be decided to release the lots in 3-4 stages of 25-30 lots each.
- The provision of associated infrastructure.

- Torrens title subdivision and boundary realignment of the Nords Wharf site. The Torrens title subdivision and boundary realignment of Coal & Allied land will enable land 116.6ha in area that is owned by Coal & Allied to be excised and dedicated to NSWG for conservation purposes.

Approval has not been sought under the Concept Plan for a specific lot or road layout. An indicative lot layout will indicate how the maximum dwelling yield of 90 dwellings could be achieved on the site.

Similarly, approval has not been sought under the Concept Plan for individual lot subdivision or construction of individual houses. However, the desired future character of the proposed concept plan will be included in Urban Design Guidelines. Urban Design Guidelines will be prepared to inform the Concept Plan in respect of urban form, built form, open space and landscape, access and movement and visual impact for the site.

It is proposed to dedicate land for conservation purposes as part of the Major Project Application via a Voluntary Planning Agreement (VPA) between Coal & Allied and the NSWG in accordance with s.93F of the EP&A Act.

The proposed Concept Plan and a Plan showing the proposed development areas and conservation areas is included in the PEA prepared by Urbis.

In August 2010, the Director General Environmental Assessment Requirements (DGEARs) were issued for the site. The requirements for heritage are:

"Heritage

(1) Provide an archaeological assessment and heritage impact statement in accordance with NSW Heritage Office guidelines. The statement should assess the impacts of the application on the area and any significant components of the site, including indigenous heritage.

(2) Provide an assessment in accordance with the draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005)."

1.2

THE STUDY AREA

This report focuses on the Nords Wharf site. The location of the study area is provided at Figure 1.1 and the Nords Wharf site is shown in Figure 1.2.

The overall aim of this assessment was to ascertain whether there are any heritage values at the Nords Wharf site that might be affected by the proposed development and provide relevant mitigation measures for impacts to these heritage values during any future development. To achieve these aims the following objectives were established:

- to undertake a preliminary background desk based review of potential heritage items within and adjacent to the Nords Wharf Site (ERM 2010);
- to identify and record all heritage objects and places within the Nords Wharf Site through field survey;
- to consult with the local Aboriginal community regarding the specific Aboriginal social value of the land and the Aboriginal heritage recommendations;
- to assess the significance of all heritage objects, sites, relics and places within the Nords Wharf Site in accordance with relevant NSW heritage guidelines;
- to assess the archaeological potential of the Nords Wharf Site to contain further heritage sites;
- to assess the impact of the proposed development on heritage values through a Statement of Heritage Impact (SoHI); and
- to prepare recommendations on the management and mitigation of potential impacts caused by development to any heritage values associated with the Nords Wharf Site.

ERM's approach to the preparation of the detailed site assessment was based on the following current best practice guidelines:

- NSW Heritage Office *Assessing Significance* Guideline;
- NSW Heritage Office *Statements of Heritage Impact* Guideline;
- Department of the Environment, Climate Change and Water (DECCW) *Draft Guideline for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*;
- The *Australia ICOMOS Burra Charter 1999* (Burra Charter);
- *Rio Tinto Cultural Heritage Management Guidelines for Australian Businesses*; and
- *Rio Tinto Cultural Heritage Management System Guidance for Australian Businesses*.

1.4

EXISTING HERITAGE STATUS

The preliminary background heritage assessment (ERM 2010) found that one Aboriginal shell midden had been previously recorded under the NSW Department of Environment and Climate Change (DECCW) Aboriginal Heritage Information Management System (AHIMS) database within the Nords Wharf Site. The Nords Wharf Site also held a level of archaeological potential for further Aboriginal sites.

The preliminary background investigation included a search of the NSW Heritage Office State Heritage Register (SHR) and Inventory (SHI), the Lake Macquarie Local Environmental Plan (LEP), the Register of the National Estate (RNE) and the National Trust Register. It was found that no previously recorded historical heritage sites existed within the Nords Wharf Site.

1.5

REPORT LIMITATIONS

This report has not been limited in terms of research into and access to the Nords Wharf Site. The survey of the Nords Wharf Site was limited due to thick vegetation across a proportion of the Nords Wharf Site. However, it is considered that a sufficient representative sample of the Nords Wharf Site was surveyed to provide evidence of landforms, historical impacts, heritage sites and archaeological potential.

1.6

REPORT STRUCTURE

This report is structured as follows:

Chapter 2 outlines the Aboriginal community consultation undertaken for the Nords Wharf Site;

Chapter 3 provides the environmental and archaeological context of the Nords Wharf Site, including known and potential heritage sites within the Nords Wharf Site;

Chapter 4 provides an overview of the history of the study area;

Chapter 5 outlines the methodology and results of the field survey;

Chapter 6 assesses the significance of heritage sites located in the Nords Wharf Site;

Chapter 7 provides the proposed development structure plans;

Chapter 8 provides an overview of Environmental Sustainable Development and the conservation and impacts to heritage items in the project application area;

Chapter 9 outlines the legislative framework and statutory requirements;

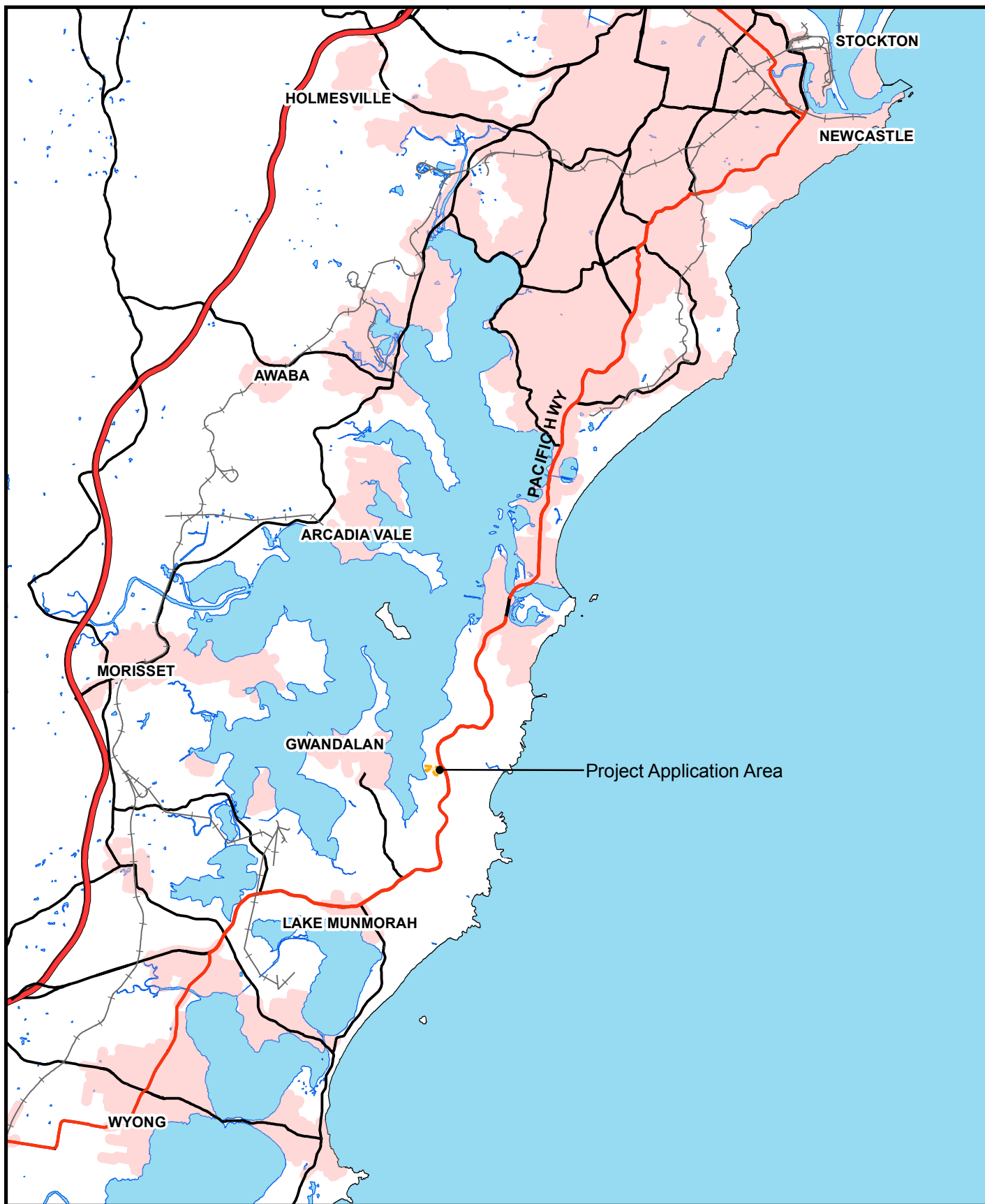
Chapter 10 provides heritage impact mitigation recommendations; and


Chapter 11 provides a brief conclusion outlining the findings of the HIA.

1.7

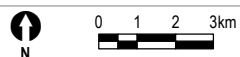
AUTHORSHIP

Dr Tim Owen (ERM Archaeologist) conducted the historical heritage field survey. Jenna Lamb (ERM Archaeologist) conducted the Aboriginal heritage field survey. Louise Doherty (ERM Built Heritage Consultant) conducted the built heritage field survey. Tim Owen, Jenna Lamb and Louise Doherty authored this report. Shelley James (ERM Heritage Consultant) undertook technical review of this report. Dr Diana Neuweger (ERM Heritage Consultant) undertook the 2010 update of this report. Steve Laister (ERM Partner) undertook Quality Assurance review of this document.



Legend
 Nords Wharf Site

Client:	Catylis		
Project:	Lower Hunter Land Development - Nords Wharf		
Drawing No:	0111477s_NW_GIS001_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
Scale:	Refer to Scale Bar		



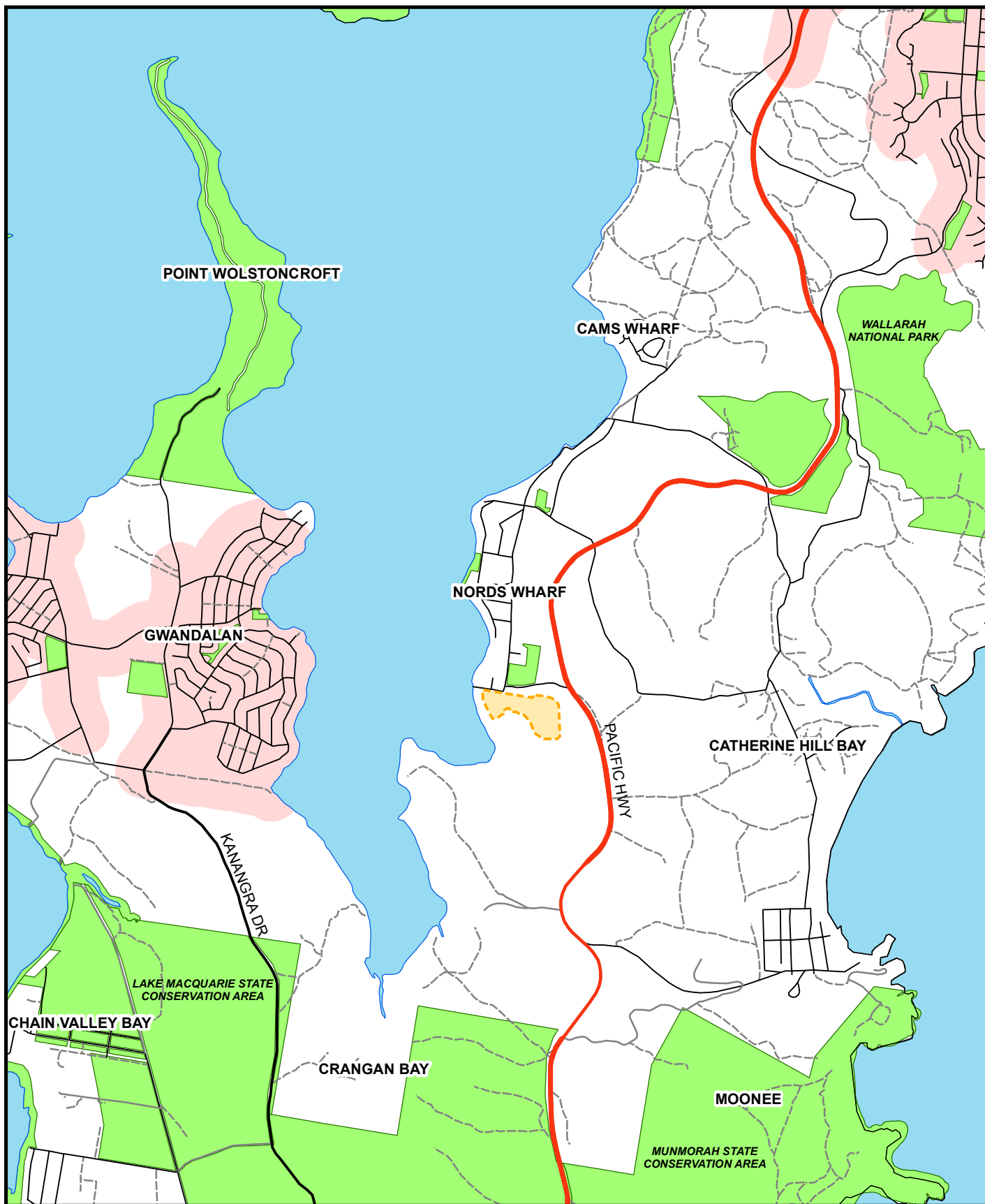
Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 1.1
Nords Wharf Site in its Regional Setting

Environmental Resources Management Australia Pty Ltd

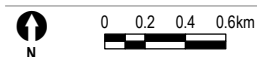
Brisbane, Canberra, Hunter Valley, Melbourne, Perth,
 Port Macquarie, Sydney





Legend
 Nords Wharf Site

Client:	Catylis
Project:	Lower Hunter Land Development - Nords Wharf
Drawing No:	0111477s_NW_GIS002_R0.mxd
Date:	18/02/2010
Drawn by:	JF
Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56
Scale:	Refer to Scale Bar



Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 1.2
Nords Wharf Site in its Local Setting

Environmental Resources Management Australia Pty Ltd
 Brisbane, Canberra, Hunter Valley, Melbourne, Perth,
 Port Macquarie, Sydney



2.1 BACKGROUND – ABORIGINAL CONSULTATION

Aboriginal consultation is required for any assessment of Aboriginal heritage. The Department of Environment, Climate Change and Water (DECCW) has released the 'Interim Community Consultation Requirements Guideline' (2004) for Aboriginal consultation in relation to any study that might eventually be used to support an application under Part 6 of the *National Parks and Wildlife Act 1974*.

The interim guideline sets out a process for inviting Aboriginal groups to register interest as a party to consultation (including local press advertisement), seeking responses on proposed assessment methodology, and seeking comment on proposed assessments and recommendations. The interim guideline requires proponents to allow 10 working days for Aboriginal groups to respond to invitations to register, and then 21 days for registered Aboriginal parties to respond to a proposed assessment methodology. An additional ten days are allowed for groups to review a draft report and comment on the results and management recommendations made.

The Aboriginal community consultation for the project has been carried out in light of the DECCW guideline, taking into account the Part 3A requirements of the project. The final Director General's Requirements (DGRs) for the proposed development stated that the DECCW's guidelines should be adhered to and the consultation with the Local Aboriginal Land Council should be undertaken.

2.2 ABORIGINAL GROUPS CONSULTED

Letters requesting advice on Aboriginal organisations to consult, and any known heritage issues to be taken into consideration in the area, were emailed on 28 June 2007 to:

- the NSW DECCW;
- Registrar, *Aboriginal Land Rights Act 1983* (NSW);
- Lake Macquarie City Council (LMCC); and
- Bahtabah Local Aboriginal Land Council (BLALC).

In addition, a number of other Aboriginal stakeholder groups were already known by ERM for this area, and were also contacted on 28 June 2007:

- Guringai Tribal Link Aboriginal Corporation (GTLAC);
- Awabakal Traditional Owners Aboriginal Corporation (ATOAC); and
- Awabakal Descendants Traditional Owners Aboriginal Corporation (ADTOAC).

A local press advertisement requesting Aboriginal individuals and groups interested in being consulted on this project to write to ERM, was run in the Lake Macquarie News on 5 July 2007. No responses to this advertisement were received.

DECCW identified three Aboriginal parties to be contacted:

- GTLAC;
- Mur-Roo-Ma Inc.; and
- Arthur C. Fletcher.

LMCC identified one Aboriginal party to be contacted:

- BLALC.

These parties were therefore contacted by ERM to establish whether they wished to be consulted on this project. In addition, each party was asked to identify any further individuals or groups who would be interested in being consulted regarding this project. Four responses were initially received, from GTLAC, ATOAC, ADTOAC and BLALC. These parties were provided with a proposed assessment methodology (an example can be found in *Annex A*). Responses to this methodology were received from all parties, and each indicated their agreement with this methodology.

Further consultation was undertaken following the advice of DECCW on Aboriginal parties that may be interested in being contacted regarding the assessment (see above). A response was received from Arthur C. Fletcher (Wonnarua Sites Officer). Mr Fletcher indicated that he is of Wonnarua descent and requested to be involved in the project. Consultation with all of the other registered Aboriginal stakeholders and Coal & Allied resulted in a decision to invite Mr Fletcher to comment on the draft Aboriginal heritage assessment report but not to involve him in the fieldwork because the Nords Wharf Site was not within his cultural boundary, on the basis that other stakeholders advised that the Wonnarua area does not cover the current Nords Wharf Site.

A search of the National Native Title Tribunal website undertaken on 28 June 2007 revealed no active claimant applications in the Lake Macquarie LGA. Native Title is extinguished in all land that is freehold or was freehold in the past. Therefore, all freehold land in NSW cannot be claimed by Native Title applicants. As the Nords Wharf Site is freehold land, Native Title is extinguished, but such claims in the area are useful for identifying Traditional Owner groups, regardless of land tenure.

Fieldwork for the assessment was undertaken on 11 July 2007 and included a total of six local Aboriginal community representatives: Tracey Howie from GTLAC; Kerrie Brauer and Jon Hawken from ATOAC; Shane Frost and James Frost from ADTOAC; and Noel Drake from BLALC. These representatives were invited to comment on Aboriginal heritage issues in the field.

No further Aboriginal parties have so far been identified through the consultation process, further details of the Aboriginal consultation undertaken for the Nords Wharf Site are provided in *Annex A*.

2.3 *COMMUNITY MEETING*

On 30 August 2007 a meeting was held for the purpose of community comment in relation to the proposed development. All Aboriginal stakeholder groups were represented at the meeting. This meeting was also used to provide the results of reporting to the Aboriginal groups and fine tune possible statements of commitment, with regard to Aboriginal heritage. During the meeting a process for the long term conservation of Aboriginal middens was devised between ERM and the Aboriginal stakeholder groups. This process is detailed in *Annex C*.

2.4 *REQUIREMENTS FOR FUTURE ABORIGINAL CONSULTATION*

It is recommended, as per the DECCW Community Consultation Guidelines that copies of the draft final report are sent to the five registered Aboriginal parties, so that they may comment on its content and recommendations.

Three stakeholder groups have responded to the draft report. These comments appear in *Annex A*. The response to these comments has been sent to the stakeholder groups and these letters are also provided in *Annex A*.

Any future work relating to the Aboriginal archaeological mitigation, as stipulated in this report, should include consultation with the relevant Aboriginal stakeholders.

3.1 ENVIRONMENTAL CONTEXT

3.1.1 *Physical Description*

The Nords Wharf Site is located at the southern end of the Nords Wharf Township, which is situated on the eastern shore of Crangan Bay of Lake Macquarie. The Nords Wharf Site is well vegetated with trees growing up to the foreshore. The understorey is dense across the Nords Wharf Site, with the exception of the Scout Camp area, where it has been generally cleared.

‘Camp Kanangra’ is located at the north-western end of the Nords Wharf Site and comprises several structures including a hall, office, carpark and equipment sheds. These structures are all functional in design, and several are demountables.

3.1.2 *Geology*

Lake Macquarie is situated on the north-eastern edge of the Sydney Basin, which extends over central-eastern NSW. Lake Macquarie’s geology mainly consists of Triassic age Munmorah Conglomerates (Triassic Narrabeen Sandstones) in the south and west, and Permian Newcastle Coal Measures in the north. As the only region where these geological features interface, Lake Macquarie has an unusual and complex mix of soil types (NPWS 2005:7).

The Nords Wharf Site is composed of the Triassic Clifton Sub-group comprising Munmorah conglomerates (Nelson 1995:19-21). The Narrabeen Formation dominates the southern area of Lake Macquarie, particularly the south western, southern and south eastern shores of Lake Macquarie (Haglund 1986:5). The Nords Wharf Site is located on Wyong (an alluvial soil type) and Doyalson soil types.

3.1.3 *Topography and Landform*

The Nords Wharf Site is located in the southern part of Lake Macquarie, the largest tidal Lake in Australia. Prior to 10,000 years ago, Lake Macquarie existed only as a broad, shallow embayment. However, following the increase in sea levels in the early-mid Holocene, a marine sand barrier had been created at the Lake entrance by approximately 6,000 years ago, causing the formation of Lake Macquarie as a barrier estuary (NPWS 2005).

Speight (1990) describes categories of landform divisions, including ten morphological types of landform element units. For archaeological investigations the landscape is divided into standardised elements that can be used for comparative purposes and predictive modelling. Based on a preliminary survey of the Nords Wharf Site, a number of landform units were identified within the Nords Wharf Site, being slopes, ridges, crests, flats, dunes and gullies/creeks.

The Nords Wharf Site is located on a gently sloping ridge that levels out to a flat along the lake edge. The original landform comprises predominantly sloping landform elements with minor first order drainage depressions.

3.1.4 *Drainage*

The Nords Wharf Site generally slopes down to the south and drains into Lake Macquarie. A small creek tributary (first order – Strahler model) exists within the Nords Wharf Site. It should be noted that the Nords Wharf Site is located within the ‘Swansea-North Entrance Mine Subsidence District’. The surface typology and hydrology of the study area may have been affected by subsidence caused by historical mining activities (Navin Officer 1995:5-6). It is therefore possible that the current drainage pattern differs from the original Holocene pattern.

3.1.5 *Flora And Fauna*

RPS undertook vegetation mapping in 2005 and more extensive mapping in 2007. It was found that the vegetation occurring at Nords Wharf generally comprised Swamp Mahogany Paperbark Swamp Forest, Swamp Oak Rushland Forest and Coastal Foothills Spotted Gum Ironbark Forest.

Vegetation in the Nords Wharf Site is predominantly comprised of medium density Swamp Oak and Spotted Gum, with the understorey cleared in areas for the Scout Camp structures. Some parts of the Nords Wharf Site contain mature (old) trees.

RPS (2005) also notes a range of fauna species present or likely to be present in the Nords Wharf Site, which are predominantly comprised of birds, small mammals, frogs and reptiles. Reference should be made to RPS (2007) for the current full vegetation mapping of the Nords Wharf Site.

Regional Aboriginal Heritage

Prior to European settlement of the region, the Lake Macquarie area was inhabited by the Guringai and Awabakal people. Although information about the Aboriginal occupation of the Nords Wharf area is somewhat limited, the abundance of food resources (particularly around the lake's foreshore) indicates that this region would have been 'attractive' to the groups living in the area (EJE 2005:15). By the start of the twentieth century only a small number of Aboriginal people remained in the area living on the outskirts of settlements including Cams Wharf. However, the community remained in the region and has since grown to be one of the most dynamic and largest in NSW (Turner and Blyton 1995:51-52).

A brief literature review of the NSW DECCW library was made (July 2007) to understand archaeological sites in the broader region. This review was targeted to those reports relevant to the Nords Wharf Site. Key word searches were used to find reports for the locality in the Aboriginal Heritage Information Management System (AHIMS) Aboriginal Sites Database. *Table 3.1* lists reports which were reviewed and the locality with which they were concerned.

The general patterning of Aboriginal sites in the local area show a strong association with the lake edges, and little recorded in the immediate hinterland. This reflects Aboriginal focus on lake resources, predominantly shellfish.

It is noted that the 2003 Lake Macquarie Aboriginal Heritage Study Stage 1B Survey report, prepared by Umwelt for Lake Macquarie City Council (LMCC), includes the Nords Wharf Site but is yet to be finalised. It is currently not available for release to the public.

Table 3.1 Literature Review of Relevant Archaeological Reports from the AHIMS Database

Author & Date	Distance from Nords Wharf Site	Type of development/ report	Locality	Aboriginal Sites Recorded
Haglund (1986)	Includes the present Nords Wharf Site	Assessment report to LMCC	Lake Macquarie LGA	Discusses predictive model for likely site types and locations in Lake Macquarie area
Nelson (1995)	Includes the present Nords Wharf Site	Thesis for Master of letters University of New England	Lake Macquarie LGA	Discusses predictive model for midden sites in Lake Macquarie area
Haglund (1985)	Approx. 2.5 km south east	Aboriginal archaeological survey for proposed coal reject emplacement and associated conveyor belts	Wallerah Colliery, Catherine Hill Bay	None
Griffiths (1992)	Approx 2 km west	Aboriginal archaeological survey for proposed water sports club and holiday cabins	West side of Kanangra Drive, Gwandalan	Shell midden comprising cockle (<i>A. trapezia</i>) shell found on Lake foreshore
Haglund (1987)	Approx. 2 km south east	Aboriginal archaeological survey for proposed coal reject emplacement and coal handling developments	Wallerah Colliery, between Pacific High-way and township of Catherine Hill Bay	None
Brayshaw (1989)	Approx. 3.5 km west	Aboriginal archaeological survey for proposed tourist resort	Area on fore-shore of Lake Macquarie, at Summer-land Point	Shell midden comprising <i>A. trapezia</i> , whelk (<i>Pyrazus ebeninus</i>) and abalone (<i>Haliotis ruber</i>) found on western bank of Bonny Boy Gully near Lake foreshore
Dallas (1986)	Includes sewage treatment works site approx. 3 km west	Aboriginal archaeological survey of proposed pipe-line	Between sewage treatment works sites at Gwandalan and Mannering Park	Shell midden comprising <i>A. trapezia</i> found in roadway

Author & Date	Distance from Nords Wharf Site	Type of development/report	Locality	Aboriginal Sites Recorded
Dallas <i>et al</i> (1993)	Approx. 5 km north west	Aboriginal heritage assessment of proposed Morisset Peninsula Sewerage Scheme	Morisset peninsula, Lake Macquarie	12 shell middens comprising mainly <i>A. trapezia</i> , with some mud oyster (<i>O. angasi</i>), <i>P. ebeninus</i> , peri-winkle (<i>Bembicium sp.</i>), mud creeper (<i>Velacumantus australis</i>), scallop (<i>Notovola sp.</i>) and <i>Bittium sp.</i> found on foreshore flats, beaches, toes of hills, and hillslopes, with more concentrated middens adjacent to permanent creeks and where small freshwater creeks enter Lake. Chert artefact at one midden
Brayshaw (1988)	Approx. 3.5 km north east	Aboriginal archaeological survey for proposed Caves Beach Resort development	Caves Beach, Lake Macquarie	One midden, one shelter with PAD and one midden and burial site (relocated). Midden and burial site located on creek estuary and beach with associated rock platforms, included turban (<i>Ninella torquata</i>), <i>H. ruber</i> , <i>A. trapezia</i> , limpet (<i>Cellana tramoserica</i>), ducks-bill (<i>Scutus antipodes</i>), rock oyster (<i>Saccostrea commercialis</i>) and sea urchin (<i>Heliocidaris erythrogramma</i>), stone artefacts (including some backed artefacts) of chert, petrified wood, quartzite and basalt, and a fish hook file. Midden on Lakeshore included <i>A. trapezia</i> , <i>O. angasi</i> , <i>P. ebeninus</i> , <i>S. commercialis</i> and scallop, and stone artefacts of quartzite, chert and volcanic rock. Shelter with PAD consisted of conglomerate bedrock outcropping near creek
Dean-Jones (1988)	Approx. 4 km north	Aboriginal archaeological survey	Lot 37 Lambton Parade, Swansea Heads	Shell midden material found on property comprising <i>A. trapezia</i> , <i>P. ebeninus</i> , mussel and oyster shells, and stone artefacts made from Nobby's tuff
Dyall (1975)	Approx. 3.5 km north	Aboriginal archaeological excavation	Swansea Heads, Lake Macquarie	Midden material including <i>A. trapezia</i> , <i>O. angasi</i> , <i>P. ebeninus</i> , <i>Nerita sp.</i> , fish bone, bone points, stone cobbles used for tools (including ground-edge axes and anvils), and human burials
Donlon (1991)	Approx. 3.5 km north	Skeletal remains identification of remains from the Swansea Channel burial ground	Swansea Heads, Lake Macquarie	Remains found indicated 21 individuals recovered, including 4 cremations, on beach in midden at Lake entrance
Resource Planning (1992)	Approx. 6 km west	Aboriginal archaeological survey for dredging and stabilisation of Windermere Creek	Windermere Creek, Lake Macquarie	Isolated tuff stone artefact found on cleared land. Small midden comprising <i>A. trapezia</i> found on swampy foreshore on bank of (eroding into) Windermere Creek near its junction with Lake Petite

The environmental context outlined above has implications for Aboriginal heritage and archaeological deposits in the Nords Wharf Site. The basic geology of the Nords Wharf Site (the Narrabeen Formation) indicates that significant stratified archaeological deposits are not likely to be present. Further, no outcrops of suitable raw materials for Aboriginal stone artefact manufacture were evident within the Nords Wharf Site, therefore stone quarry sites are not expected to occur. The lack of suitable stone outcrops also indicates that shelter sites, stone engraving/art sites and axe grinding grooves will not occur.

Soils across the Nords Wharf Site (Wyong and Doyalson soil types) have been associated with a high tendency for the occurrence of shell middens (Nelson 1995). These sites are likely to be found near to water sources such as creeks, the lake and swamp/marsh features. There is some potential for scarred or carved trees to occur in the Nords Wharf Site due to the maturity of the vegetation in some portions.

It can be stated that in general a pattern exists within the temperate zones of NSW where Aboriginal stone artefact sites are concentrated along watercourses. The watercourse flowing through the southern part of the Nords Wharf Site has some potential for associated artefacts, although there is an absence of recorded sites in comparable regional contexts. This may reflect a lack of archaeological survey, rather than a lack of Aboriginal sites.

AHIMS Search

A search of the AHIMS Aboriginal Sites Database at DECCW within a 13 km x 14 km area centred around the Gwandalan, Nords Wharf and Catherine Hill Bay (CHB) Nords Wharf Sites was undertaken in July 2007.

The extended search area provided additional context with regard to the location of known Aboriginal sites and provided further clarification as to previous archaeological work on a regional basis. It was also used for base line data for the concurrent ERM studies at CHB and Gwandalan.

The search identified a total of 94 recorded Aboriginal sites – although some are noted as duplicate recordings (see *Figure 3.1*). The results comprise of 67 middens (two associated with quarries, two associated with stone artefact scatters and one associated with burials [at Swansea]), 14 stone artefact sites (13 stone artefact scatters and one isolated find), four scarred trees and three Potential Archaeological Deposits (PADs). Pulbah Island is identified as an Aboriginal place.

The AHIMS search across the south of Lake Macquarie shows that middens are the main Aboriginal site type recorded in the area. Estuarine middens comprising mostly cockle shells with some oyster and whelk are found in many parts of the Lake Macquarie shore.

Three midden sites were identified from the AHIMS search, two close to the study area and one within the Nords Wharf Site. This site is located approximately 1 km north of the Nords Wharf Site. Site 45-7-0180 is also a midden, recorded at Cams Wharf, approximately 2 km north of the Nords Wharf Site. Another midden site, 45-7-0201, has been recorded along the foreshore off Marine Parade at Nords Wharf in the recreation reserve. The 2003 update to this site card record notes that the site maintains a poor degree of archaeological integrity and interest.

A midden site has been recorded along the foreshore at Camp Kanangra Scout Camp (45-7-0177). The site card for this midden indicates that it is quite extensive, with material located over at least 400 m along the foreshore and likely further. The site card also notes that while it is considered likely that more artefacts are located in the surrounding area (including the grassed areas), the level of disturbance suggests that there is a reduced likelihood of intact archaeological deposits. As this midden site has been recorded in close proximity to the proposed development area, a survey was required to confirm the location and extent of the midden to determine if it may be affected by the proposed development.¹

3.2.3

Discussion Relating To Aboriginal Midden Sites

Given the propensity of shell material associated with Lake Macquarie it is very important to be able to differentiate between natural shell beds and shell deposits created by Aboriginal people. Discussion on the nature of undisturbed cultural shell deposits as opposed to natural shell deposits have been provided by Bowdler 1983; Coutts 1966; Gill 1951; Hughes and Sullivan 1974. A summary of this work suggests that:

- Aboriginal middens contain shells that are of edible species and sizes, whereas natural shell deposits contain shells of both edible and non-edible species and sizes;
- Aboriginal middens contain charcoal/burnt wood, blackened/burnt shells, bones from mammals used for food, and artefacts (including flaked stone, hearth stones, bone points or shell or bone fish hooks) in addition to shells, whereas natural shell deposits do not;

¹ The extent of the midden within the study area was defined during the survey. Its extent is displayed in *Figure 5.2*.

- Aboriginal middens do not contain marine lifeforms not used by Aboriginal people (eg. corals and tube worms), whereas natural shell deposits do;
- Aboriginal middens are unstratified or roughly stratified, whereas natural shell deposits are usually well stratified with sedimentary features of water laid deposits; and
- Aboriginal middens do not contain shell that has been worn during transport in the offshore/beach zone (or shell grit or rounded pebbles), whereas natural shell deposits do.

While there has been some misidentification of naturally occurring or dredge waste shell as midden in comparable contexts, many reliable midden records reflect the sensitivity of the Lake Macquarie shore for midden material.

3.2.4 *Predictive Aboriginal Heritage Statement*

Based upon the environmental, regional and local archaeological patterns it is possible to provide a predictive statement for the occurrence of Aboriginal sites within the Nords Wharf Site.

Due to the undeveloped nature of the Nords Wharf Site, and general occurrence of Aboriginal sites across the region, intact Aboriginal sites could occur at any location within the Nords Wharf Site. However, there is a higher probability that Aboriginal sites were created near to the Lake foreshore and on the lower lying portions of the Nords Wharf Site, associated with an accumulation of water, i.e. the creek or temporary swamps/marshes. Sites most likely to be found are midden sites and stone artefact scatters, although a range of site types are possible – see *Table 3.2*. These sites could be extensive covering several hundred metres, as they could represent long term Aboriginal subsistence adjacent to the lake's edge.

Table 3.2 *Aboriginal Archaeological Site Types (in order of likely occurrence)*

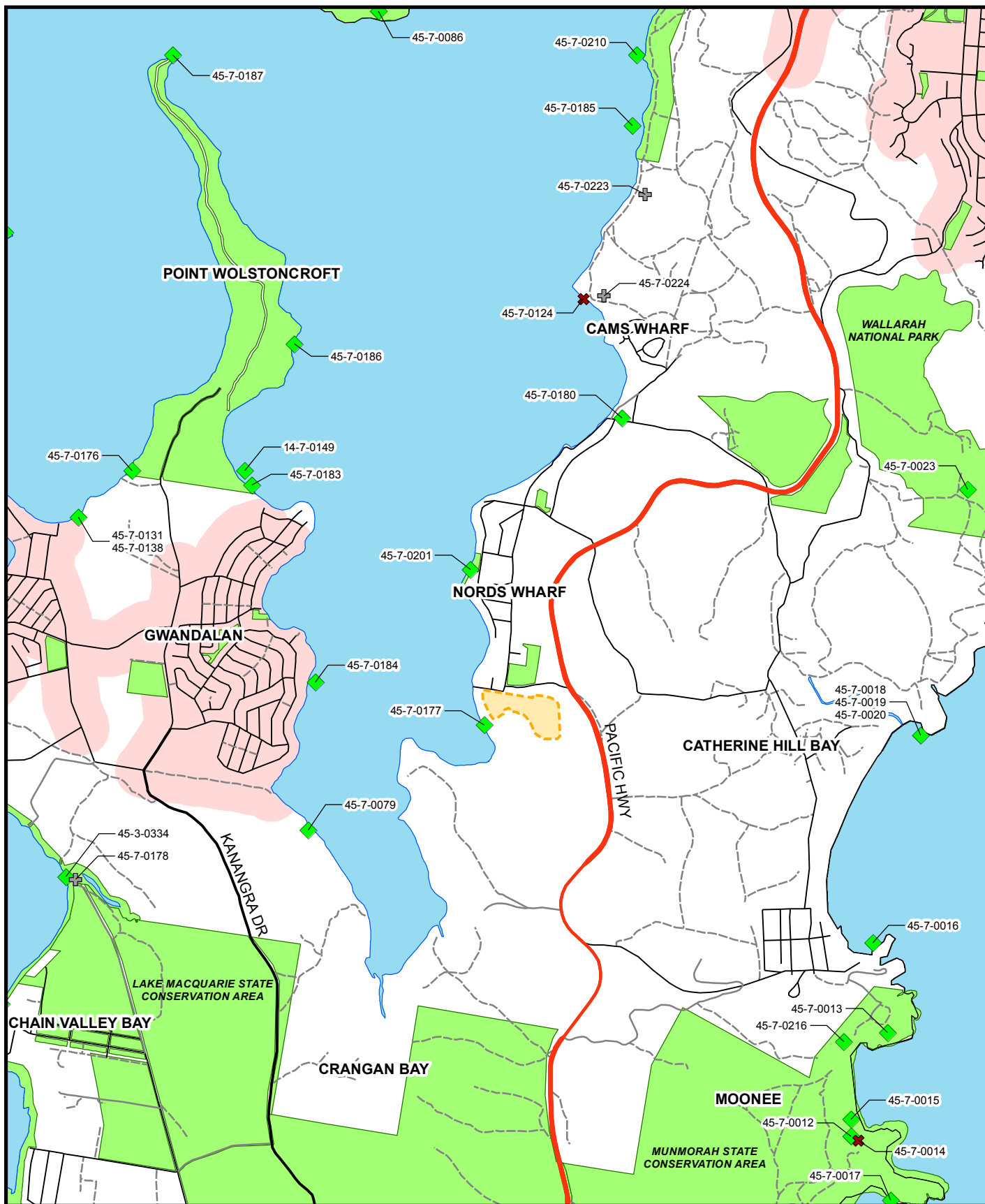
Site types	Definition
Middens	Middens consist of accumulations of shell that represent the exploitation and consumption of shellfish by Aboriginal people. Shell species may be marine, estuarine or freshwater depending on the environmental context and middens may also include other faunal remains, stone artefacts, hearths and charcoal.
Open sites [stone artefact scatters]	Open sites, also known as open campsites, are usually indicated by surface scatters of stone artefacts and sometimes fire blackened stones and charcoal. Where such sites are buried by sediment they may not be noticeable unless exposed by erosion or disturbed by modern activities. The term campsite is used as a convenient label which, in the case of open sites, does not necessarily imply that Aboriginal people actually camped on the sites; rather it indicates only that some type of activity was carried out there.
Scarred trees	Scarred trees bear the marks of bark and wood removal for utilisation as canoes, shields, boomerangs or containers. It is commonly very difficult to confidently distinguish between Aboriginal scars and natural scars or those made by Europeans.
Grinding grooves	Grooves resulting from the grinding of stone axes or other implements are found on flat areas of suitable sandstone. They are often located near waterholes or creek beds as water is necessary in the sharpening process. In areas where suitable outcrops of rock were not available, transportable pieces of sandstone were used.
Shelter sites	Sandstone shelters and overhangs were used by Aboriginal people to provide campsites sheltered from the rain and sun. The deposits in such sites are commonly very important because they often contain clearly stratified material in a good state of preservation.
Burial sites	Burials may be of isolated individuals, or they may form complex burial grounds.
Quarries	These are areas where stone was obtained for flaked artefacts or ground-edge artefacts, or where ochre was obtained for rock paintings, body decoration or decorating wooden artefacts.
Art sites	Aboriginal paintings, drawings and stencils are commonly to be found where suitable surfaces occur in sandstone shelters and overhangs. These sites are often referred to as rock shelters with painted art. Rock engravings, carvings or pecking are also to be found on sandstone surfaces both in the open and in shelters. These are referred to as rock engraving sites.
Stone arrangements, carved trees and ceremonial grounds	These site types are often interrelated. Stone arrangements range from simple cairns or piles of rocks to more elaborate arrangements; patterns of stone laid out to form circles and other designs, or standing slabs of rock held upright by stones around the base. Carved trees are trees with intricate geometric or linear patterns or representations of animals carved into their trunks. Ceremonial grounds and graves were often marked by such trees. Bora grounds are a common type of ceremonial site and they are generally associated with initiation ceremonies. They comprise two circles, generally edged with low banks of earth but sometimes of stone, a short distance apart and connected by a path.

The background assessment of the Nords Wharf Site shows that the foreshore zone contains a previously recorded Aboriginal shell midden. This site is known to extend along the flat adjacent to Lake Macquarie, but there is a significant chance that it continues into the hinterland behind the foreshore.

It is predicted that shell middens and stone artefact sites (scatters and isolated finds) are the Aboriginal site types most likely to be found in the Nords Wharf Site. Stone artefacts are considered most likely to be found on ridges and flats adjacent to the small creeks, while middens are most likely close to the foreshore. Scarred or carved trees may occur within the Nords Wharf Site.

The location of the Scout Camp, on the slope adjacent to the foreshore, is limited in size and extent and does not appear to have significantly impacted the Nords Wharf Site in terms of modification to soil profiles. The Scout Camp has been located within the Nords Wharf Site since the mid to late 1970s and therefore has no physical items (i.e. archaeology or relics) that have statutory protection under the *NSW Heritage Act*.

It does not appear that the Nords Wharf Site has been associated with any other historical activities and there is a low chance that any historical heritage or archaeology items will be discovered within its boundaries.



4.1

EARLY REGIONAL SETTLEMENT

The establishment and growth of European settlement in the Hunter region is directly linked to the presence of coal. An 'abundance of coal' in the Lake Macquarie area was recorded in 1800 following Captain William Reid's journey to Newcastle to collect a small cargo of coal, where he mistakenly stopped at what is now known as Moon Island rather than Nobbys Island to collect the cargo (Barney 1999:1).

The earliest white settlers in the region were missionaries, led by Rev. Lancelot Threlkeld in the 1820s to the area named in honour of former NSW Governor Lachlan Macquarie. Threlkeld established several mission stations in the region along with the first coal mine, Ebenezer Colliery, at Coal Point on land granted in 1829 (Barney 1999:1).

The Hunter Valley was opened up to free settlement in 1820 following John Howe's discovery of an inland route from the Hawkesbury River to Patrick Plains. Extensive land grants were made along watercourses and farming for sheep and cattle commenced soon after (ERM 2006:5).

4.2

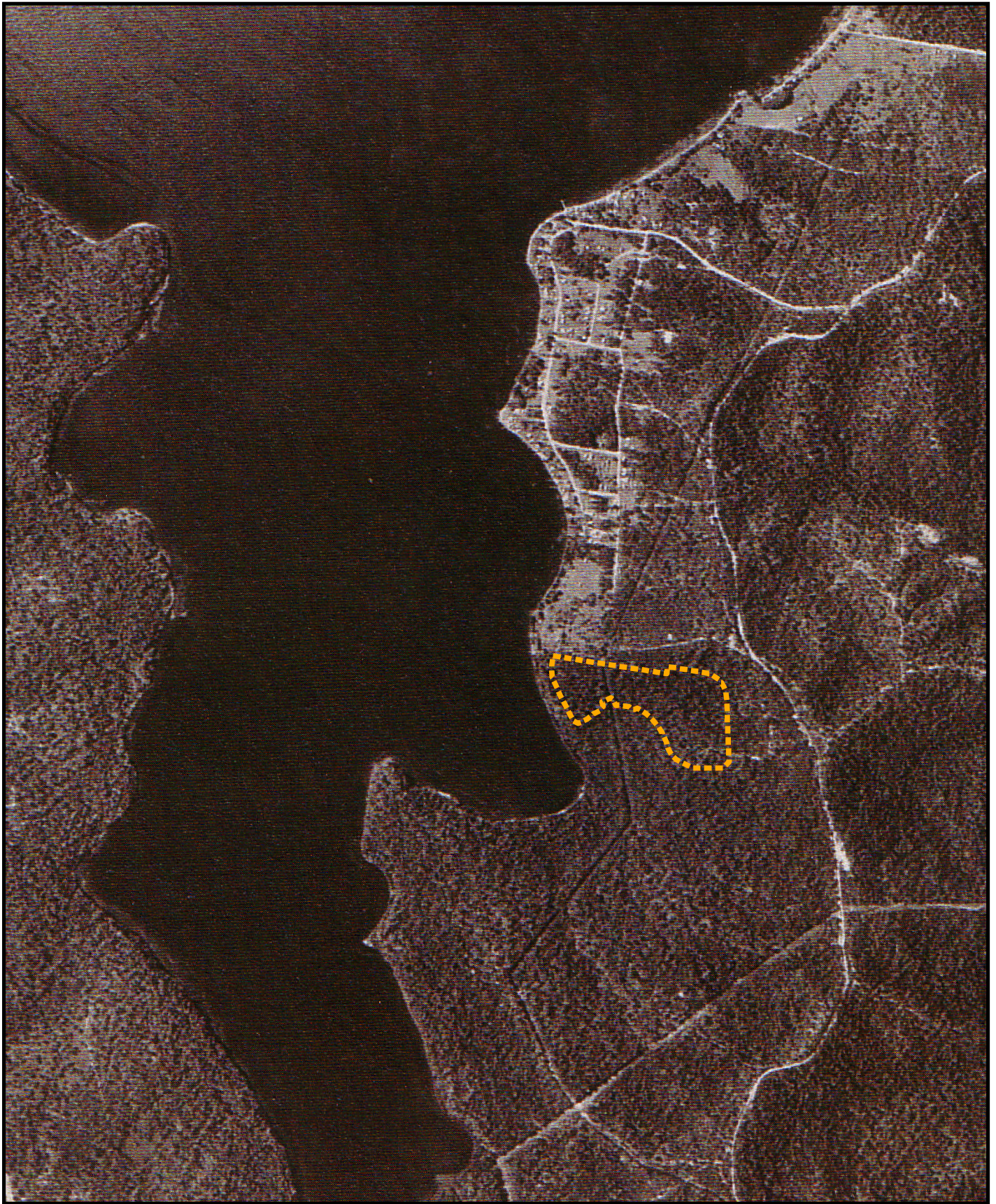
HISTORICAL OVERVIEW OF THE STUDY AREA

Nords Wharf takes its name from an early landowner, William James Nord, whose family owned a farm and orchard in the area. The land in the Nords Wharf Site is associated with the development of the Nords Wharf township immediately to the north and the mining operations that commenced at Catherine Hill Bay in the late 19th century.

The Parish Maps of Wallarah for 1914, 1920, 1925 and 1932 all indicate that the Nords Wharf Site is located on land originally owned by John Pope and George Hardie through these periods. The narrow foreshore area along the eastern edge of Crangan Bay is annotated as being reserved for "Public Purposes" (see *Figure 4.1*).


Of local historical interest are the school and activities associated with coal miners. The Wallarah Public School was built in 1919 and later was renamed Nords Wharf Public School. The site of the school is to the north of the Nords Wharf Site. Historical information associated with records for Catherine Hill Bay indicates that the Nords Wharf Public School served the local surrounding community.


Many miners who worked at Catherine Hill Bay lived in Nords Wharf. These men travelled by ferry to Catherine Hill Bay from the local wharf owned by William Nord (Lake Macquarie City Council website).



Legend
 Project Application Area

Client:	Catylis		
Project:	Lower Hunter Land Development - Nords Wharf		
Drawing No:	0111477s_NW_GIS004_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
Scale:	Refer to Scale Bar		


 N

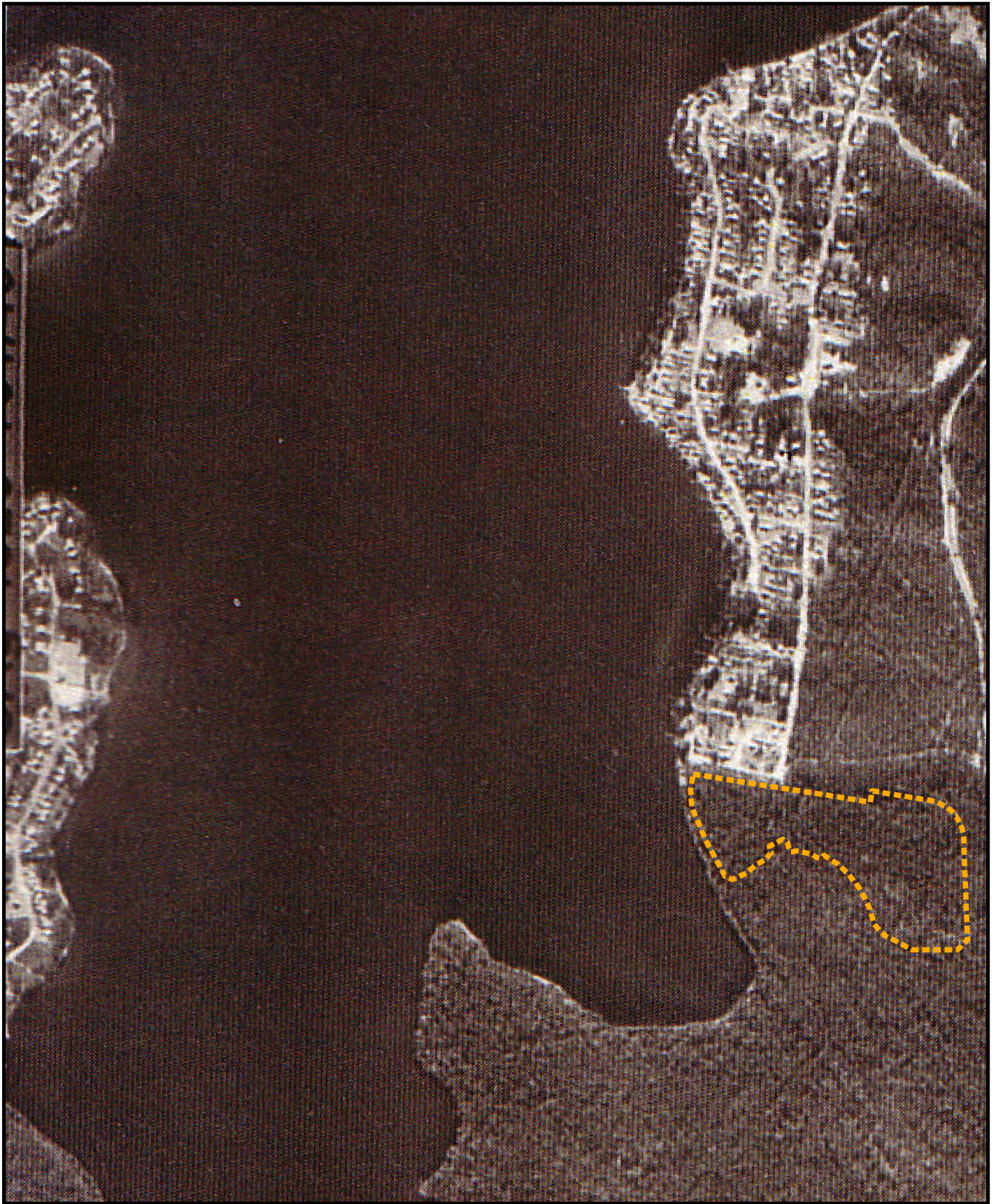
0 0.09 0.18 0.27km


Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 4.2
1954 Aerial Photograph of Nords Wharf

Environmental Resources Management Australia Pty Ltd
 Brisbane, Canberra, Hunter Valley, Melbourne, Perth,
 Port Macquarie, Sydney





Legend

 Project Application Area

Client:	Catylis		
Project:	Lower Hunter Land Development - Nords Wharf		
Drawing No:	0111477s_NW_GIS005_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
Scale:	Refer to Scale Bar		



Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 4.3

1975 Aerial Photograph of Nords Wharf

Environmental Resources Management Australia Pty Ltd

Brisbane, Canberra, Hunter Valley, Melbourne, Perth,
Port Macquarie, Sydney



Overall, it can be stated that the Nords Wharf Site has not been subject to historical development activities across most of its extent. The creation of a Scout camp, in the NW corner, appears to have resulted in the construction of limited numbers of buildings. Walking tracks have also recently appeared within the Nords Wharf Site. The review of historical evidence suggests that no buildings were erected within the Nords Wharf Site until the mid-1970s. The construction of these buildings is limited in extent and is unlikely to have had significant impacts to soil profiles within the Nords Wharf Site.



Photograph 4.1 Canoe practice at Camp Kanangra, Nords Wharf 1975

Source: Lake Macquarie Council Library

5.1 SURVEY METHODOLOGY

The Nords Wharf Site was surveyed on foot by the study team and Aboriginal representatives on 11 July 2007. The survey aimed to inspect all zones within the Nords Wharf Site that contained tracks and paths, areas with soil exposures and zones with low vegetation. Transects were also walked through the dense bush around and through the centre of the Nords Wharf Site (see *Figure 5.1*).

The study team inspected all zones within the Nords Wharf Site that were readily accessible and a representative sample of zones with dense vegetation. When heritage sites were identified they were recorded by the survey team for content, GPS location and digitally photographed. Notes were made of soil conditions, evidence of disturbance and possible extent of sites. Specific methodologies are described below.

5.1.1 *Built Heritage*

All built structures on site were inspected to determine their age and possible heritage values. The nature of construction for each structure was noted, along with possible disturbances to local soil profiles, resulting from foundation construction.

The results of this inspection were used to determine the disturbances resulting from approximately 25 years of Scout activity in the area.

5.1.2 *Historical Archaeology*

The Nords Wharf Site was surveyed for historical archaeological sites concurrently with the Aboriginal survey. An inspection of all visible soil profiles was made, as well as an inspection of the landscape for former sites, such as house sites, evidence of landscape modification (associated with cultivation) and material culture, such as rubbish dumps.

5.1.3 *Aboriginal Heritage*

The ERM field survey team was accompanied by six Aboriginal representatives (Tracey Howie from GTLAC, Kerrie Brauer and Jon Hawken from ATOAC, Shane Frost and James Frost from ADTOAC, and Noel Drake from BLALC).

The survey was conducted according to the proposed draft methodology (see *Annex A*), as specified during the Aboriginal consultation. This focused on the identification of Aboriginal heritage values relating to archaeological sites. Field survey methods were adopted to pursue the discovery of new archaeological sites, ensure their accurate recording and provide sufficient background information to provide an assessment of cultural significance to the extent that surface survey allows. The field survey also aimed to determine the extent and intactness of the known midden site (45-7-0177) and to determine if it may be impacted by the proposed development.

As such each of the different landforms identified in the Nords Wharf Site were surveyed, namely slopes, ridges, crests, flats, dunes and gullies/creeks. Creek lines, mature trees, erosion scours and vehicle access tracks were all inspected. In order to ensure the highest likelihood of finding sites if present, survey focussed particularly on areas of visibility, water courses and trees.

5.1.4 *Fieldwork Constraints And Opportunities*

The survey was limited by the vegetation cover that was present over most of the Nords Wharf Site. Ground visibility was in general low, and it is estimated that less than 2% of the Nords Wharf Site was sampled during the survey (see *Annex B* for Effective Coverage Table). Erosion occurred predominantly because of vehicle and walking tracks along with occasional patches of exposed ground resulting from water erosion. The Scout Camp zone (the area with the highest Aboriginal archaeological potential) was generally de-vegetated of its understorey. This provided good opportunities to inspect the soil through the low grass covering.

In light of these constraints, the survey focused particularly on areas of visible ground; however a sample of each of the landforms identified was surveyed (see below, and *Annex B*) to ensure that the full range of potential site locations was inspected.

5.2 *SURVEY TRANSECTS*

The survey of the Nords Wharf Site initially focused upon the tracks and paths within the main body of the Nords Wharf Site. This surveyed all possible paths with erosion and visibility. Next a representative sample of the densely vegetated zone was surveyed. Finally the Scout Camp area was surveyed. These survey areas took in a number of landforms which defined the survey transect inspected. The transects and landforms are identified in *Table 5.1* and *Figure 5.1*, further details are provided in *Annex B*.

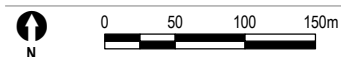
Table 5.1 *Description of Transects Surveyed*

Transect	Landforms	Description
T1	Slope	Slope up from foreshore commencing at the western boundary of the Nords Wharf Site.
T2	Slope	Forest track along the northern boundary of the Nords Wharf Site.
T3	Slope	Forest tracks through the centre of Nords Wharf Site.
T4	Flat	Open sandy forest track through the south and east of Nords Wharf Site.
T5	Slope	Forested area along the southern, western and central north of Nords Wharf Site.
T6	Slope	Slope occupied by the Scout Camp.



- Legend**
- Project Application Area
- Transects**
-
-
- Landform**
- Flat
- Slope

Client:	Catylis		
Project:	Lower Hunter Land Development - Nords Wharf		
Drawing No:	0111477s_NW_GIS006_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
Scale:	Refer to Scale Bar		



Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 5.1
Survey Transects and Landforms

Environmental Resources Management Australia Pty Ltd
Brisbane, Canberra, Hunter Valley, Melbourne, Perth,
Port Macquarie, Sydney



5.3 *FIELD SURVEY RESULTS*

5.3.1 *Built Heritage*

The area inspected at Nords Wharf is currently used as a Scout Camp known as Camp Kanangra. A number of buildings have been constructed as part of the Scout Camp all of which are consistent with being built within the last thirty years.

The structures on site include:

- the timber “Camp Kanangra” entry sign (*Photograph 5.1*);
- the wardens office and associated out buildings (*Photograph 5.2*);
- camp kitchen and facilities (*Photograph 5.3*);
- camp accommodation (*Photograph 5.4*); and
- galvanised iron kitchen and bathroom facility buildings (*photograph 5.5*).



Photograph 5.1 Main Entry to Camp Kanangra



Photograph 5.2 Wardens Office



Photograph 5.3 Camp Kitchen and facilities



Photograph 5.4 Accommodation



Photograph 5.5 Camp facilities

The construction of these buildings is likely to have removed original topsoil (A1 and A2 horizons) beneath the foot print of each building. Construction is unlikely to have disturbed intact soil horizons surrounding the buildings. Overall the construction of the Scout Camp buildings has not greatly impacted the archaeological resource of the Scout Camp area.

5.3.2 *Historical Archaeology*

The survey of the Nords Wharf Site did not reveal any evidence for any items of historical archaeological heritage. In general the Nords Wharf Site appears not to have been previously impacted by historical activities which could have created an archaeological record.

5.3.3 *Aboriginal Heritage*

Initial consultation with the local Aboriginal community indicated that Aboriginal heritage issues were associated with the potential for Aboriginal archaeological sites across the Nords Wharf Site. These sites included middens and stone artefact scatters.

The result of the survey confirmed that numerous exposures of Aboriginal shell midden were identified within the Nords Wharf Site (see *Figure 5.2*). These were primarily associated with the area within the Scout Camp, but extended up onto the slopes behind the Scout Camp and through the forested area associated with contemporary landforms.

The extent of the exposures and their location indicate that rather than separate Aboriginal midden sites, the material visible in exposures forms a component of one large extensive midden complex. This complex extends down to the foreshore and the previously recorded Aboriginal site 45-7-0177. This site is therefore described further for clarification and archaeological purposes.

History of Recordings of this Midden Site

One of the aims of the field survey was to determine the extent and intactness of the known midden site 45-7-0177 and ascertain whether the proposed development was likely to impact the site. The site had previously been recorded adjacent to the Lake foreshore, extending up into the Scout Camp area.

This midden site was initially recorded in 1992 by the NPWS. The recording was updated in 2003 by Umwelt (the report for this study being unavailable for release to the public at this stage).

The 1992 recording describes the midden site as having been partly disturbed by clearing and grounds maintenance activities. The 2003 recording stated that further damage has occurred through the activities of the Scout Camp, including track construction, other earthmoving activities and camping activities such as campfires. The site is noted to be located on basal conglomerate, up to 400 m from drinking water, with the surrounding vegetation comprising *Casuarina glauca* (swamp oak), *Eucalyptus robusta* (swamp mahogany), *Melaleuca quinquinervia* (swamp paperbark), *M. styphelioides* (prickly paperbark) and *Angophora costata* (Sydney red gum). The current field survey confirmed that this vegetation does not appear to have substantially changed in the intervening years (i.e. since 1992).

The midden itself was noted to comprise of a 'black deposit' in coarse gravely sands (the 1992 record suggesting that the depth was to 100 mm), comprising *Anadara trapezia* (cockle shell). The 2003 update noted that this shell was fragmented and that many fragments were burnt from Scout campfires. Stone artefacts were noted throughout the exposed midden deposit, comprising flaked tuff, silcrete and chert. The 1992 record also identified scrapers, a microlithic tool type dating to within the last several thousand years (i.e. a late Holocene technology). The 1992 record included a rough sketch map identifying shell extending less than 100 m from the Lake shore, beginning c.100 m south of the Nords Wharf boat ramp and extending south for approximately 500m. However, the 2003 update did not include a map, only noting that the exposure extended for approximately 400 m.

2007 Survey Results

The current field survey confirmed shell exposures extending throughout the open area of the Scout Camp. Exposures were also noted eroding from the tracks, closest to the foreshore, and through the forested area behind (to the east of) the Scout Camp. *Figure 5.2* provides a reference to the locations where midden and stone material were observed. As a result of the field survey it can be stated that the midden extends across a portion of the proposed development area.

Soil exposures on the track comprised a low density of shell (limited to small fragments) and stone artefacts. Instances of stone artefacts were noted without associated shell material. However, given the landform (a slope) and erosion activity (water run off) it is suggested that it is possible the small stone artefacts observed had been moved from their original location down the walking tracks. All exposures observed within the eastern portion of the forested area (i.e. outside of the Scout Camp zone, but in close association to the landform where the midden material was originally observed in 1992) were recorded as part of known midden 45-7-0177. This association was drawn because all evidence for the midden was located on the same west-facing slope extending up from the foreshore.

The Aboriginal evidence observed thus represents a 'complex' of midden material resulting from long term (probably several thousand years) occupation and use of the area. The long term occupation comprises a pattern of subsistence activities and artefact manufacture on this part of the Lake. Discussion with the Aboriginal representatives provided evidence for long term use of this area. It was suggested that the nearby Pulbah Island was used for male initiation ceremonies. People not involved in these activities would have waited in this area (i.e. where the midden is now observed) for the return of males from Pulbah Island. Celebrations would then have been held in this area on the return of the newly initiated young males. Such activities could account for the extensive accumulation of midden material observed.

Midden Composition

Shell material in this midden comprised predominantly *A. trapezia* with occasional fragments of *Saccostrea glomerata* (oyster). This is consistent with other recorded Lake Macquarie middens. Some small charcoal fragments were seen amongst the shell in the Scout Camp area, however it is uncertain whether these originated from the midden deposit or from recent Scout campfires. An examination of exposures containing midden indicated that the midden material occurred in varying densities throughout the Scout Camp and track area.

Flaked, retouched and heated stone artefacts of chert, quartz and silcrete (< 2 cm in dimension) were noted throughout these midden exposures. Of special note was a retouched, broken (proximal) chert flake (2 cm x 0.5 cm) found in the central area of exposure on the eroded track, which was identified as a backed artefact (another microlithic tool type dating to the Holocene). The end of this artefact had been snapped off, which seems to have resulted in the manufacturer abandoning completion of the backing.

The midden deposit was seen in a dark sandy soil overlying brown clay. The profile of the soil was examined in the road margin at the northern boundary of the Nords Wharf Site. Here the A1/A2 soil horizons appeared to be around 400 mm deep, sharply abutting the B1 clay.

Exposures on tracks in the centre and north of the Nords Wharf Site, associated with the midden but outside of the Scout Camp area, had a similar topsoil depth of 300-400 mm (comprising A1 organic matter and A2 soils abutting a mixture of B1 clays and bedrock). Exposures on tracks in the south of the Nords Wharf Site (flat landform) consisted of organic matter (A1) and a white sandy soil (A2) with a maximum depth of 100 mm, overlying a white B1 clay.

The A1 soil layers observed across the Nords Wharf Site represents the recent breakdown of organic matter. This soil horizon contained evidence of recent rubbish dumping, from small items such as fragments of plastic, glass and ceramic, to campfires and larger dumped rubbish such as burnt car bodies. The A2 soil horizons, which contain the bulk of the Aboriginal material observed, represent the long term accumulation of organic material and the breakdown for B1 clays. All B1 clays appear to be the breakdown product of the underlying bedrock.

5.3.5 *Discussion - Archaeological Potential And Archaeological Zoning*

It is necessary to determine whether the Nords Wharf Site has further archaeological potential. Archaeological potential means the possibility of discovering further archaeological material and the likelihood that this material has not been disturbed. Definitions of archaeological potential are provided in *Table 5.2*.

Table 5.2 *Definitions of archaeological potential*

Rank	Definition	Example
No potential	Artefacts cannot occur in situ.	Reconstructed landscapes, hazardous landscape, developed areas.
Low potential	Artefacts are not normally found in comparable contexts but could occur in low densities making detection unlikely.	Landforms with no specific focus for use, i.e. with water sources or undifferentiated slopes.
Moderate potential	Artefacts are known to occur in comparable landforms in detectable densities (~1artefact/m ²) and there is an unknown possibility for detection.	Landforms with an environmental focus which may have seen seasonal visitation.
High potential	Artefacts are consistently found in comparable landforms or similar environmental contexts and thus will certainly be found in any ground breaking works.	Landforms with known environmental focus encouraging repeat visitation to specific locale, i.e. margins of Lakes or near high order creeks.

Site 45-7-0177 is an extensive midden that has been previously recorded outside the Nords Wharf Site (along the foreshore) and within the Nords Wharf Site (across the Scout Camp area). The site has been confirmed to extend eastwards from the foreshore, upslope to a vehicle track, to the east of the Scout Camp). Shell was seen in varying densities across this area – see *Figure 5.2*. This variable density of shell can be related to a number of factors:

1. the extent of current exposures providing a view of the midden material;
2. the variability in original accumulation of midden material, i.e. some zones within the site have more accumulated material; and
3. impacts caused by the Scout's activities in their camp ground.

In areas of obvious erosion i.e. near campfires, buildings and vehicle tracks, the midden appeared more fragmented and dispersed. In less disturbed areas, such as near groups of trees or the perimeter of the Scout Camp, midden was more intact and more densely distributed.

It can be stated that activities associated with the Scout Camp have disturbed portions of the midden to varying degrees. However, this disturbance is mainly to the upper surface of the midden. Given that the midden is probably contained with 400 mm of A2 soils, the Scout's activities may have impacted on average the upper 100 mm. The area containing the midden is therefore considered to have high archaeological potential to contain further intact and undisturbed archaeological deposits – see *Figure 5.2*. The area containing the midden has been divided into Archaeological Zones (AZ) 1 and 2 (*Figure 5.2*).

It is recommended that a portion of midden within Archaeological Zone 1 should be avoided during development, if possible. Any impacted sections of midden in AZ 1 will need to be mitigated. The portion of midden within Archaeological Zone 2 should be subject to appropriate mitigation prior to development. These mitigation measures are provided in *Chapter 10*.

Detailed survey across the remainder of the Nords Wharf Site, Archaeological Zone 3, was more limited because of dense vegetation cover. AZ 3 remains generally undisturbed and thus any Aboriginal sites located within the zone are unlikely to have been significantly impacted over the past 200 years. However, no Aboriginal sites were recorded within this zone.

It is assumed that, given the proximity to the foreshore and thus the midden, AZ 3 would have been used for more sporadic Aboriginal occupation – possibly an inverse correlation with distance from the foreshore. It is therefore possible that Aboriginal sites could be located within this area. However, if compared to the recorded site in AZ 1 and 2, any sites in AZ 3 are likely to be small in size and extent. As such AZ 3 is considered to have a low archaeological potential.

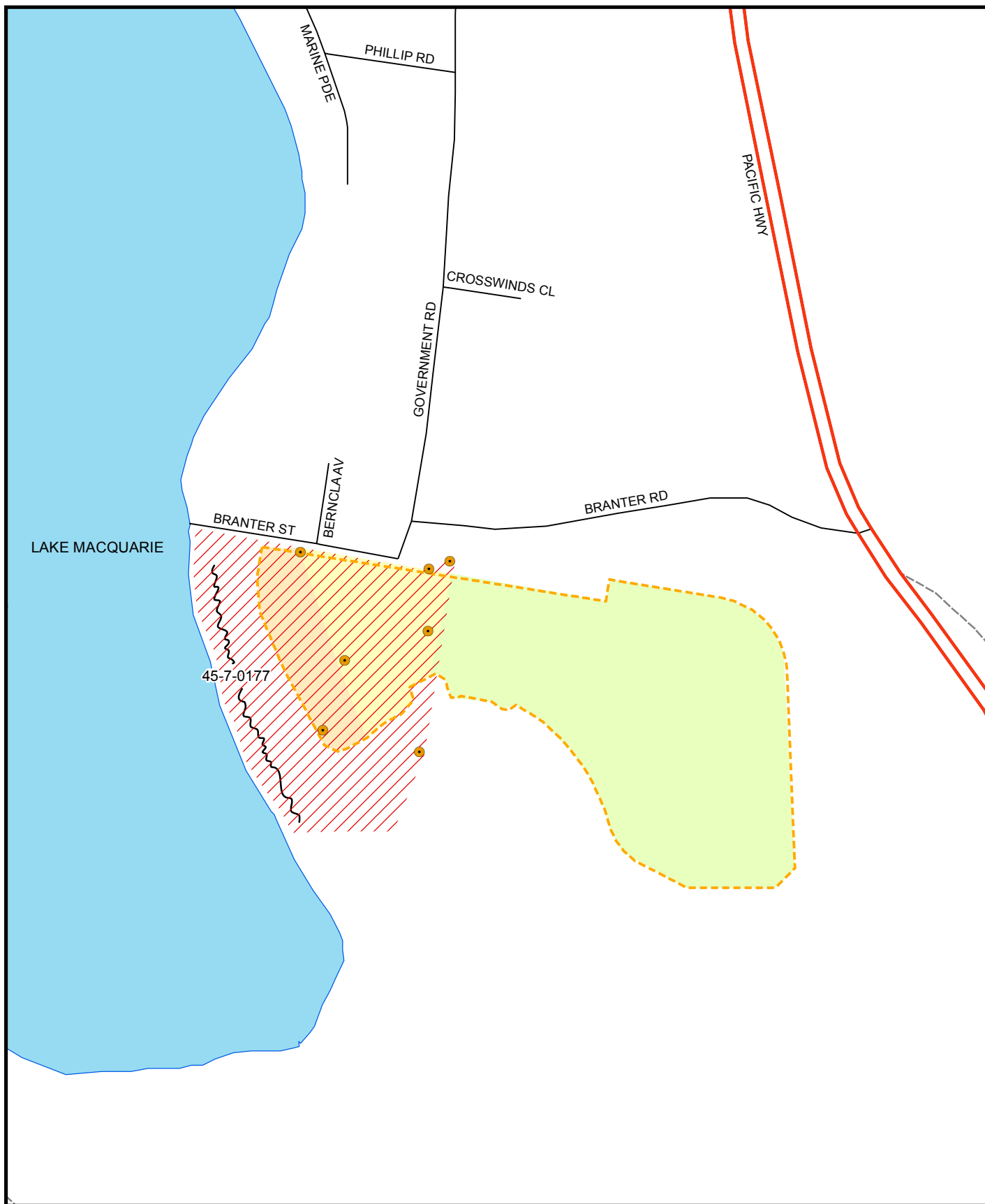
5.4

SYNOPSIS OF FIELD SURVEY RESULTS

The field survey found that the Nords Wharf Site contains no items of historical heritage significance. The survey confirmed the presence of Aboriginal midden site 45-7-0177 and defined its extent within the Nords Wharf Site. The Nords Wharf Site has been divided into three zones:

- AZ 1 – this contains the midden and has a high archaeological potential. All impacts arising from development should be mitigated within this zone;
- AZ 2 – this contains the midden and has a moderate archaeological potential. Impacts arising from development should be mitigated within this zone; and
- AZ 3 – this zone covers the central and eastern portions of the Nords Wharf Site. This area does not contain any known Aboriginal sites and has a low archaeological potential.

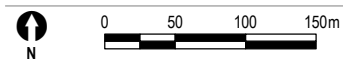
In summary, the Nords Wharf Site provides evidence for the pattern of Aboriginal occupation around the shores of Lake Macquarie, with more frequent evidence of occupation adjacent to the foreshore and more sporadic occupation as distance from the Lake increased.



Legend

- Project Application Area
- Midden Observed
- ~~~~~ Original Midden Recording
- /// High Arch Potential Area
- Archaeological Zone 1
- Archaeological Zone 2
- Archaeological Zone 3

Client:	Catylis		
Project:	Lower Hunter Land Development - Nords Wharf		
Drawing No:	0111477s_NW_GIS007_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
Scale:	Refer to Scale Bar		



Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 5.2
Observed Location of Midden
45-7-0177 and Archaeological
Zoning Plan

Environmental Resources Management Australia Pty Ltd

Brisbane, Canberra, Hunter Valley, Melbourne, Perth,
Port Macquarie, Sydney



6.1 HISTORICAL HERITAGE ASSESSMENT

6.1.1 Historical Assessment Criteria

The Burra Charter (*The Australia ICOMOS Charter for Places of Cultural Significance*) has set a standard for assessing heritage significance based on the aesthetic, historic, scientific and social values embodied in an item or place. In New South Wales the *Heritage Act 1977* has established seven criteria for the identification and assessment of heritage values. The NSW Heritage Office, Department of Planning, has developed a guideline to assessing heritage significance against the seven criteria in their publication *Assessing Heritage Significance*. These criteria are as follows:

- criterion (a) – an item is important in the course, or pattern, of NSW’s cultural or natural history (or the cultural or natural history of the local area);
- criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history (or the cultural or natural history of the local area);
- criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);
- criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;
- criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history (or the cultural or natural history of the local area);
- criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history (or the cultural or natural history of the local area);
- criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW’s:
 - cultural or natural places; and/or
 - cultural or natural environments.

6.1.2 *Nords Wharf Concept Plan Area*

Camp Kanangra has an association with the Australia Scout movement in NSW, which has been using this area as a camp since the mid 1970s. However, this area is not used exclusively and continuously by one Scout troop, and is unlikely to have social significance as defined under the NSW assessment criteria.

The historical background and Nords Wharf Site investigation have revealed that it has no historical heritage items or value at a local or State level, including historical archaeological potential. The Nords Wharf Site does not meet any of the above criteria at a State or local level.

6.2 *ABORIGINAL HERITAGE ASSESSMENT*

6.2.1 *Aboriginal Assessment Approach*

Aboriginal heritage sites, objects and places hold value for communities in many different ways. The nature of those heritage values is an important consideration when deciding how to manage a heritage site, object or place and balance competing land-use options. The many heritage values are summed up in an assessment of “Cultural Significance”.

The primary guide to management of heritage places is the Australia ICOMOS Burra Charter 1999. The Burra Charter defines cultural significance as:

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.

Places may have a range of values for different individuals or groups.

This assessment has sought to identify Aboriginal heritage objects and sites within the Nords Wharf Site and obtain enough information to allow the values of those objects and sites to be determined.

Research and consultation with the Aboriginal community has also been conducted to determine whether any heritage value relates specifically to the Nords Wharf Site regardless of the archaeological evidence. While it is accepted that Aboriginal sites within the local Lake Macquarie region are of significance to Aboriginal people, this study sought to identify whether the Nords Wharf Site itself held specific values either in itself, or as part of a specific local area of particular significance.

Aboriginal heritage sites with archaeological evidence are of value to the Aboriginal community through the tangible connection that it represents with pre-European Aboriginal land use.

Scientific value is assessed according to the research potential of a site. Rarity and representativeness are also related concepts taken into account. Research potential or demonstrated research importance is considered according to the contribution that a heritage site can make to present understanding of human society and the human past. Those heritage site, objects or places of high scientific significance are those which provide an uncommon opportunity to inform us about the specific age of people in an area, or provide a rare glimpse of artistic endeavour or provide a rare chronological record of changing life through deep archaeological stratigraphy.

The comparative rarity of a site is a consideration in assessing scientific significance. A certain site type may be “one of a kind” in one region, but very common in another. Artefacts of a particular type may be common in one region, but outside the known distribution in another.

The integrity of a site is also a consideration in determining scientific significance. While disturbance of a topsoil deposit with artefacts does not entirely diminish research value, it may limit the types of questions that may be addressed. For example a heavily cultivated paddock may be unsuited to addressing research questions of small-scale site structure, but it may still be suitable for answering more general questions of implement distribution in a region and raw material logistics.

Research Questions

The capacity of an Aboriginal midden site to address local and regional scientific research questions is predicated on a definition of what the key research issues are for a region. In the area of Lake Macquarie, the main archaeological research questions centre around the antiquity and content of middens, and to a lesser extent on stone artefact manufacturing technology and raw material sources.

The background literature review has shown that relatively few archaeological investigations have been conducted within the local and regional area. Most of the studies have been field surveys, such as this report, where no consequential analysis or sub-surface investigation of Aboriginal sites has occurred. Some sites have been archaeologically investigated, but these have predominantly been related to Aboriginal burials.

The general absence of focused research in the Lake Macquarie area means that fundamental questions addressing Aboriginal land use, the chronology of the region, subsistence patterns and mechanisms for trade and exchange have not been explored. Archaeological questions should be asked on a local and regional basis.

The following section contains research questions that can be used to underpin any future archaeological work at the Nords Wharf site, if development were to proceed under Part 3A development consent. Suitable archaeological research questions focusing on local Aboriginal archaeology, which could be addressed through future investigations of the midden site within the Nords Wharf Site, include:

- What dates can be attributed to the use of the midden site? This can be determined through radio carbon dating of undisturbed deposits and by artefact typologies.
- What is the content of the midden? What species are represented? How do these change through time? Does any change represent a long term change in climate and thus subsistence base?
- What is the subsistence base of the region? Are shellfish sourced seasonally or year round? (It is possible to determine through oxygen 18 analysis of shell). Do land based animal remains feature in midden content? What does this tell us about subsistence strategies in the region?
- What are the stone technologies present in the midden deposit? Do these extend back before the mid-late Holocene? Do they provide evidence for trade and exchange of resources?

Regional research questions include:

- How does this site compare to middens in and along other Lakes or the coast?
- What information does the midden provide in terms of Aboriginal demographic and economic values? How do these fit in with a regional framework? Is it possible to see patterns relating to shifting demographics or alterations to trade networks, such as the 'opening' or 'closure' of social structures?
- Does the intensive use of the site provide evidence for an increase in late Holocene population numbers as elsewhere in NSW?

The site's exposures located within the Nords Wharf Site conform to the pattern of occupation expected in the Lake Macquarie area. This pattern displays more frequent occupation in close proximity to the Lake, seen in the Nords Wharf Site as extensive shell midden material from subsistence activity located within 100 m of the Lake, on a slope extending down to the foreshore. More sporadic occupation with increasing distance from the Lake was anticipated, and identified with sparse shell midden material identified further up the slope from the foreshore, within the forested area.

The midden site would appear to be representative within the local region. However, despite numerous midden sites being previously identified, it appears that a few have been archaeologically investigated, and none have been dated through scientific means, such as radio carbon dating. Therefore the extensive midden within the Nords Wharf Site can be said to have a high scientific value because of the opportunities the site presents to further our understanding of Aboriginal culture, subsistence, economy, demography and society in the region. The integrity of the site has been diminished by the presence of the Scout Camp. However these activities are most likely not to have impacted sub-surface deposits, especially those deposits outside the main camp area.

Consultation with the Aboriginal representatives was undertaken to understand the significance of this site to them. ERM obtained permission to quote Tracey Howie (TH) and Shane Frost's (SF) assessment of the site. Some of their views are presented below:

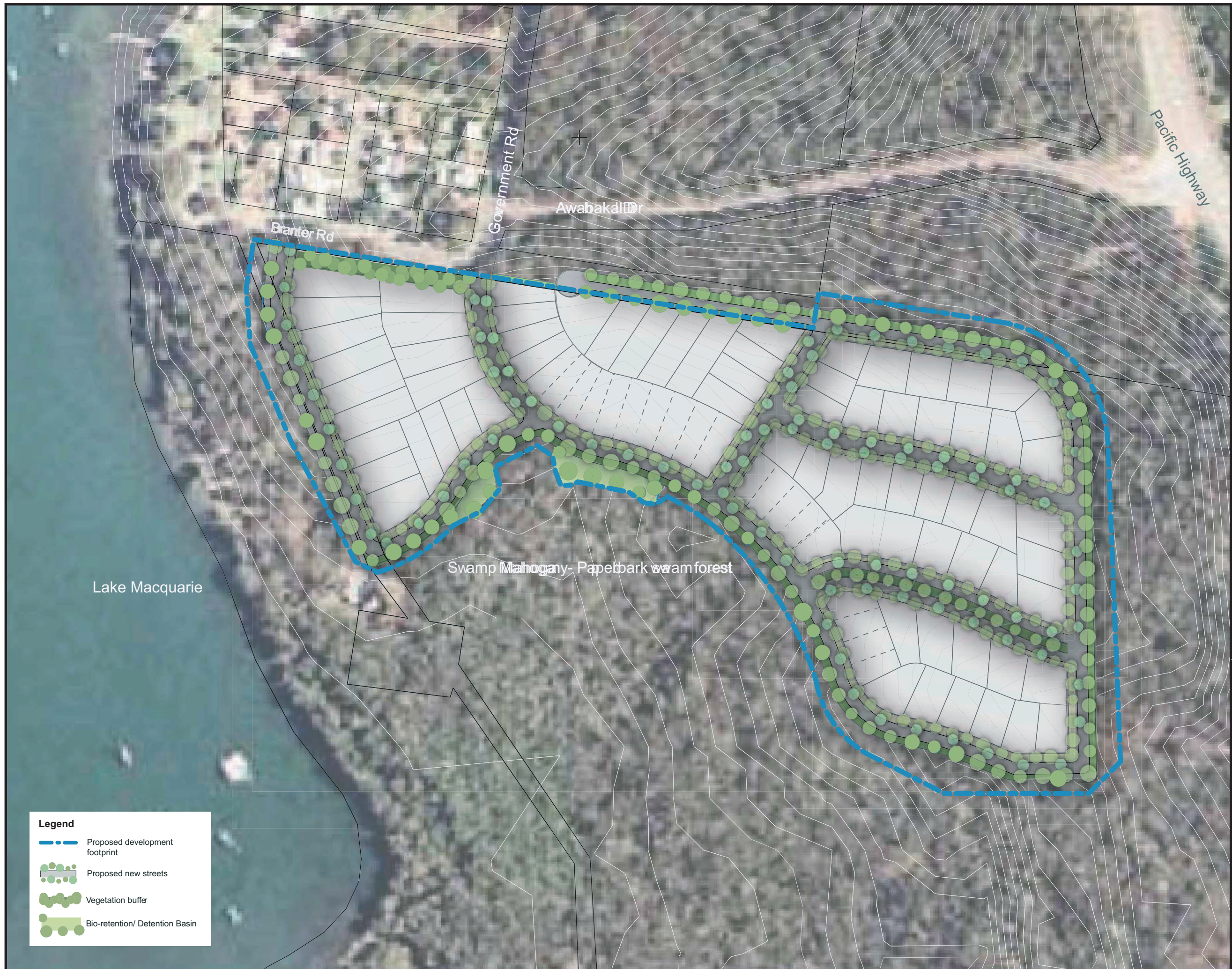
TH: "We want to get the messages left for us before the land is destroyed... Whether they are small or big [Aboriginal artefacts] these things were left by our families".

SF: "Some people think that its just a bunch of shell, but to us it means that we are touching the shells our ancestors threw into the fire".

Overall, this site can be said to have high archaeological significance and high archaeological potential. It also has a high level of significance to the Aboriginal community.

The concept plan for Nords Wharf is shown in *Figure 7.1*. If this is compared against *Figure 5.2*, it can be seen that the proposed development impacts part of the Aboriginal midden site near the foreshore.

The Concept Plan includes provision for public open space as well as roads and individual residential lots. It is suggested that some of the public open space could be used as further conservation zones for Aboriginal heritage sites.



Legend

- Proposed development footprint
- Proposed new streets
- Vegetation buffer
- Bio-retention/ Detention Basin

Figure 7.1
Nords Wharf - Concept Plan

Client:	Catylis		
Project:	Lower Hunter Land Development - Nords Wharf		
Drawing No:	0111477s_NW_01_R0		
Date:	22/02/2010	Drawing size:	A3
Drawn by:	GC	Reviewed by:	DN
Scale:	Refer to Scale Bar		

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
 Building C, 33 Saunders St, Pyrmont, NSW 2009
 Telephone +61 2 8584 8888



8.1 PREAMBLE TO ESD

An objective of the NPW Act (1974) is the “*conservation of objects places and features ... of cultural value within the landscape, including ... places, objects and features of significance to Aboriginal people ...*” (s.2A(1(b)(i)).

The DECCW’s publication, *Operational Policy: Protecting Aboriginal Cultural Heritage* (2009), provides guidance to proponents with guidance in term of ESD. The following discussion provides an overview of ESD and its application to the current project.

8.1.1 *Avoiding Or Reducing Impact To Aboriginal Sites*

“DECCW needs to balance the sometimes competing tensions between development activities and environment protection when we make decisions. Although the NPW Act gives a high level of protection to known Aboriginal objects, recent court decisions have reinforced that Part 6 gives the Director General (DG) express powers to consent to the damage, destruction or defacement of Aboriginal objects by development activities. The powers in Part 6 are not inconsistent with the objects of the Act or a requirement to give effect to ESD.” (DECCW 2009: Section 3.8)

The DECCW has three policies that provide guidance with respect to avoiding or reducing impact to Aboriginal sites:

Policy 20

Impacts to significant Aboriginal objects and places should always be avoided wherever possible. We [the DECCW] will promote the development (or amendment) of proposals to avoid impacts and therefore avoid the need for s.90 AHIPs.

Policy 21

Where impacts to Aboriginal objects and places cannot be avoided, we will require the proponent or AHIP applicant to develop (or amend) proposals so as to reduce the extent and severity of impacts to significant Aboriginal objects and places through the use of reasonable and feasible measures. Any measures proposed should be negotiated between the proponent or AHIP applicant and the Aboriginal community.

Policy 22

Once all avoidance, minimisation and mitigation options have been adequately explored, we may also consider the appropriateness of any proposed actions having potential Aboriginal cultural heritage benefit. Any actions proposed should be negotiated between the proponent or AHIP applicant and the Aboriginal community.

ESD has been defined in s.6 of the *Protection of the Environment Administration Act 1991*. This requires the integration of *economic* and *environmental* considerations (including cultural heritage) in the decision-making process. In regard to Aboriginal cultural heritage, ESD can be achieved by applying the principle of intergenerational equity and the precautionary principle. (DECCW 2009: 26)

Intergenerational Equity

“Intergenerational equity is the principle whereby the present generation should ensure the health, diversity and productivity of the environment for the benefit of future generations.

In terms of Aboriginal heritage, intergenerational equity can be considered in terms of the cumulative impacts to Aboriginal objects and places in a region. If few Aboriginal objects and places remain in a region (for example, because of impacts under previous AHIPs), fewer opportunities remain for future generations of Aboriginal people to enjoy the cultural benefits of those Aboriginal objects and places.

Information about the integrity, rarity or representativeness of the Aboriginal objects and places proposed to be impacted, and how they illustrate the occupation and use of land by Aboriginal people across the region, will be relevant to the consideration of intergenerational equity and the understanding of the cumulative impacts of a proposal.

Where there is uncertainty, the precautionary principle should also be followed.” (DECCW 2009:26)

The precautionary principle

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

In applying the precautionary principle, decisions should be guided by:

- a careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment
- an assessment of the risk-weighted consequences of various options.

The precautionary principle is relevant to DECCW's consideration of potential impacts to Aboriginal cultural heritage where:

- the proposal involves a risk of serious or irreversible damage to Aboriginal objects or places or to the value of those objects or places, and
- there is uncertainty about the Aboriginal cultural heritage values or scientific or archaeological values, including in relation to the integrity, rarity or representativeness of the Aboriginal objects or places proposed to be impacted.

Where this is the case, a precautionary approach should be taken and all cost-effective measures implemented to prevent or reduce damage to the objects/place." (DECCW 2009:26)

With respect to the above DECCW policy (Policy 20-22) and ESD the following sections detail specifications for conservation, potential impact, and possible reductions to impact on the identified Aboriginal sites and values.

8.2

PROPOSED CONSERVATION (AVOIDANCE) OF HERITAGE SITES

While a portion of the midden site at Nords Wharf might be impacted, the cumulative effect of the Coal & Allied proposed conservation zones means that the majority of the midden (where it has been identified with high archaeological potential) will be conserved for perpetuity. The effect of the conservation zone is such that it will prevent future development which would impact further middens and Aboriginal sites along and adjacent to the coast.

If the regional impacts of the proposed conservation zones versus development are considered, the limited impacts to parts of one midden (with the conservation of most of that midden) are considered to be more than offset by the guaranteed conservation and preservation of other Aboriginal sites (known and unknown) within the Coal & Allied conservation lands. The cumulative conservation benefit resulting from the proposed conservation lands are considered to be of holistic long term benefit to the Aboriginal heritage values of the region.

8.3

PROPOSED IMPACTS TO HERITAGE SITES

This analysis of potential heritage impacts has been prepared following the guidelines provided by the NSW Heritage Office and DECCW. It has also considered the requirements of the Coastal Design Guidelines for NSW in regard to heritage, which require the recognition and incorporation, or avoidance, of possible impacts on Aboriginal and European heritage sites and areas in planning and designing new development.

The implications and impact of development will not impact any historical heritage values of the Nords Wharf Site or the local region. Therefore it is not necessary to prepare a Statement of Heritage Impact (with regard historical heritage) for the proposed development.

As presented in *Chapter 7* (and *Figures 5.2, 7.1 and 7.2*) the proposed development is located across a portion of the Aboriginal midden site 45-7-0177. Archaeological survey has confirmed the extent and integrity of this midden site. The assessment of significance indicates that the site has high social value to the Aboriginal community, high/moderate archaeological potential and high scientific value. The site has been partially disturbed by recent activities in the area; however it is believed that a large proportion site remains fundamentally intact below the surface within the A2 soil horizon.

While a portion of the midden site will be impacted, the cumulative effect of the Coal & Allied proposed conservation zones means that the majority of this midden will be conserved in perpetuity. Further, the effect of the conservation zone is that it will prevent future development which would impact additional middens and Aboriginal sites along and adjacent to the coast.

If the regional impacts of the preposed conservation zones versus development are considered, the limited impacts to parts of one midden (with the conservation of most of that midden) are considered to be more than offset by the guaranteed conservation and preservation of countless other Aboriginal sites (known and unknown) within the Coal & Allied conservation lands. The cumulative conservation benefits resulting from the proposed conservation areas is of holistic long term benefit to the Aboriginal heritage values of the region.

Development Impacts to Aboriginal Midden Site 45-7-0177

For the purposes of managing Aboriginal heritage the Nords Wharf Site has been divided into three archaeological zones (*Figure 5.2*).

The Concept Plan (*Figure 7.1*) shows a series of primary and local roads, a drainage swale and housing subdivision will cover most of the Nords Wharf Site. However, a conservation zone is included in the SW corner. This zone covers the flat land area which has a high to moderate level of archaeological potential.

A portion of the Scout Camp area and the forested zone to the immediate east of the Scout Camp will be impacted by development. This area has been defined within Archaeological Zones 1 and 2 (*Figure 5.2*). These zones have a high/moderate level of archaeological potential, respectively.

Any works that result in ground breaking or disturbance within Archaeological Zones 1 and 2 are likely to impact and disturb the Aboriginal midden site. This includes undertaking removal of the Scout Camp buildings and any soil testing or sampling, such as geo-technical work. Top soil stripping prior to development would completely remove all deposits associated with the midden site.

Therefore all development impacts within Archaeological Zones 1 and 2 should be archaeologically mitigated prior to ground breaking or site construction works.

Site works within Archaeological Zones 3 are unlikely to impact Aboriginal heritage sites. This Archaeological Zone requires less stringent mitigation measures than Zones 1 and 2. The suggested heritage mitigation measures for AZ 1, 2 and 3 are presented in Chapter 10.

8.6 SUMMARY OF HERITAGE IMPACTS

A summary of the potential impacts on the heritage values of the Nords Wharf Site is provided in *Table 8.1* below. Mitigation requirements are presented in *Chapter 10*.

Table 8.1 *Summary of impacts to Aboriginal heritage resulting from the proposed development*

Area	Archaeological Potential	Archaeological Significance	Aboriginal Significance	Potential Impacts	Mitigation Required
Historical Heritage	None	None	N/A	None	No
Overall - Aboriginal Heritage	High	High	High	Disturbance to midden site	Yes
Archaeological Zone 1	High	High	High	Disturbance to midden site	Yes
Archaeological Zone 2	Moderate	High	High	Disturbance to midden site	Yes
Archaeological Zone 3	Low	Low	High	Unlikely and limited	Limited
Conservation Zone	High/Moderate	High	High	None - if treated as a zero impact conservation zone to protect Aboriginal heritage	Limited

This project is to be assessed and approved under Part 3A of the *Environmental Planning & Assessment Act 1979*. In summary Part 3A can provide developers with 'comprehensive' approval for development, without the need for obtaining further approvals under different State Acts. The Part 3A approval process involves strict requirements established by the Director General of NSW Planning to ensure all environmental factors are adequately considered and addressed.

Until the development is granted Part 3A approval the Nords Wharf Site and its heritage values remain protected and under the statutory control of the relevant State Acts.

Aboriginal cultural heritage in NSW is protected by the *National Parks and Wildlife Act 1974*. Historical heritage in NSW is protected under the *Heritage Act 1977*. These acts and their obligations are provided below. The obligations under these various acts have been used to devise relevant mitigation measures for the Nords Wharf Site, which are presented in *Section 10*.

9.1 NSW LEGISLATION

9.1.1 *Environmental Planning And Assessment Act 1979 (NSW)*

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land-use planning, including impacts on Aboriginal and historical heritage. Various planning instruments prepared under the Act identify permissible land use and development constraints.

The DECCW provides guidelines for Aboriginal heritage assessment, including those conducted under the EP&A Act 1979. Where Aboriginal heritage assessment is conducted under the Integrated Development Approval process, a more detailed set of NPWS guidelines applies.

Where a development is approved under Part 3A of the Act, further approvals under the National Parks & Wildlife Act 1974 are not required. In those instances management of heritage sites must follow the statement of commitments included in the Part 3A development approval.

The statement of commitments defines the environmental management and mitigation measures the proponent is prepared to make for the proposed project. The statement of commitments is made in accordance with *EP&A Act 1979*: Part 3A Division 2 Section 75F[6].

9.1.2

National Parks And Wildlife Act 1974 (Nsw)

All Aboriginal objects within the state of NSW are protected under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act).

Under section 5 of the Act, “Aboriginal Object” means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

Sites of traditional significance that do not necessarily contain archaeological materials may be gazetted as “Aboriginal places” and are protected under Section 84 of the Act. This protection applies to all sites, regardless of their significance or land tenure. Under section 90, a person who, without first obtaining the consent of the Director-General, knowingly destroys, defaces or damages, or knowingly causes or permits the destruction or defacement of or damage to, an Aboriginal object or Aboriginal place is guilty of an offence.

Amendments introduced by the *National Parks & Wildlife Amendment Act 2001* which strengthen the provisions of section 90 have yet to commence.

The DECCW is the statutory authority for the protection of Aboriginal objects and places within NSW, with the Director-General of that department the consent authority. Approvals under the NPW Act are not required where a development is approved under Part 3A of the *Environmental Planning and Assessment Act*.

9.1.3

Heritage Act 1977 (NSW)

The *Heritage Act 1977* protects the natural and cultural history of NSW with emphasis on non-Aboriginal cultural heritage. It provides automatic statutory protection to ‘relics’. The Act defines a ‘relic’ as:

Any deposit or material evidence relating to the settlement of the area that comprises NSW, not being an Aboriginal settlement, which is 50 or more years old.

Sections 139-145 of the Act prevent the excavation or disturbance of land known or likely to contain ‘relics’, except in accordance with an excavation permit issued by the Heritage Council of NSW (or in accordance with a gazetted exception under Section 139(4) of the Act).

While Aboriginal heritage sites and objects (“relics”) are protected principally by the *National Parks & Wildlife Act 1974*, if an Aboriginal site, object or place is of great significance it can be protected by a heritage order issued by the Minister on the advice of the Heritage Council.

Approvals under the Heritage Act are not required where a development is approved under Part 3A of the *Environmental Planning and Assessment Act*.

9.2

NSW PLANNING CONTROLS AND GUIDELINES

There are a range of planning controls and guidelines that outline issues to be considered in the management and protection of heritage at Nords Wharf. These include:

- Hunter Regional Environmental Plan (REP) 1989 - Heritage;
- Lake Macquarie Local Environmental Plan (LEP) 2004; and
- Coastal Design Guidelines for NSW 2003.

The Hunter REP Heritage aims to conserve the environmental heritage of the Hunter Region. It lists 1300 heritage items that are divided in a number of categories; State, regional, local, areas requiring archaeological investigation, and heritage precincts or conservation areas. The Hunter REP Heritage also provides a framework for local government councils to develop, along with the assistance of the Department of Planning, appropriate means for conserving the heritage of their area.

The Lake Macquarie LEP 2004 includes a range of heritage protection provisions addressing both Aboriginal and European heritage sites, items and areas. The heritage objective of the LEP is to protect and conserve archaeological sites and places of Aboriginal, natural or European cultural significance. The LEP includes provisions that conserve the remaining fabric, relics, settings and views, and evidence of the cultural significance of heritage items and the environment of heritage conservation areas.

The Coastal Design Guidelines for NSW 2003 provide a suite of guidelines aimed at shaping and enhancing the character of settlements along the coast of NSW. They focus primarily on the desirable urban design concepts for the coast including workable open space networks, integration within the existing environment, retention of key views and vistas and the scale, type and density of new development. In relation to heritage, the Guidelines promote the recognition, retention, integration and avoidance of impacts on Aboriginal and European heritage.

This section contains provisions for the mitigation of impacts resulting from the proposed development on the heritage values of the Nords Wharf Site. Mitigation measures have been informed by consideration of the NSW Heritage Office and DECCW guidelines for historic and Aboriginal heritage impact assessments. It has also been informed by reference to the Coastal Design Guidelines as they relate to heritage.

The mitigation measures presented will be used to form the basis of a 'Statement of Commitments' as defined under the *EP&A Act 1979*: Part 3A Division 2 Section 75F[6].

10.1***HISTORICAL HERITAGE MITIGATION MEASURES***

The Nords Wharf Site does not have inherent heritage value nor does it contain items of historical heritage. The proposed development will not impact any known heritage items. Therefore the proponent is not required to undertake mitigation measures in relation to historical heritage before, during or after the proposed development.

10.2***ABORIGINAL HERITAGE MITIGATION MEASURES***

Recommendations for Aboriginal heritage mitigation are based upon the Archaeological Zoning Plan, see *Figure 5.2*. These recommendations are based upon the archaeological significance and archaeological potential of the zones as defined in *Table 8.1*.

10.2.1***General Aboriginal Heritage Mitigations***

The following general Aboriginal heritage mitigation measures are proposed. They should be set out in a basic 'Aboriginal Heritage Plan of Management' (PoM) for the development. This PoM should be developed between Coal & Allied and the Aboriginal stakeholders and agreed upon before any site works commence. The PoM can cover these general points and make provision for other specific points below.

These measures are the responsibility of Coal & Allied (as Stage 1 subdivision developers):

- ensure that the location of all new infrastructure services avoids and protects areas of high Aboriginal significance;
- ensure appropriate stop work procedures are in place particularly for the excavation phase of works and all site contractors undergo a site induction that includes information about Aboriginal sites;
- in the unlikely event of discovery of skeletal material all works should cease, the police, relevant local Aboriginal community groups and a suitably experienced archaeologist or physical anthropologist should be contacted to assess the material before determining the correct management action; and
- ensure that on-site information about the heritage requirements is in place for the construction phase for the construction team.

10.2.2 *Aboriginal Heritage Interpretation*

Aboriginal heritage interpretation should to be considered for the site. This interpretation could be developed in a number of ways, from signage, brochures, community involvement in the archaeological process and local schools education, through to on-going Aboriginal community education programs. Interpretation can also be considered in the context of the three southern sites (Gwandalan, Catherine Hill Bay and Nords Wharf).

The scope for interpretation should explain local types of Aboriginal sites and their importance to local Aboriginal groups. All interpretation should be subject to involvement and agreement with the relevant local Aboriginal community groups (also see 10.2.5 below).

Interpretation of Aboriginal heritage is the responsibility of Coal & Allied.

10.2.3 *Required Future Aboriginal Archaeological Works*

Archaeological excavation of the identified midden site will be required for AZ 1 and AZ 2. A research design should be written prior to archaeological excavation. This research design should follow from the sampling strategy, defined below, and addresses the research questions which were posed in the Aboriginal heritage assessment (*Section 6.2* of this report). The research design is to address potential archaeological works in all three archaeological zones.

Archaeological Zone 1

The zone runs NW to SE and measures approximately 20 m in width. AZ 1 contains the midden (45-7-0177) which is associated with the landform rising and falling away from the foreshore. AZ 1 extends into the assigned conservation zone in the SW corner of the Nords Wharf Site.

Ideally AZ 1 should be avoided during development. The concept plan provides protection for a portion of this zone – in the SW corner. Development across the central and northern section of AZ 1 includes roads and some subdivision. Impacts to AZ 1 should be mitigated as per the requirements for AZ 2.

Archaeological Zone 2

This zone occupies the central western portion of the Nords Wharf Site. AZ 2 contains the eastern half of the recorded midden (45-7-0177). Development impacts to AZ 2 include road construction and subdivision, which will result in soil clearance which will impact the integrity of the midden.

It is recommended that the following archaeological measures are taken within AZ 2 to mitigate the impacts of development:

1. determine the extent, depth, integrity and composition of the midden through the instigation of a series of augur holes. Augur holes should ideally be approximately 100 mm in diameter, spaced 10 m apart across AZ 1 (where impacted) and AZ 2. Sampling could be undertaken in AZ 3, this would be up to 5 augur holes, to confirm an absence of Aboriginal cultural material;
2. based on the results of auguring (which will give an indication of the density and content of midden) hand excavation of a sample of approximately 15-20, 1 m² pits within Archaeological Zones 1 and 2. If archaeological deposits are found to be concentrated and intact then a representative sample of the original excavation pits will be extended to 4 m² (expansion of 1-2 pits is recommended to obtain a representative sample);
3. analysis and interpretation of all excavated material should be undertaken. Analysis should aim to include radio-carbon dating of a suitable sample(s) to determine a relative chronology for the midden (and thus the local area). Reporting on the excavation could include Aboriginal community members input into the social assessment of material. In addition to a technical report, a plain English report should be produced. This could be developed in the form of an educational document that can be used as part of site interpretation; and

4. comparison with concurrent archaeological work at Gwandalan is recommended. All archaeological site works would necessitate the involvement of Aboriginal community stakeholders. Copies of all excavation works should be submitted to the local Aboriginal stakeholder groups for comment. Final reports should be lodged with the relevant DECCW office.

Archaeological Zone 3

This zone occupies the eastern half of the Nords Wharf Site. It has low archaeological significance and low archaeological potential. Therefore no further archaeological work is required within this zone.

It is recommended that the Aboriginal stakeholders be invited to monitor topsoil stripping for the purposes of recovering cultural heritage material from this zone. This work would not require the presence of an archaeologist although a database classifying material recovered will be established.

Repository for Cultural Material

The Aboriginal heritage PoM outlined above should also include management recommendations for the storage and conservation of all Aboriginal materials excavated from the site. Measures should be agreed with the Aboriginal community prior to any site works. Storage solutions could include reburial at a nearby location, use of the material as a teaching collection or standard artefact repository with the Australian Museum.

10.2.4 *Conservation Zone Within The Development Footprint*

The Conservation Zone, defined as per *Figure 7.1*, is located within Archaeological Zones 1 and 2. In order to avoid impacts to the archaeological deposits in this area, a series of mitigation measures will be developed.

This zone will be managed and treated as an “Aboriginal heritage conservation area” (conserving intact midden deposits for future generations). All infrastructure and works planned for this zone have the potential to directly impact the midden deposit. In order to allow appropriate works the conservation area the following recommendations should be followed:

- no topsoil stripping be allowed;
- the existing topsoil be built up to create a protective layer above the midden. This layer of new topsoil can be landscaped and developed as required;

- if areas that cannot be built up with new topsoil require the installation of equipment etc then this equipment should not impact soil horizons i.e. it should be designed to sit on top of the current surface level;
- Aboriginal heritage interpretation (possibly information signs) should be installed within the area to inform locals and visitors about the significance and use of the local area to Aboriginal people. The interpretation should be written in collaboration with Aboriginal stakeholders and include details relating to any archaeological investigations undertaken within the Nords Wharf Site.

10.2.5 *Protection Of The Conserved Aboriginal Midden Site*

Aboriginal midden material contained within the Nords Wharf Site, and also in the foreshore zones, which will revert to the NSW Government should be conserved with the aim of zero impact. Consultation with all Aboriginal stakeholders during a community meeting devised a draft paper for the conservation of middens. This paper is presented in *Annex C*.

Every effort should be made to follow the objectives and mitigation measures stipulated in this HIA including *Annex C*.

CONCLUSION

This HIA has determined that the proposed development at Nords Wharf has the potential to have some impact on the Aboriginal heritage values of the foreshore area. No impact on historic heritage values will occur.

Provided the mitigation measures outlined in this HIA are implemented by Coal & Allied, the potential impacts will be avoided or managed to an acceptable level.

In addition, the cumulative effect of the Coal & Allied proposed conservation zones means that the majority of the Aboriginal midden at Nords Wharf will be conserved in perpetuity. The effect of the conservation zone is that it will prevent future development which also contributes to the protection of Aboriginal sites along and adjacent to the coast in the local area.

REFERENCES

- Barney N (1999) **From Mistake to Millennium: A Pictorial history of Lake Macquarie over 200 years** LMCC.
- Bowdler S (1983) "Sieving seashells: midden analysis in Australian archaeology" In Connah G (ed) **Australian Field Archaeology: A Guide to Techniques** pp135-144.
- Brayshaw H (1988) **Caves Beach Resort Development Archaeological Survey** Consultancy report to Gordon Pacific Ltd.
- Brayshaw H (1989) **Archaeological Survey of Proposed Tourist Resort at Summerland Point, Lake Macquarie, NSW** Consultancy report to Bexford Pty Ltd.
- Coutts P (1966) Features of prehistoric campsites in Australia **Mankind** 6:338-346.
- Dallas M (1986) **Appendix C: Pipeline route between Gwandalan and Mannering Park Sewage Treatment Works** Consultancy report to Public Works Department.
- Dallas M, Navin K and McConchie D (1993) **Archaeological Investigation of the Morisset Peninsula Sewerage Scheme** Consultancy report to Public Works Department.
- Dean-Jones P (1988) **Archaeological Survey of Lot 37 (No. 29) Lambton Parade, Swansea Heads LMCC DP Number 240868** Consultancy report to Mr David Jamcotchian.
- Donlon D (1991) **Skeletal Remains from the Swansea Channel Burial Ground, NSW: Description and Analysis** Consultancy report to the Australian Institute of Aboriginal and Torres Strait Islander Studies.
- Dyall L (1975) **Archaeological Excavation at Swansea (Permit A 3570)** Consultancy report to NPWS.
- EJE Heritage (2005) **Conservation Management Plan – Wallarah and Moonee Collieries, Catherine Hill Bay NSW** Consultancy report to Rosecorp Pty Ltd.
- Environmental Resources Management (ERM) (2004) **Gap Analysis – Archaeology, History and Landscape: Upper Hunter Valley Aboriginal Heritage Baseline Study** Consultancy report to the Upper Hunter Aboriginal Heritage Trust.
- ERM (2006) **RTCA Heritage Register Update Summary Report** Consultancy report to Rio Tinto Coal Australia.

ERM (2007) **Lower Hunter Lands Development Stage 1 Preliminary Heritage Constraints Analysis – Nords Wharf** Consultancy report to Catylis and Coal & Allied.

Gill E (1951) Aboriginal kitchen middens and marine shell beds
Mankind 4:249-254.

Griffiths T (1992) **Inspection for Aboriginal Sites and Relics of Proposed Water Sports Club and Holiday Cabins, Kanangra Drive, Gwandalan, NSW** Consultancy report to Dalkene Pty Ltd.

RPS (October 2005) **Phase One Vegetation Assessment report Over various holdings in the Lower Hunter/Central Coast, NSW** Consultancy report to Rio Tinto Coal Australia Pty Ltd.

Haglund L (1985) **Archaeological Survey at Wallarah Colliery, Catherine Hill Bay, NSW** Consultancy report to Longworth & McKenzie.

Haglund L (1986) **Assessment of the Prehistoric Heritage in the Lake Macquarie Area** Consultancy report to LMCC.

Haglund L (1987) "Archaeological Survey of Areas Proposed for Coal Reject Emplacement and Coal Handling Developments at Catherine Hill Bay, NSW" Appendix E in **Environmental Impact Statement: Expansion of the Catherine Hill Bay Coal Preparation Plant** Consultancy report to Johnstone Environmental Technology and Longworth & McKenzie.

Hughes P J and Sullivan M E (1974) The redeposition of midden material by storm waves **Journal and Proceedings of the Royal Society of NSW** 107:6-10.

Hunter Regional Environmental Plan 1989

Lake Macquarie City Council website, available at
www.lakemac.infohunt.nsw.gov.au, accessed 19/1/07.

Lake Macquarie Local Environmental Plan 2004

Navin Officer (1995) **Walarah Peninsula Strategic Issues Study Aboriginal Archaeology** Consultancy report to GHD on behalf of LMCC.

Nelson L (1995) **Shell Middens on Lake Macquarie** Unpublished Thesis, University of New England, Department of Archaeology and Paleoanthropology.

New South Wales National Parks and Wildlife Service (NPWS) (2005) **Lake Macquarie State Conservation Area Pulbah Island Nature Reserve and Moon Island Nature Reserve: Plan of Management** Consultancy report to NSW NPWS.

NSW Department of Lands **Wallerah Parish Maps for 1914, 1920, 1925 and 1932**, available from
http://www.lands.nsw.gov.au/survey_mapping/parish_maps

NSW Department of Planning 2003 **Coastal Design Guidelines for NSW**

Resource Planning (1992) **Report of an Archaeological Survey at Windermere Creek, Lake Macquarie** Consultancy report to LMCC.

Speight J G (1990) "Landform" In McDonald R C, Isbell R F, Speight J G, Walker J, and Hopkins M S (eds) **Australian Soil and Land Survey Field Handbook, Second Edition** Inkata Press, Australia.

Turner J and Blyton G (1995) **The Aboriginals of Lake Macquarie - A Brief History** The History of Lake Macquarie Series, LMCC.

Annex A

Aboriginal Consultation Log

Table A.1 Consultation Stage 1: Advisory Requests

Date	Organisation/group/individual	Contact Name	Details
28-Jun-07	Lake Macquarie News newspaper	N/A	Ad to appear on Thursday 5 July 2007, given response date of 19 July 2007 Search of NNTT website of Lake Macquarie LGA shows 7 claimant applications, none of which are active. Three of these were for Wonnarua Tribal Council and were discontinued, one was for the Boongary Clan of the Taurai People which was discontinued, one was for Jamie Roy Denniss which was discontinued, one was for Mimaga Wajaar Traditional Custodians Wanuruah Claim and was dismissed, and one was for the Wonnarua People and was discontinued.
28-Jun-07	Native Title Services	N/A	Email requesting groups to consult. Letter received 4/07/07 identifying three Aboriginal parties who may be interested in being consulted: Guringai Tribal Link Aboriginal Corporation (who we're already consulting), Mur-Roo-Ma Inc. and Arthur C. Fletcher.
28-Jun-07	DECCW	Brendan Diacono	Email requesting groups to consult. Email received 29/06/07 specifying that no Aboriginal owners are known for the area.
28-Jun-07	Registrar of Aboriginal Owners	Megan Mebberson	Email requesting groups to consult. Resent on 25/07/07 as no response had been received. Email received 8/08/07 saying to contact Bahtabah LALC.
28-Jun-07	Lake Maquarie City Council	Mary Loder	Phone call discussing project and checking whether a representative would be available for survey on 11 July. Email to this effect giving details, map and requesting groups to consult.
28-Jun-07	Bahtabah LALC	Michael Green	Phone call regarding project; left message. Email discussing project, giving map and asking whether a representative would be available for survey on 11 July; also requesting groups to consult.
28-Jun-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Phone call regarding project; confirmed that they would be available for survey on 11 July. Email giving proposed survey details, map and requesting groups to consult.
28-Jun-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Email discussing project, giving map and asking whether a representative would be available for survey on 11 July; also requesting groups to consult.
28-Jun-07	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Email discussing project, giving map and asking whether the Nords Wharf Site are within their area of interest; also requesting groups to consult.
05-Jul-07	Mur-Roo-Ma Inc.	Anthony Anderson	Email discussing project, giving map and asking whether the Nords Wharf Site are within his area of interest; also requesting groups to consult.
05-Jul-07	Wonn1 Contracting	Arthur C. Fletcher	

Table A.2 Consultation Stage 1: Aboriginal Group Registrations Received

Date	Organisation/group/individual	Contact Name	Details
28-Jun-07	Bahtabah LALC Awabakal Traditional Owners	Michael Green	Phone call discussing project and checking whether a representative would be available for survey on 11 July. Email to this effect giving details, map and requesting groups to consult.
28-Jun-07	Aboriginal Corporation Guringai Tribal Link Aboriginal	Kerrie Brauer	Phone call, registering interest in being consulted.
28-Jun-07	Corporation Awabakal Descendents Traditional	Tracey-lee Howie	Phone call registering interest.
29-Jun-07	Owners Aboriginal Corporation	Shane Frost	Phone call and email registering interest.
16-Jul-07	Wonn1 Sites Officer	Arthur C. Fletcher	Fax registering interest.

Table A.3 Consultation Stage 2: Briefing and Methodology Advice Sent

Date	Organisation/group/individual	Contact Name	Details
29-Jun-07	Bahtabah LALC Awabakal Traditional Owners	Michael Green	Email of methodology and invitation to participate in fieldwork; survey date of 11 July 2007.
29-Jun-07	Aboriginal Corporation Guringai Tribal Link Aboriginal	Kerrie Brauer	Email of methodology and invitation to participate in fieldwork; survey date of 11 July 2007.
29-Jun-07	Corporation Awabakal Descendents Traditional	Tracey-lee Howie	Email of methodology and invitation to participate in fieldwork; survey date of 11 July 2007.
29-Jun-07	Owners Aboriginal Corporation	Shane Frost	Email of methodology and invitation to participate in fieldwork; survey date of 11 July 2007.

Table A.4 Consultation Stage 2: Aboriginal Comments Received

Date	Organisation/group/individual	Contact Name	Details
01-Jul-07	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Email providing agreement with the methodology, offering fieldwork services and providing copies of insurance certificates.
02-Jul-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Email and fax providing agreement with the methodology, offering fieldwork services and providing copies of insurance certificates.
02-Jul-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Email of letter providing agreement with the methodology, offering fieldwork services and providing copies of insurance certificates.
06-Jul-07	Bahtabah LALC	Michael Green	Email of letter indicating agreement with the methodology and offering fieldwork services.

Table A.5 Consultation Stage 3: Draft Report Sent

Date	Organisation/group/individual	Contact Name	Details
22- Mar-11	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Report sent via Mail requesting response in 21 days
22- Mar-11	Bahtbah Local Aboriginal Land Council	Sent to general email	Report sent via Mail requesting response in 21 days
22- Mar-11	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Report sent via Mail requesting response in 21 days
22- Mar-11	Darkinjung LALC	Sent to general email	Report sent via Mail requesting response in 21 days
22- Mar-11	Wonn 1 Consulting	Arthur Fletcher	Report sent via Mail requesting response in 21 days
14 Apr 11	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Email Sent reminding response period closing
14 Apr 11	Bahtbah Local Aboriginal Land	Sent to general email	Email Sent reminding response period closing

Date	Organisation/group/individual	Contact Name	Details
	Council		
14 Apr 11	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Email Sent reminding response period closing
14 Apr 11	Darkinjung LALC	Sent to general email	Email Sent reminding response period closing
14 Apr 11	Wonn 1 Consulting Awabakal Descendents	Arthur Fletcher	Email Sent reminding response period closing
27-Apr-11	Traditional Owners Aboriginal Corporation	Shane Frost	Letter sent giving more time to respond to reports, no closing date for responses given.
27-Apr-11	Bahtbah Local Aboriginal Land Council	Sent to general email	Letter sent giving more time to respond to reports
27-Apr-11	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Letter sent giving more time to respond to reports
27-Apr-11	Darkinjung LALC	Sent to general email	Letter sent giving more time to respond to reports
27-Apr-11	Wonn 1 Consulting Bahtbah Local Aboriginal Land	Arthur Fletcher	Letter sent giving more time to respond to reports
6- May-11	Council	Sent to general email	Email and Phone call reminding the Land council that response was required
6- May-11	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Email reminder that responses were required
6- May-11	Darkinjung LALC	Sent to general email	Email and Phone call reminding the Land council that response was required
6- May-11	Wonn 1 Consulting	Arthur Fletcher	Email and Phone call reminding the Land council that response was required

Table A.6 *Consultation Stage 3: Draft Report Aboriginal Responses Received*

Date	Organisation/group/individual	Contact Name	Details
10-April-11	Awabakal Descendents Traditional Owners Aboriginal Corporation Awabakal Traditional Owners	Shane Frost	Letter received outlining response, letter provided below
12-May-11	Aboriginal Corporation	Kerrie Brauer	Letter received outlining response, letter provided below
12-May 11	Wonn 1 Consulting	Arthur Fletcher	Email received outlining response, email provided below

Table A.7 *Consultation Stage 3: Comments on Responses*

Date	Organisation/group/individual	Contact Name	Details
03-Jun-11	Awabakal Descendents Traditional Owners Aboriginal Corporation Awabakal Traditional Owners	Shane Frost	ERM Comments on responses sent via email on ERM letter head.
03-Jun-11	Aboriginal Corporation	Kerrie Brauer	ERM Comments on responses sent via email on ERM letter head.
03-Jun-11	Wonn 1 Consulting	Arthur Fletcher	ERM Comments on responses sent via email on ERM letter head.

Date: 10 April 2011

Attention: Diana Neuweiger (Senior Archaeologist)
ERM Australia
Building C, 33 Saunders Street
Pymont, NSW 2009

Re: Final Draft-Lower Hunter Lands Development, Heritage Impact Assessment, Nords Wharf Estate.

ALLA Diana,

This letter is in response to your correspondence requesting feedback/comments from the **Awabakal Descendants Traditional Owners Aboriginal Corporation** in regard to the **Final Draft-Lower Hunter Lands Development, Heritage Impact Assessment, Nords Wharf Estate** received via mail from ERM on the 25th March 2011. The overall contents and construction of the draft and the management recommendations are in most instances, satisfactory. Saying this, we would like to take advantage of your invitation to add some comments that we believe could be implemented to afford what we as Awabakal People believe to be a greater degree of protection and preservation for our Cultural Heritage. The **Final Draft-Lower Hunter Lands Development, Heritage Impact Assessment, Nords Wharf Estate** will be referred to in the following correspondence as the '**draft report**'.

Please Note: We were advised by the archaeological consultants (ERM) that we had a maximum of 21 days to review and respond to all five (5) Coal & Allied draft reports (Gwandalan, Nords Wharf, Catherine Hill Bay, Minmi and Black Hill) all dating from four (4) years ago. This has presented quite a few problems for us as we have had to review all of these draft reports in such a short period of time. In a way, it seems to have been put back on us to hurry up and we again feel as if we have been the ones holding the process up when in reality we should have been sent these draft reports four (4) years ago by the archaeological consultants (ERM) for review!! To review and respond to these draft reports in such a short timeframe is an expectation that we believe is inappropriate, unrealistic and unacceptable. Why should we constantly have to be the ones to rush what is important to us? Why is it always our Cultural Heritage that has the potential to be impacted and is always left to the last minute and we are put into positions that try to force us to make hasty decisions that will ultimately affect the future of our Cultural Heritage? As already stated we think the manner in which this matter has been handled to be quite unacceptable and grossly negligent and it causes us distress to think that our contribution could be forgotten about for four years and very nearly overlooked in the process. It makes one wonder if we are just consulted in the first place as a tokenistic gesture!!

Our comments for this draft report are as follows:

- Firstly, if you have not already noticed, we take this opportunity to convey our utter disappointment with the time frame that has been allotted for us to appropriately review and respond to these documents and any concerns we may have with this matter. We are supposed to believe that sufficient consideration for our Cultural Heritage has been given when we ourselves have been expected to drop everything else and respond to these documents without any consideration offered. It may be acceptable if we were just sitting around doing nothing but we aren't and we do have other ongoing matters of concern that need attention. It is unfortunate when others think that their time schedules and quandaries are more important than other people's!!

We would then ask:

- a. Why is it that everything Aboriginal gets left to the last minute and always needs to be rushed, with the end result, in all probability, compromising our Cultural Heritage??
- b. Why has there been so little time allocated for Aboriginal Stakeholders to review and respond to the contents of (Five) 5 draft reports when they have been finished for near on Four (4) years??
- c. Why weren't we contacted previously, giving us an appropriate amount of time to review and respond??
- d. Would those that have placed us in this predicament be satisfied with this timeframe if the shoe was on the other foot and it was imposed upon them??
- e. Would they drop everything else they were doing to reply??

The expectations in this whole matter are very unreasonable!! We are not impressed and feel it could have been handled in a much better way if people had been afforded some common courtesy in the process.

Recorded Aboriginal Occupation of the Lake Macquarie and Newcastle area

- There are many historical documents which report the fact that this area was inhabited by Awabakal People. The 'Return of the Black Natives belonging to Lake Macquarie and Newcastle 21st May 1828'¹ recorded by the Rev. L.E. Threlkeld at his mission station at Belmont (only several Kilometres to the north of this area) is one of those sources. In it he records the names of our direct Ancestors as belonging to a group of Aboriginal People that inhabit this area; he described these People as 'old Jacky's Tribe'². The Nominal Returns from Jonathon Warner (Warners Bay area deriving its name from Jonathon Warner who was the Brisbane Water Police Magistrate and who lived on his estate at the northern end of Lake Macquarie from 1830's to 1840's) in 1833 being a list of names of the Aboriginal People from the Lake Macquarie and Newcastle district shows the names of many of our People.³ Again Threlkeld records the names of our People from this and other areas from the returns he made in 1836.⁴ There are many other references from the early contact period of European settlement which are related in colonial newspapers and correspondence of the time.

*These early ethnographical resources can be used to help build a picture of the area and occupation at the time our People were still dependant on their Traditional Lands for their resources.

Aboriginal Significance

- All the area around Lake Macquarie is considered by our People and many Archaeologists as significant in regard to our Cultural Heritage (as can be seen on page 13 section **3.2 Aboriginal Archaeological Context**). There are many and varied reasons our People have utilised this and other locations over thousands of years. One of the earliest accounts of the importance of these areas around Lake Macquarie to our People is attributed to the Rev. L.E. Threlkeld. He reports, sometimes on a daily basis from his diaries, the many resources used by our People from the lake and the bush and the places having spiritual significance because of certain objects or features that were found within the landscape. Some of these very features still exist within close proximity to the proposed project area. There are other early accounts within an array of documents which detail the Aboriginal occupation of these areas and relate the subsequent impacts that settlers have had on the Cultural Heritage and ultimately impacted the lifestyle of our People as the settlers moved into areas outside of what were then the known limits of the settlement.
- It must also be acknowledged that even though there has been some modification from European pursuits in the past, this does not mean that all areas have been affected by these alterations. There has been varying levels of modification but not all areas would have been affected within the proposed project area.
- There is a statement on page 13 section **3.2.1 Regional Aboriginal Heritage** which says that **'However, the community remained in the region and has since grown to be one of the most dynamic and largest in NSW (Turner and Blyton 1995:51-52).'** The Traditional Owners, the Descendants of the original Awabakal People stayed in the area and are still here now, but the 'community' is now made up of many Aboriginal People from all over Australia. Descendants of the Awabakal People have and will always be here in our Traditional Country. But let us not confuse the issue here, does the meaning of 'community' in this **draft report** signify what it has become due to the influx of Aboriginal People in recent times or is it talking about the Traditional Awabakal People?? There needs to be a clarification of these facts that there are the Awabakal People whose Traditional Country it is, and then there are the other Aboriginal People who have relocated to this area in modern times and made their homes in the Traditional Country of the Awabakal People!! This statement in the **draft report** is too broad and needs to be described in more detail.

The Archaeological Field Survey

- We believe, as do some of the other Aboriginal Stakeholders, that some aspects of the survey were conducted in quite a rushed manner and that some areas were not appropriately surveyed or considered and due to this some of our Cultural Heritage may have been overlooked which then renders it vulnerable to disturbance or damage.

¹ Page 360-361 of *Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859*, Neil Gunson

² Page 241 of *Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859*, Neil Gunson

³ Page 362-364 of *Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859*, Neil Gunson

⁴ Page 366-368 of *Australian Reminiscences & Papers of L. E. Threlkeld, Missionary to the Aborigines, 1824-1859*, Neil Gunson

Ground Visibility, Surface Exposure and Subsequent Impacts to Aboriginal Cultural Heritage

- Many Aboriginal Cultural Heritage assessments suffer due to the poor visibility which very often presents itself when a field inspection is undertaken. It is expected that during a normal field inspection/assessment approximately 1-2 percent of the surface of the overall area to be surveyed will be clear of vegetation (as stated on page 28 section 5.1.4 of the **draft report**). It is suffice to say then that in nearly all of these field inspections the visibility plays, to a great extent, a pivotal role in what decisions will be arrived at concerning the existence of Aboriginal Cultural material present within the landscape (with some exceptions). Unfortunately the visibility question can be misleading and it is a common practise to assume that if there is little or no visible evidence/signs of Aboriginal Cultural Heritage then it is ok to assume there is none or only a small amount present. Adopting this attitude could be no further from the truth.

Ground visibility during this field survey (as with others) was limited to some small areas that had been subject to impacts such as pedestrian tracks and areas that were eroded or areas disturbed by use from motorbikes. However, it would be wrong to conclude that, because of the lack of visibility or detection of Aboriginal Cultural materials in other locations within the study area (precluding those locations that Cultural sites were found) there would be no Aboriginal Cultural Heritage within these other areas. On the contrary; the study area and that surrounding it has been used by our People for thousands of years for a variety of purposes from ceremonial to procurement of resources from Lake Macquarie and other smaller associated creek lines not to mention the ocean to the east of the project area all being within close proximity.

- To demonstrate the possibility of what could be contained sub-surface and subsequently disturbed during any excavations in the event of a proposed development, provided is a quote which sums up the possibility of disturbing, or worse, destroying Aboriginal Cultural Heritage objects or sites;

'Once discarded on the ground surface, artefacts are often readily incorporated into the topsoil horizons through the process of bioturbation. Most commonly, dense artefact deposits exist hidden beneath the upper surface, unobservable by the casual observer.'
(c.f. Wandsnider and Camilli 1992; Fanning and Holdaway 2001).⁵

- Also another example we have been involved with personally was an AHIP was obtained to excavate an area of which was believed may produce a minimal amount of artefacts. One of the sections chosen was believed to be nothing more than a couple of shells visible on the surface. After starting the excavation attitudes were changed dramatically, the archaeologist admitting they would have stated beyond a shadow of doubt that it was only a couple of shells scattered on the surface. It was found we were within what would be considered a quite large midden site (but was not visible) and what resulted from this excavation was the collection of many artefacts along with an undisturbed and virtually intact hearth surrounded by stones lying about 2 and a half feet below the surface underneath about 2 feet of midden shells. If we had employed the fact that what we could see is the extent of what we may find, then we would never have uncovered such an important and Culturally significant site as we did.

*******We then must reiterate again that just because there is low visibility or just a small quantity of Aboriginal Cultural Heritage located, it does not mean the area is not rich in Aboriginal Cultural Heritage sites or objects!!!**

AHIMS Database Search

- It would be reasonable to presume there will be a variety of sites represented within the context of this particular location as information from the AHIMS database search points out on page 16 of the **draft report** section **3.2.2 AHIMS Search** there were 94 sites recorded on the DECCW AHIMS Database which incidentally, don't include all recently recorded sites to date but only those recorded and entered presumably as of the time of the original writing of the **draft report** and the AHIMS search, being July 2007). These 94 Cultural Heritage sites are all shown to be within reasonably close proximity to the study area.
- As indicated previously, there has been 4 years elapse since the search of the AHIMS Database for the provision of information for this proposed project. This information is out of date and should be considered as such.
- Since this time (July 2007) there have been many more significant Aboriginal Cultural Heritage sites added to this AHIMS Database, many being within close proximity to this very area, and this new information should be supplied within this draft report to bring the information within it up to date.

⁵ Page 3, Hunter Water Stage 2 Aboriginal Heritage Assessment Shortland Street, Newcastle 5.1.1 Archaeological Potential. (ERM2009)

Significance of the Artefact Scatters, Isolated Finds and Middens

- For us as Awabakal People the artefact scatters and isolated finds and the shell deposits are part of our Cultural Heritage and are considered by us to be of high significance. For archaeologists there is a clinical 'put it in a box' view 'so it can be categorised and accessed when stacked up against criteria that someone has formulated to fit it into their bigger picture' type of response. This is fine in some circumstances but it doesn't always work. Not always can we narrow things down to squeeze them into the box of our choosing that we want them to fit into. We are talking about the influence of a lot of variables over many centuries. Therefore to confine something to a standard that is only defined by someone who formulates a process, so as to control or have it conform to their opinion, is not looking out to see what is there, but confines their perspectives which then limit the true boundaries of that same process. We should look past those things that limit and constrain us; there is always more than meets the eye!!

Excavations/Ground Disturbance

- As discussed during the field survey and again is highlighted in the **draft report**, there is the possibility that any disturbances to the area from any sub-surface excavations or ground disturbance works (including vegetation clearance/removal of trees etc/grading) will impact on Aboriginal Cultural Heritage.

It has been demonstrated from the assessment and subsequently reported in the **draft report** that there are identified Aboriginal Cultural Heritage sites within the area that is proposed for development and that it is most likely that there will be other Aboriginal Cultural Heritage sites (which were not discovered during the survey as is the case in AZ3) that can and would be impacted/damaged or disturbed if excavations were to take place within this area proposed for development.

Objections to Removal of Topsoil from the Proposed Development area and Construction Site

- We object to removal of any topsoil from the site. All topsoils disturbed by any excavations should be retained within the confines of the development footprint and not transported off the construction site due to the possible inclusions of Awabakal Cultural Heritage within the soil.

Mitigation/Management

- As reported, ground visibility was minimal but Aboriginal Cultural Heritage was still found. This would suggest that if there were to be impacts to the ground surface brought about due to excavations, clearing of vegetation or infrastructure/utilities such as roads, paths, water, electricity, sewer and telephone we would also agree with the recommendations within the **draft report**. Further to the recommendations in the draft report, we would stress the need for systematic archaeological investigations to be carried out over the entire Project Application area proposed for development including AZ1, AZ2 and AZ3. If it is expected or proposed for earthworks or ground clearance/disturbance through the use of grading or other machinery that will disturb the ground surface within the study area designated by the boundary line shown in **Figure 5.2: Observed Location of Midden 45-7-0177 and Archaeological Zoning Plan** within the **draft report**, we would like to see;
 - a. Subsurface investigation prior to commencement of any proposed disturbances so as to ascertain the variety and density of archaeological material contained subsurface within the entirety of the study area. This should include the areas that are highlighted within the **draft report** as being probable areas for archaeological material (AZ1 and AZ2) and should also include areas that are identified by the Aboriginal Stakeholders to be significant such as AZ3. The **draft report** certainly underlines and promotes the necessity for archaeological investigations and we support these recommendations.
 - b. This investigation could be achieved through a series of test pits placed at specified locations within the areas to be affected by any subsurface excavations or ground disturbing works within the study area (AZ1, AZ2 and AZ3). It would be expected that the information gained from this investigation would ultimately contribute a source of reliable and valuable data for future archaeological investigations within this particular area. Currently information on subsurface archaeology within the study area is at present lacking and untested when compared to the local and regional archaeological context.

*Because we have located Cultural material within several locations around the study area, this then should be a marker to investigate further, not to do so would be in our opinion, negligent!!

Development Related Impacts

- It is naturally anticipated that due to the arrival of new residents to the proposed new subdivisions and due to this increased activity there will be the possibility of impacts to the Aboriginal Cultural Heritage sites located within the proposed development areas and also those sites within close proximity but outside of the proposed development area/footprint.

This is why it is imperative for this **draft report** and a **PoM** to:

- a.** Adequately address any issues that could possibly affect the integrity of this and other Awabakal Cultural Heritage sites or objects from this proposed development.
- b.** It also needs to be taken into account and has been overlooked in the draft report the probable impacts from the increased pedestrian traffic which is likely to occur to these sites if the proposed development is realised. These impacts would be expected to take place and result from the increased visitation to the sites which could result from the influx of new residents to the proposed subdivision development.
- c.** Address what mitigation measures have been put in place to alleviate and reduce the effects that increased population and visitation may have on this and other sites located within the area.

Protection and Preservation of all Artefacts/Midden Sites

- Therefore considering the implications that the above information presents, we believe that taking into account the location of the study area, the fact that Awabakal Cultural Heritage sites are located within this locale it is imperative that;
 - a.** All necessary steps should be taken to Locate, Protect and Preserve our Awabakal Cultural Heritage. As Awabakal Descendants the Preservation and Protection of our Cultural Heritage is paramount and this extends to all of our Cultural Heritage whether visible or not.
 - b.** Consideration should be given to the fact that if this area is developed, there will be subsurface excavations and disturbances to the study area. It has already been shown that this has the potential to disturb, damage or destroy as yet undetected Awabakal Cultural Heritage sites or objects that lay contained within the sub-surface stratigraphy.
 - c.** In the event of possible development of this study area, there should be consultation with the Aboriginal Stakeholders so as to formulate the best possible outcome for the Protection and Preservation of Awabakal Cultural Heritage. This could be achieved by a sequence of procedures that address certain aspects and criteria of any proposed development using timeframes to formulate an investigation period which precedes excavation works so as to establish whether Awabakal Cultural Heritage is present sub-surface and ultimately not compromise the expected completion date of each phase of any proposed development.
 - d.** We also believe as an additional measure, an observance and collection program should be instituted during all proposed subsurface excavations intended by the developer and their contractors. This would involve a process in which the proponent engages the Aboriginal Stakeholders to observe all sections of the excavations (ground surface impacts) so as to afford collection of any artefacts that may be disturbed by the sub-surface excavations. This would allow the Aboriginal Stakeholders to collect any Awabakal Aboriginal Cultural Heritage that would subsequently be uncovered during this phase of the process and allow for these artefacts to be reburied. We believe that if this observation and collection process is not instigated and implemented during sub-surface excavations by the proponent and their contractors, then our Cultural Heritage is being compromised and could be viewed or considered as disrespectful and neglectful of Awabakal People and our Cultural Heritage that (as shown by the sites recorded on the DECCW AHIMS Database) continues to exist within this area.
 - e.** All artefacts collected during this observation and collection process should then be relocated and reburied on site by the Aboriginal Stakeholders at a location that is designated for conservation, this would be at the completion of the proposed development.
 - f.** We agree there should be **NO IMPACT** whatsoever to the midden sites. Any proposed works or excavations etc around or within close proximity to these areas should trigger a management solution through the PoM and alert the developer to consult with the Aboriginal Stakeholders to mitigate any disturbance or damage to the Middens and Cultural Heritage sites.

Awabakal Names for Streets/Parks/Walkways/Conservation Areas

- As a sign of respect for the Awabakal People and the many thousands of years of occupation of this area, we would like to see the developer use words from the Awabakal language to name the streets/parks/community/conservation areas within the proposed development. We believe this would create a positive step in creating an enthusiasm within the community to look into the meanings of these names and the Cultural Heritage of our People.

Interpretive Signage and Artworks for Parks/Walkways/Community Areas

- Interpretive signage/artworks could be utilised by the developer in areas that are designated for pathways etc to raise awareness within the community and educate people in regard to the Cultural Heritage of the Awabakal. They could show the close relationship our People have with the Land and emphasise the significance of the area and highlight the importance for us all today to continue this caring for Country that they themselves live in. We see the development of this signage/artworks as a collaboration between the developer and the Traditional Awabakal People which would promote the uniqueness of Awabakal Cultural Heritage within this area.

Aboriginal Heritage Plan of Management

- We agree with the recommendations in the ***draft report*** on page 57 section **10.2.1 General Aboriginal Heritage Mitigations** that states ***'They should be set out in a basic Aboriginal Heritage Plan of Management (PoM) for the development. This PoM should be developed between Coal & Allied and the Aboriginal stakeholders and agreed upon before any site works commence.'***

Aboriginal Stakeholder Notification by Proponent & Cultural Awareness Training for Site Workers

- We would also like to see a commitment by the proponent which would require them to notify all the Aboriginal stakeholder groups in the event of any Aboriginal Cultural Heritage and archaeological evidence of any kind being uncovered or found during construction. We consider we have lost enough of our Cultural Heritage in the past and mitigation processes should be implemented and enforced so we don't lose any more of our Cultural Heritage.
- There should also be compulsory Cultural Awareness Training included in the induction process for all contractors and workers on site, particularly those undertaking any excavations within the footprint of the proposed development area. This would be developed and delivered by the Aboriginal stakeholders and archaeological consultants to allow all workers and contractors some form of basic knowledge, recognition and detection of artefacts if uncovered during the excavation/construction phase of the site works.

AZ3 an Area of Low Archaeological Potential??

- On page 38 paragraph two section **5.3.5 Discussion-Archaeological Potential And Archaeological Zoning** there is a sentence which states that ***'AZ3 remains generally undisturbed and thus any Aboriginal sites located within the zone are unlikely to have been significantly impacted over the past 200 years. However, no Aboriginal sites were recorded within this zone'***. The reason for not finding any sites in this zone comes back to visibility as described by the author in the draft report again on page 38 paragraph two section **5.3.5 Discussion-Archaeological Potential And Archaeological Zoning** where they tell you in their own words the reason, ***'Detailed survey across the remainder of the Nords Wharf Site, Archaeological Zone 3, was more limited because of dense vegetation cover'*** This then leads us to question why then is the conclusion arrived at where the author then says in paragraph three of page 38 section **5.3.5 Discussion-Archaeological Potential And Archaeological Zoning** that ***'As such AZ3 is considered to have low archaeological potential'***

This defies all logic in regard to archaeological potential, when they have already stated (as set out above) that ***'AZ3 remains generally undisturbed and thus any Aboriginal sites located within the zone are unlikely to have been significantly impacted over the past 200 years.'*** The unlikelihood of a site being significantly impacted for the last 200 hundred years because it remains generally undisturbed is exactly what archaeologists look for regarding integrity of sites!! To say that the site has 'low archaeological potential' and yet in the same paragraph to also say that it 'remains generally undisturbed' and any Aboriginal sites located within this zone 'are unlikely to have been significantly impacted over the past 200 years' makes no sense. If this zone has remained undisturbed for the last 200 years and the Aboriginal sites unlikely to have been significantly impacted then this is the very reason this area is as important if not more important than AZ1 and AZ2 and should be considered as high archaeological potential and investigated further. It has already been pointed out to us in the draft report that dense vegetation cover hampered visibility for AZ3 so to draw a conclusion of low archaeological potential given these facts is ridiculous to say the least!!

We DISAGREE with the statement on page 53 of the ***draft report*** section **8.5 Aboriginal Heritage** fourth paragraph that says ***'Site works within Archaeological Zones 3 are unlikely to impact Aboriginal heritage sites.'*** When in reality and as pointed out above no one really knows the extent of the Aboriginal Cultural Heritage sites in AZ3. Although, we do know from what the author writes that ***'AZ3 remains generally undisturbed and thus any Aboriginal sites located within the zone are unlikely to have been significantly impacted over the past 200 years.'*** And again on page 38 in paragraph three, section **5.3.5 Discussion-Archaeological Potential And Archaeological Zoning** that ***'It is assumed that, given the proximity to the foreshore and thus the midden, AZ3 would have been used for more sporadic Aboriginal occupation...It is***

therefore possible that Aboriginal sites could be located within this area.' And again on page 18 section **3.2.4 Predictive Aboriginal Heritage Statement** paragraph two it says **'Due to the undeveloped nature of the Nords Wharf Site, and general occurrence of Aboriginal sites across the region, intact Aboriginal sites could occur at any location within the Nords Wharf Site.'** Again we must reiterate that we disagree with the statement that AZ3 is of low archaeological potential given the facts from the draft report as pointed out above.

Aboriginal Stone artefacts and Watercourses

- In the draft report on page 16, paragraph three, section **3.2.2 Local Aboriginal Heritage** it makes a statement that says **'It can be stated that in general a pattern exists within the temperate zones of NSW where Aboriginal stone artefact sites are concentrated along watercourses.'**

This is one detail that has been left out of and not satisfactorily addressed in the **draft report** or the subsequent mitigation and management recommendations for this proposed development.

Again in the same paragraph it indicates that **'The watercourse flowing through the southern part of the Nords Wharf Site has some potential for associated artefacts, although there is an absence of recorded sites in comparable regional contexts. This may reflect a lack of archaeological survey, rather than a lack of Aboriginal Sites.'** More than likely it stems back to the fact that there is no visibility within this area as stated previously in the **draft report** and with the inability to see artefacts comes the fact that there are no incidents of sites being recorded in this location.

This creek line, as well as others in the area, would have been utilised by our People for fresh drinking water, therefore allowing the opportunity for long term campsites to exist within close proximity to these creeks. The very fact that there is a major creek line so close to the proposed development area is an indication that we should be aware that artefacts (apart from those found on this assessment) will be hidden here by the dense vegetation or be located sub-surface. Based on a predictive model by Kohen in 1986 we have provided an example below which outlines his studies:

His study showed that a large portion of artefact scatters occurred close to river and creek lines: 65% being within 100 metres of a permanent water supply (Kohen 1988 cited in Attenbrow 2002: 49-50). Kohen concluded that availability of water was the most important factor influencing the distribution of sites across the landscape (Kohen 1986: 292).⁶

This is why it is imperative to make sure appropriate decisions are made and a suitable management and mitigation process put in place so as to afford the protection and preservation of the Cultural Heritage of our People deserves and that still exists within the very landscape of this proposed development area. It also goes without saying that this information reveals why it is imperative that more in-depth investigations are required. Without this protection and preservation, there will be little left for future generations to appreciate, therefore negating what we pride ourselves on and call today **Intergenerational Equity**.

- a. Any proposed works or excavations around or within close proximity to these areas should trigger a management solution through the PoM and alert the developer to consult with the Aboriginal Stakeholders to mitigate any disturbance or damage to the Cultural Heritage contained within the margins of the creeks and watercourses.
- b. Before any potential disturbances from sub-surface excavations or ground disturbances within close proximity to these areas, there should be a series of test pits placed along the watercourses to establish the level of Cultural Heritage within these locations.

Statement of Significance of this area to Awabakal Traditional Descendants

This area is considered by our People and many Archaeologists alike to be of great importance within our Cultural Heritage. There are many and varied reasons our People have utilised this location over thousands of years. As described in the **draft report** one of the earliest accounts of the importance of this area is attributed to the Rev. L.E. Threlkeld. He reports that many places have spiritual significance for the Awabakal People. There are early accounts within an array of documents which detail the Aboriginal occupation of this area and relate the subsequent impacts that settlers have had on the Cultural Heritage and ultimately impacted the lifestyle of our People as the settlers moved into areas outside of what were then the known limits of the settlement.

As pointed out previously, this area has not just a physical presence within the Cultural Heritage of the Awabakal People but it is part of our oral history and a place of spiritual significance. The landforms and resources of this locale fulfilled not just the basic needs that underpinned our Peoples subsistence but also

⁶ **Aboriginal Archaeological & Cultural Heritage Assessment (Updated) – Hoxton Park 2008, Austral Archaeology Pty Ltd. page 21**

satisfied the many other aspects that made up what can be described here as being part of the very Cultural foundations of our People.

Our people have had a long history within this area which is unsurpassed. Our apical Ancestor, Mahrahkah, an Awabakal woman and her two daughters were recorded by Threlkeld and Warner as living in and around the lake and other areas which all formed part of their Traditional Country. This apart from everything else makes it a very important location for our family, knowing that Mahrahkah walked this area before any white man was ever seen in the Newcastle and Lake Macquarie areas. She was intrinsically acquainted with her Land and she has left a legacy for us to carry on in this day and age and to pass onto our descendants. This area is of very high significance to our People and therefore it would be expected that after the generations of our People that have walked the pathways of their Ancestors, there would be many areas that contain evidence of this connection through occupation on varying levels by our people on Lake Macquarie and the ocean to the east. Traditionally these areas where the supply of rich resources of which our people have depended on for thousands of years. There are physical reminders left by our Ancestors, some in the form of stone tools (artefacts) and grinding grooves which provide us as Descendants of the Awabakal People an opportunity to make a connection through time with our Ancestors. This connection is brought about in a variety of ways, one is through the physical senses such as touch or knowing we are seeing where they lived or what they used, or by holding or touching something our Ancestors handled or something they made, possibly many thousands of years previously. This connection is one of those avenues that produce in us the sense of perception, appreciation, familiarity and recognition of who we are and where we belong as Awabakal Descendants.

We thank you Diana for the opportunity to contribute these comments in regard to this project. We hope this addresses any queries you may have, if not and further information is required please don't hesitate to contact us ASAP. Our contact details are as follows.

NGI NOA

Shane Frost: Managing Director-Awabakal Descendants Traditional Owners Aboriginal Corporation

Email: shanefrost@bigpond.com Phone: 49964362 Fax: 49964325 Mobile: 0428320671

Cultural Heritage Sites - Physical reminders of our Ancestors; once they are gone, they are gone forever and impossible to bring back!! THINK first and make WISE decisions last!!



12 May 2011

Dr Diana Neuweger
ERM
Locked Bag 24,
Broadway NSW 2007

Dear Diana,

Re: Comments Regarding the Final Draft Report for the Lower Hunter Estates Development Heritage Impact Assessment for Nords Wharf

This letter is in response to your request for comment from the Awabakal Traditional Owners Aboriginal Corporation with regard to a letter sent by Dr Diana Neuweger on Tuesday 22nd March 2011, regarding Comments on the Final Draft Report Nords Wharf Heritage Impact Assessment.

Considering that ERM had sent four (4) additional Reports for Comment regarding the Northern and Southern Estates for Coal & Allied, we believe that additional time should have been allocated, as comment for *all* five (5) Reports were requested within the minimal 21 day period, which also did not take into consideration the Easter holiday break.

At this juncture we must express our distress and concern regarding this and other **Reports** pertaining to the Coal & Allied Northern and Southern Estates, as we believe that the **Reports** fail to reflect the Coal & Allied Ongoing Commitments and Social Benefits which is stated within the cover letter and therefore should have been included within the **Report**.

Statement of Cultural Significance of the area to the Awabakal Traditional Owners

The Lake Macquarie Region is an iconic landmark that features prominently within its surrounding landscape. This regions mythology, mystery and organic presence that are quite simply, uniquely Awabakal still to this day has an undeniable amount of fascination and attention regarding its cultural value and purpose.

The Awabakal Traditional Owners have a personalised and ever-revitalised bond with our ancestors' culture, tradition & heritage. This inexplicable connection is reverberated within the surrounding landscape of the Awabakal region.

Additionally, we appreciate our unique role and responsibility for the care and protection of the integrity of this landscape, for and on behalf of its original First Peoples and their descendants.

We would like to take this opportunity to assert our focus on the critical flow of intergenerational equity and aim to ultimately safeguard the immeasurable life-changing impact to this and future generations. Intergenerational equity lays the foundation for identifying, assessing, protecting and maintaining the important cultural and heritage values of landscapes, resources, places, objects, customs and traditions so that we, and generations to come, can enjoy, learn from them, and appropriately manage these values.

The Lake Macquarie Region is organically and historically imbedded into the Awabakal landscape and is romanticised, photographed, talked about, visited, fought over, and all the time having its substructure relentlessly undermined for its natural resources. And yet, this landscape still hums a very distinctive 'human story' that still reverberates today.

We believe that the principles of the Awabakal tradition and culture still exist today to keep intact the moral and spiritual fibre of this land. Equally, we also believe it is essential to nurture new visions that are inspired by the cultural integrity of our ancestral family and we are encouraged that so many people in this town are focused on gaining an ever growing respect and understanding for the Awabakal Peoples, this land and environment.

This land has had a wealth of knowledge walk over it, with each one of us deepening the footprints of our ancestral family, the Awabakal People (Awabakal Traditional Owners Aboriginal Corporation 10 & 30 March 2010).

Our comments to the contents of the Draft Report are as follows:

With regard to the Final Draft Report for the Nords Wharf Heritage Impact Assessment, we recognise the evaluation by ERM appears to be reasonably comprehensive.

We would like to take this opportunity to commend Coal & Allied for proposing to dedicate 116.6 ha (92%) of Coal & Allied land for conservation purposes.

Therefore we recommend that it is important for the Awabakal Traditional Owners of this land to assist with the management and strategy development process of the conservation areas, as historically, our ancestral families have been disenfranchised of our cultural environment for over two centuries.

We believe that the reference made to 'local Aboriginal community groups' within the cover letter on page 2 should be changed to 'Registered Aboriginal Stakeholders', as the meaning of 'community' has a wider group connotation, whereas the meaning of 'Stakeholders' refers to independent parties who are registered for this project and is more accurate and specific.

We are highly concerned that *all* the **Reports** pertaining to the 2007 Coal & Allied Southern and Northern Estates are now outdated and believe that *all* the **Reports** should reflect documented evidence regarding Aboriginal Cultural Heritage and current recorded sites, as the details within the **Reports** are now over four (4) years old.

Page 13, 3.2.1, With regard to the statement that there seems to be a limitation of information about the Awabakal and Guringai people within the area, may we draw your attention to the writings of the Reverend Lancelot Threlkeld which presents an informative overview of the Awabakal and Guringai People which would broaden the context of the **Report** and local area. For example, the historical documented records of Lieutenant William Coke, R H Mathews and Jonathon Warner accounts of the Hunter Region are very informative.

We highly recommend that the “Australian Reminiscences & Papers of L.E. Threlkeld” who was the missionary to the Aborigines of Lake Macquarie 1824-1859; in whose correspondence and detailed account of the Awabakal and Guringai People are the earliest “colonial commentary” recorded. We also recommend the Cultural Collection Unit at the University of Newcastle, as they retain a plethora of resource material pertaining to Aboriginal occupation within the Newcastle and Lake Macquarie regions.

We are also disappointed with the remarks that little has been recorded in the immediate hinterland and believe that the list of people who had reviewed this **Report** could have researched further afield, as there has been a huge amount of documented evidence of our peoples’ occupation within the immediate and surrounding area.

We are concerned and consider that this section within the **Report** may need more clarification, as we believe that the reference pertaining to the Aboriginal ‘community’ at Cams Wharf has been taken out of context and may have the potential to be misleading.

We propose that there may be a need for a definition regarding the difference between ‘Aboriginal Community’ and the ‘Traditional Descendants’ of the area to bring greater clarification concerning the difference between attachment and association concerning specific social and cultural heritage value within this and future **Reports**.

The reference by Turner and Blyton 1995:51-52 within this section may have the potential to lead the reader to believe that Turner and Blyton were making reference to Cams Wharf. The reference in question within the Report states that...

“By the start of the twentieth century only a small number of Aboriginal people remained in the area living on the outskirts of settlement including Cams Wharf. However, the community remained in the region and has now since grown to be one of the most dynamic and largest in NSW”...

However the paragraphs that the above account actually state on pages 51-52 that...

“From 1900 to 1960 such communities were found in a number of places around Newcastle and Lake Macquarie, including Swansea, Catherine Hill Bay, Dora Creek, Toronto, Fennel Bay, Teralba, Cardiff, Eleebana, Wallsend and Waratah. The impact of British colonisation had a devastating effect on the Aboriginal people and their culture. Colonisation resulted in the alienation of Aboriginal people from their lores, language identity and land. The spirit of Aboriginal people endured through these difficult times, and by the 1970s a definite recovery had emerged. Today, the Lake Macquarie region has one of the most dynamic Aboriginal communities in New South Wales, and has the sixth largest concentration of Aboriginal people in the State”.

Therefore we highly recommend that the Regional Aboriginal Heritage section within the **Report** needs to be rectified, as we believe that the reference needs further clarification concerning what Turner and Blyton were referring to concerning the ‘Aboriginal Community’ and ‘Cams Wharf’.

Page 27, 5.1.3, With regard to the Study Area Survey we believe that some of the aspects pertaining to our Cultural Heritage during the survey may have been overlooked, as the general consensus considered that the pace of the field survey had been rushed.

Page 28, 5.1.4, We do agree that the survey fieldwork was limited due to the vegetated ground cover. However we are perplexed by the statement that the Scout Camp zone would contain the highest Aboriginal archaeological potential if only less than 2% of the Nords Wharf site was sampled.

We are concerned that the decision making process concerning the Aboriginal Cultural Heritage perspectives which include Aboriginal sites and values within the Nords Wharf site may be based on a less than 2% sampling of the entire 127ha of the Nords Wharf site.

We believe that the **Report** has not taken into consideration for any possible Cultural Heritage material that may be concealed below the ground surface. The site assessment and observation of the Nords Wharf site indicates that there is potential for additional Aboriginal cultural material to be concealed below the ground surface as a result of the general use of the area, as the **Report** continues to point out.

Therefore we highly recommend that within the Aboriginal Heritage Plan of Management (PoM) that a subsurface investigation be proposed prior to the commencement of any groundwork, to establish and ensure that the Nords Wharf study area will realise the diversity and integrity of the site in appropriately determining the future conservation surrounding the proposed development area.

If we are to achieve due diligence within a comprehensive process through a greater understanding of Aboriginal cultural heritage, both archaeologists and proponents need to take into consideration what these investigations mean to Aboriginal people as part of the healing and self-determination process.

Page 33, 5.3.3, We believe that the reference made to the 'Local Aboriginal community' within the **Report** should be changed to 'Aboriginal Stakeholders', as the meaning of 'community' has a wider group connotation, whereas the meaning of 'Stakeholders' refers to independent parties and is more accurate and specific. Therefore, we would like the **Report** to consistently refer to the 'Registered Aboriginal Stakeholders' instead of a generic 'Local Aboriginal community'.

It is our interpretation that Aboriginal communities consist of Aboriginal people many of whom have relocated into other Aboriginal Nations traditional lands and should therefore respect the culture and heritage of the region and the rights of the traditional descendants of the area. The Hunter and Lake Macquarie regions consist of many Aboriginal community members who have no cultural association with this land; nonetheless they feel a sense of belonging.

Page 34, 5.3.4, With regard to the History of the recordings of the Midden Site, we are alarmed to notice that within this section of the **Report** it has mentioned that the Midden Site had been initially documented in 1992 and again updated in 2003. Therefore it would seem that procedures to avoid and protect the Midden Site within the Nords Wharf Site have been overlooked for some time, which doesn't give us confidence in the process to manage and protect Aboriginal Cultural Heritage, as the activity associated with the Scout Camp has been able to continue with disregard and ignorance concerning a recorded Aboriginal site.

The persistent and constant destruction of our Cultural Heritage continues to distress our People 'the Awabakal', and therefore we seek DECCW's serious consideration of the legacy of cumulative and continued damage to our Cultural Heritage Values and examine intergenerational equity standards in determining approvals or non-approvals. Any approval and conditions must use best practice standards and intergenerational equity weighting in consideration in determining the future conservation of our cultural landscape.

Page 38-39, 5.4, With regard to the synopsis of the AZ 1, AZ 2, and AZ 3 sections within the **Report**, we believe that the paragraphs listed above the synopsis contradicts the perception of archaeological potential within the project application area and may have the potential to misinform the decision making process for the AZ 3 area within the Nords Wharf site.

We are greatly concerned that the reasoning behind the low archaeological potential does not concur with the synopsis within paragraph 2 that...*"the AZ 3 remains generally undisturbed and thus any Aboriginal sites located within the zone are unlikely to have been significantly impacted over the last 200 years"*. Therefore it would be impossible to come up with a scenario outlined in AZ 3 dot point that ...*"this area does not contain any known Aboriginal sites and has a low archaeological potential"* if a subsurface investigation has not been carried out.

Page 42 – 43, As empirical evidence demonstrates that the Local Lake Macquarie region has a history of poor Cultural Heritage reporting and recording and continues to be of a poor standard, and we agree that there is an opportunity for further analytical research concerning the region. Therefore, we propose that ERM and Coal & Allied consider the advantages of implementing a Research Design for the proposed project to support the monitoring investigative areas within the Nords Wharf Project area.

The program analysis would support a conceived piece of archaeological research design to address research questions which have been outlined within the **Report**. The research design would pioneer active principles to unravel the geological history of the regions layers to encompass and create a data collective of the regions ethos.

We believe that ERM and Coal & Allied could take this opportunity to go beyond what is required by relevant legislation policies as a pioneer of contributing to their ongoing commitment and supportive awareness in adequately addressing the many aspects related to the perspectives and diversity that is associated with Aboriginal Cultural Heritage.

Page 53, 4th paragraph, We disagree with this statement that...*"site works within Archaeological Zone 3 are unlikely to impact Aboriginal heritage sites"*, as it is also difficult to comprehend how this decision was realised when the **Report** continues to acknowledge that...*"it is therefore possible that Aboriginal sites could be located within this area"* as stated on page 38, paragraph 3. We therefore believe that the Aboriginal integrity within the AZ 3 site is being compromised due to the conflicting statements throughout the **Report**, and highly recommend that the AZ 3 area needs to be reassessed.

Page 57–61, 10–10.2.5, We agree in principle with the proposed Aboriginal Heritage Mitigation Measures Recommendations within the **Report**. We also agree in principle with the Coal & Allied ongoing Commitments and Social Benefits outlined on pages 2-3 within the Cover Letter, and believe that the Coal & Allied ongoing Commitments and Social Benefits should be included within the Final Draft Report.

We would recommend that consideration be given to undertake the development of a Cultural Heritage Awareness Training either through an Oral and/or PowerPoint presentation for staff and contractors involved in the project.

The Awabakal Traditional Owners (ATOAC & ADTOAC) have both previously been involved with Cultural Heritage Awareness Training presentations and therefore would consider that this type of approach would resolve any difficulties for the Staff and Contractors involved to be aware of and to also recognise Cultural Heritage Material for this and future projects.

We agree that the Aboriginal Heritage Plan of Management (PoM) should be developed and agreed upon between Coal & Allied and the Aboriginal Stakeholders before any site works commence. Therefore, we would highly advocate that the PoM be developed and agreed upon within a reasonable timeframe before any site works commence, so that the decision making process is not rushed, as past experiences demonstrates that PoM development pertaining to Aboriginal Cultural Heritage is left mainly to the final stages.

Page 58, 10.2.4, 2nd paragraph, Typo reads “*impact he midden*” should read “*impact the midden*”.

We would like to mention that we would prefer that any topsoil removal to remain on site, as there may be a possibility for cultural material to be concealed below the vegetated ground surface.

In summary with regard to the Heritage Mitigation Measures within the Report, our Comments and Recommendations are that:

- we agree with the Coal & Allied ongoing Commitments and Social Benefits and believe that the Coal & Allied ongoing Commitments and Social Benefits should be included within the Report
- we are highly concerned that *all* the **Reports** pertaining to the 2007 Coal & Allied Southern and Northern Estates are now outdated and believe that *all* the **Reports** should reflect documented evidence regarding current recorded Aboriginal sites
- aspects pertaining to the Cultural Heritage perspective of the Awabakal and Guringai Peoples lifestyle would have indeed broaden the Aboriginal context within the Report
- the reference made to ‘Aboriginal communities’ within the Report should be changed to ‘Aboriginal Stakeholders’
- there are a number of statements within the Report that may need further clarification
- we agree that the Aboriginal Heritage Plan of Management (PoM) should be developed and agreed upon between Coal & Allied and the Aboriginal Stakeholders before any site works commences
- we are concerned that current information regarding additional recorded artefacts within the Nords Wharf project area have not been taken into consideration, which may influence aspects pertaining to the Recommendations for Aboriginal Heritage Mitigation which is being based on AZ 1, AZ 2, AZ 3 and Figure 5.2
- we highly recommend that within the PoM a subsurface investigation be initiated to realise the diversity of Aboriginal Heritage in appropriately determining the future conservation of the site
- additional time should have been allocated for comment response considering that four (4) additional Reports regarding the Northern and Southern Estates for Coal & Allied were all requested within the 21 days, and also bearing in mind the 21 days included the Easter break
- It is important for the Traditional Owners of this land to assist with the management and strategy development process of the conservation areas, as historically, our ancestral families have been disenfranchised of our cultural environment for over two centuries
- we disagree that the AZ 3 area is classified as having low archaeological potential considering the amount of conflicting statements throughout the Report, and believe that the AZ 3 area needs to be reassessed

We would like to take this opportunity to reiterate our family connection to the Awabakal People, as being direct descendants of the Traditional Awabakal People (the Lake Macquarie and its surrounding region). We as Awabakal descendants are connected with the Awabakal Culture and Heritage through our ancestral families.

As Awabakal Descendants our cultural association with our area (Awabakal region) is derived through the history of our apical ancestors Margaret and Ned of the Awabakal People, the original inhabitants of the land.

Margaret and Ned are a well documented Aboriginal couple of whom numerous newspaper articles and several books have recorded their lives within the Awabakal Nation. Margaret and Ned are remembered and celebrated in Lake Macquarie and have two Bays at Swansea respectfully named in their honour, Black Neds Bay and Margarets Bay. Margarets Bay was officially named by her descendants, and is adjacent to Parbury Park which in 1880 was part of a reserve set aside for the use of Margaret and her children.

The principle vision and aims of the Awabakal People is to protect the cultural heritage of our ancestors. Therefore, any artifacts and/or residual evidence of our people are held in high regard and are considered a cultural reminder that unites us with our land and sea country, our past and spirituality and provides us with a visual generational legacy.

We reserve the right and reluctance to share our cultural heritage with others in respect to aspects of the cultural significance that connects us to our country. It is believed by our people that those who shouldn't be privy to this cultural knowledge have no rights or entitlements to it.

We would like to thank ERM for the opportunity to comment and would ask for a copy of the finished report to be forwarded to us at your earliest convenience demonstrating how you have addressed all the Aboriginal stakeholder comments provided.

If you require any further information please do not hesitate in contacting me.

Yours sincerely,



Kerrie Brauer
Director | Administration

Diana Neuweger

From: Arthur Fletcher [wonn1sites@gmail.com]
Sent: Thursday, 12 May 2011 2:59 PM
To: Diana Neuweger
Subject: RE: Comment on southern estates

Hi Diana,

We find it very difficult to respond to reports that we have had no physical opportunity to connect with said areas. If this could be arranged it would be much appreciated .Regards Arthur

From: Diana Neuweger [mailto:Diana.Neuweger@erm.com]
Sent: Thursday, 12 May 2011 2:58 PM
To: wonn1sites@gmail.com
Subject: Comment on southern estates

Hi Arthur,

If you have any comments to provide on southern estates reports for Coal and Allied, please let me know we are trying to get this wrapped up shortly.

Southern estates include: Gwandalan, Nords Wharf and Catherine Hill Bay.

Diana

Dr. Diana Neuweger
ERM Heritage Consultant
Strategic Services
MAACAI

Environmental Resources Management Australia Pty Ltd
6th Floor 172 St Georges Terrace Perth WA 6000
PO Box 7338 Cloisters Square WA 6850

Phone: +61 (0)8 93215200
Fax: +61 (0)8 93215262

This electronic mail message may contain information which is (a) LEGALLY PRIVILEGED, PROPRIETARY IN NATURE, OR OTHERWISE PROTECTED BY LAW FROM DISCLOSURE, and (b) intended only for the use of the Addressee (s) names herein. If you are not the Addressee (s), or the person responsible for delivering this to the Addressee (s), you are hereby notified that reading, copying, or distributing this message is prohibited. If you have received this electronic mail message in error, please contact us immediately and take the steps necessary to delete the message completely from your computer system. Environmental Resources Management Australia Pty Ltd (ERM) has systems in place to encourage a virus free software environment, however we cannot be liable for any loss or damage, corruption or distortion of electronically transmitted information, or for any changes made to this information during transferral or after receipt by the client.

Please visit ERM's web site: <http://www.erm.com>

A.2 NORDS WHARF STAKEHOLDER CONSULTATION REPONSES

Provided below are the points and statements raised through Stakeholder review (letters provided above). The stakeholder statement is shown in italics with an explanation of how the stakeholder statements have been addressed, indicated below.

A.2.1 *Comments From Awabakal Descendants Traditional Owners Aboriginal Corporation Letter Dated 10 April 2011*

Period of Review too short for all the reports

The period of review was extended, to allow the groups to review the Southern Estate reports. The three southern estate applications were lodged concurrently and as such the reports were sent out at the same time for review. A subsequent letter was sent to all registered stakeholders on 27 April 2011 to ensure that all stakeholders were aware that the period of review was extended and offering to meet individually with them to discuss any aspect of the reports. No new date was provided but all stakeholders were asked to provide responses at their earliest convenience.

Pg 13 Community used as term should be replaced by Awbakal People

The use of the term 'Aboriginal community' is considered by the Awabakal Descendants Traditional Owners Aboriginal Corporation to be too broad, the area was occupied by Awabakal people and should therefore reflect Awabakal peoples rather than a general term such as "community". The Aboriginal Heritage Management Plan (AHMP) can take this into account and ensure the preferred term is used in future.

Archaeological field survey rushed

The comment is made that the field survey was rushed and some areas inappropriately surveyed. The report reflects that there was limited ground visibility and as such, archaeological sites are difficult and often impossible to identify. Sub-surface testing has been recommended and will be a commitment of this project. A further survey of the area will occur at the time of the testing, when there has been clearing of the ground cover.

Ground visibility and lack of archaeological potential

It is standard good archaeological practice that when a study area has limited ground visibility the predictive model is used to determine which areas are most likely to contain unidentified Aboriginal heritage sites. Limited ground visibility was a factor in this project. Standard techniques in considering the predictive model, including previous land use and landforms present in the study area, were used to create an archaeological zoning plan that indicated the areas anticipated to contain higher and moderate potential for Aboriginal sites to be present.

These areas will be tested through sub-surface excavation prior to development. Whilst it is acknowledged that the Aboriginal stakeholders feel there is a greater potential for Aboriginal archaeological sites to be present, standard practises have been employed to derive the study findings, and the cultural heritage management plan will include measures to be taken in the event of unexpected discoveries or 'chance finds' of Aboriginal heritage material .

AHIMS site search out of date

The reports were originally commissioned and fieldwork undertaken in 2007. Any management plan that is created in 2011 or beyond for the project will update the AHIMS search to ensure all current and known sites are identified prior to works commencing.

Object to topsoil removal

The management plan can accommodate this request and include recommendations that topsoil excavated at the site be kept on site and reused within the development. If subsequent testing of top soil indicates any contamination this management measure may need to be revised, in which case the Stakeholder groups will be contacted and informed of any required change.

Sub-surface Testing

The report recommends that Zone 1 (high archaeological potential) and Zone 2 (moderate archaeological potential) be tested. The recommendation is derived from the predictive modelling which followed standard practise within the industry and thus it is these areas and not the entirety of the study area that has been recommended for testing.

Prior to sub-surface testing, ground clearance will be required, and thus survey of areas of high and moderate potential will be carried out while determining which locations are best for testing.

The low potential areas and disturbed areas can be viewed after clearance but there is no current scientific justification for systematic survey of these areas.

Increased traffic due to new residence not addressed

The sub-surface testing will define the type and location of sites present. Traffic aspects will be considered in the Management plan following the testing, and any management measures will be discussed with the Aboriginal Stakeholder Groups.

Protection and preservation of cultural heritage

If clearance and testing establishes that further sites are present in the study area, management measures will seek in the first instance to protect and preserve the cultural heritage. Only if practicable measures cannot be identified will sites be lost. Any management measures arising from the sub-surface testing will be developed in consultation with Aboriginal Stakeholder consultation.

Observance and collection program

Artefact collection and monitoring can be added to the management plan once sub-surface testing has indicated which areas of the study area hold areas of artefact scatters and potential.

Reburial in a conservation area

Reburial of artefacts can be undertaken in a conservation area and interpretation of what has been found on site will be part of the interpretation strategy of the study area.

No impact to middens

The identified midden site lies within a conservation area. If further middens are identified, where possible these will be preserved and form part of the interpretation of the study area.

Coal & Allied understand the Stakeholder concern regarding impacts to the midden site 45-7-0177, and are committed to an appropriate strategy for preserving the site, which will be reflected in the Aboriginal Heritage Management Plan to be prepared for this project.

Awabakal names

Coal & Allied will undertake appropriate stakeholder consultation with regard to the use of Awabakal names for roads, parks and walkways within the development.

Interpretative Signage

Interpretation is part of the commitments already made by Coal & Allied and interpretation will include the Awabakal people's use and understanding of the subject area.

Notification and cultural awareness training

Coal & Allied is committed to continuing consultation with the registered stakeholders for this project; notification of the ongoing process will form part of that commitment as well as the involvement of the Stakeholders in the further management and mitigation of cultural heritage undertaken within the study area. Cultural Heritage Awareness training will be provided to all contract staff prior to excavation works and will form part of the on-site induction process.

AZ3

Archaeological zone three is an area that is indicated by landform and background research to be unlikely to contain Aboriginal heritage sites. The report correctly reflects that the area is undisturbed but the modelling of the site and these particular areas indicate that there is low to limited potential for Aboriginal heritage sites to be present.

Aboriginal archaeological sites around water courses

The areas around the ephemeral creek lines in the study area have not been identified as having high potential because the predictive modelling did not indicate that ephemeral water bodies were likely to contain artefact sites.

Coal & Allied is willing to have the stakeholders undertake a walkover of the areas of the ephemeral creek line once clearing has taken place and prior to the commencement of site works following development consent, to ensure that there are no surface artefact scatters present.

A.2.2 *Comments From Awabakal Traditional Owners Aboriginal Corporation Letter Dated 12 May 2011*

Use of the term 'community'

Future reports will use the term 'stakeholder' or 'traditional descendants' rather than the term 'community'.

Currency of report data 4 yrs old

Any management plan that is created in 2011 or beyond for the project will update the AHIMS search to ensure all current and known sites are identified prior to works. In the Plan of Management the AHIMS site search and predictive modelling will be updated.

Limited background data

If the Plan of Management requires further investigation into the study area, the references suggested by ATOAC will be used and taken into consideration when producing the Plan of Management.

Archaeological field survey rushed

The comment is made that the field survey was rushed and some areas inappropriately surveyed. However, the report reflects that there was limited ground visibility, and as such archaeological sites are difficult and often impossible to identify. Sub-surface testing has been recommended and further survey of the area will occur at the time of the testing, when the ground cover has been cleared, so facilitating the identification of any potential Aboriginal sites that may be present.

Subsurface testing

As committed to in the report, sub-surface testing will occur prior to works in the zones of moderate and high archaeological potential. Identification of the areas of testing and the testing itself will be undertaken in consultation with the Aboriginal stakeholder groups.

Midden Site 45-7-1077

While the report notes that the site had been recorded in 1992, there was no significant development proposed for the site by Coal & Allied prior to this project's inception. As the stakeholders are aware, the area is currently bushland and is not at risk of significant impacts or under threat of destruction. Coal & Allied is committed to the protection and preservation of this midden site in the context of the proposed development.

AZ3

Archaeological zone three is an area that is indicated by landform and background research to be unlikely to contain Aboriginal heritage sites. The report correctly reflects that the area is undisturbed but the modelling of the site and these particular areas indicate that there is low to limited potential for Aboriginal heritage sites to be present.

Going beyond relevant legislation and policy

Coal & Allied are committed to a sub-surface testing program for this development. This program will be designed in consultation with the Aboriginal stakeholder groups and will take into consideration broad questions relating to Aboriginal people's use of the area. During the formation of the sub-surface testing design, the stakeholders will be requested to provide input to the selection of the questions the testing program will seek to answer, and how best to design the sub-surface testing plan to both determine the presence (or absence) of sites and adds to the archaeological knowledge of the region.

Cultural heritage awareness training

Coal & Allied is committed to continuing consultation with the registered stakeholders for this project; notification of the ongoing process will form part of that commitment as well as the involvement of the Stakeholders in the further management and mitigation of cultural heritage undertaken within the study area. Cultural Heritage Awareness training will be provided to all contract staff prior to excavation works and will form part of the on-site induction process.

A.2.3 ***Comments From Wonn1 Consulting***

Cannot comment as not involved in fieldwork

Details noted. There will be opportunity to visit the site during site clearing, including top soil removal monitoring and the on-going management of the development and participation in the further management is encouraged by Coal & Allied to ensure all stakeholder views are heard.

Friday, 3 June 2011

SHANE FROST
AWABAKAL DESCENDANTS TRADITIONAL OWNERS ABORIGINAL
CORPORATION
SHANEFROST@BIGPOND.COM

Our Reference: Response to Comments ADTOAC NW

Dear Shane,



**RE: RESPONSE TO STAKEHOLDER RESPONSE TO NORDS WHARF
HERITAGE ASSESSMENT**

Below is the response to the comments made by the Awabakal Descendants Traditional Owners Aboriginal Corporation letter dated 10 April 2011. The stakeholder statement is shown in italics with an explanation of how the stakeholder statements have been addressed, indicated below.

Period of Review too short for all the reports

The period of review was extended, to allow the groups to review the Southern Estate reports. The three southern estate applications were lodged concurrently and as such the reports were sent out at the same time for review. A subsequent letter was sent to all registered stakeholders on 27 April 2011 to ensure that all stakeholders were aware that the period of review was extended and offering to meet individually with them to discuss any aspect of the reports. No new date was provided but all stakeholders were asked to provide responses at their earliest convenience.

Pg 13 Community used as term should be replaced by Awabakal People

The use of the term 'Aboriginal community' is considered by the Awabakal Descendants Traditional Owners Aboriginal Corporation to be too broad, the area was occupied by Awabakal people and should therefore reflect Awabakal peoples rather than a general term such as "community". The Aboriginal

Heritage Management Plan (AHMP) can take this into account and ensure the preferred term is used in future.

Archaeological field survey rushed

The comment is made that the field survey was rushed and some areas inappropriately surveyed. The report reflects that there was limited ground visibility and as such, archaeological sites are difficult and often impossible to identify. Sub-surface testing has been recommended and will be a commitment of this project. A further survey of the area will occur at the time of the testing, when there has been clearing of the ground cover.

Ground visibility and lack of archaeological potential

It is standard good archaeological practice that when a study area has limited ground visibility the predictive model is used to determine which areas are most likely to contain unidentified Aboriginal heritage sites. Limited ground visibility was a factor in this project. Standard techniques in considering the predictive model, including previous land use and landforms present in the study area, were used to create an archaeological zoning plan that indicated the areas anticipated to contain higher and moderate potential for Aboriginal sites to be present.

These areas will be tested through sub-surface excavation prior to development. Whilst it is acknowledged that the Aboriginal stakeholders feel there is a greater potential for Aboriginal archaeological sites to be present, standard practises have been employed to derive the study findings, and the cultural heritage management plan will include measures to be taken in the event of unexpected discoveries or 'chance finds' of Aboriginal heritage material .

AHIMS site search out of date

The reports were originally commissioned and fieldwork undertaken in 2007. Any management plan that is created in 2011 or beyond for the project will update the AHIMS search to ensure all current and known sites are identified prior to works commencing.

Object to topsoil removal

The management plan can accommodate this request and include recommendations that topsoil excavated at the site be kept on site and reused within the development. If subsequent testing of top soil indicates any contamination this management measure may need to be revised, in which case the Stakeholder groups will be contacted and informed of any required change.

Sub-surface Testing

The report recommends that Zone 1 (high archaeological potential) and Zone 2 (moderate archaeological potential) be tested. The recommendation is derived from the predictive modelling which followed standard practise within the industry and thus it is these areas and not the entirety of the study area that has been recommended for testing.

Prior to sub-surface testing, ground clearance will be required, and thus survey of areas of high and moderate potential will be carried out while determining which locations are best for testing.

The low potential areas and disturbed areas can be viewed after clearance but there is no current scientific justification for systematic survey of these areas.

Increased traffic due to new residence not addressed

The sub-surface testing will define the type and location of sites present. Traffic aspects will be considered in the Management plan following the testing. and any management measures will be discussed with the Aboriginal Stakeholder Groups.

Protection and preservation of cultural heritage

If clearance and testing establishes that further sites are present in the study area, management measures will seek in the first instance to protect and preserve the cultural heritage. Only if practicable measures cannot be identified will sites be lost. Any management measures arising from the sub-surface testing will be developed in consultation with Aboriginal Stakeholder consultation.

Observance and collection program

Artefact collection and monitoring can be added to the management plan once sub-surface testing has indicated which areas of the study area hold areas of artefact scatters and potential.

Reburial in a conservation area

Reburial of artefacts can be undertaken in a conservation area and interpretation of what has been found on site will be part of the interpretation strategy of the study area.

No impact to middens

The identified midden site lies within a conservation area. If further middens are identified, where possible these will be preserved and form part of the interpretation of the study area.

Coal & Allied understand the Stakeholder concern regarding impacts to the midden site 45-7-0177, and are committed to an appropriate strategy for preserving the site, which will be reflected in the Aboriginal Heritage Management Plan to be prepared for this project.

Awabakal names

Coal & Allied will undertake appropriate stakeholder consultation with regard to the use of Awabakal names for roads, parks and walkways within the development.

Interpretative Signage

Interpretation is part of the commitments already made by Coal & Allied and interpretation will include the Awabakal people's use and understanding of the subject area.

Notification and cultural awareness training

Coal & Allied is committed to continuing consultation with the registered stakeholders for this project; notification of the ongoing process will form part of that commitment as well as the involvement of the Stakeholders in the further management and mitigation of cultural heritage undertaken within the study area. Cultural Heritage Awareness training will be provided to all contract staff prior to excavation works and will form part of the on-site induction process.

AZ3

Archaeological zone three is an area that is indicated by landform and background research to be unlikely to contain Aboriginal heritage sites. The report correctly reflects that the area is undisturbed but the modelling of the site and these particular areas indicate that there is low to limited potential for Aboriginal heritage sites to be present.

Aboriginal archaeological sites around water courses

The areas around the ephemeral creek lines in the study area have not been identified as having high potential because the predictive modelling did not indicate that ephemeral water bodies were likely to contain artefact sites.

Coal & Allied is willing to have the stakeholders undertake a walkover of the areas of the ephemeral creek line once clearing has taken place, to ensure that there are no surface artefact scatters present.

Yours sincerely,
for Environmental Resources Management Australia Pty Ltd



Dr Diana Neuweiger
Heritage Consultant

Friday, 3 June 2011

Kerrie Brauer
Awabakal Traditional Owners Aboriginal Corporation
Kerrie@awabakal.com

Our Reference: 0111477 Response to ATOAC NW

Dear Kerrie,



**RE: RESPONSES TO STAKEHOLDER RESPONSES ON THE NORDS
WHARF HERITAGE ASSESSMENT**

Below is the response to the comments made by the Awabakal Traditional Owners Aboriginal Corporation letter dated 12 May 2011. The stakeholder statement is shown in italics with an explanation of how the stakeholder statements have been addressed, indicated below.

Use of the term 'community'

Future reports will use the term 'stakeholder' or 'traditional descendants' rather than the term 'community'.

Currency of report data 4 yrs old

Any management plan that is created in 2011 or beyond for the project will update the AHIMS search to ensure all current and known sites are identified prior to works. In the Plan of Management the AHIMS site search and predictive modelling will be updated.

Limited background data

If the Plan of Management requires further investigation into the study area, the references suggested by ATOAC will be used and taken into consideration when producing the Plan of Management.

Archaeological field survey rushed

The comment is made that the field survey was rushed and some areas inappropriately surveyed. However, the report reflects that there was limited ground visibility, and as such archaeological sites are difficult and often impossible to identify. Sub-surface testing has been recommended and further survey of the area will occur at the time of the testing, when the ground cover has been cleared, so facilitating the identification of any potential Aboriginal sites that may be present.

Subsurface testing

As committed to in the report, sub-surface testing will occur prior to works in the zones of moderate and high archaeological potential. Identification of the areas of testing and the testing itself will be undertaken in consultation with the Aboriginal stakeholder groups.

Midden Site 45-7-1077

While the report notes that the site had been recorded in 1992, there was no impetus to undertake any management of the site prior to this project's inception. As the stakeholders are aware, the area is currently bushland and is not at risk of significant impacts or under threat of destruction. Coal & Allied is committed to the protection and preservation of this midden site in the context of the proposed development.

AZ3

Archaeological zone three is an area that is indicated by landform and background research to be unlikely to contain Aboriginal heritage sites. The report correctly reflects that the area is undisturbed but the modelling of the site and these particular areas indicate that there is low to limited potential for Aboriginal heritage sites to be present.

Going beyond relevant legislation and policy

Coal & Allied are committed to a sub-surface testing program for this development. This program will be designed in consultation with the Aboriginal stakeholder groups and will take into consideration broad questions relating to Aboriginal people's use of the area. During the formation of the sub-surface testing design, the stakeholders will be requested to provide input to the selection of the questions the testing program will seek to answer, and how best to design the sub-surface testing plan to both determine the presence (or absence) of sites and adds to the archaeological knowledge of the region.

Cultural heritage awareness training

Coal & Allied is committed to continuing consultation with the registered stakeholders for this project; notification of the ongoing process will form part of that commitment as well as the involvement of the Stakeholders in the further management and mitigation of cultural heritage undertaken within the study area. Cultural Heritage Awareness training will be provided to all contract staff prior to excavation works and will form part of the on-site induction process.

Yours sincerely,
for Environmental Resources Management Australia Pty Ltd



Dr Diana Neuweiger
Heritage Consultant

Friday, 3 June 2011

Arthur Fletcher
Wonn 1 Consulting
Wonn1sites@gmail.com

Our Reference: Response to Wonn 1 Comments NW

Dear Arthur,



**RE: RESPONSE TO STAKEHOLDER RESPONSE TO NORDS WHARF
HERITAGE ASSESSMENT**

Below is the response to the comments made by the Wonn 1 Consulting on 12 May 2011. The stakeholder statement is shown in italics with an explanation of how the stakeholder statements have been addressed, indicated below.

Cannot comment as not involved in fieldwork

There will be opportunity to visit the site during the on-going management of the development, including top soil removal monitoring and participation in the further management is encouraged by Coal & Allied to ensure all stakeholder views are heard.

Yours sincerely,
for Environmental Resources Management Australia Pty Ltd

Dr Diana Neuweiger
Heritage Consultant

Annex B

Effective Coverage Table

Table B.1 Effective Coverage

Transect	Landform	Description	Length (m)	Width (m)	Area (m ²)	Visibility	Exposure	Visible area (m ²)	Area available for detection (m ²)	% Effective coverage	Number of sites
1	Slope	Slope up from foreshore commencing at the western boundary of the Nords Wharf Site.	392	10	3920	80%	40%	3136	1254.4	32%	1 (45-7-0177)
2	Slope	Forest track along the northern boundary of the Nords Wharf Site	585	4	2340	100%	100%	2340	2340.0	100%	1 (45-7-0177)
3	Slope	Forest tracks through the centre of the Nords Wharf Site	153	4	612	100%	100%	612	612.0	100%	1 (45-7-0177)
4	Flat	Open sandy forest track through the south and east of Nords Wharf Site	195	4	780	100%	100%	780	780.0	100%	1 (45-7-0177)
5	Slope	Forested area along the southern, western and central north of Nords Wharf Site	742	4	2968	30%	1%	890.4	8.9	0%	None
6	Slope	Slope occupied by the Scout Camp.	443	10	4430	80%	40%	3544	1417.6	32%	None
		Approx Nords Wharf Site Size (m ²)	87500								1 (45-7-0177)
		Total Area Surveyed (m ²)	15050								
		Percentage Surveyed	17%								

Annex C

Discussion Paper -
Conservation of Aboriginal
Midden Sites

C.1

CONSERVATION OF ABORIGINAL MIDDEN SITES

As this study has confirmed, Aboriginal midden sites are a common feature along the shore of Lake Macquarie. However, the cumulative impact caused by development and public use of the foreshore is starting to make these sites less common. Therefore proactive conservation of middens will preserve a representative sample of these fragile Aboriginal sites for future generations' education and enjoyment.

This discussion paper presents the outcomes of discussions held between the local Aboriginal stakeholders with regard to the immediate threats and possible conservation measures that can be used to preserve Aboriginal middens.

This paper can be used during the current development process, local councils or by the Aboriginal groups to address the problems concerning the conservation of Aboriginal middens.

C.1.1

Location of Middens

Aboriginal middens are commonly found around the margins and within the hinterlands of Lake Macquarie. They have been formed because of an accumulation of shell and other materials, including charcoal, animal bones, stone debitage and tools, in a particular location. This accumulation often occurs over a long period of time, sometimes thousands of years.

Middens are viewed as culturally significant to the Aboriginal people in this region because of the tangible link they represent to their ancestors (see the Aboriginal social assessment in *Section 6.2.2*).

Middens created by Aboriginal people must be differentiated from natural accumulations of shell or shell bedding. *Section 3.2.3* provides guidance to differentiating between the two types of shell accumulation.

C.1.2

Statutory Protection

In NSW Aboriginal midden are afforded statutory protection as Aboriginal objects under the *National Parks and Wildlife Act 1974*. With regard to the current proposal, the proposed dedication of Coal & Allied conservation land to the NSW Government will afford long term future protection for all Aboriginal middens on Coal & Allied lands, outside of the 20% development areas.

Dedication of these lands to National Parks should provide for long term care and conservation of Aboriginal these sites.

C.1.3 *Objective for Conservation Mitigation*

The objectives for conserving Aboriginal middens are:

1. Long term preservation of the middens;
2. Aboriginal social appreciation of the midden; and
3. The ability to educate Aboriginal people and the general public (when appropriate) with regard to the midden's content, purpose and significance.

C.1.4 *Common Impacts to Midden Sites*

Middens are generally contained within topsoil profiles, where middens have become embedded into the A1 and A2 horizons. They have acted as a collection point for soil accumulation, where soil has built up around the margins of the midden. This means that if left alone the middens are generally stable and will not disintegrate. However, any impact to the structural integrity of the midden can lead to its sudden disintegration.

Common impacts that middens suffer include:

- wash from motor boats (leading to erosion of the banks);
- coastal erosion (land falling into the water);
- sheet wash erosion (rain washing deposits into the water);
- impacts from facilities being constructed (i.e. roads, infrastructure services including sewerage and water, seating areas, bbqs, play equipment etc);
- land use, including vehicle and human traffic crossing middens;
- impacts from landscaping (including installing signs); and
- public impacts either caused deliberately (i.e. vandalism of the site) or as a consequence of interest (i.e. walking onto the site to get a better view or taking a small piece of the midden).

C.1.5

Possible Mitigation Measures

Many of these impacts can be mitigated through public education or careful landscape modification to either move the impact or people away from the site or guide them past it appropriately. When devising mitigation measures the overall aim should be zero impact to the midden. However, this may not always be possible, and limited impacts may be acceptable if the overall aim of conservation is achieved.

Mitigation measures can include:

- zero impact walkways, which sit above the surface level;
- zero impact signage;
- placing a protective covering or layer above the midden i.e. a covering of soil, sand or a road above the midden so that impact are made to the new layer and not the midden;
- covering the upper surface in a geo-fabric to prevent impact;
- creation of a coastal barrier i.e. landscape change to prevent coastal erosion;
- screening of the midden using carefully placed vegetation or facilities to prevent the obviousness of the midden; and
- redesign of facilities around the midden, thus avoiding impacts.

ERM has over 100 offices
across the following
countries worldwide

- | | |
|-----------|-------------|
| Australia | Netherlands |
| Argentina | Peru |
| Belgium | Poland |
| Brazil | Portugal |
| China | Puerto Rico |
| France | Singapore |
| Germany | Spain |
| Hong Kong | Sri Lanka |
| Hungary | Sweden |
| India | Taiwan |
| Indonesia | Thailand |
| Ireland | UK |
| Italy | USA |
| Japan | Venezuela |
| Korea | Vietnam |
| Malaysia | |
| Mexico | |

Environmental Resources Management

Building C, 33 Saunders Street
Pyrmont NSW 2009
Locked Bag 24,
Broadway NSW 2007

T: 61 2 8584 8888
F: 61 2 8584 8800
www.erm.com

