

# Lower Hunter Lands Development Heritage Impact Assessment

Catherine Hill Bay - Middle Camp

for Coal & Allied

November 2010

0111477

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Approved by:	<u>Diana Neuweger</u>
Position:	Project Manager
Signed:	
Date:	<u>8 November, 2010</u>
Approved by:	<u>Steve Laister</u>
Position:	Partner Director
Signed:	
Date:	<u>8 November, 2010</u>

## Lower Hunter Land Development

Heritage Impact Assessment

Catherine Hill Bay- Middle

Catylis and Coal & Allied

November 2010

Environmental Resources Management Australia Pty Ltd Quality System



0111477\_CHB\_Heritage

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Coal & Allied

Lower Hunter Lands  
Development  
*Heritage Impact Assessment*  
*Catherine Hill Bay- Middle*  
*Camp*

November 2010

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**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](http://www.erm.com)



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## EXECUTIVE SUMMARY

Environmental Resources Management Australia (ERM) was commissioned by Catylis Pty Ltd on behalf of Coal & Allied Industries Ltd (Coal & Allied) to prepare a Heritage Impact Assessment (HIA) for land at Catherine Hill Bay (Middle Camp) (CHB), 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.

Coal & Allied owns approximately 4,187 hectares of land in the Lower Hunter Region located within the four local government areas of Newcastle, Cessnock, Lake Macquarie, and Wyong (located in Northern Central Coast region). The sites are not required for future mining or other operational purposes.

The overall aim of this HIA was to ascertain whether there are any heritage values at the Catherine Hill Bay site affected by the proposed development, and, where required, provide relevant mitigation measures for impacts to these heritage values during any future development.

The Catherine Hill Bay (Middle Camp) site does not contain any recorded Aboriginal sites. The site investigation identified an Aboriginal PAD (Potential Archaeological Deposit) in the vicinity of the creek that leads to the northern end of Middle Camp Beach (see *Figure 5.10*). This PAD is 300 metres from the development area and no direct or ancillary impacts on Aboriginal heritage are predicted.

Catherine Hill Bay has been formally recognised as a place of heritage significance. This recognition has been derived through local listings, under the Lake Macquarie Local Environmental Plan (LEP) 2004 and the Hunter Regional Environmental Plan (REP) (Heritage) 1989, and the assignment of a heritage conservation zone by the National Trust of Australia (NSW). The Catherine Hill Bay Cultural Precinct is also proposed for listing on the State Heritage Register (SHR). Several places are also individually recognised as having heritage value through their inclusion on the heritage schedule to the LEP. These include areas of historical archaeological significance.

The proposed development has the potential to impact the historic character of Middle Camp and the identified areas of archaeological potential. However, the proposal has been modified to avoid and minimise these potential impacts. Provided the recommended mitigation measures are implemented, the heritage values of the Catherine Hill Bay site will be satisfactorily respected and conserved.

## ***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 Ltd
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 Catherine Hill Bay (Middle Camp) (CHB), 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 land, the potential impacts of the proposed development and identifies an impact mitigation strategy.

This report builds upon a preliminary desktop review undertaken for the Catherine Hill Bay site in February 2010 (ERM 2010). This report provides the results of a detailed site survey, comprehensive heritage values assessments, heritage impact analysis and Aboriginal consultation undertaken during June to August 2007, for the Catherine Hill Bay (Middle Camp) site (see *Figure 1.1* and *Figure 1.2*)

**1.1****PROJECT AND PLANNING CONTEXT**

Coal & Allied owns approximately 4,187 hectares of land in the Lower Hunter Region located within the four local government areas of Newcastle, Cessnock, Lake Macquarie, and Wyong (located in Northern Central Coast region). The sites are not required for future mining or other operational purposes.

Coal & Allied's Lower Hunter lands including Catherine Hill Bay are included in the Lower Hunter Regional Strategy (LHRS) for urban development and conservation. Coal & Allied is one of four major landowners within the region that are capable of playing a significant role in achieving the LHRS's environmental and conservation outcomes and sustainable growth.

Coal & Allied proposes to dedicate 3,322 ha (80 per cent) of Coal & Allied land for conservation corridors as an offset for development rights on 848 ha (20 per cent). The proposed conservation lands are areas of high conservation value in the nominated green corridors that will be dedicated to the public. The conservation lands are similarly identified in the Lower Hunter Regional Conservation Plan prepared by the Department of Environment, Climate Change and Water.

A Concept Plan has been prepared for Catherine Hill Bay which will enable key site parameters associated with land use, infrastructure delivery and timing, and environmental conservation to be resolved up front, with subsequent detailed stages being progressively submitted for approval early in the development process.

In July 2007,[update to 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 CATHERINE HILL BAY SITE**

This report focuses on the study Area within Catherine Hill Bay (Middle Camp). The location of the study area is provided at *Figure 1.1* and the study area is shown in *Figure 1.2*.

There are two distinct areas within the Catherine Hill Bay site. The Sawmill Camp (Eastern Portion of the Catherine Hill Bay site) and the Colliery Hamlet (Western Portion of the Catherine Hill Bay site).

## **1.3 METHODOLOGY**

The overall aim of this assessment was to ascertain whether there are any heritage values at the Catherine Hill Bay site affected by the proposed development and to provide mitigation measures for impacts to these heritage values from 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 Catherine Hill Bay site (ERM 2010);
- to identify and record all heritage objects and places within the Catherine Hill Bay 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 Catherine Hill Bay site in accordance with relevant NSW heritage guidelines;
- to assess the archaeological potential of the Catherine Hill Bay 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 Catherine Hill Bay site.

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

- NSW Heritage Branch *Assessing Significance* Guideline;
- NSW Heritage Branch *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) included a search of the DECCW Aboriginal Heritage Information Management System (AHIMS) database for all known Aboriginal heritage sites within and surrounding the Catherine Hill Bay site. It was found that the Catherine Hill Bay site does not contain any recorded 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.

Catherine Hill Bay has been formally recognised as a place of heritage significance. This recognition has been derived through local listings, under the Lake Macquarie Local Environmental Plan (LEP) 2004 and the Hunter Regional Environmental Plan (REP) (Heritage) 1989, and the assignment of a heritage conservation zone by the National Trust.

The Catherine Hill Bay Cultural Precinct is currently being considered for inclusion on the SHR. A decision on the listing is expected during late 2010. This proposed listing recognises the mining history of Catherine Hill Bay along with the town's streetscape values and archaeological resources.

The Catherine Hill Bay site does contain historic places with previously identified heritage value. These values primarily centre on the mining history of the Catherine Hill Bay area. Items which could potentially be impacted by development include:

- the alignment of the Catherine Hill Bay Colliery Railway;
- some of the historical houses near 'E' Pit; and
- the 'E' Pit site and its associated remnant infrastructure.

## **1.5** *REPORT LIMITATIONS*

This report has not been limited in terms of research into and access to the Catherine Hill Bay site. The survey of some portions of the Catherine Hill Bay site was limited due to thick vegetation in that zone. However, it is considered that a sufficient representative sample of the Catherine Hill Bay 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 Catherine Hill Bay site;

*Chapter 3* provides the environmental and archaeological context of the Catherine Hill Bay site including known and potential heritage sites within the Catherine Hill Bay site;

*Chapter 4* provides an overview of the history of the Catherine Hill Bay site;

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

*Chapter 6* assesses the significance of heritage sites located in the study area;

*Chapter 7* provides the proposed Catherine Hill Bay Concept Plan;

*Chapter 8* provides an overview of Environmental Sustainable Development and the conservation and impacts to heritage items in the Catherine Hill Bay study 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.

*Annex A:* Aboriginal consultation log

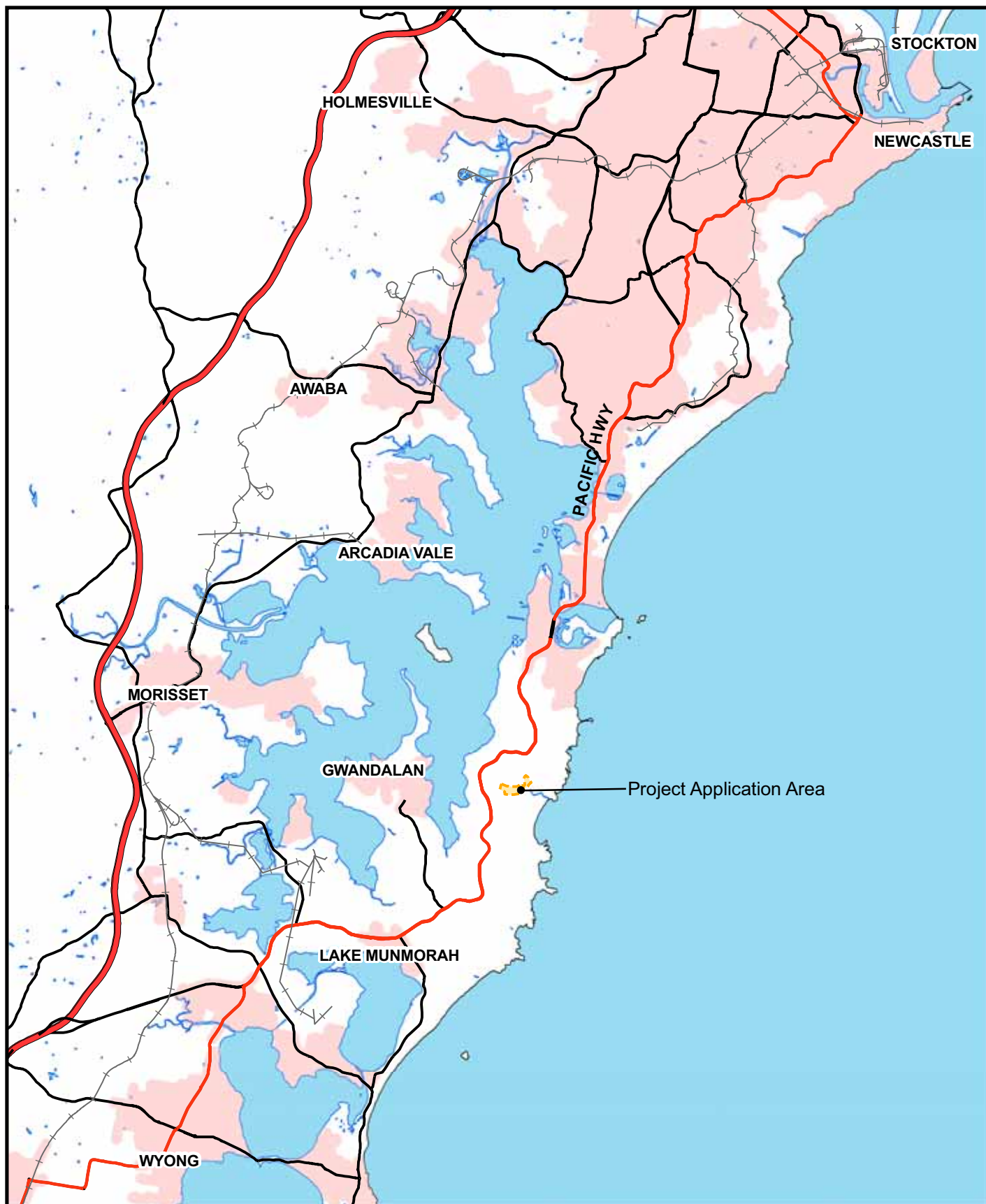
*Annex B:* Effective coverage table

*Annex C:* Catherine Hill Bay conservation area listing information

## **1.7**

### ***AUTHORSHIP***

Dr Tim Owen (ERM Archaeologist) conducted the historical heritage field survey. Jenna Lamb (former ERM Archaeologist) conducted the Aboriginal heritage field survey. Louise Doherty (ERM Built Heritage Consultant) conducted the built heritage field survey. Tim Owen, Jenna Lamb, Louise Doherty and John Hoysted authored this report. Shelley James (ERM Senior Heritage Consultant) undertook a technical review of this report. Dr Diana Neuweiger (ERM Heritage Consultant), Shelley James and John Hoysted (ERM Principal Heritage Architect) undertook the 2010 update of this report. Steve Laister (ERM Partner) undertook the Quality Assurance Review.



#### Legend

 Catherine Hill Bay Site

Client:	Catylis		
Project:	Lower Hunter Land Development - Catherine Hill Bay		
Drawing No:	0111477s_CHB_GIS001_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
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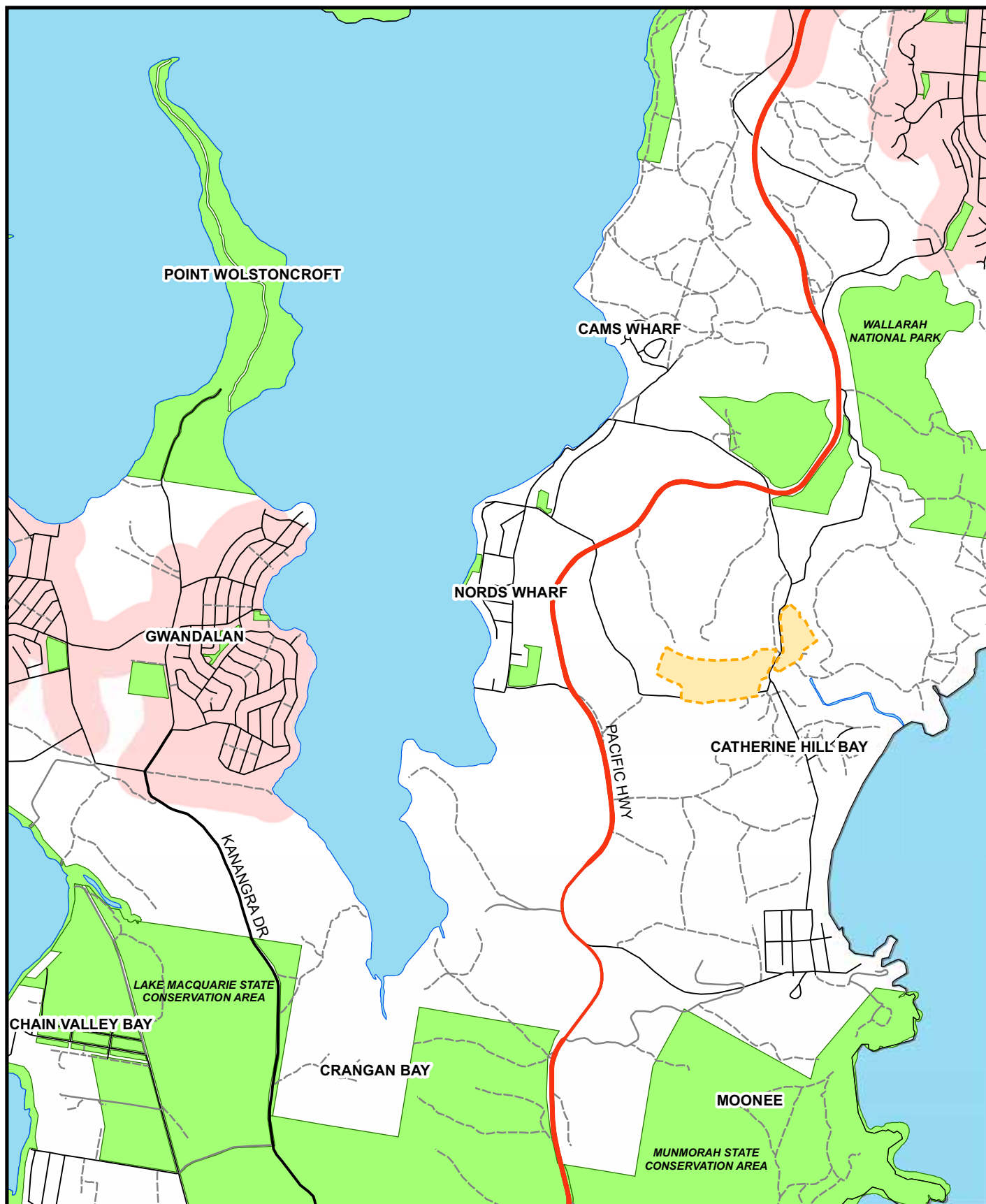
**Figure 1.1**

#### Catherine Hill Bay Site in its Regional Setting

Environmental Resources Management Australia Pty Ltd

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





#### Legend

 Catherine Hill Bay Site

Client:	Catylis		
Project:	Lower Hunter Land Development - Catherine Hill Bay		
Drawing No:	0111477s_CHB_GIS002_R0.mxd		
Date:	18/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
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**Figure 1.2**

#### Catherine Hill Bay 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 is required for any assessment of Aboriginal heritage. 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*. These guidelines are also required to be followed for any Part 3A assessment undertaken.

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 DGEARs for the proposed development stated that the DECCW's guidelines should be adhered to and that 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 (Wonn1 Sites Officer). Arthur 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 Arthur to comment on the draft Aboriginal heritage assessment report but not to involve him in the fieldwork because the Catherine Hill Bay site was not within his cultural boundary on the basis that other stakeholders advised that the Wonnarua area does not cover the Catherine Hill Bay 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 Catherine Hill Bay 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 9-10 July 2007, and included a total of seven 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 and Cliff Grav 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 Catherine Hill Bay (Middle Camp) site are provided in *Annex A*.

## 2.3

### *REQUIREMENTS FOR FUTURE ABORIGINAL CONSULTATION*

It is recommended 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.

The comments of these parties should be appended to this report when received. Without this opportunity for comment this assessment remains incomplete. Although constraints are identified, the management options cannot be finalised without concluding consultation.

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 Catherine Hill Bay site is located around Middle Camp and comprises two development areas. These areas are located within previously developed areas, adjacent to the low lying parts of Flowers Drive. The previously undeveloped zone to the south-east comprises a series of slopes, gullies and flats within a vegetated zone, to the west of Flowers Drive. The areas proposed for development are further described in *Chapter 7*.

The character of the Middle Camp village is low scale predominantly timber and brick residential buildings surrounded by regenerated bushland. This reflects the area's historic development as a series of miners' cottages along the main road constructed in close proximity to nearby mine workings. There are several groups of miners' cottages still extant and some are maintained in excellent condition.

#### 3.1.2 *Geology*

The Newcastle Coal Measures outcrop in the headland at Catherine Hill Bay, although the most abundant rock is conglomerate.

Where patches of intact soils were observed around Middle Camp, they comprise duplex soils formed from weathering of the conglomerate bedrock from the Narrabeen Formation.

#### 3.1.3 *Topography And Landform*

The Catherine Hill Bay site is located on the coast in the southern part of the Wallarah Peninsula (*Figure 1.1*). Middle Camp is located in a valley between a flat top ridge to the west and Middle Camp Beach to the south east. The original landform comprises limited ridge top flat areas and predominantly sloping landform elements with minor first to third order watercourses. However, all of these have been modified through colliery operations.

### 3.1.4 *Drainage*

An overview of the drainage pattern within CHB indicates that a number of small creek tributaries exist in the Catherine Hill Bay site. An unnamed first to third order creek runs from the north, in a south east direction down to the northern end of Middle Camp Beach. A first order tributary flows north-easterly from the southern part of Middle Camp.

### 3.1.5 *Flora And Fauna*

Surveys undertaken by RPS in 2005 and 2007 for the project found that the vegetation occurring around Middle Camp generally comprised the following species:

- Coastal plains Smooth-barked Apple Woodland in the west of the Catherine Hill Bay site;
- Swamp Mahogany Paperbark Swamp Forest in the north west and east of the Catherine Hill Bay site;

Vegetation in the Catherine Hill Bay site predominantly comprises recent regrowth and is extremely dense. The lack of mature trees in the Catherine Hill Bay site precludes the discovery of scarred and carved trees.

RPS (2005) also notes a range of fauna species present or likely to be present in the Catherine Hill Bay site, which predominantly comprise birds, small mammals, frogs and reptiles.

## 3.2 *ABORIGINAL ARCHAEOLOGICAL CONTEXT*

### 3.2.1 *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 Catherine Hill Bay area is somewhat limited, the abundance of food resources indicate that it 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 Catherine Hill Bay. 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 to understand archaeological sites in the broader region. This review was targeted to those reports relevant to the Catherine Hill Bay 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 that were briefly reviewed and the locality with which they were concerned.

The general patterning of Aboriginal sites in the local area shows a strong association with the coast and little recorded in the immediate hinterland. This reflects Aboriginal focus on coastal resources, predominantly shellfish from rock platforms, and coastal outcrops of Permian tuffs used for stone tool manufacture. Aboriginal burials have been found in coastal dunes at the Lake Entrance at Swansea. While there is a general pattern in Australian archaeology of stone artefact sites concentrated along watercourses, this appears to be less pronounced along the coast.

Shell middens close to rock platforms and stone artefact sites close to stone sources may be anticipated in the local coastal stretch. None of these characteristics apply to the Catherine Hill Bay site. The third order watercourse flowing through the northern part of the Catherine Hill Bay site has some potential for associated artefacts, although there is an absence of site records in comparable contexts in the region. This may reflect a lack of survey rather than an absence of sites or artefacts.

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

Author of Report	Distance from Catherine Hill Bay site	Type of development/ Report	Locality	Sites Recorded
ERM (2007)	Approx. 1 km south	Aboriginal archaeological survey	Moonee Colliery, Catherine Hill Bay	One previously recorded midden, including shell and stone artefacts, extending along the beach and in the fore dunes
Haglund (1985)	Approx. 1 km south	Aboriginal archaeological survey for pro-posed coal reject emplacement and associated conveyor belts	Wallarrah Colliery, Catherine Hill Bay	None
Haglund (1987)	Approx. 1 km south	Aboriginal archaeological survey for pro-posed coal reject emplacement and coal handling developments	Wallarrah Colliery, between Pacific High-way and township of Catherine Hill Bay	None
Brayshaw (1988)	Approx. 2 km north	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 commier-cialis</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. 3 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 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

A search of the AHIMS Database within a 13 km x 14 km area centred on the Gwandalan, Nords Wharf and Catherine Hill Bay sites was undertaken. The search identified 94 recorded sites, some of which are duplicate recordings (*Figure 3.1*), which comprised 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, three Potential Archaeological Deposits (PADs) and one Aboriginal place (Pulbah Island).

This search of the south Lake Macquarie and Wallarah Peninsula area shows that middens are the main Aboriginal site type recorded in the area. Coastal middens have developed as a result of Aboriginal harvesting of shellfish from rock platforms. Coastal middens are generally found in nearby dunes or elevated ground in close proximity to the rock platforms.

The nature of undisturbed cultural shell deposits as opposed to natural shell deposits are as follows (Bowdler 1983; Coutts 1966; Gill 1951; Hughes and Sullivan 1974):

- 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;
- 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;
- Middens do not contain marine life forms not used by Aboriginal people (e.g. corals and tube worms), whereas natural shell deposits do;
- Middens are unstratified or roughly stratified, whereas natural shell deposits are usually well stratified with sedimentary features of water laid deposits;
- 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 coast for midden material.

An archaeological survey of the western emplacements areas of the Wallarah colliery site was conducted by Haglund (1985). No archaeological sites were recorded at this time, and Haglund's consultation did not reveal any non-archaeological traditional significance specifically attributed to the Catherine Hill Bay site.

Aboriginal midden sites have been previously recorded at Middle Camp Beach to the south east of the Catherine Hill Bay site and at Pinney Beach to the north east of the Catherine Hill Bay site. Both of these areas are located well outside the boundary of the proposed development area.

Sites 45-7-0018/19/20 at the northern end of Middle Camp Beach are scattered midden material recorded at the same coordinate points. The site cards for 45-7-0018 and 45-7-0019 indicate extensive disturbance caused by bulldozing for sand dredging in 1966. It is noted that the DECCW coordinates for this site card are an unreliable translation from imperial map coordinates to metric, and the AMG coordinates in AHIMS from such old records are notoriously inaccurate.

Two midden sites are recorded at Pinney Beach (45-7-0022 and 45-7-0023), one of which has since been destroyed under a Section 90 consent. An isolated tuff flake (45-7-0220) was also recorded north of Pinney Beach. All of these recorded sites are located approximately 2.5km north of the Catherine Hill Bay Catherine Hill Bay site.

A survey of land south of the Catherine Hill Bay site around the Moonee Colliery and Moonee Beach (ERM 2007) located a previously recorded site (45-7-0216) by the creek at the northern end of Moonee Beach. The site comprised midden material and stone artefacts.

### 3.2.3 *Land Use And Disturbance*

The Catherine Hill Bay site has been subject to underground coal mining and saw milling activities. The area falls within the 'Swansea-North Entrance Mine Subsidence District'.

Aerial photographs of the Catherine Hill Bay area from 1955, 1966, 1975 and 1996 (see *Chapter 4* for a review of these figures) reveal extensive clearance in all portions of the Catherine Hill Bay site for the operations of E Pit and the associated infrastructure, the quarry, C Pit and the colliery railway line that extends down to the jetty at Middle Camp Beach. The Middle Camp area along Flowers Drive has also involved extensive changes to the surrounding vegetation. More detailed information on the European settlement and mining activities in the Catherine Hill Bay site is provided in *Chapter 4*.

The modification and disturbance to landform has resulted in a low likelihood of archaeological evidence of Aboriginal occupation remaining. While middens on elevated landforms are known to occur, midden sites in the local area are more closely positioned to rock platforms and beach dunes in locales outside of the Catherine Hill Bay site. Further, the disturbance indicates that no stone arrangements or ceremonial grounds will be found.

### 3.2.4

### *Predictive Aboriginal Heritage Statement*

The environmental context outlined above has a number of implications for archaeology in the Catherine Hill Bay site. Firstly, the clearing that has occurred makes it unlikely that scarred or carved trees will be located, as mature trees do not tend to exist in such cleared contexts. Secondly, previous disturbance indicates that no stone arrangements or ceremonial grounds will be found. Thirdly, as no suitable stone outcrops are present, shelter sites, axe grinding grooves and stone engraving/art sites will not be found in the Catherine Hill Bay site.

Archaeological evidence of Aboriginal occupation in the area is most likely to be associated with exploitation of rock platform shellfish, and midden development will have occurred well outside the boundaries of the proposed development area. There is negligible potential for stone artefact sites in most areas, although the portion of third order watercourse may have provided a focus for Aboriginal activity, and hence archaeological site development.

The level of disturbance associated with the development of coal mining and timber industries in the Lake Macquarie area (including settlement, clearing and mining activity) is extremely high and has affected the archaeological integrity of the area as a whole, and means that the likelihood of intact Indigenous sites occurring in these areas is considered low.

A summary of these archaeological site types and their key characteristics are presented in *Table 3.2* below.

**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.

Site types	Definition
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.

### 3.2.5

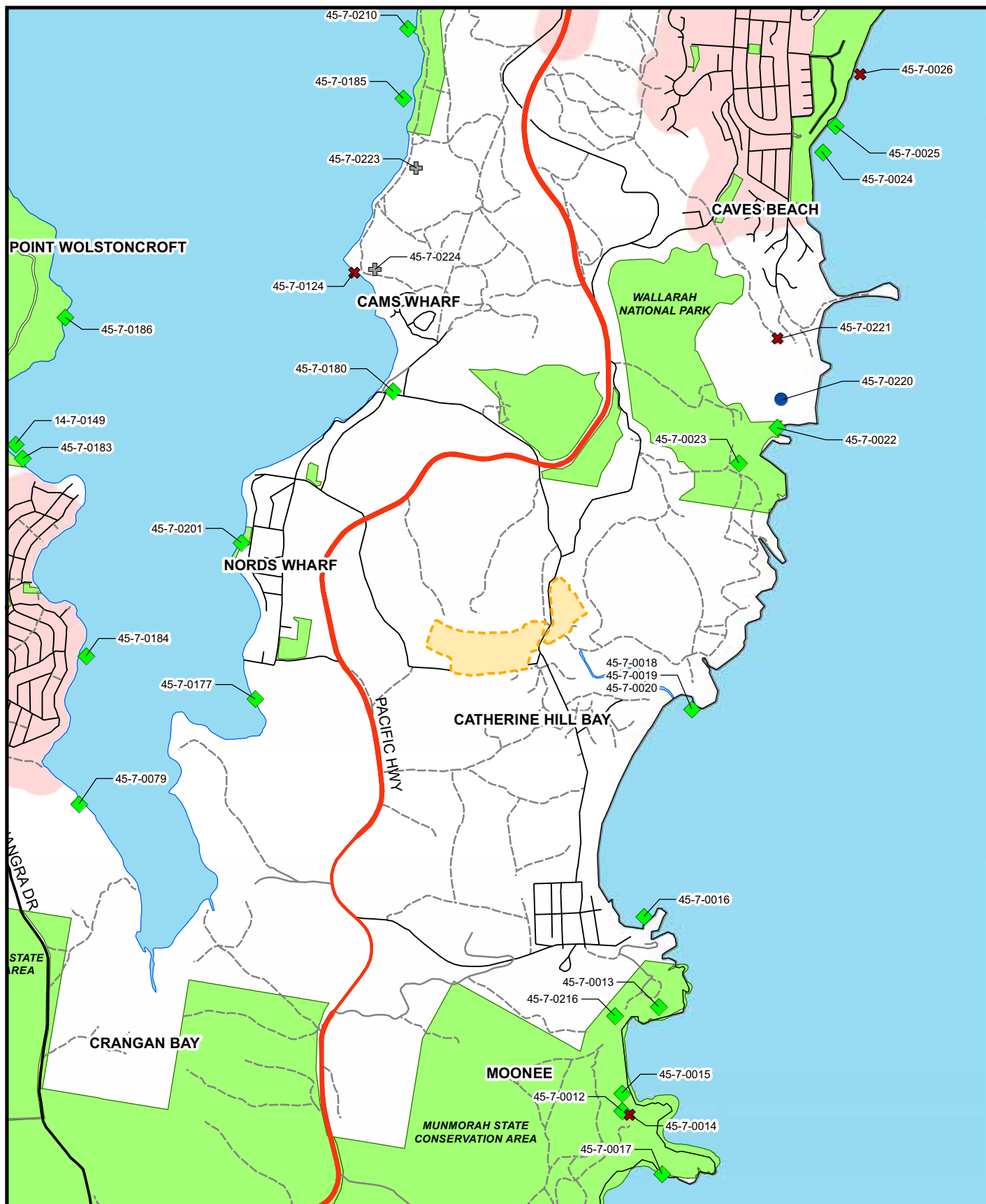
#### *Synopsis of Environmental And Aboriginal Archaeological Background*

It is predicted that stone artefact sites (scatters and isolated finds) are the site types most likely to be found in the Catherine Hill Bay site, although the likelihood of the Catherine Hill Bay site containing Aboriginal sites is considered low. However, if present, stone artefacts are most likely to be found on ridges and flats adjacent to the small creeks. The recent survey of similar terrain immediately south of Moonee Colliery also indicates some potential for artefact sites to occur in the Catherine Hill Bay site, particularly in the vicinity of the creek that runs from north of the tennis court in a south east direction down to the northern end of Middle Camp Beach.

However, the disturbance that has occurred over the majority of the Catherine Hill Bay site indicates that Aboriginal heritage material is unlikely to have survived intact, and that any remaining material will be sparse and disturbed. Due to the extent of timber clearing that occurred in the Lake Macquarie area in the 19<sup>th</sup> century, it is considered unlikely that any of the trees within the Catherine Hill Bay site are remnant vegetation, and therefore scarred and carved trees are unlikely to occur. Previous disturbance also indicates that no stone arrangements or ceremonial grounds will be found.

A lack of stone outcrops within the Catherine Hill Bay site indicates that stone quarry sites, shelter sites, rock art/engravings and axe grinding grooves will also not occur.

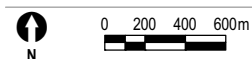
It is considered highly unlikely that burials may occur within the Catherine Hill Bay site, as recorded burials in the vicinity of Lake Macquarie indicate that burials are more likely to occur in middens in the soft sand of the beach, particularly near the Lake entrance. There is no indication that burials are more likely to occur in this area than in any of the surrounding localities.



#### Legend

- Catherine Hill Bay Site
- Isolated Find
- Stone Artefact Scatter
- Scarred Tree
- Potential Archaeological Deposit
- Midden

Client:	Catylis
Project:	Lower Hunter Land Development - Catherine Hill Bay
Drawing No:	0111477s_CHB_GIS003_R0.mxd
Date:	18/02/2010
Drawn by:	JF
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 3.1**  
**AHIMS Sites within the Locality of Catherine Hill Bay Site**

Environmental Resources Management Australia Pty Ltd

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



## 4.1

## PREAMBLE

This chapter is divided into two sections. The first provides a history of Catherine Hill Bay, with a specific focus on the areas included within the current Catherine Hill Bay site (see *Figure 1.2*). The second concentrates on the existing heritage listings for items with known heritage value.

These two sections have been used to underpin the Catherine Hill Bay site inspection, consequential heritage assessment and the recommended mitigation measures.

Historical research presented within the chapter was taken from prior local studies (EJE 2007; ERM 2005, 2007; Suters 1988, 1993), research by Rosemary Melville (Hunter History Consultants) and the ERM project archaeologists.

## 4.2

## CATHERINE HILL BAY – A HISTORY

The history of European settlement in the Catherine Hill Bay area of Lake Macquarie is well documented in several books and technical reports. Comprehensive histories are provided in Architectural Projects (1999) and EJE Heritage (2005).

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).

The chronology for Catherine Hill Bay and Middle Camp (see *Table 4.1*) outlines the phases of settlement and activity that have occurred since the 1870s. It also reflects the township’s dependence on the coal industry for most of its history. The effects of the periods of peak population and activity have faded with time.

**Table 4.1**      *Catherine Hill Bay and Middle Camp - Chronology*

Date	Event
<b>April 1865</b>	Four portions in the Parish of Wallarah (Portions 17-20) comprising the present township were put up for sale but no bids were received
<b>June 1867</b>	Schooner 'Catherine Hill' ran aground at the beach with the loss of all hands. Catherine Hill Bay was named after this vessel
<b>1873</b>	Thomas Hale, Joseph Kohn, Frederic Kellerman and John Lindsley took out a mining lease over Portion 20. Hale was a coal broker and mining entrepreneur. Hale and his associates commenced coal mining from a tunnel above the beach; the first shipment occurred in December 1873
<b>1874</b>	Hale formed the New Wallsend Company Catherine Hill Bay Post Office opened Hale reported that over 100 people were mining or other work in the township
<b>April 1875</b>	Village of Cowper declared New Wallsend Company cargo vessel 'Susannah Cuthbert' ran aground en route to Sydney with a full cargo
<b>1877</b>	New Wallsend mine closed
<b>1879</b>	Last family leaves Catherine Hill Bay
<b>1880</b>	Former New Wallsend Company plant, stock and miners' houses purchased and relocated to Pelican Flat (now Swansea) for a new colliery and large saw mills
<b>1888</b>	Walarah Coal Company established in London with two Sydney born directors on the board The four portions purchased in 1865 passed into the ownership of the Wallarah Coal Company
<b>1889</b>	Walarah Mine began operation including a railway between the new colliery and the new jetty Catherine Hill Bay re-settled Population grows to 2000 by September 1889
<b>Early 1890s</b>	Mine Camp established 4km to the north of Catherine Hill Bay Catherine Hill Bay facilities included a hotel, bakery, post and telegraph offices, four stores and two butcheries by 1894
<b>1893</b>	Land allocated for the cemetery above the north end of Middle Camp Beach
<b>1895</b>	First purpose built public school opened in Catherine Hill Bay
<b>Late 1890s</b>	E Pit Mine opened in a dale west of Middle Camp village. Middle Camp established halfway between Mine Camp and Catherine Hill Bay
<b>1908-1912</b>	New miners' cottages built at Middle Camp Most of the colliery plant was relocated near the entrance of E Pit including a fitting shop, blacksmith's shop, carpenter's shop, wagon repairing shed and brick making plant Post Office relocated to Middle Camp in c1910
<b>1914</b>	Collier owned by the Wallarah Coal Company, the 'Walarah', wrecked near the jetty
<b>1915</b>	New school at Middle Camp opened
<b>1917</b>	Rail Strike in NSW, swiftly joined by most major unions across the State including the Miners' Federation. Voluntary workers were shipped to several mines including 250 voluntary workers moved to those at Catherine Hill Bay to keep the mines operating. Several incidents of damage to the Wallarah company's property were reported
<b>1920</b>	Royal Commission into the coal mining industry and coal trade in NSW held, evidence on living and working conditions at Catherine Hill Bay mines given, focussing on lack of sanitary services, water supply and housing stock Improvements were subsequently made to address some of the problems
<b>1924</b>	Annual report of the Director-general of Public Health, NSW states that Catherine Hill Bay still contained some of the worst examples of housing in the coalfields

Date	Event
	8 week strike in protest of treatment of a sacked miner
1929-1933	The coal hewing rate was reduced and caused disruptions and lock-outs of miners across NSW when the rate was rejected Numbers employed in the mines had almost halved across NSW by 1933, contributing to the difficulties faced across the nation during the Great Depression era
1937	Mechanisation introduced at Wallarah colliery, also contributing to reduction in jobs available
1930s	Sydney-Newcastle highway redirected to by-pass Catherine Hill Bay
1941	NSW legislation introduced to establish compulsory pension schemes and annual leave award conditions in the mining industry November 1941 – Wallarah miners held a stay-in strike for 101 hours in protest over the penalty clause in their holiday award
1946	Commonwealth and NSW governments established Joint Coal Board to ensure sufficient coal production, which included the need to improve the arrangements and attitudes between owners and miners. Catherine Hill Bay was one of the mining communities targeted for change
1949	Nationwide mining strike continued for two months. Living conditions in Catherine Hill bay reported as ‘appalling’
1950	Walarah Coal Company funds construction of children’s playground, earthworks, a bowling green and tennis courts but withdrew plans for other community developments that were to include a community centre and surf sheds
1956	J&A Brown Abermain Seaham Collieries Ltd took over the Wallarah Coal Company and commenced reorganisation and new mechanisation program requiring retrenchment of 200 men from the colliery. A protest strike followed, with alternative employment with the Hunter District Water board provided for some of the retrenched workers
1962	J&A Brown Abermain Seaham Collieries Ltd became a division of Coal & Allied Industries
1963	E Pit near Middle Camp and colliery railway closed
c1965	Approximately 100 miners’ cottages in Clarke, Lindsley Streets and Flowers Drive were sold by Coal & Allied to their occupiers
1970s	Railway remnants gradually disappear Houses at Mine Camp demolished
1985	Catherine Hill Bay School closed
1992	280 workers retrenched
1993	Anglican Church and Post office closed and became private residences
2000	Mining operations began to be wound back in response to geological and mining difficulties
2002	Mining and coal washing ceased
1. The sources for this chronology are Architectural Projects (1999), EJE (2005), Nilsen (1995) and NSW Department of Lands.	

#### 4.2.1

#### *Documentary Sources*

The current study focuses on Middle Camp. Whilst CHB has been subject to a number of heritage studies, these have mainly focused on built heritage, primarily associated with houses on Flowers Drive and the Moonee Colliery to the south. Little research has been presented recently on the area known as E Pit, which lies within of the Catherine Hill Bay site and is included on the Local Environmental Plan as an area of archaeological potential. Therefore to underpin the Catherine Hill Bay site inspection and consequential heritage assessment new research into E Pit has been undertaken.

### *Wright 1973*

In 1973 H.J. Wright, in the Australian Railway Historical Bulletin, provided a detailed description and history of coal mining activities associated with CHB. This description included information relating to the workings of the E Pit area, which are pertinent to the current study. The following extracts are provided to present a history and description of the E Pit area:

"About 1906, a fifth location (after Pits A-D), known as "E" pit was brought into operation, located closer to the town and jetty. In that year and including the output of "B" pit 1,000 tons of coal daily was produced with 320 men... New screens to facilitate train loading were built on a short branch line while those serving "A" "B" and "C" pits were removed eventually, together with the railway that served them. Thus "E" pit became the main coal producer for almost 57 years... There were three seams of coal, the top known as the Wallarah seam, the second was mainly mined by the New Wallsend Company and was known by the name of the Great Northern, while the lower seam descending at an angle of 1 in 20 at a depth of 7,000 feet, was the Borehole seam.

With a general recession in the industry looming, 70 Wallarah miners staged a stay-in strike from 11<sup>th</sup> to 20<sup>th</sup> March, 1958, to draw the governments attention to the increasing number of dismissals by the company. The outcome was a special grant to the local Hunter District Water Board to enable some of the surplus men to be found other employment...

During 1906, a press report stated that tenders were being called for the construction of new screens at "E" pit, near what was known as 'Federal City'. These would have been completed by the end of 1906 or early in 1907 together with the rail yard which consisted of three roads under the scraper and "small" boxes and three more under the "Marcus" screens, together with a run-round, or arrival road, along which the train passed in order to enter the neck and so place wagons in the required loading road/s. The road was again used by the locomotive while proceeding to the departure end of the sidings to collect the rake of wagons destined for the jetty.

Branching off the outer the "smalls" roads, not far from the shunting neck was a short spur which forked so as to provide two short roads at the locomotive shed.

The run-round road and the six "screens" roads, while curving left converged to become the main line which immediately curved right and in so doing crossed the old highway which is still the main street, Flowers Drive, while continuing on this curve it joined the original line a short distance beyond the crossing...

[CHB has no water supply. An internal supply was located within the Moonee colliery, which pumped water from the south of the two to various sites at CHB]. In later years, this source also provided the three locomotives watering points (along the run-round at "E" pit almost opposite the engine shed...) by means of 4" delivery pipes.

In earlier days, a similar facility may have been available at, or near the original shed, or near the original screens.

These three supply points appear to have only been connected to the Moonee supply since February, 1934, this date being clearly visible on the tank installed on the hill above the weighbridge sidings. An identical water tank still with 4" delivery pipe connection is still in position and presumably is the original installation.

There is a small dam across the stream in the gully to the north of 'E' pit... It appears that this structure was built after that date and it seems reasonable to assume that this may have supplied the water requirements of the locomotives, winding engines and other boilers, etc. until the Moonee supply eventuated.

[In 1957 J & A Brown purchased interests at CHB and undertook a modernisation programme at E Pit that included the removal of stables for pit ponies and extensive mechanical and improved coal loading and storage facilities].

#### *The Railway and "E" Pit Close*

The railway, together with the mine workings of "E" pit cease operations when the miners commenced their annual Christmas vacation as they went off duty on Friday, 20<sup>th</sup> December, 1963.

However, some years before this, some of the rail tracks under the screens were filled in or levelled with mine chitter (stone, shale, etc.) to permit road vehicles to load under these screens and convey coal to Wyee for onward movement by rail.

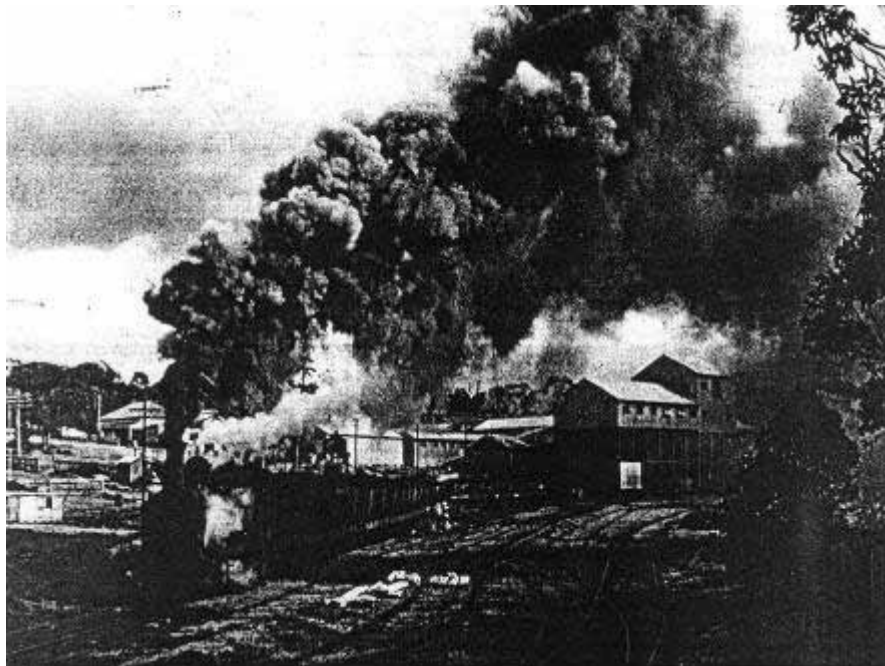
Since the hopper wagons were no longer required, all were left in the yard at the screens, and unceremoniously it is said, burnt. Certainly, on a visit to this location late in 1965 there were unmistakable signs of fire having burnt over a large area, but nothing metallic remained suggesting that a local scrap metal merchant may have collected everything of value.

Inside the engine shed however, three locomotives remained for later disposal.

Although one can walk the whole length of the original line, the passage of time has caused the obliteration of much detail such as the location of points to obtain some idea of numbers and length of roads, shunting necks, and shape of screens, etc. Power lines have been erected above portion of the original permanent way and motor vehicle tracks can also be seen, while trees of all shapes and sizes grow everywhere – even on the portion that was abandoned only 9 years ago.

The "Skelty" bridges still remain, but all traces of pit-top buildings, screens and yard in the vicinity of "E" pit has now been obliterated." (Wright 1973:25-44).

The following figures were published with the article.



**Figure 4.1** *"One of the two former NSW GR 18-class 0-6-0's in use at Wallarah lifts its load from the screens at the modernised 'E' pit. Source: Wright (1973:42)*

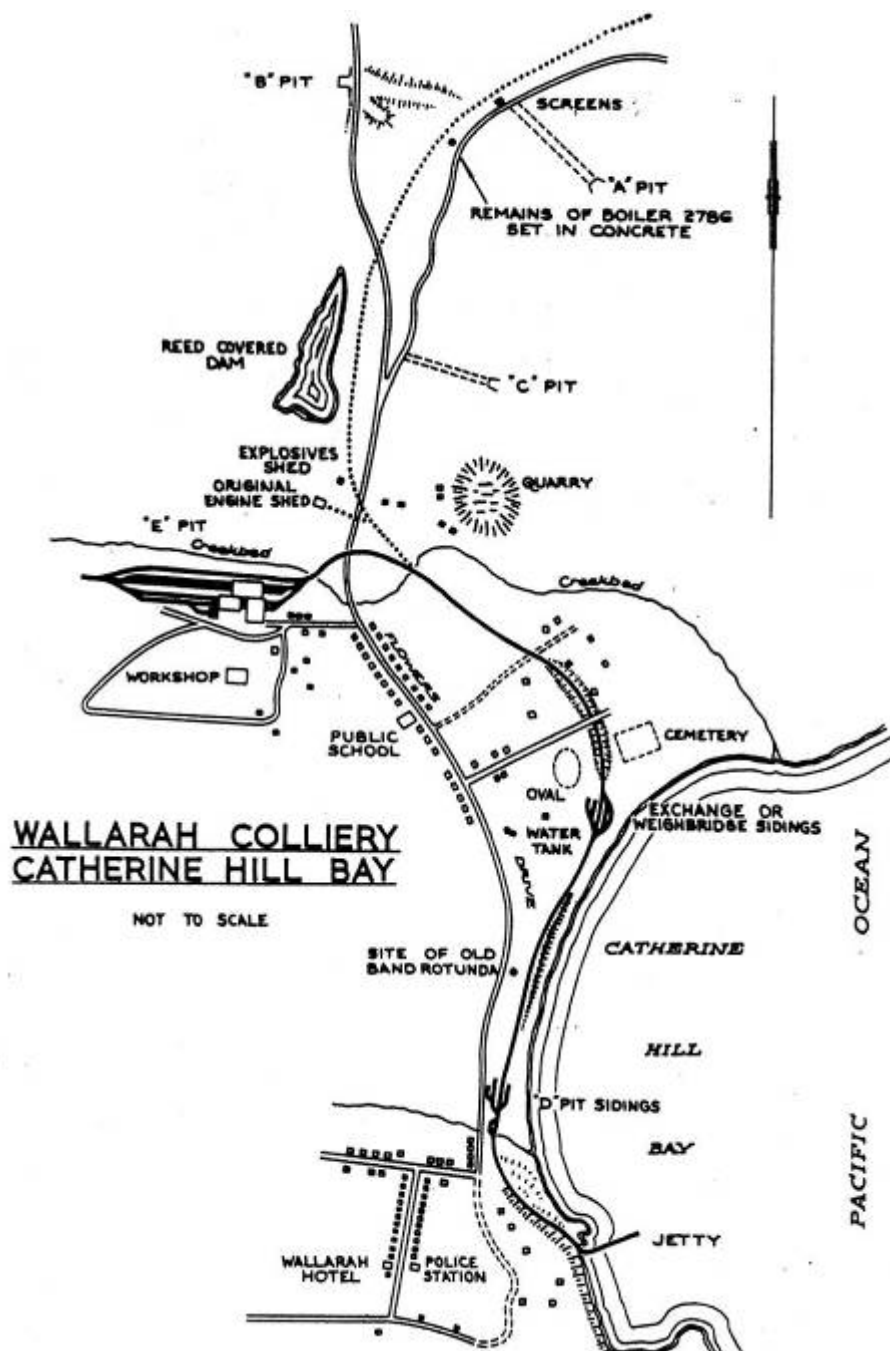


Figure 4.2 Plan of the Wallarah Colliery Railway system. Source: Wright (1973:30)

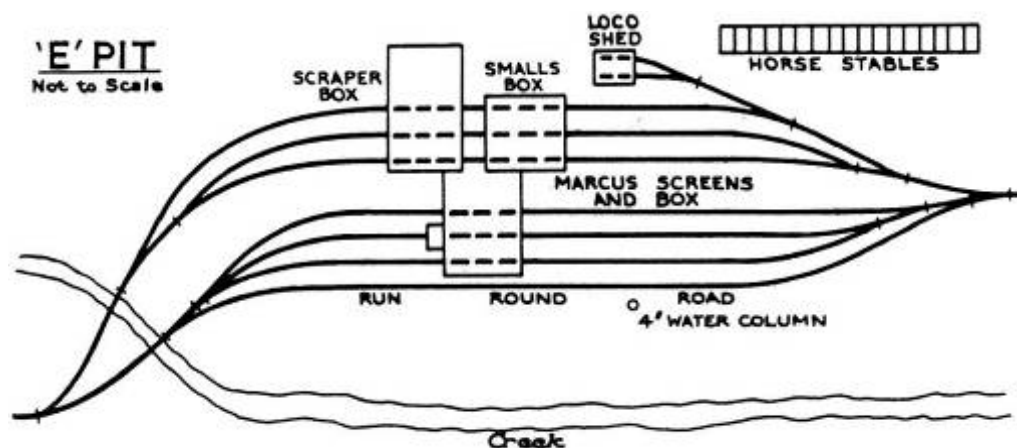


Figure 4.3 Detailed plan of E Pit. Source: Wright (1973:43)

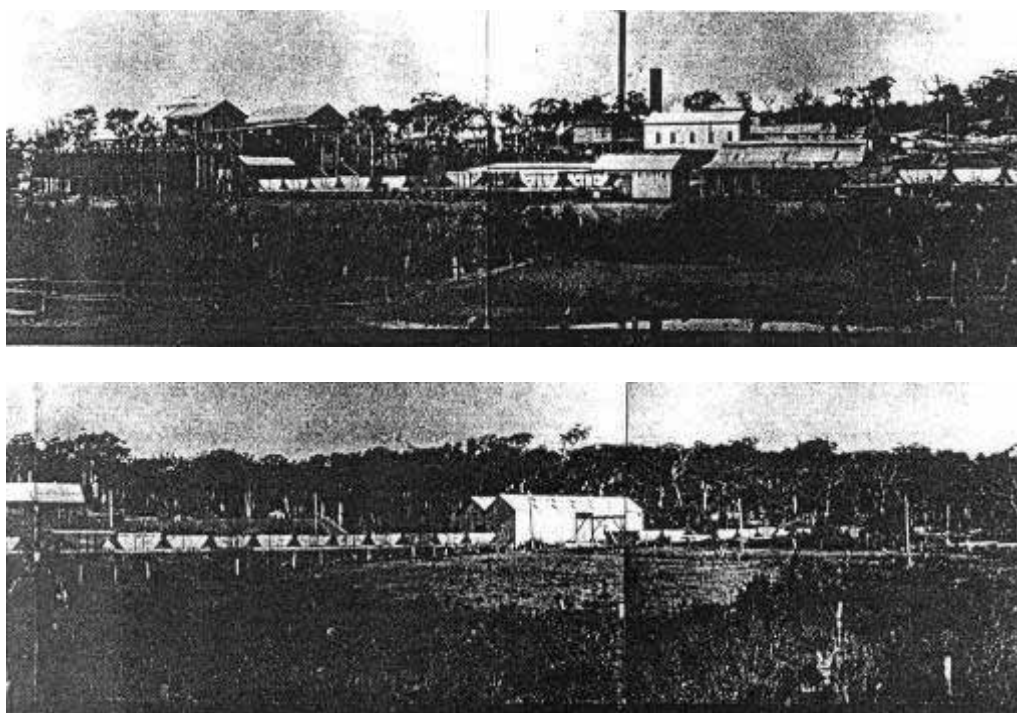


Figure 4.4 Photo montage of E Pit. "...Operations at the "E" pit in 1912. The line to the jetty extended off to the left while empties were propelled up the grade to the extreme right of the picture and then gravitated down to the screens. In front of the stables in the left centre of the illustration can be seen the outline of one of the Fowler 0-6-0 saddle tank engine." Source: Wright (1973:36-37).

## *Danvers Powers 1912*

F. Danvers Powers publication, 'Coalfields & Collieries of Australia includes a citation for CHB. Relevant sections are provided below:

"Two districts, known respectively as "B" and "E" are now being worked [1912]. Both are approached by means of a tunnel. "B" is the older and "E" the newer pit, and most of the plant is situated at the mouth of the latter. The underground workings of the two pits are connected. The haulage at both pits is an engine plan, but at the "E" pit they are preparing to install the endless-rope system for the main haulage, though the engine will be used for the first section, where the roadway is considerably curved..."

Danvers Powers makes mention of numerous work shops, some of which were located within E Pit.

"The fitting shop contains two lathes and machines for shearing, punching, drilling, and shaping; the blacksmith's shop two forges, the air for which is supplied by mechanically driven blowers; and also a steam hammer. In the carpenter's shop is a band saw, drilling and morticing machine, and a lathe. In the wagon repairing shed, portable electric drills are used for drilling rivet holes in the plate iron. They are convenient to handle, easy to take apart, and all parts being completely covered they are suitable for outdoor work. In comparison to their capacity and stability, they are very light. A saw-mill is in the course of construction, and a spacious store has just been completed." (Danvers Powers 1912:244-257).

## *Archives*

The 'J & A Brown - Coal & Allied Archive' were previously searched for information relating to E Pit. Amongst the archives a note relating to property at E Pit was found:

"31 January 1921

Valuation of colliery plant, equipment, freehold property etc.

At "E" Tunnel

Office, w/b	£250
Undermanager's residence w/b, iron roof	450
Engineer's residence, w/b, iron roof	450
Electrician's residence, w/b, iron roof	450"

This provides some possible evidence for the use of houses associated with the E Pit. There are currently three weatherboard houses located in the south east corner of the pit, which could possibly be referred to by this document.

These two descriptions provide a good context for the history and operation of E Pit. They provide sufficient description to understand the landscape observable today within the E Pit area.

#### **4.2.2 Historical Photography**

A search of on-line photograph libraries, including Picture Australia, the National Archives and the Lake Macquarie on-line reference collection was made to identify relevant photographs of the Catherine Hill Bay site. Relatively few photographs show the Catherine Hill Bay site. Relevant photographs are discussed below.

*Figure 4.1* provides an indication of the size and scale of the buildings located in the lower portion of E Pit. The rail lines can be seen running into a loading area, which contains two storey buildings, possibly built on stilt legs. Trains and wagons drew up beneath this complex of buildings to be loaded with coal.

*Figure 4.2* shows the often cited plan of the colliery. This plan, although not to scale, provides a practical indication of the railway layout, the extant houses and buildings and the basic landscape features at CHB. Correlation can be drawn between this plan, the remaining heritage features and other historical documents.

*Figure 4.3* provides a detailed plan of E Pit. The layout shown is probably an earlier layout of the pit, which was subject to development and change (as seen in the later historical photographs). The design shown in *Figure 4.3* includes an engine shed, numerous railway lines, three buildings located in close proximity forming a complex and horse stables. Later photographs show a possible reduction in the number of railway lines, a number of additional buildings and removal of the horse stables.

The plan includes details of an 'operational zone' including 'Marcus Screens' (for the purpose of cleaning and classifying the output of the mine into various sizes of coal), 'Smalls box' and 'Scraper box'<sup>1</sup>. It also includes a 4" water column on the north side of the railway lines.

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<sup>1</sup> A scraper box is a simple but effective method of extracting coal in large quantities. They can simultaneously cut and load coal for export out of the mine and could be mechanised on a reasonably large scale. The scraper box is open at the top, front and bottom. An attached blade scrapes the coal into the box, whose hinged back ensures that even if the blade is cutting in two directions, the coal itself is only transferred in one. Several scraper boxes can be used to shift coal from one to the other, until such time as it's easily accessible for loading. Although the underlying principle is simple, some elaborate machinery is needed to get it to work most effectively. The boxes are pressed into the coalface by pneumatic means, and guide rails ensure

Figure 4.4 is a montage of photographs displaying the E Pit area. These photographs show the early workings of the E Pit area. It appears that the buildings present in 1912 have been updated and changed in the later photographs, although the infrastructure remains in a similar position. This correlates with the history of the site, that indicates the Pit was modernised in later years.



*Photograph 4.1 CHB 1947. Source: LMCC photo ref 4693.*

*Photograph 4.1* provides the earliest aerial view of the E Pit area. This photograph is very useful because it provides evidence for the buildings, houses and infrastructure present at 1947. These features can be correlated with the historic plans and descriptions of the area (above).

This photograph clearly shows much more intensive development and a greater density of buildings than displayed in the E Pit plan (*Figure 4.3*). Items of note include the arrangement of houses to the east of E Pit, the nature of the railway line and its obvious alignment running out of E Pit, the presence of the infrastructure associated with the processing, sorting and loading of coal and the numerous standing buildings. Of note is the presence of the workshop building (only residual still standing building in E Pit). This can be seen directly east (i.e. behind) the large plain single span gable roofed building (see middle left foreground of the photograph) with open central doors. The form of the workshop's roof and the high double storey construction are clearly visible, although swamped amongst the other buildings and features.

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that they are in the correct position. The integrity of the workspace is maintained by prop setters, and the drawers-off clean up excess coal (Brook 2007).



*Photograph 4.2 CHB 1952. Source: LMCC photo ref 4692*



*Photograph 4.3 Saw Mill Camp at Middle Camp Mine Catherine Hill Bay, undated.  
Source: LMCC Library*

*Photograph 4.2* is not as helpful for identifying features as the earlier photograph. However, it does display the route of the railway, the houses adjacent to E Pit and the general layout of CHB in 1952.

*Photograph 4.3* (undated) provides an indication of the wood cutting and sawing at Saw Mill Camp.

### *Historical Aerial Photographs*

Historical aerial photographs were obtained of the CHB region for 1955 and 1975 (see *Figures 4.5* and *4.6* respectively). *Figure 4.5* clearly shows the layout of the E Pit area, along with the forested zones to the south and east, as well as Saw Mill Camp.

It can be seen that E Pit contains approximately six rail lines extending into the lower complex of buildings. The northern most of these buildings (top in figure) cover the tracks and are associated with loading coal into the wagons. Infrastructure extends uphill (south) from this complex towards the area with houses and the workshop building. Once more this workshop building is surrounded and dwarfed by the other features on the site. Numerous small buildings can be seen, although their use is uncertain. However, these buildings are aligned east-west, along the contours of the bank that extends down to the E Pit creek in the north. The rail lines are seen converging in the western half of the Pit, before one runs out of the frame to the west.

Of interest are the houses surrounding the E Pit. The houses to the south-east, along Colliery Road, all have well defined garden boundaries, which are fenced off. There is a single house in the south west of the Catherine Hill Bay site. This house is aligned east-west, contains a small out building on its southern side, has a garden wall and a planting in the west of the garden.

*Figure 4.6* provides evidence for the sudden and rapid demise of the buildings and infrastructure associated with the closure of the colliery. The pit and all rail lines appear to have been stripped. No buildings remain, most evidence has been removed and the house in the SW corner has gone. Only the workshop building and the houses on Colliery Road remains in situ.

#### **4.2.3**      *Summary of Historical Documents and Photographs*

Research into the E Pit zone has shown that the area was well developed by mining buildings and associated infrastructure. Numerous houses were built on the periphery of the pit, presumably as residences for senior workers. The closure of the pit in the late 1960s resulted in an immediate and dramatic stripping of resources, materials and buildings from the whole zone. This left behind very little structural evidence relating to the operations and historical function of the pit.

The areas surrounding the pit appear to have been generally de-vegetated during the middle of the 20<sup>th</sup> century. However, no buildings or works appear to have occurred within these areas.



#### Legend

 Project Application Area

Client:	Catylis
Project:	Lower Hunter Land Development - Catherine Hill Bay
Drawing No:	0111477s_CHB_GIS004_R0.mxd
Date:	22/02/2010
Drawn by:	JF
Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56
Scale:	Refer to Scale Bar



0 50 100 150m

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 4.5**

#### **1954 Aerial Photograph of Catherine Hill Bay**

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 - Catherine Hill Bay
Drawing No:	0111477s_CHB_GIS005_R0.mxd
Date:	22/02/2010
Drawn by:	JF
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Scale:	Refer to Scale Bar



0 50 100 150m

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 4.6**

#### **1975 Aerial Photograph of Catherine Hill Bay**

Environmental Resources Management Australia Pty Ltd

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



### 4.3

#### *CATHERINE HILL BAY – KNOWN HERITAGE SITES*

Catherine Hill Bay has been subject to numerous heritage studies, local heritage listing and in 2005 a nomination to the State Heritage Register. A review of the history of heritage listing at CHB was undertaken by ERM in 2005; reference should be made to that document for relevant details.

The current review, below, contains an updated search of the NSW State Heritage Register (SHR), Lake Macquarie LEP (2004) and the National Trust Jubilee Register.

A review of the listed and potential heritage items within and near to the Catherine Hill Bay site is provided below.

#### 4.3.1

##### *Heritage Listed Sites*

Catherine Hill Bay includes several places that are listed on the heritage schedule to the LEP. *Table 4.2* provides details of these items and their physical relationship to the Catherine Hill Bay site. All listed heritage items that could potentially be impacted by the proposed development are shaded grey.

Further to these items the 'Catherine Hill Bay Conservation Area' (CHBHCA), is included on Schedule 5 Conservation Areas under the Hunter Regional Environmental Plan 1989 (Heritage). CHBHCA has also been included on the Lake Macquarie Local Environmental Plan (LEP) 2004 Heritage Schedule as of 20 March 2008.

A World War Two RAAF Radar Station 208 (former) was listed on the NSW State Heritage Register (SHR) on 22 July 2008.

**Table 4.2 Lake Macquarie LEP 2004 Heritage Items at Catherine Hill Bay**

Item No.	Heritage Item	Location	Relationship to Catherine Hill Bay site and Possible Impacts
CH-19	Anglican Church	71 Flowers Drive	Outside Catherine Hill Bay site , c.900 meters south east of study area.
CH-16	Catherine Hill Bay Colliery Railway	From Mine Camp, north of the township, to the coal loader (Also listed under the Railways and Trams category)	Runs through the Catherine Hill Bay site. Possible impact to this feature from development
CH-32	Cemetery	8 Northwood Road	Outside Catherine Hill Bay site, 700m south east of the study area
CH-14	Coal Loader Jetty	Southern end of the beach	Outside Catherine Hill Bay site, approximately 1km to the south east of the project study area
CH-07	Cottage	17 Clarke Street	Outside Catherine Hill Bay site, approximately 1.5km to the south of the study area
CH-10	Cottage	3 Lindsley Street	Outside Catherine Hill Bay site, approximately 1.5km to the south of the study area
CH-12	Cottage	11 Lindsley Street	Outside Catherine Hill Bay site, approximately 1.5km to the south of the study area
CH-05	Cottages	10 Clarke Street and 12 Clarke Street	Outside Catherine Hill Bay site, approximately 1.5km to the south of the study area
CH-06	Cottages	21 Clarke St 19 Clarke Street	Outside Catherine Hill Bay site, approximately 1.5km to the south of the study area
CH-08	Cottages	9 Clarke St, 7 Clarke St, 5 Clarke St, 3 Clarke Street	Outside Catherine Hill Bay site, approximately 1.5km to the south of the study area
CH-21	Group of cottages	27 , 29 , 31, 33 , 35, 37 , 42 , 44 , 46 , 48, 50 , 54 , 56 & , 58 Flowers Drive	Outside Catherine Hill Bay site , approximately 750 meters south of the study area
CH-22	Hall	1 Northwood Road	Outside the Catherine Hill Bay site 650 metres south of the study area
CH-17	House and 4 Norfolk Pines	Flowers Drive	Outside the Catherine Hill Bay site 650 metres south of the study area
CH-24	House	26 Flowers Drive	Outside Catherine Hill Bay site, approximately 300 m from the southern portions of the study area
CH-13	House "Wallarrah House"	1a Keene Street	Outside Catherine Hill Bay site, approximately 2km to the south of the study area
CH-27	House	Colliery Road	Former mine engineers residence, in Catherine Hill Bay site near to Middle Camp. Possible impact to views
CH-03	Police Station and Lock Up	23-27 Clarke Street	Outside Catherine Hill Bay site, approximately 700 m to the south of the Catherine Hill Bay site in Catherine Hill Bay
CH-04	Wallarrah Hotel	24 Clarke Street	Outside Catherine Hill Bay site, approximately 700 m to the south of the Catherine Hill Bay site in Catherine Hill Bay
Part 2 – 2	Wallarrah East Pit – Potential archaeological site	Flowers Drive	Located within the study area. Potential to be impacted by development
Part 2 – 1	Wharf – Potential archaeological site	Middle Camp Beach	Outside Catherine Hill Bay site, approximately 700 m to the south east of the Catherine Hill Bay site on Middle Camp Beach

The City of Lake Macquarie Heritage Study (Suters 1993) formed the basis for the LEP listings provided in *Table 4.2*. The Heritage Study also identifies places that have not been included in the heritage schedule of the LEP. The Study notes that in most cases more information is required for these items and places, and that some may not meet the threshold for local listing. These unlisted items are presented in *Table 4.3* and shown on *Figure 4.7*. The items potentially affected by the proposed development are highlighted.

**Table 4.3**      *Potential Heritage Items*

Item No.	Heritage Item	Location	Relationship to study area and Possible Impacts
CH-01	<b>Water Tank/Old Boiler</b>	Montefiore Street	Outside the Catherine Hill Bay site, approximately 700 m to the south west of the study area on Middle Camp Beach
CH-05	<b>Cottage</b>	8 Clarke Street	Outside the Catherine Hill Bay site, approximately 700 m to the south of the study area in Catherine Hill Bay
CH-09	<b>Cottage &amp; Garage</b>	1 Clarke Street	Outside the Catherine Hill Bay site, approximately 700 m to the south of the study area in Catherine Hill Bay
CH-11	<b>Former Post Office &amp; General Store</b>	Lindsley Street	Outside the Catherine Hill Bay site, approximately 700 m to the south of the study area in Catherine Hill Bay
CH-15	<b>Ships Anchors in Park</b>	Hale Street	Outside the Catherine Hill Bay site, approximately 700 m to the south of the study area in Catherine Hill Bay
CH-18	<b>Uniting Church</b>	Flowers Drive	Outside the Catherine Hill Bay site, opposite side of Flowers Road.
CH-20	<b>Old Cornish Boiler</b>	Near Church, Catherine Hill Bay Beach	Outside the Catherine Hill Bay site, opposite side of Flowers Road to the southern portion of the study area
CH-23	<b>Public School</b>	26a Flowers Drive	Outside the Catherine Hill Bay site, approximately 300m south east of the study area
CH-25	<b>House</b>	23 Flowers Drive	Outside the Catherine Hill Bay site, approximately 300m south east of the study area
CH-26	<b>House</b>	2 Flowers Drive	Outside the Catherine Hill Bay site, adjacent to the northern portion of the study area. Possible impact to views
CH-28	<b>Workshop Building</b>	Colliery Road	Located in the Colliery Hamlet of the Catherine Hill Bay site. Potential to be impacted by development
CH-29	<b>House</b>	Colliery Road	Located in Colliery Hamlet of the Catherine Hill Bay site. Potential to be impacted by development
CH-30	<b>Cottage</b>	Colliery Road	Outside study area, adjacent to Colliery Hamlet of the Catherine Hill Bay site. Possible impact to views
CH-31	<b>Cottage</b>	Colliery Road	Outside study area, Colliery Hamlet of the Catherine Hill Bay site. Possible impact to views
CH-33	<b>The mine</b>	Former Mine Camp area, Mine Camp Road	Outside study area, approximately 1.5 km to the north of the Catherine Hill Bay site. Possible impact to views

Lake Macquarie City Council has advised that the Catherine Hill Heritage Conservation Area values are outlined in the 1993 City of Lake Macquarie Heritage Study that formed the basis of several heritage listings under the LEP. This information is summarised below.

Suters describes the Catherine Hill Bay Heritage Conservation Area as one of three priority conservation areas in the Lake Macquarie local government area. The 1993 report notes that the Conservation Area identified at this time did not include several areas and items considered to be of heritage significance and recommended that it be enlarged to include the whole of the former railway route.

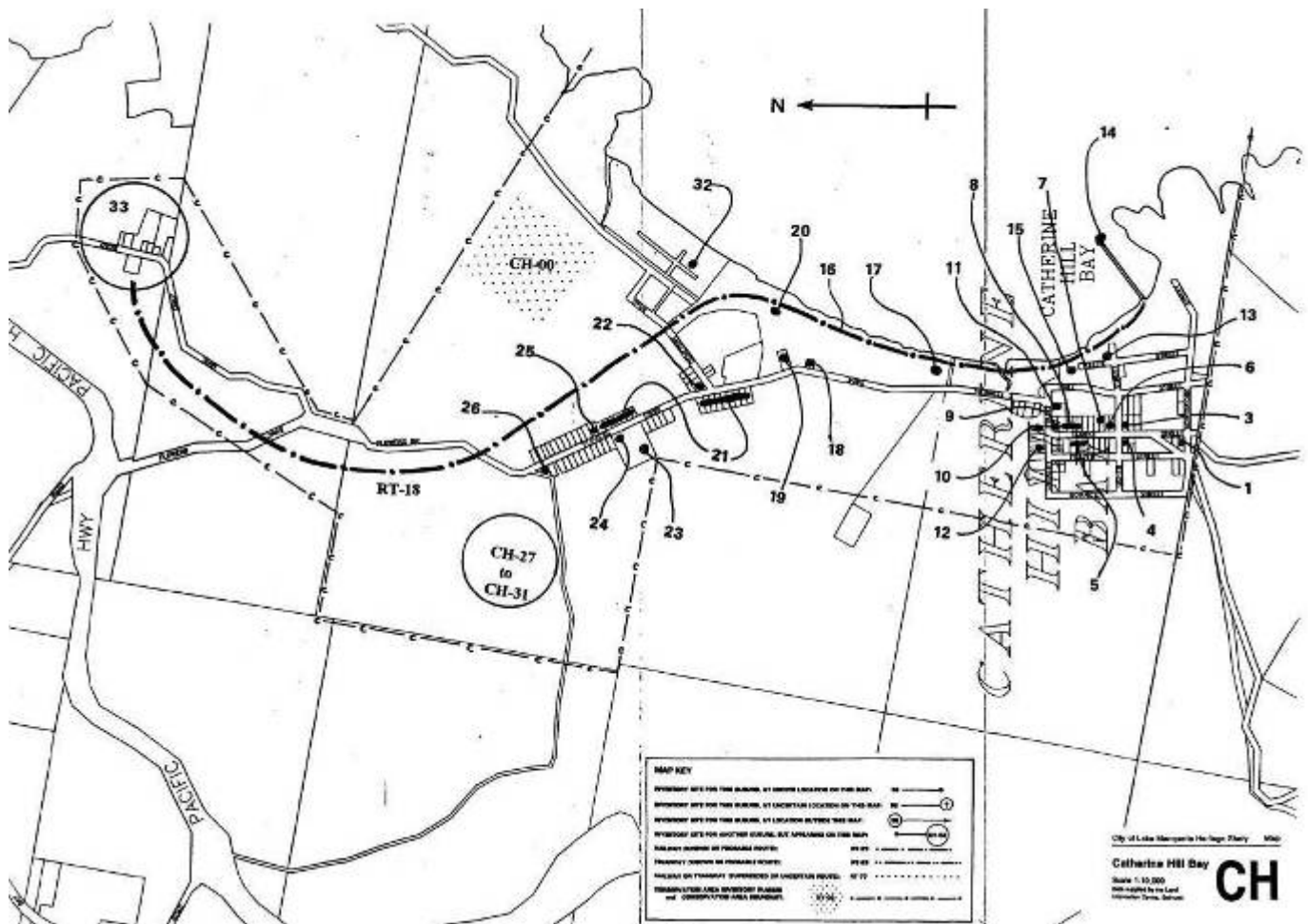
The current boundary of the Catherine Hill Bay Heritage Conservation Area is shown in the figures included at *Annex C*.

The statement of significance for Catherine Hill Bay Heritage Conservation Area is as follows:

*Both Catherine Hill Bay Village and Middle Camp village are rare in Lake Macquarie as examples of "Company Town" developments. Company town infrastructures survive in the Upper Hunter and other parts of Australia, but Lake Macquarie mine developments were generally less organised. Uniform development of these villages has produced unique townscapes which could be threatened by new development. Catherine Hill Bay has picturesque and distinctive historic townscapes and land/seascapes unrivalled in Lake Macquarie. Catherine Hill Bay Village has the oldest group of buildings in Lake Macquarie. Catherine Hill Bay is a tremendous archaeological resource for Lake Macquarie, with great potential as an industrial heritage site.*

The Catherine Hill Bay Heritage Conservation Area incorporates several individual listed and potential heritage items. These items contribute to the heritage values ascribed to the Heritage Conservation Area. The locations of these items are shown in *Figure 2.3*.

These items have historic importance to the local community. As discussed above, several items make a contribution to the aesthetic qualities of Middle Camp, and other items and areas form a significant part of the historic archaeological resource for the community.



**Figure 4.7** *Items and areas identified in the Catherine Hill Bay Heritage Study conducted in 1993 (Source: Suters 1993, courtesy Lake Macquarie City Council)*

#### 4.3.3 WWII RAAF Radar Station 208 (Former)

The WWII RAAF Radar Station 208 (former) was included on the NSW SHR on 22 July 2008. The location of the Radar Station is shown in Figure 4.8.

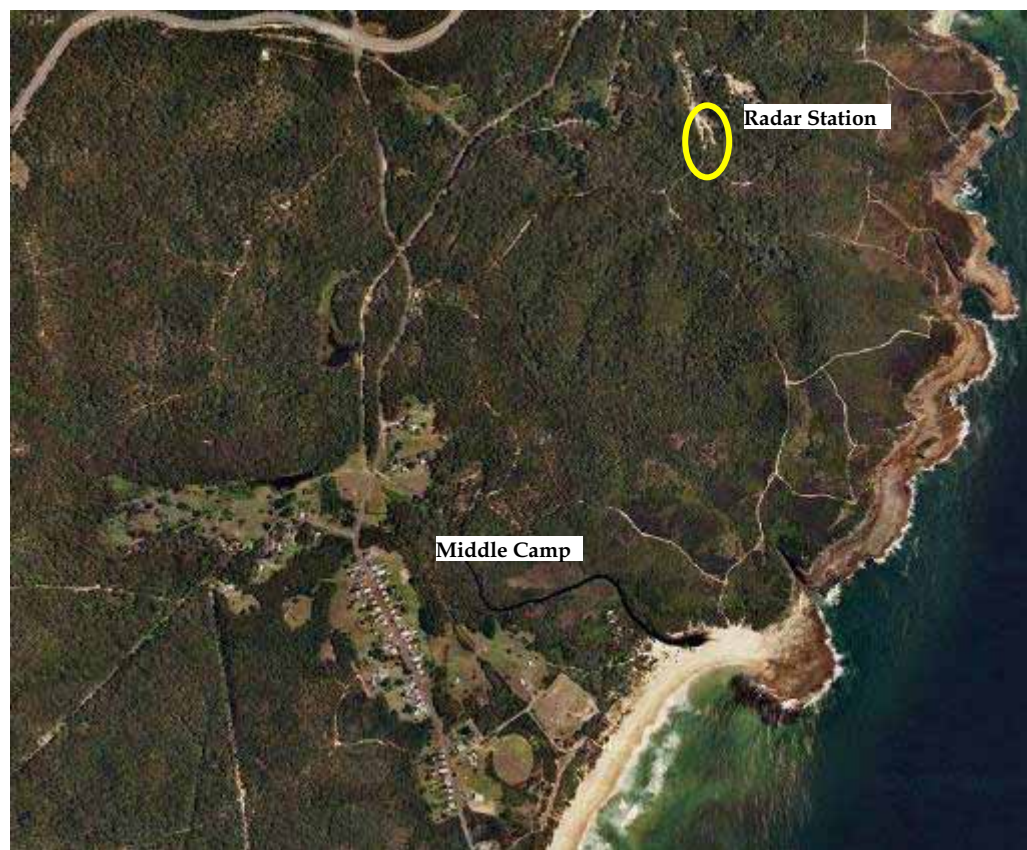
The Radar Station has been included on the SHR for its historic heritage values. The Statement of Significance included in the SHR citation for the site outlines its heritage values:

*The former RAAF Radar Station 208 at Catherine Hill Bay, comprising remains of the RAAF radar installation is significant as a rare example of NSW's participation in the WWII network of air warning radar, established in strategic locations along Australia's coast during World War II. It is one of nine ACO radar stations established on mainland Australia using British imported ACO radar and the only remaining site of the two established in NSW.*

*Its location and siting on an elevated coastal area amongst dense bushland demonstrates Australia's response to the threat of invasion and the importance placed on protecting the industrial centres along the NSW coastline during WWII.*

*The site has potential to yield further information about Australian coastal defence efforts during WWII and the use and development of radar technology.*

*It has historical associations with the introduction, use and development of radar technology in Australia which is regarded as one of the greatest contributions of Australian science to the war effort. The wartime development of radar in Australia became a key element in the shift towards government sponsored applied scientific research and the gradual independence of Australian science. After the war, radar became a celebrated achievement of science in Australia.*



**Figure 4.8**      *The location of the WWII RAAF Radar Station*

#### **4.3.4**      *The National Trust Of Australia (NSW)*

The National Trust of Australia (NSW) has classified part of Catherine Hill Bay as an Urban Conservation Area, which includes Catherine Hill Bay and Middle Camp.

Classification by the National Trust carries no statutory implications, but is regarded as an authoritative statement of the cultural significance of a place and its worthiness for retention and conservation. The National Trust is often consulted when major proposals are being formulated in heritage precincts or in relation to heritage buildings.

#### 4.3.5

##### *Anticipated SHR Listing*

As noted at Section 1.4, the Catherine Hill Bay Cultural Precinct is expected to be included on the SHR during late 2010. The draft citation for the Precinct is provided at Annex D. The draft statement of significance for the Precinct is also provided here for ease of reference:

*The current boundaries of the Catherine Hill Bay Heritage Conservation Area provide a distinctive, even unique, unity of landscape, dwellings and coal mining infrastructure. The extended settlement at Catherine Hill Bay has significance for both its landscape and its buildings. The buildings form good streetscapes and are a constant reminder of the settlement's origins as a nineteenth century mining village. Distant views over the town are as important as close up views. The distinctive urban pattern of the main village may be appreciated in its bush and coastal setting, particularly on the important northern approach. The high visibility of the main village precinct, including rear yard areas, makes it highly sensitive to new development.*

*The original buildings, most of which date from the 1890s to the 1920s were mostly small vernacular cottages. There were very few buildings recognisable as belonging to a particular style, or period. Each building is unique, but all display a high degree of consistency in terms of size, scale, form, setbacks, siting and materials. The integrity is also good generally, relative to other older precincts in Lake Macquarie. Both Catherine Hill Bay village and Middle Camp village are rare in Lake Macquarie City, as examples of "Company Town" developments. Company town infrastructures survive in the Upper Hunter and other parts of Australia but Lake Macquarie mine developments were generally less organised. Uniform development of these villages has produced unique townscapes. Catherine Hill Bay has picturesque and distinctive historic townscapes, and land/seascapes unrivalled in Lake Macquarie. Catherine Hill Bay has the oldest group of buildings in Lake Macquarie. The settlement is also an important archaeological resource for Lake Macquarie, with considerable potential as an industrial heritage site.*

*Catherine Hill Bay is significant for four key themes: A Mining Company Town, Strikebreaking, A Lost Town, A Historic Town.*

*These themes are the results of different degrees of historic, social and aesthetic significance. Aesthetic significance is manifested in the both built form and landscape.*

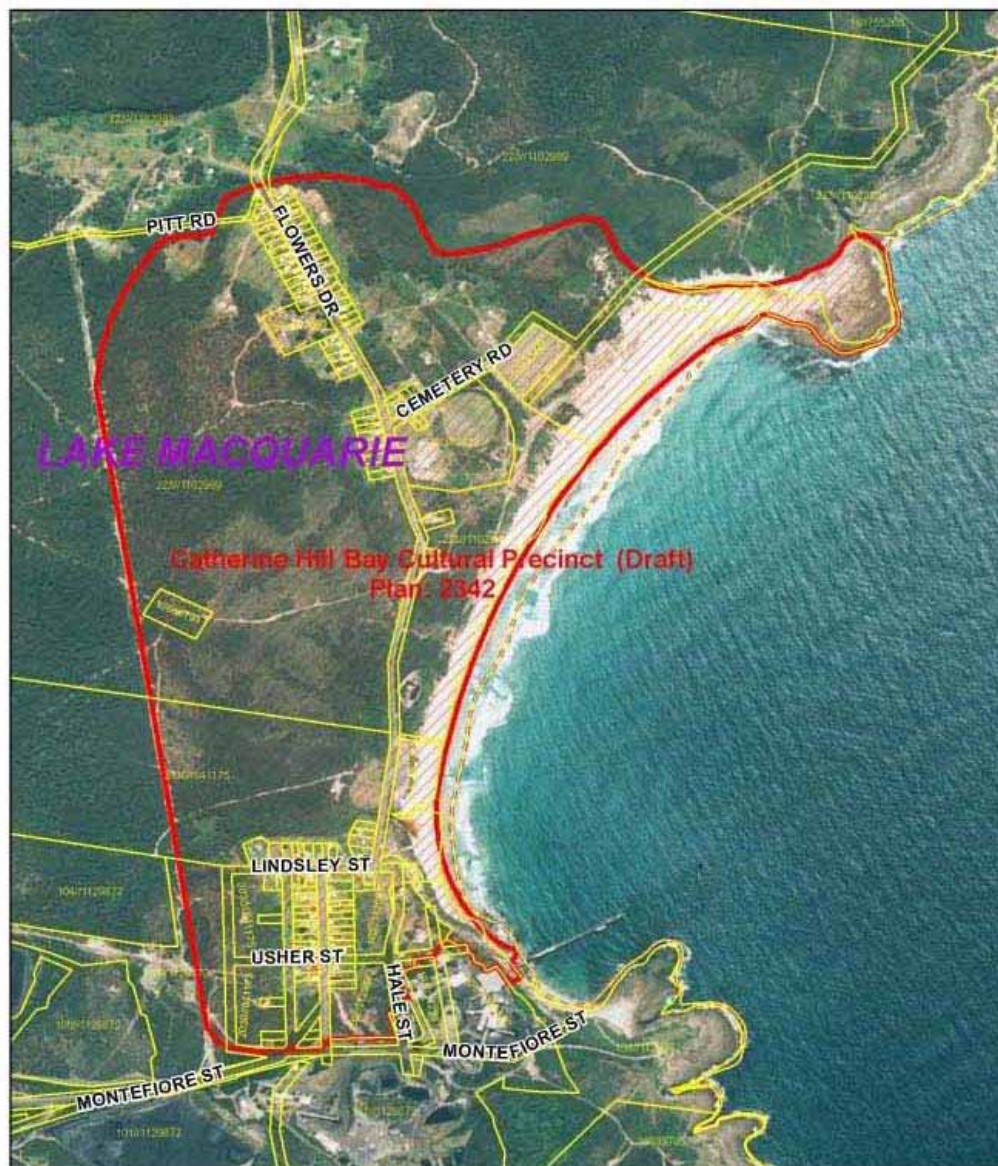
*Catherine Hill Bay Heritage Conservation Area, because of its location and geological character, is significant for the key role played by the nineteenth century company towns in the development of Australian resources.*

*Catherine Hill Bay is significant for its continuing association with coal mining since the 1870s. This development is clearly evidenced by remnants of railways, the structures and the extent of untouched landscape.*

*Catherine Hill Bay's association with tourism and recreation dates back to reports from the early 1930's. Extensive and varied landscapes are a key factor of the tourist quality of Catherine Hill Bay.*

This proposed listing is supported by Coal & Allied. A copy of the letter to the NSW Heritage Council regarding the details of the listing is provided at Annex E.

The boundary of the proposed Precinct is shown in Figure 4.9 on the following page.



State Heritage Register - Proposed Curtilage for Investigation

0 100 200 400 600 800 Metres

Scale: 1:12,500 @A4  
Produced by: Sina Mavaddati  
Date: 21 July 2010

**Legend**

- Proposed Curtilage
- SHR Curtilage
- LGAs
- Suburbs
- Land Parcels

Proposed SHR Curtilage Plan 2342

**Image Type:**

Map / Plan

**Image Year:**

21 Jul 10

**Image By:**

Sina Mavaddati

**Figure 4.9** Proposed Precinct Boundary for the SHR listing

The brief contextual history of Catherine Hill Bay site highlights that a number of NSW historical themes are clearly illustrated by both the tangible and intangible values of the site. Identification of these themes assists with the following:

- Understanding the role and importance of the place in NSW and Australian history;
- Developing an interpretation strategy for the site;
- Developing a statement of heritage significance of the site; and
- Prioritising management activities in relation to the site.

The NSW Historical Themes Guideline and the Australian Historical Themes framework have been used to identify the historical themes for the Catherine Hill Bay site. The NSW historical themes for the site as they align with the Australian Historical Themes are provided *Table 4.4* below.

**Table 4.4** *Historic Themes for Catherine Hill Bay – Middle Camp*

Australian Theme	NSW Theme	Study Area Element
Building settlements, towns and cities	Land Tenure	Workers Cottages and Anglican Church.
Developing local, regional and national economies	Mining	E Pit landscape elements & railway embankment.
Developing local, regional and national economies	Technology	Development and use of mining technology.
Developing local, regional and national economies	Industry	Mining, process and shipping of coal from CHB pits.
Working	Labour	Mining over the course of around 100 years. Organised evidence of unionism through strike activities.
Building settlements, towns and villages	Towns, suburbs and villages	Development of the CHB township very much associated with the fortunes and development of the mine.

## 5.1 SURVEY METHODOLOGY

The Catherine Hill Bay site was surveyed on foot by the study team and Aboriginal representatives on 9 and 10 July 2007. The survey aimed to inspect all zones within the Catherine Hill Bay 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 Catherine Hill Bay site (see *Figure 5.1*).

The study team inspected all zones within the Catherine Hill Bay 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

The site inspections of the area were undertaken by ERM Built Heritage Consultant (Louise Doherty) and ERM Heritage Architect (John Hoysted). This included physical inspection at E-Pit and Sawmill Camp. Photography was undertaken to augment this report.

A visual inspection of the neighbouring heritage items, places and areas was also undertaken to better understand the heritage constraints and opportunities that may apply to the Catherine Hill Bay site.

### 5.1.2 Historical Archaeological Heritage

The Catherine Hill Bay 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.

The E Pit area was a previously recognised archaeological zone, although it had never been subject to previous survey or recording. Particular attention was paid to this zone, so as to correlate the background historical review with the available evidence on the ground.

The initial Catherine Hill Bay site inspection determined that the E Pit should be the subject of an archival recording to a standard of local significance, in accordance with the NSW Heritage Branch guidelines "*How to prepare archival records of Heritage Items*". This recording was undertaken on 14 August 2007 and involved black and white and slide photography, as well as a differential GPS site survey by surveyors Monteath and Powys. The archival recording of E Pit is subject to a separate report.

Current Catherine Hill Bay site investigations also included determination of soil conditions for geotechnical purposes. As Coal & Allied did not have the relevant s140 excavation permit, or an exception under 139 of the NSW *Heritage Act 1977*, for the E Pit area, an ERM archaeologist provided guidance to the sampling program. This was to make sure that no archaeological features, sites or relics were disturbed by the sampling program. Archaeological assistance including locating the test locations and monitoring sample trenches to make sure not heritage item, as defined under the heritage act, was going to be impacted. GPS locations of sample trenches and photographs of each trench were taken to confirm that no impacts occurred to the heritage values of the area. All test locations were backfilled after sampling.

### 5.1.3 *Aboriginal Heritage*

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 Catherine Hill Bay site comprises of two areas, Sawmill Camp (Eastern Catherine Hill Bay site) and Colliery Hamlet (Western Catherine Hill Bay site).

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

Each of the different landforms identified in the Catherine Hill Bay site were surveyed, namely slopes, ridges, flats and gullies/creeks (*Table 5.1*). Creek lines, mature trees, erosion scours, and vehicle access tracks were all inspected. In order to ensure the highest likelihood of locating Aboriginal sites, the survey focussed particularly on areas of visibility, water courses and trees. Photographs were taken of key elements to support this report.

### 5.1.4 *Fieldwork Constraints*

The Aboriginal survey was limited by the vegetation cover within the south east Catherine Hill Bay site. However, the survey of this area was able to take in a representative sample of tracks and paths that had excellent exposures and visibility.

Overall ground visibility was quite low, and it is estimated at 1% of the Catherine Hill Bay site was sampled during the survey (see *Annex B* for Effective Coverage Table). Erosion occurred predominantly on the vehicle tracks, and the occasional patches of exposed ground surface in the Catherine Hill Bay site mainly occurred in these areas of erosion. In light of these constraints, the survey focused particularly on the patches of visible ground; however a sample of each of the landforms identified was surveyed (see below, and *Annex A*) to ensure that the full range of potential site locations was inspected.

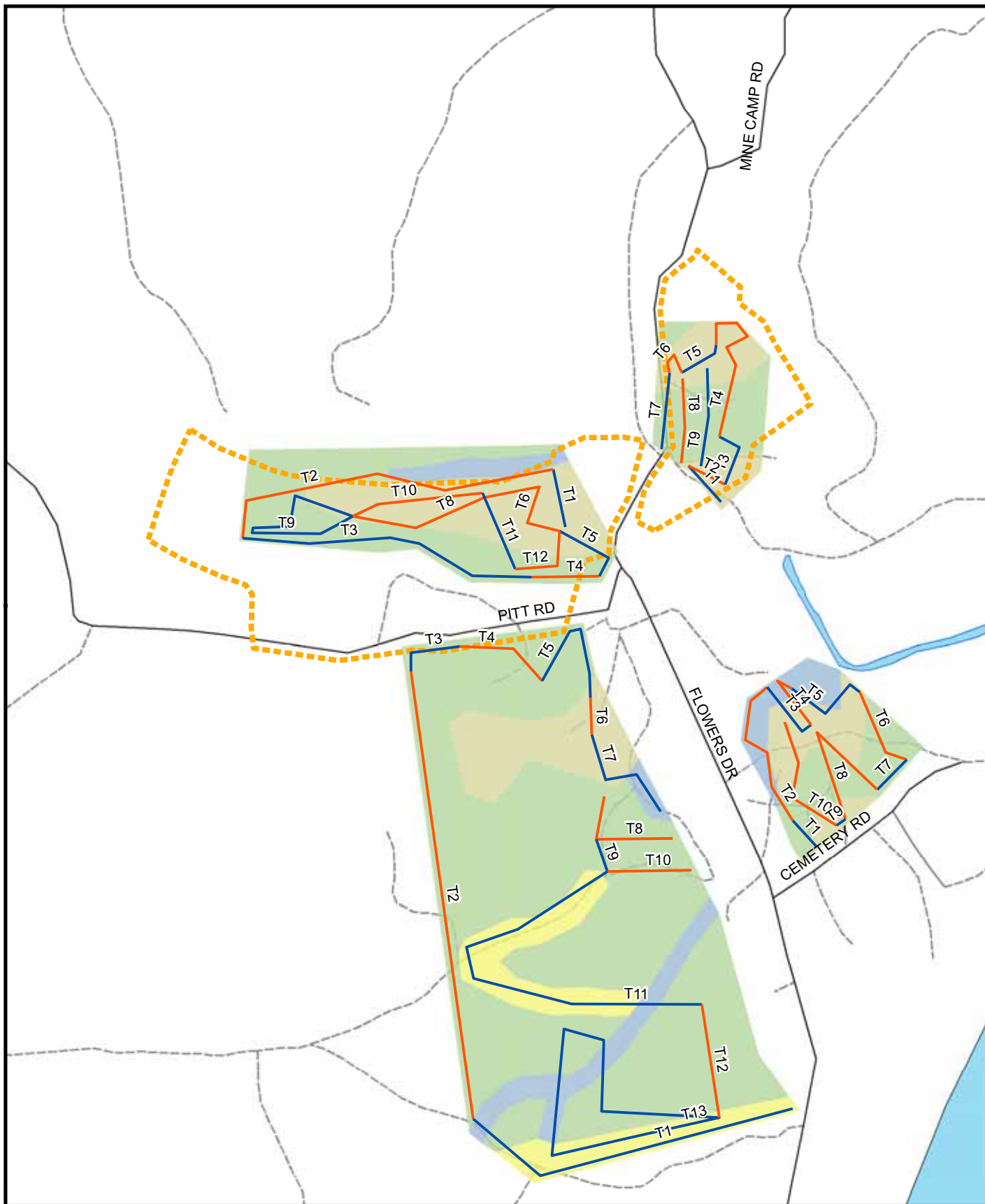
The built heritage survey was limited to the external areas of the houses within the Catherine Hill Bay site.

## 5.2 *TRANSECT SAMPLING*



In order to survey a sample of each landform across the Catherine Hill Bay site and make best use of the areas of exposure available, the Catherine Hill Bay site was surveyed in a total of 21 transects throughout the two areas of Catherine Hill Bay site, as described in *Table 5.1*. These are shown in *Figure 5.1* and described in *Annex B*.

**Table 5.1** *Description of Transects Surveyed,*

Transect	Landforms	Description
<b>Colliery Hamlet</b>		
T1	Flat	Along road in north east of the Catherine Hill Bay site
T2	Creek	Along creek at northern end of the Catherine Hill Bay site
T3	Slopes	Along southern end of the Catherine Hill Bay site
T4	Slopes, creeks	Around houses at south eastern end of the Catherine Hill Bay site
T5	Flat	Around houses at south eastern end of the Catherine Hill Bay site
T6	Slopes	Centre of eastern part of the Catherine Hill Bay site
T7	Slopes	Centre of the Catherine Hill Bay site
T8	Flat	Centre of the Catherine Hill Bay site
T9	Slopes	Western end of the Catherine Hill Bay site
T10	Creek	Northern end of the Catherine Hill Bay site
T11	Slopes	From creek to road through centre of the Catherine Hill Bay site
T12	Ridge	Road from houses, to access road
<b>Sawmill Camp</b>		
T1	Flat	Railway embankment at south west of the Catherine Hill Bay site
T2	Flat	Along road at southern end of the Catherine Hill Bay site
T3	Creek	Forested area in south east of the Catherine Hill Bay site
T4	Slopes	Forested area in east and north east of the Catherine Hill Bay site
T5	Flat	Along road at northern end of the Catherine Hill Bay site
T6	Slope	Forested area in north west of the Catherine Hill Bay site
T7	Slope	Along road at western end of the Catherine Hill Bay site
T8	Slope	Through paddock on western side of the Catherine Hill Bay site
T9	Slope	Through paddock on eastern side of the Catherine Hill Bay site



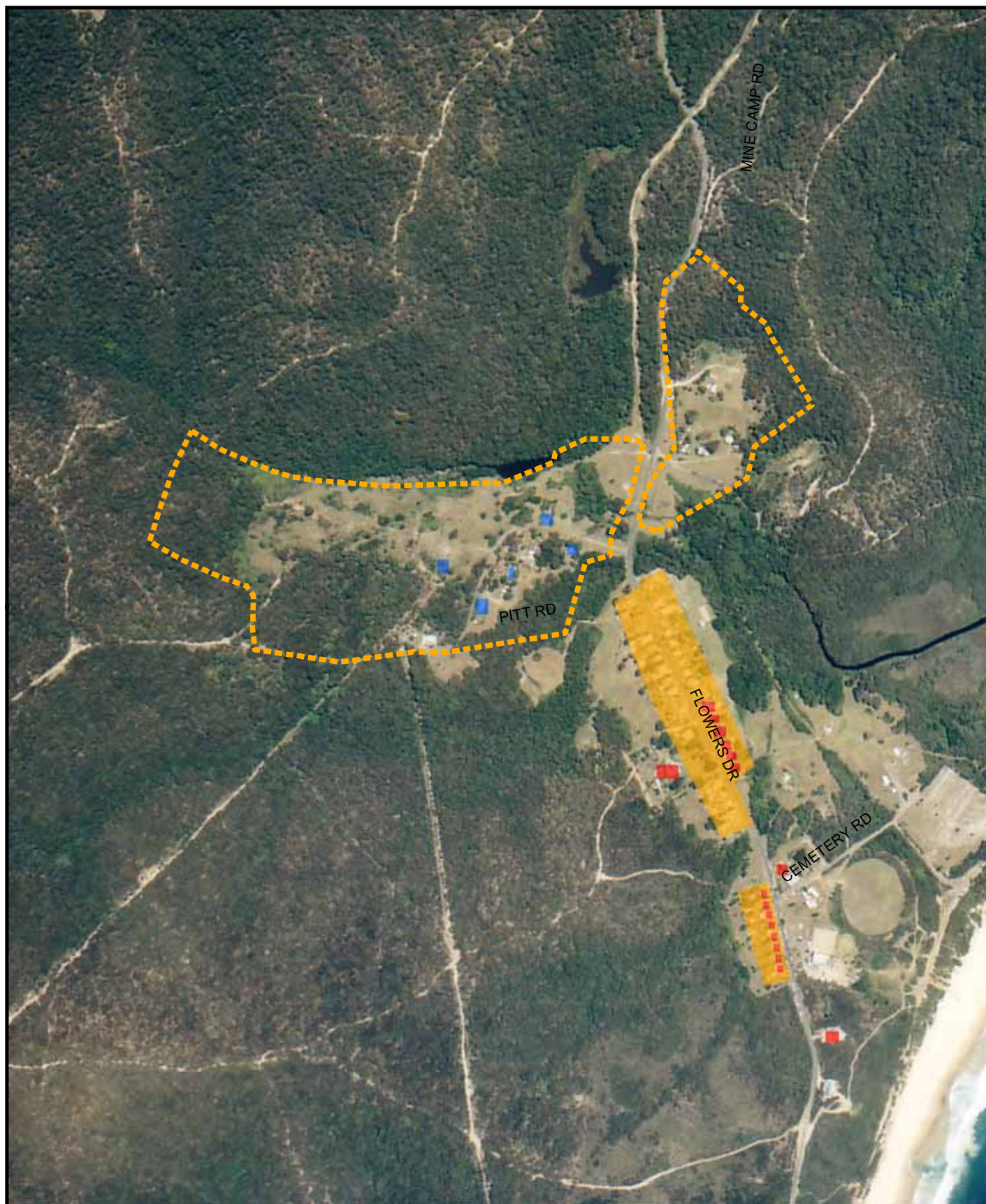
- Legend**
- Project Application Area
- Transects**
- 
- 
- Landform**
- Flat
- Slope
- Open Depression
- Ridge

Client:	Catylis		
Project:	Lower Hunter Land Development - Catherine Hill Bay		
Drawing No:	0111477s_CHB_GIS006_R0.mxd		
Date:	22/02/2010	Drawing size:	A4
Drawn by:	JF	Reviewed by:	DN
Projection:	GDA 1994 MGA Zone 56		
Scale:	Refer to Scale Bar		
<div><div> N</div><div><div>0</div><div>50</div><div>100</div><div>150m</div></div></div>			
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**

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Port Macquarie, Sydney

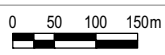




#### Legend

- Project Application Area
- Built Conservation Area
- Built Heritage Item
- Built Potential Heritage Item

Client:	Catylis		
Project:	Lower Hunter Land Development - Catherine Hill Bay		
Drawing No:	0111477s_CHB_GIS007_R0.mxd		
Date:	22/02/2010	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**

#### Location of Built Heritage Items

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### 5.3

#### **FIELD SURVEY RESULTS – BUILT HERITAGE**

This section deals with identified heritage items adjacent to, and within, the subject area. This ensures that a comprehensive approach is undertaken which adheres to recognised best practice and assists in identifying all potential heritage impacts. The location of these heritage items is shown in *Figure 5.2*.

The results of the built heritage assessment are divided into several sections:

- identified heritage items in the vicinity of the Catherine Hill Bay site ;
- potential heritage items in the vicinity of the Catherine Hill Bay site; and
- previously unassessed houses at Sawmill Camp.

#### 5.3.1

##### ***Identified Heritage Items In The Vicinity***

Clause 52 of the Lake Macquarie Local Environmental Plan 2004 requires that developments in the vicinity of Heritage items are accompanied by Heritage Impact Statements which consider

*“recommendations for the size shape and scale of setbacks for, and the materials to be used in, any proposed buildings or works and for any modifications that will reduce the impact of the proposed development on the heritage significance of the heritage item”*

By virtue of a heritage listing in the LEP, heritage items are ‘protected’ from adverse development that would compromise their heritage significance. This therefore means that a proposed development must consider the impact of the proposal on neighbouring heritage listed items along with listed items within the Catherine Hill Bay site.

#### 5.3.2

##### ***Conservation Area***

Catherine Hill Bay has been identified as being an Urban Conservation Area (UCA) by the NSW National Trust and is included on the LMLEP Heritage Schedule. The Urban conservation area incorporates the two precincts of Catherine Hill Bay and Middle Camp.

The view catchment of the UCA needs to be carefully considered in the planning of the new development.

### 5.3.3 *WWII RAAF Radar Station 208 (Former)*

The WWII RAAF Radar Station 208 (former) was included on the NSW SHR on 22 July 2008. The location of the Radar Station is shown in *Figure 4.8*.

The Radar Station has been included on the SHR for its historic heritage values. Changes to the context and setting of the former Radar Station need to be avoided.

### 5.3.4 *Potential Heritage Items In The Vicinity Of The Catherine Hill Bay Site*

These houses were identified as potential heritage items prepared by Suters Architects as part of the 1993 *City of Lake Macquarie Heritage Study: Volume 2: Inventory Arcadia (AV) to Kotara South (KS)*.

#### *8 Colliery Road (CH-30)*

This house is similar to those on Flowers Drive and is an example of a well preserved house of that era retaining its galvanised roof, brick chimney, lapped weatherboards and joinery such as the windows, door and verandah detailing.



*Photograph 5.1 8 Colliery Road*

*Cottage on Colliery Road (CH-31)*

Similar to the above mentioned property, this house, which is located to the other side of the road, is a well preserved largely intact version of the workers style cottage seen on Flowers Drive.



*Photograph 5.2 Cottage on Colliery Road*

*Workshop Building, Colliery Road (within the E Pit archaeological zone) (CH-28)*

The workshop building is a simple gabled roofed industrial shed with a lean-to style extension to the rear of the building. The building is timber framed and clad with corrugated iron to all elevations and topped by a galvanised iron roof with semi-circled ventilation intake to the ridge.



*Photograph 5.3 The 'Workshop' Building*

*Former Electrical Engineers House, Collier Road*

The former electrical engineers house is a larger version of the workers cottages on Flowers Drive. The plain rectangular house has a gabled galvanised iron roof. The gabled wall to the front elevation houses a verandah set under its own galvanised iron roof. Original joinery includes window hoods, French doors, moulded architraves, a turned finial on the end of the ridge small and a timber vent in the gable end.



**Photograph 5.4** *Former Electrical Engineers home, Middle-Camp, Catherine Hill Bay (1994)*

*Former Mine Engineers House Colliery Road (CH-27)*

Similar in appearance to the houses in Flowers Drive group except slightly larger with a higher roof. This timber framed house is clad with weatherboard and has a galvanised metal roof

The former mine engineers house has a verandah, with slender supporting posts and horizontal cladding beneath the balustrade. The verandah extends along the front façade and down the eastern elevation.



*Photograph 5.5 Mine Engineers house, Middle-Camp, Catherine Hill Bay (1994)*

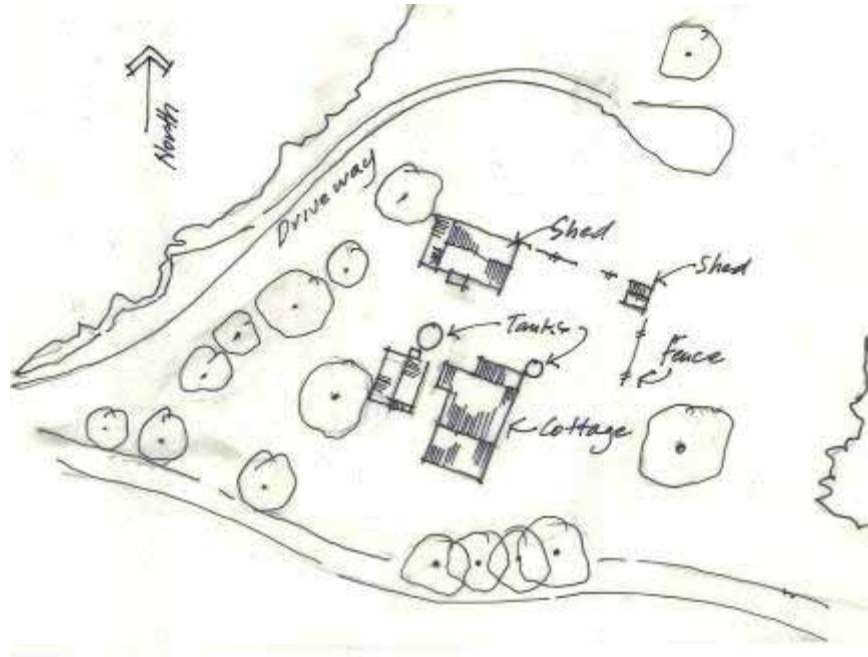
**5.3.5** *Previously Unassessed Houses At Sawmill Camp*

The houses at Sawmill Camp have been included in this heritage assessment as these houses are centrally located to the Catherine Hill Bay site. These houses are believed to date from the early industrial settling of the area.

These houses have not previously been identified as having heritage value.

### *Lot 12a Flowers Drive*

Lot 12a is located on the slope in the upper section of Sawmill Camp and is accessed by a gravel driveway to the east of Flowers Drive. This group of buildings are very much in the “industrial beach shack” vernacular and sit in an open lawn area with mature gum and Coral trees on the eastern, southern and western sides.



**Figure 5.3**      *Site Plan Lot 12a Flowers Drive*

Foundations appear to be a mix of brick surrounding a concrete floor in the front section where the rear section is supported on brick piers and supporting timber floors. The cottage has a roughly square floor plan and sits under a low gabled corrugated metal roof. Timber framed walls are clad in a mix of weatherboard profiles, one is traditional timber clap board, the other is also timber dating from the 1960s, and unpainted fibrous cement planking which is the dominate material. Windows are a mix of sliding aluminium, timber and louvres.



*Photograph 5.6 House and grounds Lot 12a Sawmill Camp*

To the west of the cottage is a small skillion roofed sleep out with a lightweight steel posted verandah over a concrete slab. North of this building is an outside toilet with a concrete water tank adjacent. Further to the north is an additional external toilet and beside this a corrugated iron clad shed with a shallow gabled roof. An open lean-to is attached to the northern and western sides of this supported on a tubular steel frame.

This group of buildings are of varying construction some of which would not comply with contemporary building standards.



*Photograph 5.7 Outbuilding/sleepout located at Lot12a Sawmill Camp*



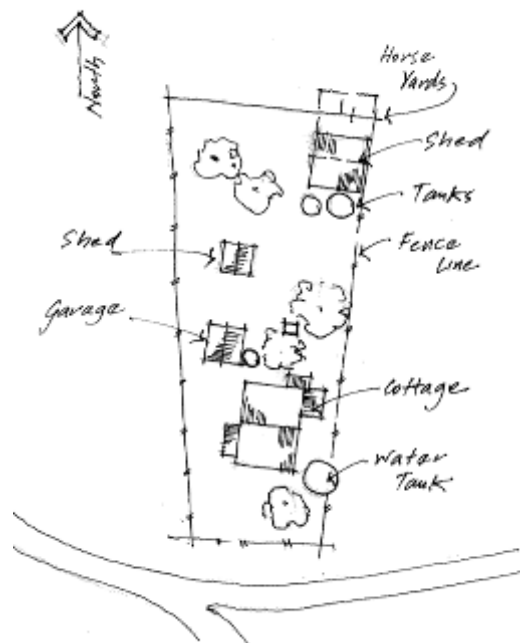
*Photograph 5.8 Large carport located in grounds*

The cottage has a good roof and appears to be in generally sound condition.

The condition of the outbuildings (sleep-out and shed) is poor and due to their standard of construction.

#### *105 Flowers Drive*

This property is accessed by a gravel driveway a short distance off Flowers Drive and is located in what would have been the central area of Sawmill Camp. The southern boundary is defined by a low post and rail fence and the eastern boundary is fenced with vertical corrugated iron. A large circular concrete water tank is positioned in the south east corner of the property. The property includes a cottage and a number of outbuildings on the slope to its north with surrounding garden of shrubs and mature fruit, exotic and native trees.



**Figure 5.4**     *Site Plan 105 Flowers Drive*

The cottage which is oriented to the south has a square plan form and shallow asymmetric gabled corrugated galvanised iron roof with a skillion section to the rear. A small lean-to verandah extends from the western side. An addition with a reversed skillion attaches itself to the north eastern corner which connects to the rear skillion. A verandah is connected to this addition. The cottage has been re-clad relatively recently in Cypress pine weatherboard and has aluminium windows. The building sits on precast concrete and brick piers and has timber subfloor and a mix of particleboard and tongue and grooved timber floors.



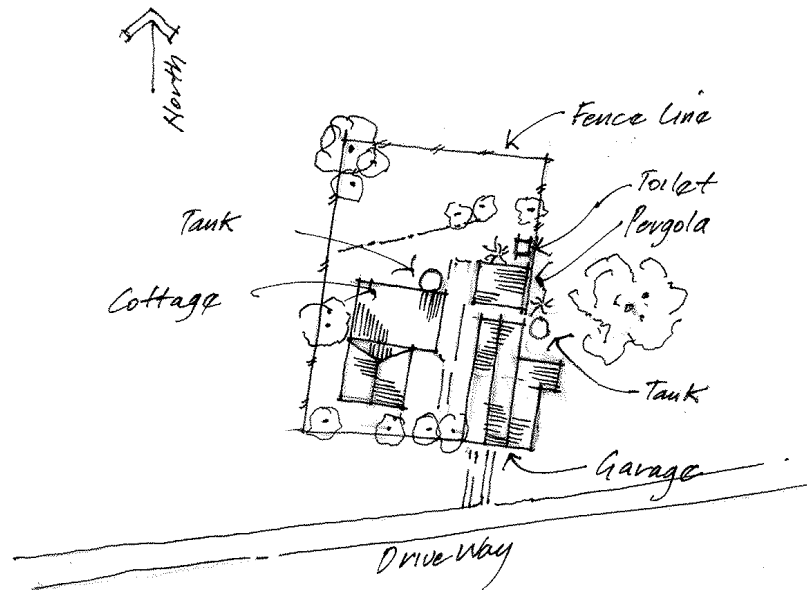
*Photograph 5.9 Front façade 105 Flowers Drive*

A number of out buildings are located to the north of the cottage. A metal framed metal sheet clad garage is located to the northwest and north of this is a prefabricated metal shed. A galvanised corrugated iron shed is located in the northeast corner of the property and between this and the cottage is a fibrous sheet clad disused toilet. Horse yards are situated at the northern extremity of the group of buildings. Round corrugated metal tanks and a round concrete tank are strategically positioned around the property to collect rain water.

The cottage appears structurally sound and is in relatively good condition however its foundations are suspect with evidence of extensive packing of supporting precast concrete and brick piers. The double garage and adjacent prefabricated metal shed are also in good condition. The rear shed is in poor condition and the disused toilet appears unstable. .

#### *Lot 3 Sawmill Camp*

Lot 3 Sawmill Camp is due east of 105 Flowers Drive and accessed off the gravel driveway from Flowers Drive. The allotment boundaries are defined by a low post and three rail fence on the western, southern, northern and part of the east sides. The property includes a cottage, outside toilet and double garage sitting on the south facing slope. Mature Cyprus Pencil Pines dominate the southern fence line and the rear yard has a number of mature fruit and other trees. Concrete paths run from the front boundary down the eastern side of the cottage and to a roofed out door area and up to the rear yard. The cottage is located towards the front of the allotment with the garage sited in the south east corner.



**Figure 5.5**      *Site Plan Lot 3 Sawmill Camp*

The cottage has an 'L' shaped plan form exhibiting a gable roof to the front elevation that transitions to a hip form which runs into a skillion section that runs out towards the east. Roofs are clad in 'colorbond'. The building is supported on precast concrete piers which support timber floors and timber framed walls. Walls are clad in timber weatherboard on part of the eastern side with fibrous cement vertical ribbed sheeting covering southern and western walls and the balance of the eastern wall. The northern wall is clad in flat fibrous cement sheet. Windows are a mixture of sliding aluminium and sliding timber types with windows on the northern, western and part of the southern sides covered with corrugated 'colorbond' awnings.



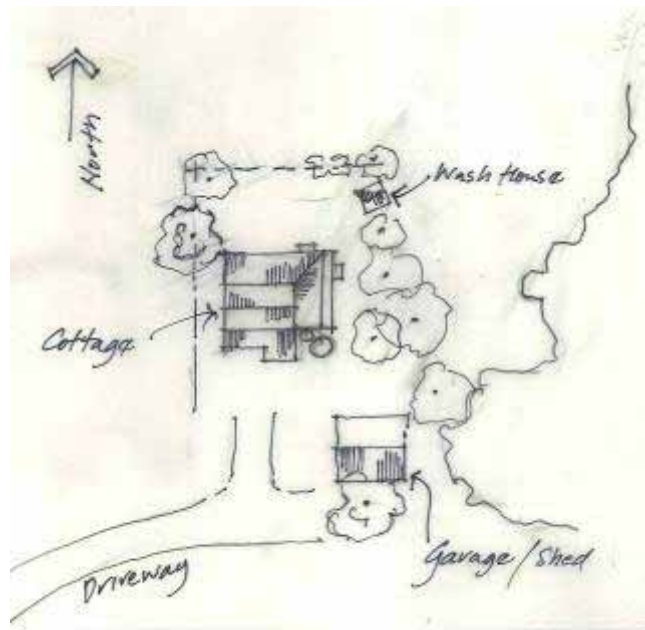
*Photograph 5.10 Front façade of Lot 3 Sawmill Camp*

The garage is a gable form with a later skillion added to half the length of the eastern side. A rough lean-to is attached to the rear of this. Both sections are clad with corrugated galvanised iron and have double timber doors facing the driveway.

The cottage and its surrounding grounds are in good condition and well maintained. The garage however is in fair condition with several items of required maintenance noted.

#### *Lot 5a Sawmill Camp*

Lot 5a is the eastern most cottage in the existing Sawmill Camp group of dwellings. It is located northeast of Lot 5 with access off the shared driveway from Flowers Drive. The property has no fences to speak of but its boundaries are defined by the alignment of shrubs and mature trees. Buildings on the property consist of a cottage, garage and wash house.



**Figure 5.6** *Site Plan Lot 5a Sawmill Camp*

The cottage which was built c1940 by the current occupant's father is an example of "industrial beach shack" vernacular architecture. It has a gabled roof central section with skillion roofs off this facing south and north. The southern verandah has been infilled with a skillion roofed addition attaching to the southeast corner. Two phases of skillion roofed additions are on the eastern elevation. Projecting metal clad bays can be seen on the eastern and northern elevations which presumably provide storage cupboard functions internally. Round corrugated metal water tanks are positioned to collect rain water on the northern and southern sides. Roofs are clad with unpainted corrugated zincalume. The building is founded on precast concrete piers with flat metal ant caps supporting timber bearers and floor joists. Exterior cladding is a mix of various profiles of unpainted and partially painted timber weatherboards and fibre cement sheet. Windows are a mixture of sliding aluminium and double hung timber. Exterior doors are timber.



*Photograph 5.11 Front façade Lot 5a Sawmill Camp*

A small corrugated galvanised iron gable roofed timber framed shed is located in the northeast corner of the property which may have functioned as a wash house at some stage. A partially collapsed two bay garage is located at the south eastern corner of the property. This has a flat roof and has corrugated galvanised iron cladding over a rough timber frame.

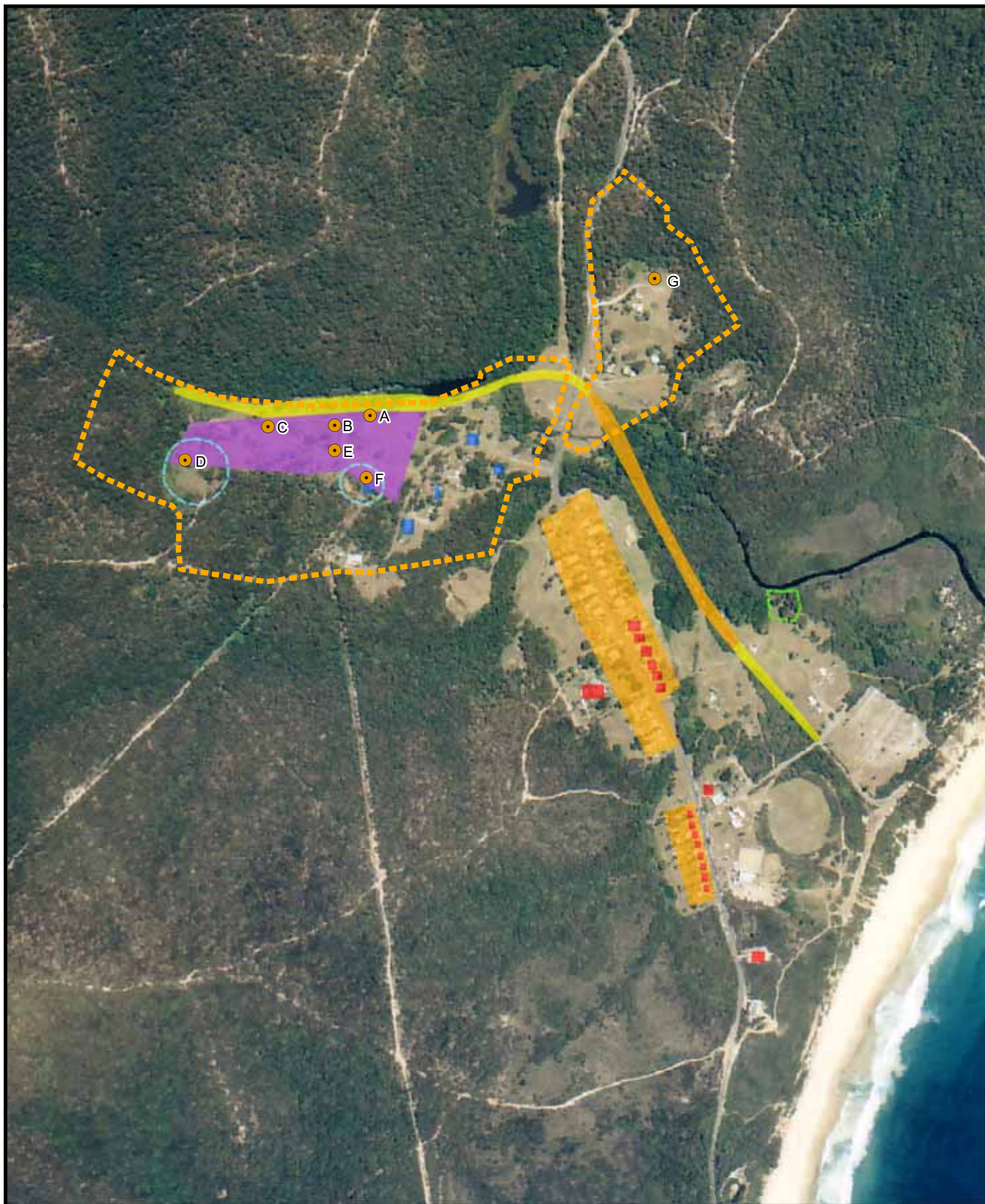
The cottage is in fair to poor condition due to its rudimentary construction in parts and as a result of a lack of maintenance. It has a new roof and the foundation appears sound. The walls appear to be true indicating that the structural frame is sound. The appearance of this building could be enhanced by removing areas of fibre cement sheet and re-cladding these sections with weatherboard to match the existing, replacing aluminium window with new double hung timber window, installing window in south verandah and having the building painted. It is highly probable that fibre cement sheet in this building is asbestos cement which would need to be removed in accordance with recognised environmental practice.

Both the garage and wash house are in very poor condition and are considered to be beyond economic repair and should be demolished.





#### 5.4

#### *FIELD SURVEY RESULTS – HISTORICAL ARCHAEOLOGY*

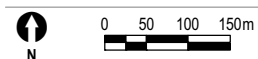
The results of historical archaeology field survey identified seven features of historical interest, and one additional item which should be conserved although it is not a heritage feature. The results of the survey, shown in *Figure 5.7*, confirmed that the zone previously defined as 'E Pit' should be treated as an area with historical archaeological potential.



#### Legend

-  Project Application Area
-  Built Conservation Area
-  Built Heritage Item
-  Built Potential Heritage Item

Client:	Catylis
Project:	Lower Hunter Land Development - Catherine Hill Bay
Drawing No:	0111477s_CHB_GIS008_R0.mxd
Date:	22/02/2010
Drawn by:	JF
Projection:	GDA 1994 MGA Zone 56
Scale:	Refer to Scale Bar



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**Figure 5.7**  
**Heritage Features and**  
**Archaeological Zoning**

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### 5.4.1 *Historical Archaeology Inventory Sheets*

The results of the historical archaeology survey are provided in the inventory sheets below. One sheet has been prepared for the E Pit in its entirety, a series of sheets have been prepared for individual elements within E Pit and additional sheets have been prepared for two additional elements identified outside E Pit.

<b>Item</b>	CHB Railway Embankment.
<b>Location</b>	Through the Catherine Hill Bay site, north of the cemetery.
<b>Description</b>	An earth embankment, approximately 3-4 m wide and up to 4 m in height that runs from the south of this area to the north. The embankment is composed of earth, gravel and other ballast material. No remains of rail track or sleepers were observed. This embankment is a component of the railway which extends from the end of the jetty through E Pit and north past Saw Mill Camp.
<b>Archaeological potential</b>	Low (following the assessment undertaken by HLA and GML for the EJE CMP for the Moonee Colliery [2005]).



*Photograph 5.12 Showing the commencement of the embankment within the Catherine Hill Bay site (north of the cemetery). Vegetation grows from either bank, but the top of the embankment remains free from vegetation and is used as a walking track.*

<b>Item</b>	E Pit archaeological zone – individual elements within E Pit have been identified and discussed further below. These are described as items A to F.
<b>Location</b>	To the west of Flowers Drive and the north of Colliery Road. This former colliery pit occupies a large zone between two smaller ridges in the landscape to the north and south. A creek defines the northern boundary, Flowers Drive the east, the houses positioned on a ridge the south and a drainage line at the base of a gully the western boundary.
<b>Description</b>	The zone contains the landscape remains of the former colliery workings. One residual standing building
<b>Archaeological potential</b>	High. Potential for remains relating to the working of the pit. Landscape evident shows the former location of the buildings and their foundations. Some potential for archaeological relics relating to the house in the south west corner.

<b>Item</b>	E Pit – item A. Area of former coal loader and Marcus Screens.
<b>Location</b>	See <i>Figure 5.7</i> . Positioned at the base of a series of terraces above the creek.
<b>Description</b>	A flat landform with a series of terraces, which include earth pads extending out from the lowest terrace. Evidence for railway line routes across the zone. A series of concrete pads set either side of the railway define where pillars would have been located that supported to building above.
<b>Archaeological potential</b>	Low potential because of removal of all residual buildings and alteration of landscape and operations during the 1950s. Excavation of the area would not reveal further information except possibly the method used to create the earth pads and terraces.



**Photograph 5.13** *Showing the location of the former railway line, with concrete pads that would have supported the building overhead. Earth pad (right) location where building would have been located.*

<b>Item</b>	E Pit – item B. Terracing within E Pit from the lowest railway line to the workshop area.
<b>Location</b>	See <i>Figure 5.7</i> . To the west of the coal processing and loading infrastructure.
<b>Description</b>	A series of three flat earth terraces with sloping banks in between. Each terrace is around 10 m wide, where the bank rises ~3 m between terraces. Middle terrace contains limited remains of concrete footing, from a former building.
<b>Archaeological potential</b>	Low potential. Unlikely to provide new information relating to former building locations or function.



*Photograph 5.14 View from the lowest terrace looking to the second. Third terrace at top of frame.*

<b>Item</b>	E Pit – item C. Cistern and building foundations.
<b>Location</b>	See <i>Figure 5.7</i> .
<b>Description</b>	<p>This area contains the remains of a circular brick and concrete cistern and two former buildings (either side). The cistern is a circular feature approximately 3.5 m in diameter. It has been constructed from machine pressed bricks which have been set into a concrete base and lined with concrete. Only 50% of the feature remains. This is probably part of the water tank described in the background history, see <i>Chapter 4</i>.</p> <p>Either side of the cistern are the partial concrete remains of rectangular building wall foundations. All of these features run parallel to the former alignment of a railway track and are located on the ‘second terrace’.</p>
<b>Archaeological potential</b>	Low. The remains of the cistern and two buildings appear to have been removed during the 1960/1970s robbing of the site. It is unlikely that the cistern was filled with relics or artefacts that could provide further evidence for the layout of E Pit.



*Photograph 5.15 Brick remains of the cistern.*

<b>Item</b>	E Pit – item D. Former house site, confirmed with inspection of 1955 aerial photograph.
<b>Location</b>	See <i>Figure 5.7</i> . Positioned within the southwest corner of the Catherine Hill Bay site on the edge of a spur landform which extends from the south. This location provides excellent views over E Pit.
<b>Description</b>	<p>The former house site is approached via a defined road alignment, which cuts into the rising bank in front of and around the house. The former location of the house has become densely vegetated in an approximate rectangular shape, limited evidence for building materials was observed in the form of limited amounts of brick, sandstone blocks and concrete. A small rectangular earth pad was located to the south of the house, which correlates with the position of the out building as seen on the 1955 aerial.</p> <p>The garden of the house contains a double rowed brick drain that leads to a mature lemon tree, presumably positioned at the bottom of the garden.</p>

**Archaeological potential**

High potential for the remains of the house structure (foundations and possibly internal layout and subfloor occupation deposits), evidence for garden plantings and layout, evidence for out buildings location and function.



*Photograph 5.16 Remains of possible footings from the house (above). Lemon tree and driveway (below).*

<b>Item</b>	E Pit – item E. Flat area where workshop and other buildings were located. Extends from the entrance to E Pit past the workshop building.
<b>Location</b>	See <i>Figure 5.7</i> . On the highest terrace adjacent to the standing workshop buildings.
<b>Description</b>	A series of rectangular earthen pads built up approximately 0.2 m where buildings were clearly located. Area also contains the remains of a bitumen road that leads west towards item D.
<b>Archaeological potential</b>	Low. Zone is unlikely to contain any remains of the former buildings. There is an absence of footings suggesting buildings were shed like in nature and constructed onto earthen pads.



*Photograph 5.17 Showing the flat upper terrace and the remains of the bitumen road. Zone contained one large and a series of small buildings, as seen on 1955 aerial.*

<b>Item</b>	E Pit – item F. The workshop building. This has been described above.
<b>Location</b>	See <i>Figure 5.7</i> . On the edge of E Pit.
<b>Description</b>	See built heritage. The building is suffering impacts from a white ant infestation which has impacted some of the wooden internal supporting beams. Building has suffered from a low level of vandalism.
<b>Archaeological potential</b>	Low. Concrete foundations and footings. No potential for additional subsurface remains.
<b>Item</b>	Saw Mill Camp – item G. Concrete and brick surface.
<b>Location</b>	See <i>Figure 5.7</i> . To the north of Saw Mill Camp on a slope.
<b>Description</b>	A small area containing a flat concrete surface and associated laid bricks. Some landscaping indicating the former location of a house or building. These features create a flat surface that probably abutted an out building or former house, as seen in this area on the 1955 aerial.
<b>Archaeological potential</b>	Low, all remains visible on the surface.



*Photograph 5.18 Showing the remains of bricks and the concrete surface.*

Initial consultation with the local Aboriginal community indicated that Aboriginal heritage issues were associated with the potential for Aboriginal heritage sites in the Catherine Hill Bay site (see *Chapter 2.1* for details of the Aboriginal consultation process).

No new Aboriginal heritage sites were located within the boundaries of the Catherine Hill Bay site during the survey. No sites were located along the third order watercourse, however this area was heavily vegetated, which prevented through inspection of the ground surface.

The Hamlet Colliery Catherine Hill Bay site (E Pit) was bounded by a creek, and heavy vegetation was present along the creek line. Thick grass and shrubby vegetation, including bitou bush and bracken fern, were present across the majority of the Catherine Hill Bay site. Soil was noted to be brown sandy loam overlying red clay. Horse paddocks, roads and houses were present in the Catherine Hill Bay site, and heavy landscape modification, mining subsidence and historical construction were noted throughout the area.

The Sawmill Camp was bounded to the north and east by a creek, which was densely vegetated, and by Flowers Drive to the west. Houses, driveways and horse paddocks were present through the centre of the Catherine Hill Bay site, and the landscape had been heavily modified in this area.

Disturbance in the form of rubbish dumping along the creek, landscape modification for erosion control and industrial/residential development (both in the historic period and more recently), and mine subsidence was present in all of the Catherine Hill Bay site. Houses and horse paddocks were also present in all of the Catherine Hill Bay site.

Conglomerate and chert/tuff were seen as cobbles and basal stone within the Catherine Hill Bay site, and coal outcropped in all of the areas as well.

Some large trees were present throughout the Catherine Hill Bay site, particularly along the creek lines, but none appeared to bear Aboriginal scarring from the pre-contact and contact period.

Although no new Aboriginal sites were found within the Catherine Hill Bay site, surface evidence can sometimes be an unreliable guide to subsurface archaeological content where the soil surface is bare but not eroded, however the eroded exposures in the study area provided a “window” into the topsoil archaeological content. The absence of artefacts from these exposures, and the previous disturbance of the Catherine Hill Bay site, can be regarded as an indication of the archaeological paucity of the Catherine Hill Bay site, and thus a lack of Aboriginal archaeological research potential. Given the level of disturbance that has occurred throughout the Catherine Hill Bay site, *in situ* archaeological material is not predicted to remain and as such, there is no archaeological potential, except in the swampy area outside the Catherine Hill Bay site (see *Figure 5.7*). This area has been assigned the status of Aboriginal PAD (Potential Archaeological Deposit) but is well outside the impact area for this development.

## 6.1

## ASSESSMENT OF BUILT AND HISTORICAL HERITAGE SIGNIFICANCE

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 Branch, Department of Planning, has developed a guideline to assessing heritage significance against the seven criteria in their publication *Assessing Heritage Significance*. These criteria are:

- 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.

## 6.2 *PROPERTIES LISTED ON THE LEP AND PREVIOUSLY IDENTIFIED ITEMS OF HERITAGE POTENTIAL*

No further assessment of previously identified heritage items or items of heritage potential has been carried out as part of this assessment. This is due to the fact that the heritage value of the locally listed items has been validated by their inclusion on the LEP and the heritage values of the potential Heritage items have been validated by their identification in the 1993 *City of Lake Macquarie Heritage Study: Volume 2: Inventory Arcadia (AV) to Kotara South (KS)* prepared by Suters Architects.

## 6.3 *ANTICIPATED SHR LISTING*

The proposed listing of the Catherine Hill Bay Cultural Precinct on the SHR has been considered by ERM. This proposed listing reflects the importance of the Catherine Hill Bay and Middle Camp areas to the mining history of NSW. The comments on the proposed listing provide additional information to enhance and clarify some of the details in the listing. These are included as *Annex E* to this report.

## 6.4 *ASSESSMENT OF SIGNIFICANCE AGAINST CRITERIA FOR PREVIOUSLY UNASSESSED ITEMS (BUILT HERITAGE)*

Cultural heritage significance is not constrained to a particular type but is inclusive of all aspects and elements of the built, industrial, landscape and archaeological environment. The significance assessment below concerns the unlisted houses identified in *Chapter 5* being:

- Lot 3, Sawmill Camp;
- Lot 5a, Sawmill Camp;
- Lot 12a, Sawmill Camp; and
- 105, Flowers Drive.

### *Criterion (A)*

The aforementioned houses are considered to be representative examples of vernacular style architecture which was associated with the miners cottages are Catherine Hill Bay.

However it is considered that these buildings have a low level of historical integrity and that there are better examples in the immediate area. Particular reference is made to the houses in the conservation area and those along Flowers Drive.

None of the assessed dwellings meet the threshold for this criterion.

#### *Criterion (B)*

The houses are associated with the former miners and their families. This association is also true of the other buildings in the area and therefore can not be considered special.

None of the assessed dwellings meet the threshold for this criterion.

#### *Criterion (C)*

The construction of the abovementioned houses is consistent with the vernacular style of architecture common in Australia. Furthermore the integrity of the houses has been degraded over the years and by unsympathetic alteration, addition, repairs and the removal of original fabric.

None of the assessed dwellings meet the threshold for this criterion.

#### *Criterion (D)*

As mentioned in criterion B the houses are associated with the former miners of Catherine Hill Bay. However it is considered that there are more intact examples of this form of workers style cottage within the immediate area.

None of the assessed dwellings meet the threshold for this criterion.

#### *Criterion (E)*

The houses are unlikely to contain sufficient historic archaeological deposits to provide a worthwhile contribution to the existing knowledge of the time period.

None of the assessed dwellings meet the threshold for this criterion.

#### *Criterion (F)*

The houses are typical in design and are not considered to be rare or endangered at either a local or state level.

None of the assessed dwellings meet the threshold for this criterion.

#### *Criterion (G)*

As mentioned previously the houses are similar in appearance and style to many others and do not have characteristics that are unusual or will provide any further information.

None of the assessed dwellings meet the threshold for this criterion.

#### **6.4.2**      *Statement Of Significance – Built Heritage*

It is considered that none of the previously unassessed buildings located within Sawmill Camp display any rare or unusual characteristics that would warrant protection as heritage items.

Similarly, it is considered that while there is an association with the former miners and their families, this association is better illustrated by other buildings within the area especially those located along Flowers Drive and Colliery Road.

#### **6.5**      *ASSESSMENT OF SIGNIFICANCE AGAINST CRITERIA FOR HISTORICAL ARCHAEOLOGY*

The survey of the Catherine Hill Bay site has identified that two significant landscape features exist within the Colliery Hamlet Catherine Hill Bay site. These are the former CHB colliery railway (which has been assessed as part of the EJE CMP 2005) and the E Pit area. Therefore these items are assessed against the criteria.

#### *Criterion (A)*

The alignment and embankment of the CHB railway provides evidence at a local level for the movement of coal within the area. The realignment of the railway into the E Pit area provides evidence for the continuity of human activity (mining) within a new zone at CHB.

The E Pit area is important in the course and patterning of CHB's history. The history of mining and the residual evidence present evinces the role of mining activities and the need to modify the natural landscape to accommodate this process.

These values are significant at a local level.

#### *Criterion (B)*

The E Pit area, its history and the landscape remains within the zone provide direct evidence for significant human occupation and the life work of the miners who worked the colliery. This connection is associated at the local level.

#### *Criterion (C)*

The identified archaeological features do not meet this criterion.

#### *Criterion (D)*

The identified archaeological features do not meet this criterion.

#### *Criterion (E)*

The CHB railway embankment does not meet this criterion because physical archaeological research into the embankment would not provide any new information relating to its formation, route or use.

The E Pit area has the potential to yield information relating to the historical operation of the Wallarah Colliery. This information is primarily related to the residual landscape, where features such as the terracing, remnant physical elements (such as concrete and earth pads) and configuration will allow for further understanding of how the colliery operated and its final configuration.

The former location of a house associated with E Pit (positioned on the spur in the south west corner) has the potential to reveal new archaeological information relating to the location, position, configuration of this house. Material culture archaeological deposits associated with the house have the potential to reveal information relating to the lives and habitation of the residents from the end of the 19<sup>th</sup> century to the mid 20<sup>th</sup>.

These values are significant at a local level.

#### *Criterion (F)*

The identified archaeological features do not meet this criterion.

### *Criterion (G)*

The rail embankment formation and alignment is important at the local level because it demonstrates how coal was transported to the jetty.

The residual landscape features and configuration of the E Pit area demonstrate the layout and process of coal processing techniques in the early twentieth century. The positioning of the E Pit workings within the landscape demonstrates how the natural features were adapted to suit the colliery's purposes. The positioning of houses surrounding the E Pit demonstrates the relationship between workers dwellings and their place of work.

These values are significant at a local level.

#### **6.5.2**

#### ***Statement of Significance –Historical Archaeological Heritage***

Overall, the railway embankment and alignment is significant at a local level because it provides direct evidence for the transportation of coal from the processing areas to the loading zone on the jetty. The railway was one of the earliest features constructed at CHB and continued to be used, adapted and modified to suit the purposes of the working mine. The railway also provides direct evidence for the connection between the different working coal faces (i.e. Pits A through to E). Its route connects each pit together and spans the length of CHB.

The E Pit area is significant at a local level because it represents the development and continuation of mining activities from the beginning of the twentieth century through to the closure of operations. The residual landscape features and characteristics of the E Pit area provide a direct record for the former buildings that used to cover this zone. Landscape modification was undertaken within E Pit to suit the needs and purposes of machinery and coal processing. Residual landscape evidence for these processes remains within the zone.

The E Pit also contains an area with historical archaeological potential – that is the site of a former mine house in the south west corner. The separation and distance of this house from other features and houses associated with E Pit suggests that the house may have belonged to a mine or pit manager – a person with higher status who warranted a dwelling overlooking the mine, but separated by distance from other houses.

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 heritage objects and sites within the Catherine Hill Bay site and obtain enough information to allow the values of those objects and sites to be determined.

Research and consultation with the Aboriginal community was also conducted to determine whether any heritage value relates specifically to the Catherine Hill Bay site regardless of the archaeological evidence. While it is accepted that the Lake Macquarie and Wallarah landscape is of significance to local Aboriginal people, including GTLAC, ATOAC, ADTOAC and BLALC, this study sought to identify whether the Catherine Hill Bay site held specific values either in itself, or as part of a specific local area of particular significance. To date no information has been received that identifies specific heritage value unrelated to the Aboriginal sites.

Aboriginal heritage sites with archaeological evidence are all of value to the Aboriginal community through the tangible connection they represent to 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 sites, 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 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. 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.

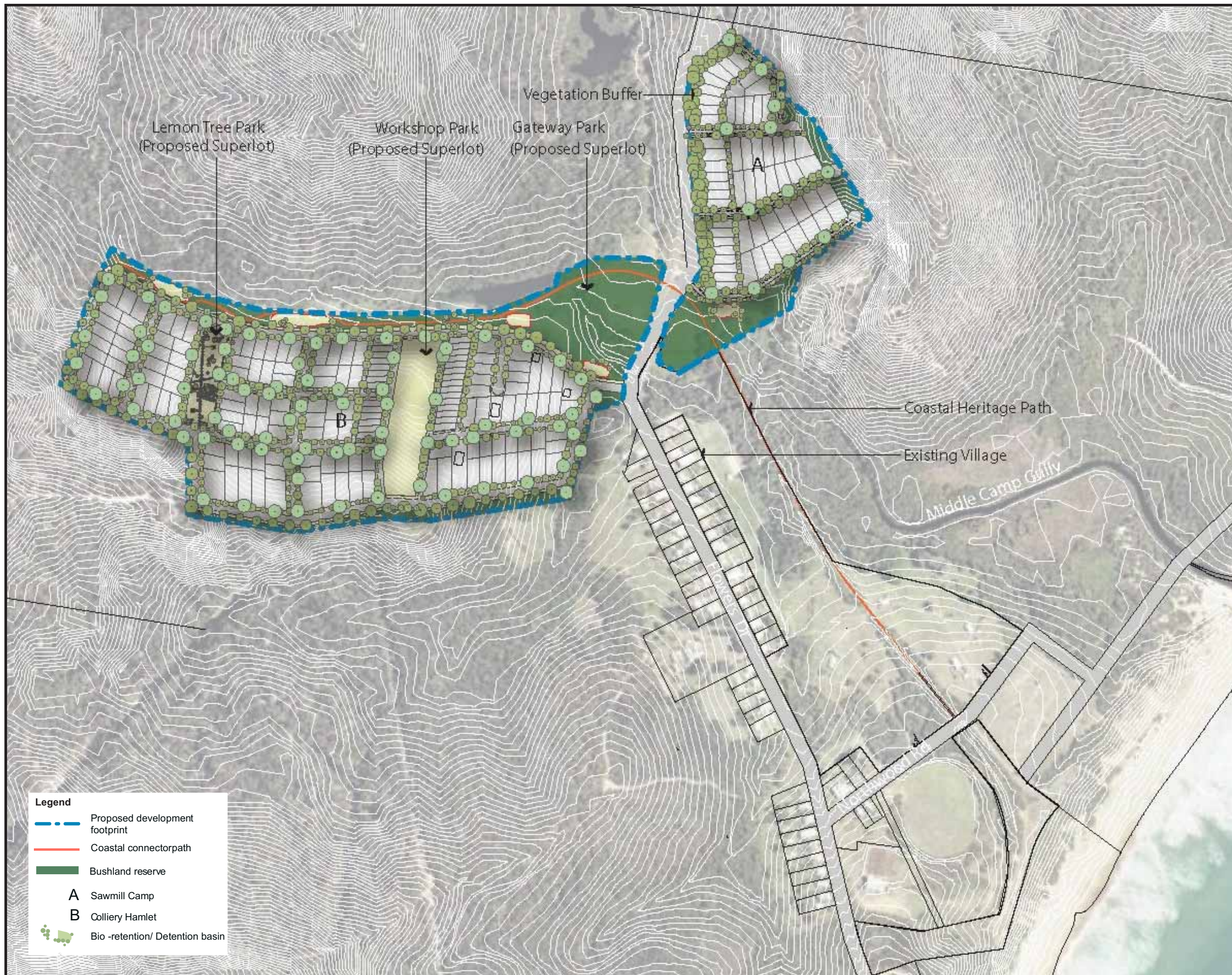
The capacity of a site to address research questions is predicated on a definition of what the key research issues are for a region. In the areas of Lake Macquarie and the Wallarah peninsula, the main archaeological research questions centre around the antiquity and content of middens, and to a lesser extent on stone artefact manufacturing technology and raw material sources. While there is a general pattern in Australian archaeology of stone artefact sites concentrated along watercourses, this appears to be less pronounced along the coast. Sites not conforming to this pattern may be of interest for research potential. Well preserved, mounded or stratified midden sites would also be significant for answering research questions.

Given the lack of surface evidence, the previous disturbance and negligible potential for subsurface archaeological material, the Catherine Hill Bay site is of low scientific/research significance, with the exception of the swampy area along the northern boundary in the south-east portion of the Catherine Hill Bay site. This area is of moderate scientific/research significance for its potential to reveal Aboriginal artefacts at a focus of Aboriginal occupation, in an area where disturbance has prevented many Aboriginal sites from remaining intact.

The concept plan for Catherine Hill Bay (Middle Camp) is shown in *Figure 7.1*. If this is compared against *Figure 5.2* and *5.8*, it can be seen that the proposed development impacts areas with E Pit and possibly a portion of the zone assigned with moderate Aboriginal archaeological potential.

The concept plan includes provision for retention of the railway embankment along its extent, as part of Gateway Park and the Bushland reserve (this route will also preserve some of the terracing and former building locations [earth pads] located within E Pit). A Bushland reserve has been proposed around part of the E Pit area with high historical archaeological potential, with an additional buffer provided through the proposed Lemon Tree Park. Workshop Park is proposed around the E Pit workshop building, which would create a visual buffer around this building and also conserve some of the landscape terracing associated with the site.







## 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)

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

### **BUILT HERITAGE**

The work undertaken as part of the preparation of this study has identified potential heritage constraints relating to the buildings identified in the 1993 *City of Lake Macquarie Heritage Study: Volume 2: Inventory Arcadia (AV) to Kotara South (KS,)* prepared by Suters Architects, as potential heritage items (see highlighted sections of *Table 4.3*). Of the buildings identified in the above-mentioned heritage study it is considered that the buildings within Colliery Road are most likely to be impacted if exposed to unsympathetic development.

The key challenges with these buildings are considered to be:

- achieving a suitable adaptive re-use for the workshop building; and
- ensuring suitable development in the vicinity of the heritage items located within Colliery Road

These potential impacts are illustrated in *Figure 8.1* which demonstrates the constraints and opportunities associated with the proposed development.

The proposed development incorporates the houses and Workshop in the E Pit Area, with the identified mine houses retained on allotments within the subdivision and the workshop within a proposed superlot. This will be combined with interpretation of the E Pit area to ensure the heritage values of this part of the study area are recognised and conserved.

### 8.2.1

#### *Impacts on the Catherine Hill Bay Heritage Conservation Area (LEP) and Cultural Precinct (proposed SHR)*

The following discussion has been informed by the questions required by the NSW Heritage guideline for Statements of Heritage Impact for development adjacent to a State listed heritage item. These questions are provided at *Annex F* for ease of reference.

The Concept Plan has been sensitively designed to address potential heritage impacts of the proposed development on the Heritage Conservation Area and Cultural Precinct, and has been informed by the following requirements:

- protection of views to and from heritage dwellings, and along Flowers Drive, which is a key attribute of the Middle Camp area within the Conservation Area and proposed Cultural Precinct;
- adaptive re-use of the potential heritage items located on Colliery Road and within the development zones;
- judicious use of plantings to provide additional screening between new development and existing heritage places; and
- design that allows a continued, and indeed enhanced, appreciation of the heritage values of the proposed Cultural Precinct by the wider community and visitors to Catherine Hill Bay, including interpretation.

The Concept Plan, developed as a result of consultation meetings has taken these issues into consideration, and has sought to incorporate heritage items and manage potential impacts. The design controls that will apply to the residential character of the development areas will be incorporated in the Statement of Commitments for the project.

The public open space networks include the opportunity to interpret the historic heritage values of Middle Camp.

The new development will be comprised of appropriately scaled new buildings in consistent materials, colours and finishes to ensure views and the overall setting of Middle Camp are not adversely affected.

The key issues for the Heritage Conservation Area and proposed Cultural Precinct are the potential visual impact on the historic village character of Middle Camp and impacts on the E Pit Archaeological Zone. These potential impacts are discussed in further detail below.

An overlay of the proposed Cultural Precinct, the E Pit Area and the Concept Plan is shown in *Figure 8.2* to illustrate how the planning of the proposed new development has considered the heritage values of Catherine Hill Bay.

### *Visual Impact Discussion*

As already discussed in the CHB HIA, any development of previously undeveloped land surrounding a Conservation Area or heritage item/s will have a visual impact. The key consideration for Middle Camp is whether the potential visual impact is acceptable and whether the visual impact directly relates to the heritage values of the Conservation Area, proposed Cultural Precinct or heritage item/s.

While the proposed development will be visible from approaches north and south to Middle Camp along Flowers Drive, and from Flowers Drive itself, it is considered that it will have an acceptable impact to the visual catchment of Middle Camp for the following reasons:

1. The siting of the proposed development areas respects the visual and physical heritage curtilage established by the proposed Cultural Precinct. The location of the proposed development is in a natural valley, which substantially limits visual impacts from Flowers Drive.
2. The historic heritage values of Middle Camp arise from the development of the camp, the land tenure and an association with the mine. These historic heritage values will not be impacted by the proposed development.
3. It is considered that Middle Camp has aesthetic significance derived from the uniformity of building form, scale, materials and set back from the street. These attributes are best viewed and appreciated from Flowers Drive and it is considered that the proposed development will not challenge these aesthetic attributes.
4. A vegetation buffer will be established between Middle Camp and proposed new development. This provides a visual separation and green corridor between the 'old' and 'new'. The buffer also provides the new development with a separate village character which is visually and physically separated from the existing settlement.
5. The new development will be of complementary bulk, scale, height materials and colours to Middle Camp, which will ensure that the new development is visually consistent with the historic buildings along Flowers Drive. It is recommended that the Catherine Hill Bay Design Guidelines provide some guidance on construction techniques to achieve a balance between variety in design outcomes and avoiding visual and archaeological impacts to Middle Camp and the E Pit Archaeological Zone. The preference is for lightweight building materials and technology to be used, for example residences on stumps/piers rather than slabs for those houses adjacent to the E Pit Archaeological Zone and the existing houses along Flowers Drive. This will further ensure that the development is sympathetic to the landscape, setting and existing built character of Middle Camp.

6. Although some bushland will have to be cleared to develop the area, the intention is to retain corridors of heath through the developed areas. This will lessen the visual impact of the development from this view point as it will retain the regenerated bushland setting of Middle Camp and provide screening for the new development.
7. As noted in Annex E, the proposed E1 Zoning (Conservation Lands) of the land adjacent to the development and the proposed Cultural Precinct will provide ongoing protection of the bushland setting of Catherine Hill Bay, which includes the E Pit Archaeological Zone.
8. The proposed development will continue and enhance the community and visitors' appreciation of and access to the heritage values of Catherine Hill Bay through respect for the proposed Cultural Precinct and the provision of onsite interpretation of the mining history including the archaeological resources of E Pit.

The potential visual impact of the proposed development on Middle Camp is acceptable as it does not adversely impact the heritage values of the individual buildings, surrounding areas and proposed Cultural Precinct. The proposed development has also been planned to respect the visual catchment of Middle Camp. This has been achieved by the creation of visual buffers and the selection of complementary bulk, scale, materials, and colour. The retention of areas of heath land will also provide additional buffering and screening between the new and old developments.

#### *E Pit (Colliery Hamlet) Archaeological Zone Impact Discussion*

The proposed development has the potential to impact the landscape elements and area with high archaeological potential in the E Pit Archaeological Zone.

The proposed development also has the potential to impact and obscure the alignment and remnants of the Catherine Hill Bay Colliery Railway located in both Sawmill Camp and Colliery Hamlet Catherine Hill Bay site.

Impacts to the main archaeological items with assessed heritage value can be mitigated through design of appropriate public open spaces and the creation of walking tracks. If appropriately designed, these new landscape elements would conserve the heritage items and areas and create a new level of awareness and understanding of the historical elements.

A range of mitigation measures are available that will assist in managing the historic archaeological impacts of the proposed development. These measures are provided in the following Chapter.

### 8.2.2

#### *Impacts on the WWII RAAF Radar Station 208 (Former)*

The proposed development is located approximately 1km to the south-west of the Radar Station. The proposed residential development will not have any physical or visual impacts on the Radar Station site and its heritage values. Increased traffic flow through the increased population will be controlled to minimise effects on Flowers Drive, and the location of the Radar Station is such that additional traffic on this route will not affect its heritage values.

The incorporation of the Radar Station within the Conservation Lands is a positive outcome for the site. This will ensure its historic setting continues to be conserved for current and future generations, and will allow public access to the site. It is possible that the site may be interpreted by National Parks as one of many cultural heritage sites under its management.

### 8.3

#### *HISTORICAL ARCHAEOLOGICAL HERITAGE*

As discussed above, the proposed development has the potential to impact the landscape elements and area with high archaeological potential in the E Pit area of the Colliery Hamlet. The proposed development has the potential to impact and obscure the alignment and remnants of the Catherine Hill Bay Colliery Railway located in the eastern portions of the Catherine Hill Bay site and E Pit. *Figure 5.7* identifies the location of these heritage items.

Impacts to the main archaeological items with assessed heritage value can be mitigated through design of appropriate public open spaces and the creation of walking tracks. If appropriately designed these new landscape elements will not only conserve the heritage items and areas, but create a new level of awareness and understanding of the historical elements. Some aspects of the E Pit have the potential to be impacted by the development. These impacts should be mitigated appropriately – see *Chapter 10*.

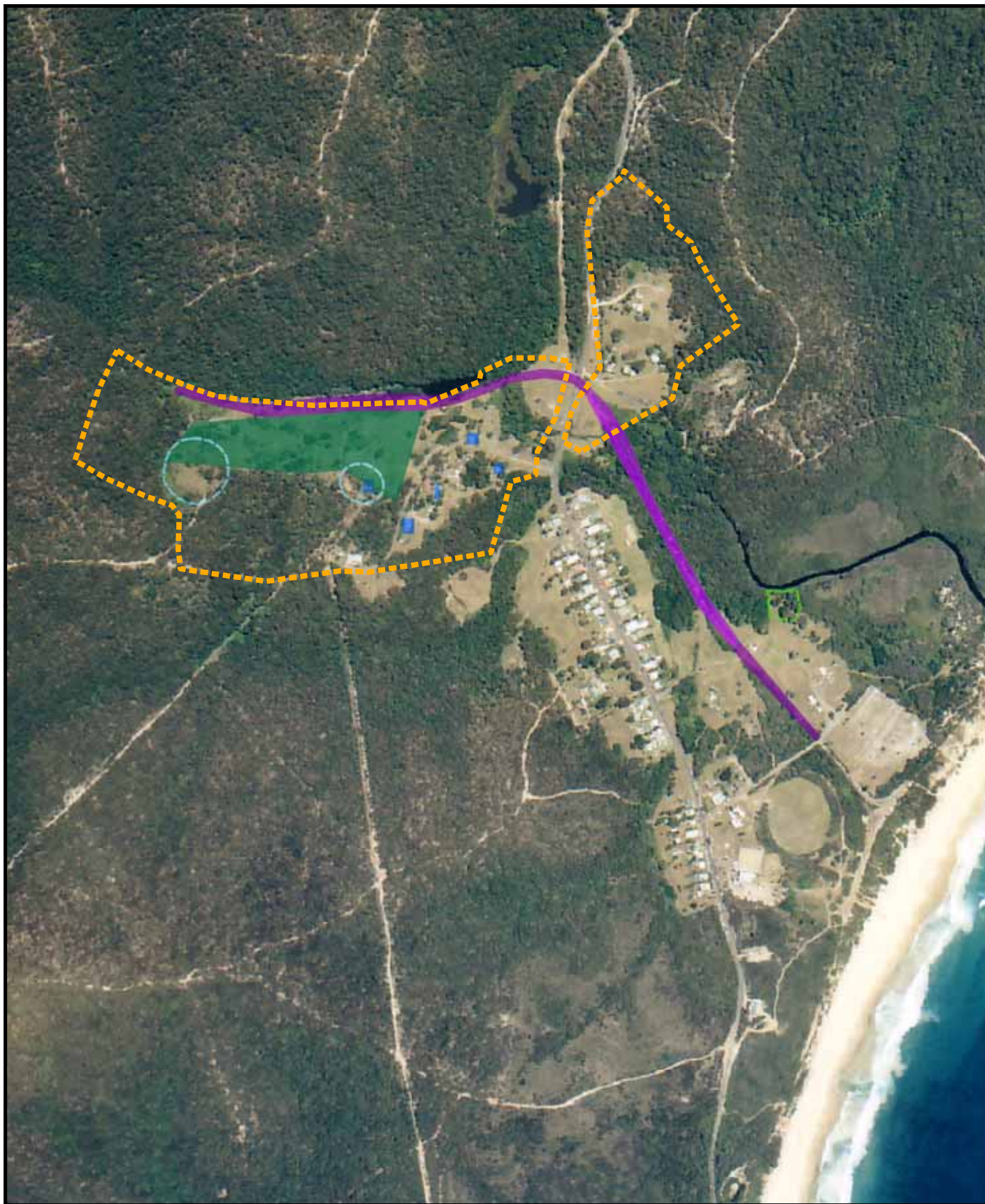
### 8.4

#### *ABORIGINAL HERITAGE*

No impact to known Aboriginal heritage sites will result from the proposed development.

One PAD, with a moderate level of archaeological potential, has been identified. This PAD is located outside the Catherine Hill Bay site in an area of the swampy land. This PAD will not be impacted by the development.

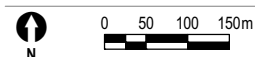
The assessment of archaeological potential across the Catherine Hill Bay site indicates that CHB has in general a low potential for the discovery of undetected subsurface Aboriginal heritage material. This assessment is based upon an understanding of the known archaeology of Lake Macquarie and the Wallarah Peninsula, the surface evidence and historical disturbance to the area.



#### Legend

- Project Application Area
- E Pit Conservation Zone
- Aboriginal PAD
- E Pit Boundary
- Railway Line
- Railway Line Embankment
- Built Potential Heritage Item

Client:	Catylis
Project:	Lower Hunter Land Development - Catherine Hill Bay
Drawing No:	0111477s_CHB_GIS009_R0.mxd
Date:	22/02/2010
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 8.1**  
**Heritage Constraints**

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





### Legend

-  Proposed Curtilage
-  SHR Curtilage
-  LGAs
-  Suburbs
-  Land Parcels
-  E Pit Archaeological Zone
-  Concept Plan

**Source:**

- Heritage Council of New South Wales

Client:	Catyis and Coal & Allied		
Project:	Lower Hunter Land Development Heritage Impact Assessment		
Drawing No: 0111477s_CHB_C002_R0.cdr			
Date:	11/10/2010	Drawing size:	A4
Drawn by:	GC	Reviewed by:	SJ
Scale:	Refer to Scale Bar		



0                      200                      400m

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 8.2

**Overlay of Proposed SHR Cultural Precinct, Concept Plan and E Pit Archaeological Zone**

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



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 Catherine Hill Bay 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 Catherine Hill Bay site, which are presented in *Chapter 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 on the site. The statement of commitments is made in accordance with *EP&A Act 1979*: Part 3A Division 2 Section 75F [6].

A Draft Statement of Commitments has been prepared as part of the Environmental Assessment. The draft Statement of Commitments defines the environmental management and mitigation measure the proponent is prepared to make for on the site.

### **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. The Act establishes the State Heritage Register (SHR). Development affecting items on the SHR requires approval by the NSW Heritage Council. Places included on the SHR are also required to have a Conservation Management Plan prepared.

The Act also provides automatic statutory protection to 'relics'. Under recent amendments to the Act, a 'relic' is now defined as:

*any deposit, artefact, object or material evidence that:*

*(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*

*(b) is of State or local heritage significance.*

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 Catherine Hill Bay. 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.

### **9.3 COMMONWEALTH LEGISLATION**

#### **9.3.1 *Aboriginal And Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)***

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* protects areas and/or objects which are of significance to Aboriginal people and which are under threat of destruction. The Act can, in certain circumstances override State and Territory provisions, or it can be implemented in circumstances where State or Territory provisions are lacking or are not enforced. A significant area or object is defined as one that is of particular importance to Aboriginal people according to Aboriginal tradition. The Act must be invoked by or on behalf of an Aboriginal or Torres Strait Islander or organisation.

#### **9.3.2 *Environment Protection And Biodiversity Conservation Act 1999 (Commonwealth)***

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the protection of matters of National Environmental significance and the environment generally on Commonwealth land. Impacts on the Aboriginal heritage must be considered as part of environmental impact assessment during land-use planning. A referral must be made to the Department of Environment and Water Resources (formerly the Department of Environment and Heritage) where a significant impact is anticipated on matters of National Environmental significance or the environment of Commonwealth land.

Coal & Allied has submitted a referral under the EPBC Act as part of the study process. The referral was submitted for all three of the Southern Estates (Nords Wharf, Catherine Hill Bay and Gwandalan) and was declared a controlled action. The application was approved by the Federal Environment Minister subject to conditions in March 2010.

This section contains provisions for the mitigation of impacts resulting from the proposed development on the heritage values of the Catherine Hill Bay 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

### 10.1.1 Built Heritage

It is important that the heritage values of Catherine Hill Bay are protected and managed into the future. No additional items of heritage value were discovered during the course of the field work undertaken for the preparation of this report. The previously identified heritage values or potential heritage values were found to be valid.

In order to manage the potential heritage impacts of the planned development, the following mitigation options are recommended:

- incorporate the existing heritage sites around Colliery Road into the new development;
- adaptively re-use potential heritage items;
- ensure heritage specialist input to the low scale design for new development to assist with reducing visual impacts on the on the Conservation Area (LEP) and proposed Cultural Precinct (SHR);
- use sympathetic materials and roof forms for the new development. These should be are similar to, whilst not mimicking, the existing materials and roof forms;
- include guidance in the Catherine Hill Bay Design Guidelines on construction techniques to achieve a balance between variety in design outcomes and avoiding visual and archaeological impacts to Middle Camp and the E Pit Archaeological Zone. The preference is for lightweight building materials and technology to be used, for example residences on stumps/piers rather than slabs for those houses adjacent to the E Pit Archaeological Zone and the existing houses along Flowers Drive. This will further ensure that the development is sympathetic to the landscape, setting and existing built character of Middle Camp;

- maintain existing vegetation where possible, and provide additional buffer plantings between Middle Camp and the proposed development to assist with minimising visual impacts on the Conservation Area (LEP) and proposed Cultural Precinct (SHR);
- develop a heritage interpretation strategy to guide the provision of on-site interpretation, which could include potential heritage walks or trails, signage about the history and heritage significance of the area; and
- prepare an archival record of the area prior to commencement of development. This record should be made available in a local repository such as the Council library and in the State Library or Archives.

### 10.1.2 *Historical Archaeological Heritage*

Previous assessment of the archaeological and landscape heritage values at CHB identified a number of items. The survey and assessment has confirmed that the E Pit area has a local level of archaeological significance and potential and that the railway alignment is also significant at a local level. To conserve this historical archaeological significance during the development it is recommended that the following impact mitigation measures be undertaken:

- prepare an archival record of the E Pit area to a standard of local significance in accordance with the NSW Heritage Office Department of Planning guideline. This should include landscape elements of former building locations and a detailed survey plan (not a mud map);
- undertake interpretation of the E Pit area and the former railway. This should include a history of the area and the Pit, based upon the archival recording and historical research, such as that presented in this report;
- during earth breaking activities within E Pit ensure that appropriate stop work procedures are in place in the case of unforeseen archaeological discoveries. Any remaining archaeological deposits uncovered should be recorded and monitored by a suitably qualified archaeologist; and
- should any artefacts be identified in the course of development all adjacent works should cease and an assessment of the material should be conducted by an archaeologist.

## 10.2 *ABORIGINAL HERITAGE*

The identified PAD will not be impacted by this development, therefore no further management of this site is required.

The following general protection measures are recommended:

- 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;
- should any Aboriginal objects be identified in the course of development all adjacent works should cease and an assessment and recovery of the material should be conducted by an archaeologist working with relevant local Aboriginal community groups;
- 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;
- ensure that on-site information about the heritage requirements is in place for the construction phase for the construction team; and
- provide site interpretation in green spaces explaining the types of sites that occur in the region, subject to agreement with the relevant local Aboriginal community groups.

This HIA has determined that the proposed development at Catherine Hill Bay-Middle Camp has the potential to impact on the historic buildings, archaeological areas, Conservation Area (LEP) and proposed Cultural Precinct (SHR) in the Catherine Hill Bay study area. Provided the mitigation measures outlined in this HIA are implemented by Coal & Allied, the potential impacts on historic heritage values will be avoided or managed to an acceptable level. The proposed development incorporates on site heritage interpretation elements that will allow for continued, and enhanced, access and appreciation of the significant heritage values of Catherine Hill Bay, which contributes to the long term conservation of these values.

Impacts on Aboriginal heritage are unlikely to occur, particularly if the precautionary approach outlined in the mitigation recommendations is implemented.

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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
28-Jun-07	Native Title Services	N/A	Search of NINTT 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 Wanurua Claim and was dismissed, and one was for the Wonnarua People and was discontinued.
28-Jun-07	DECCW	Brendan Diacono	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	Registrar of Aboriginal Owners	Megan Mebberson	Email requesting groups to consult. Email received 29/06/07 specifying that no Aboriginal owners are known for the area.
28-Jun-07	Wyong Shire Council	Chris Ferry	Email requesting groups to consult. Email received 4/07/07 directing us to contact DECCW, which we have already done.
28-Jun-07	Lake Macquarie City Council	Mary Loder	Email requesting groups to consult. Resent on 25/07/07 as no response had been received. Email received 8/8/07 saying to contact Bahtabah LALC.
28-Jun-07	Bahtabah LALC	Michael Green	Phone call discussing project and checking whether a representative would be available for survey on 9-10 July. Email to this effect giving details, map and requesting groups to consult.
28-Jun-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Phone call regarding project; left message. Email discussing project, giving map and asking whether a representative would be available for survey on 9-10 July; also requesting groups to consult.
28-Jun-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Phone call regarding project; confirmed that they would be available for survey on 9-10 July. Email giving proposed survey details, map and requesting groups to consult.
28-Jun-07	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Email discussing project, giving map and asking whether a representative would be available for survey on 9-10 July; also requesting groups to consult.
05-Jul-07	Mur-Roo-Ma Inc.	Anthony Anderson	Email discussing project, giving map and asking whether the Catherine Hill Bay site are within their area of interest; also requesting groups to consult.
05-Jul-07	Wonn1 Contracting	Arthur C. Fletcher	Email discussing project, giving map and asking whether the Catherine Hill Bay site are within his area of interest; also requesting groups to consult.

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

Date	Organisation/group/individual	Contact Name	Details
28-Jun-07	Bahtabah LALC	Michael Green	Phone call discussing project and checking whether a representative would be available for survey on 9-10 July. Email to this effect giving details, map and requesting groups to consult.
28-Jun-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Phone call, registering interest in being consulted.
28-Jun-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Phone call registering interest.
29-Jun-07	Awabakal Descendents Traditional 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	Michael Green	Email of methodology and invitation to participate in fieldwork; survey date of 9-10 July 2007.
29-Jun-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Email of methodology and invitation to participate in fieldwork; survey date of 9-10 July 2007.
29-Jun-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Email of methodology and invitation to participate in fieldwork; survey date of 9-10 July 2007.
29-Jun-07	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Email of methodology and invitation to participate in fieldwork; survey date of 9-10 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
31-May-07	Awabakal Descendents Traditional Owners Aboriginal Corporation	Shane Frost	Draft report sent, with feedback form to fill out if desired; comments requested by 15/06/07.
31-May-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Draft report sent, with feedback form to fill out if desired; comments requested by 15/06/07.
31-May-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Draft report sent, with feedback form to fill out if desired; comments requested by 15/06/07.
31-May-07	Bahtabah LALC	Michael Green	Draft report sent, with feedback form to fill out if desired; comments requested by 15/06/07.
31-May-07	Wonn1 Sites Officer	Arthur C. Fletcher	Draft report sent, with feedback form to fill out if desired; comments requested by 15/06/07.

**Table A.6 Consultation Stage 3: Aboriginal Comments Received**

Date	Organisation/group/individual	Contact Name	Details
4-Jun-07	Awabakal Descendants Traditional Owners Aboriginal Corporation	Shane Frost	Phone call indicating agreement with findings of report.
6-Jun-07	Guringai Tribal Link Aboriginal Corporation	Tracey-lee Howie	Fax of feedback form indicating agreement with report.
8-Jun-07	Awabakal Traditional Owners Aboriginal Corporation	Kerrie Brauer	Fax of feedback form indicating agreement with report.
20-Jun-07	Bahtabah LALC	Michael Green	Phone call indicating agreement with findings of report.
20-Jun-07	Wonn1 Sites Officer	Arthur C. Fletcher	Phone call indicating agreement with findings of report.

Annex B

## Effective Coverage Table



*Table B.1 Effective Coverage*

Transect	Landforms	Description	Approximate Area (m <sup>2</sup> )	Approximate Area surveyed (m <sup>2</sup> )	Visibility	Exposure	Effective coverage (m <sup>2</sup> )	Sample fraction (%)	Number of artefacts within Catherine Hill Bay site
<b>COLLIERY HAMLET</b>									
T1	Flat	Along road in north east of the Catherine Hill Bay site	2500	100	0.8	0.9	72	3	0
T2	Creek	Along creek at northern end of the Catherine Hill Bay site	16800	1260	0.6	0.05	37.8	0.3	0
T3	Slopes	Along southern end of the Catherine Hill Bay site	10500	1750	0.7	0.1	122.5	1.2	0
T4	Slopes, creeks	Around houses at south eastern end of the Catherine Hill Bay site	2000	300	0.9	0.2	54	2.7	0
T5	Flat	Around houses at south eastern end of the Catherine Hill Bay site, and along Colliery Road	2600	650	0.5	0.2	65	2.5	0
T6	Slopes	Centre of eastern part of the Catherine Hill Bay site	4000	200	0.05	0.01	0.1	0.03	0
T7	Slopes	Centre of the Catherine Hill Bay site	1400	700	0.6	0.1	42	3	0
T8	Flat	Centre of the Catherine Hill Bay site	900	630	0.6	0.1	37.8	4.2	0
T9	Slopes	Western end of the Catherine Hill Bay site	4800	560	0.4	0.01	2.24	0.05	0
T10	Creek	Northern end of the Catherine Hill Bay site	1200	645	0.7	0.05	22.6	2	0
T11	Slopes	From creek to road through centre of the Catherine Hill Bay site	3300	1100	0.6	0.05	33	1	0
T12	Ridge	Road from houses, to access road	3000	300	0.5	0.1	15	0.5	0

Transect	Landforms	Description	Approximate Area (m <sup>2</sup> )	Approximate Area surveyed (m <sup>2</sup> )	Visibility	Exposure	Effective coverage (m <sup>2</sup> )	Sample fraction (%)	Number of artefacts within Catherine Hill Bay site
Sub-Total			53000	8195			504.04	1	0
<b>SAWMILL CAMP</b>									
T1	Flat	Railway embankment at south west of the Catherine Hill Bay site	280	120	0.2	0.01	0.24	0.09	0
T2	Flat	Along road at southern end of the Catherine Hill Bay site	3000	400	0.9	0.8	288	9.6	0
T3	Creek	Forested area in south east of the Catherine Hill Bay site	2400	120	0.1	0.01	0.12	0.005	0
T4	Slopes	Forested area in east and north east of the Catherine Hill Bay site	2600	280	0.5	0.05	7	0.3	0
T5	Flat	Along road at northern end of the Catherine Hill Bay site	1600	320	0.95	0.9	274	17.1	0
T6	Slope	Forested area in north west of the Catherine Hill Bay site	900	150	0.4	0.02	1.2	0.1	0
T7	Slope	Along road at western end of the Catherine Hill Bay site	1200	160	0.6	0.2	19.2	1.6	0
T8	Slope	Through paddock on western side of the Catherine Hill Bay site	1800	180	0.8	0.05	7.2	0.4	0
T9	Slope	Through paddock on eastern side of the Catherine Hill Bay site	2000	200	0.8	0.05	8	0.4	0
Sub-Total			15780	1930			604.96	3.8	0
<b>Total</b>			<b>53000</b>	<b>8195</b>	<b>0</b>	<b>0</b>	<b>504.04</b>	<b>1</b>	<b>0</b>

Annex C

## Catherine Hill Bay Heritage Conservation Area Listing





# *Government Gazette*

OF THE STATE OF

NEW SOUTH WALES

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**Thursday, 20 March 2008**

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*Containing numbers 34, 35 and 36  
Pages 2395 – 2466*



New South Wales

## Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)

under the

Environmental Planning and Assessment Act 1979

I, the Minister for Planning, make the following local environmental plan under the *Environmental Planning and Assessment Act 1979*. (N07/00117/PC)

FRANK SARTOR, M.P.,  
Minister for Planning

Clause 1 Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)

---

## **Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)**

under the

Environmental Planning and Assessment Act 1979

### **1 Name of plan**

This plan is *Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)*.

### **2 Aims of plan**

The aims of this plan are:

- (a) to rezone the land referred to in clause 3 (a) from Zone 10 Investigation Zone to Zone 2 (1) Residential Zone under *Lake Macquarie Local Environmental Plan 2004* so as to allow for urban development on the land, and
- (b) to remove the word “Proposed” from the Zone Index Map Legend depicted as “Proposed Heritage Conservation Area” on the map for the purposes of *Lake Macquarie Local Environmental Plan 2004*.

### **3 Land to which plan applies**

This plan applies:

- (a) with respect to the aim referred to in clause 2 (a), to Lots 21 and 22, Section N, DP 4339, The Boulevarde, Killingworth, as shown edged heavy black and lettered “2 (1)” on Sheet 1 of the map marked “Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)” deposited in the office of the Council of the City of Lake Macquarie, and
- (b) with respect to the aim referred to in clause 2 (b), to land shown on Sheets 2 and 3 of the map marked “Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)” deposited in the office of the Council of the City of Lake Macquarie.

Lake Macquarie Local Environmental Plan 2004 (Amendment No 30)

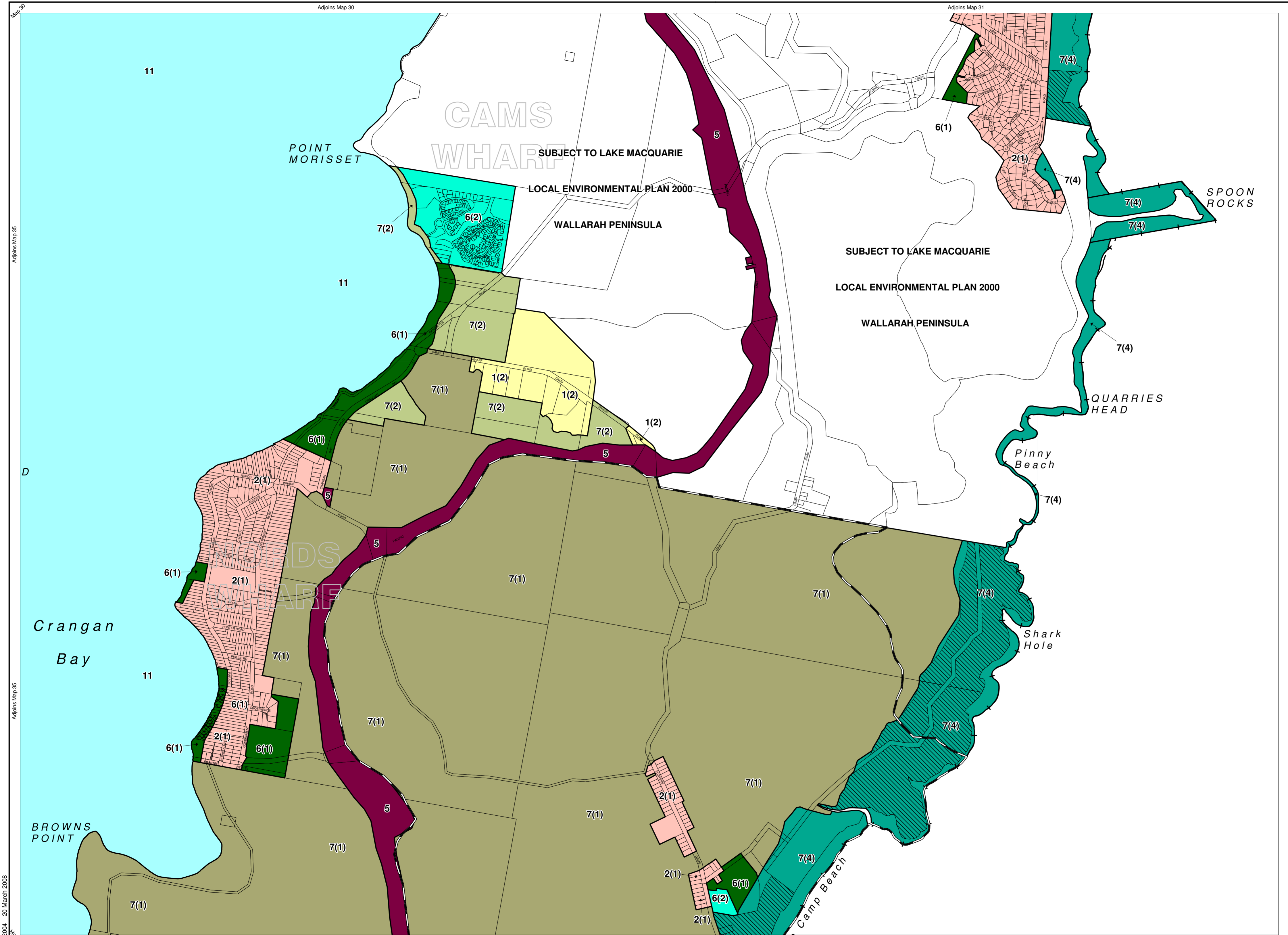
Clause 4

---

**4 Amendment of Lake Macquarie Local Environmental Plan 2004**

*Lake Macquarie Local Environmental Plan 2004* is amended by inserting in appropriate order at the end of the definition of *the map* in the Dictionary the following words:

Lake Macquarie Local Environmental Plan 2004  
(Amendment No 30)



**ZONE INDEX**  
LEP 2004

**1. RURAL**  

1(1) 1(1) Rural (Production)

1(2) 1(2) Rural (Living)

**2. RESIDENTIAL**  

2(1) 2(1) Residential

2(2) 2(2) Residential (Urban Living)

**3. BUSINESS**  

3(1) 3(1) Urban Centre

3(2) 3(2) Urban Centre (Support)

**4. INDUSTRIAL**  

4(1) 4(1) Industrial (Core)

4(2) 4(2) Industrial (General)

4(3) 4(3) Industrial (Urban Services)

**5. INFRASTRUCTURE**  

5 5 Infrastructure

**6. OPEN SPACE**  

6(1) 6(1) Open Space

6(2) 6(2) Tourism and Recreation

**7. ENVIRONMENTAL PROTECTION**  

7(1) 7(1) Conservation (Primary)

7(2) 7(2) Conservation (Secondary)

7(3) 7(3) Environmental (General)

7(4) 7(4) Environmental (Coastline)

7(5) 7(5) Environmental (Living)

**8. NATIONAL PARK**  

8 8 National Park

**9. NATURAL RESOURCES**  

9 9 Natural Resources

**10. INVESTIGATION**  

10 10 Investigation Zone

**11. LAKE AND WATERWAYS**  

11 11 Lake and Waterways

**12. ACQUISITION**  

Acquisition (LMCC)

Acquisition (RTA)

Acquisition (Dept. of Planning)

**13. OTHER**  

Heritage Conservation Area

Local Government Boundary

DISCLAIMER:  
Maps in this series represent the zone boundaries for the Lake Macquarie Local Environmental Plan 2004. These zone boundaries are shown relative to the cadastral boundaries shown on these maps.  
  
Although every care has been taken in the preparation of these maps, Lake Macquarie City Council accepts no responsibility for any misprints, errors, omissions, inaccuracies in these maps or damages resulting from the use of this information.

**SHEET INDEX**

Last Amendment No. : 30  
Last Update : 20 March 2008



**ZONE INDEX**  
LEP 2004

- 1. RURAL**  
1(1) Rural (Production)  
1(2) Rural (Living)
- 2. RESIDENTIAL**  
2(1) Residential  
2(2) Residential (Urban Living)
- 3. BUSINESS**  
3(1) Urban Centre  
3(2) Urban Centre (Support)
- 4. INDUSTRIAL**  
4(1) Industrial (Core)  
4(2) Industrial (General)  
4(3) Industrial (Urban Services)
- 5. INFRASTRUCTURE**  
5 Infrastructure
- 6. OPEN SPACE**  
6(1) Open Space  
6(2) Tourism and Recreation
- 7. ENVIRONMENTAL PROTECTION**  
7(1) Conservation (Primary)  
7(2) Conservation (Secondary)  
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7(4) Environmental (Coastline)  
7(5) Environmental (Living)
- 8. NATIONAL PARK**  
8 National Park
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Heritage Conservation Area  
Local Government Boundary

DISCLAIMER:

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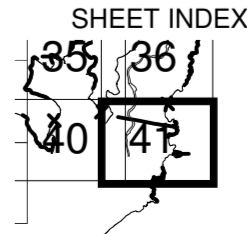
Revision 1 - LEP 2004 20 March 2008  
Map 41

Integrated Survey Grid (ISG 56/1)

SCALE 1:10 000

© Surveyor-General's Department, 2000  
© Lake Macquarie City Council, 2003

ENVIRONMENTAL PLANNING & ASSESSMENT ACT , 1979  
**LAKE MACQUARIE LOCAL ENVIRONMENTAL PLAN 2004**  
PUBLISHED IN GOVT GAZETTE NO.55 DATED 19 March 2004  
LOCALITY **CATHERINE HILL BAY**



Last Amendment No. : 30  
Last Update : 20 March 2008

## Annex D

### Proposed SHR Listing Citation





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Research

Development

Conservation & Technical

Funding

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## Catherine Hill Bay (Draft)

### Item

**Name of Item:** Catherine Hill Bay (Draft)

**Other Name/s:** Catherine Hill Bay Village, Catherine Hill Bay Conservation Area

**Type of Item:** Complex / Group

**Group/Collection:** Landscape - Cultural

**Category:** Historic Landscape

**Primary Address:** Flowers Drive, Catherine Hill Bay, NSW 2281

**Local Govt. Area:** Lake Macquarie

#### Property Description:

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
-----------------	-------------------	----------------	-----------------	-------------------

**Boundary:** Refer to HC Plan 2342

#### All Addresses

Street Address	Suburb/Town	LGA	Parish	County	Type
Flowers Drive	Catherine Hill Bay	Lake Macquarie	Wallarah	Northumberland	Primary

### Statement of Significance

The current boundaries of the Catherine Hill Bay Heritage Conservation Area provide a distinctive, even unique, unity of landscape, dwellings and coal mining infrastructure. The extended settlement at Catherine Hill Bay has significance for both its landscape and its buildings. The buildings form good streetscapes and are a constant reminder of the settlement's origins as a nineteenth century mining village. Distant views over the town are as important as close up views. The distinctive urban pattern of the main village may be appreciated in its bush and coastal setting, particularly on the important northern approach. The high visibility of the main village precinct, including rear yard areas, makes it highly sensitive to new development.

The original buildings, most of which date from the 1890s to the 1920s were mostly small vernacular cottages. There were very few buildings recognisable as belonging to a particular style, or period. Each building is unique, but all display a high degree of consistency in terms of size, scale, form, setbacks, siting and materials. The integrity is also good generally, relative to other older precincts in Lake Macquarie." Both Catherine Hill Bay village and Middle Camp village are rare in Lake Macquarie City, as examples of "Company Town" developments. Company town infrastructures survive in the Upper Hunter and other parts of Australia but Lake Macquarie mine developments were generally less organised. Uniform development of these villages has produced unique townscape. Catherine Hill Bay has picturesque and distinctive historic townscape, and land/seascapes unrivalled in Lake Macquarie. Catherine Hill

Bay has the oldest group of buildings in Lake Macquarie. The settlement is also an important archaeological resource for Lake Macquarie, with considerable potential as an industrial heritage site.

Catherine Hill Bay is significant for four key themes: A Mining Company Town, Strikebreaking, A Lost Town, A Historic Town.

These themes are the results of different degrees of historic, social and aesthetic significance. Aesthetic significance is manifested in the both built form and landscape.

Catherine Hill Bay Heritage Conservation Area, because of its location and geological character, is significant for the key role played by the nineteenth century company towns in the development of Australian resources. Catherine Hill Bay is significant for its continuing association with coal mining since the 1870s. This development is clearly evidenced by remnants of railways, the structures and the extent of untouched landscape. Catherine Hill Bay's association with tourism and recreation dates back to reports from the early 1930's. Extensive and varied landscapes are a key factor of the tourist quality of Catherine Hill Bay."

**Date Significance Updated:** 27 Jul 10

Note: There are incomplete details for a number of items listed on the State Heritage Register. The Heritage Branch intends to develop or upgrade statements of significance for these items as resources become available.

---

## Description

**Designer:** Various coal mining companies from 1870s

**Builder:** Various coal mining companies from 1870s

**Construction Years:** 1874 -

**Physical Description:** Catherine Hill Bay is a small coastal town 26 kilometres south of Newcastle and 100 kilometres north of Sydney, located on the Wallarah Peninsula bordered by Lake Macquarie to the west and the Pacific Ocean to the East. The township consists mostly of modest miners' cottages lining both sides of the road through the town, which is the location of evident and easily accessible remnants of mining infrastructure from the 19th century to the present.

"The first and most familiar impression of Catherine Hill Bay is gained from the south at the corner of Clarke Street and Montefiore Street where the dramatic landforms of the headland and beach dominate the rows of small houses stepping down the hill.

"The second and most familiar impression is gained from the north along Flowers Drive where the jetty and headlands are sighted. Another key view of Clarke St and Lindsley St marks the beginning of Cowper Town which follows the boundaries of the original Plan of Cowper town of 1870 and 1888. Only two of the proposed eight streets have been developed but the street alignment remains as paddocks which act as a constant reminder of development proposed but never realised. While the landscape features provide a strong backdrop, the quality of the streets is derived from the low scale built form and highly consistent pattern of predominantly one storey weatherboard cottages. This reflects the historical association with the company.

"The appreciation of the natural topography occurs at three levels. Firstly as the dramatic vista appreciated on arrival at the Catherine Hill Bay Area. Second as the general backdrop to development which has occurred predominantly in the lower more sheltered areas. Thirdly as a varied and dramatic juxtaposition of landscapes which range from exposed ridges and cliff forms to sheltered sloping land.

"The appreciation of the built environment occurs at four levels. Firstly as part of the dramatic vista where the scale of the town is easily dominated by the topography. Secondly as a collective group of repetitive houses stepping up and down the hills. Thirdly the size and siting of major buildings such as the jetty,

hotel and service administration facilities is clearly distinguished against the patterns of repetitive houses and landform. Fourthly, the detail and finishes of the individual houses."

**Physical Condition and/or Archaeological Potential:**

Catherine Hill Bay village is the oldest collection of buildings in Lake Macquarie, providing "distinctive historical townscapes and land/seascapes, unrivalled in Lake Macquarie" , with scale, fabric and interrelationship of the features largely retained and in good condition. The Area is a tremendous archaeological resource with great potential as an industrial heritage site (Lake Macquarie Heritage Study, Catherine Hill Bay, Sutters, Doring, Turner 1992-93) . Bushland is in good ecological condition and of greater value for biological conservation than other coastal localities (DUAP "Planning Report: Strategic Review of Coastal Development - Wallarah Peninsula (Lake Macquarie LGA). **Date Condition Updated:** 10 May 05

**Modifications and Dates:**

Ongoing

**Current Use:**

Residential community

**Former Use:**

Town/Village

## History

**Historical Notes:**

In its heyday as a mining community Catherine Hill Bay had a school, a post office, court house, three churches, butchers and bakers, a doctor and midwife, several stores, and a meeting hall. A private railway ran from the mine to the jetty where coal was loaded onto '60-miler' colliers for shipment to Sydney and later Newcastle. There were once miners' lodges, women's' auxiliaries, friendly societies, a parents and citizens' association, brass bands, sporting clubs, even a male voice choir. Much of this heritage is documented by the community and it being collated by the Catherine Hill Bay Progress Association, which celebrated its centenary in 2001. The Association currently is mapping the derelict Mine Camp and interviewing people whose families lived there for their stories, and preparing a comprehensive social history of the HCA's houses and their families over the past century. The community has inaugurated a regular Heritage Festival and exhibits to celebrate this heritage and attract visitors.

For all that has been lost, enough remains at Catherine Hill Bay to tell a powerful story of place and people. The landscape, built environment and active collective memory of the community of Catherine Hill Bay provide an unusual and distinctive insight into the political, economic and cultural history and heritage of Catherine Hill Bay as a mining company town and pioneer of the coal mining industry in Lake Macquarie. See Architectural Projects Pty Ltd Heritage Assessment Conservation Plan for Catherine Hill Bay which contains a comprehensive and authoritative cultural history.

## Historic Themes

Australian Theme (abbrev)	New South Wales Theme	Local Theme
3. Economy - Developing local, regional and national economies	Mining - Activities associated with the identification, extraction, processing and distribution of mineral ores, precious stones and other such inorganic substances.	Mining for coal -
3. Economy - Developing local, regional and national economies	Transport - Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Maintaining maritime transport routes -
3. Economy - Developing local, regional and national economies	Transport - Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Building and maintaining jetties, wharves and docks -
4. Settlement - Building	Towns, suburbs and villages - Activities associated with	Planned towns serving

settlements, towns and cities	creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	a specific industry -
-------------------------------	---	-----------------------

## Assessment of Significance

### SHR Criteria a)

[Historical Significance]

High State and Regional Significance and Very High Local Significance. The LMCC Heritage Study of Catherine Hill Bay (Suters 1992-3) recommended statutory protection of the landscapes, townscape and sites in the area. The area's location and geological character are significant because of the key role played by 19th Century company towns in the development of Australian resources. It is significant for the continuing association of the area with coal mining. This development is clearly evidenced by remnants of railways, the structures and extent of untouched landscape typical of mining occupation of the foreshores. The jetty and other structures play a key role in reflecting the long term importance of CHB as a company town. The place's strong sense of history is evidenced by remnants and structures which commemorate the working activity of the town.

### SHR Criteria b)

[Associative Significance]

The HCA is covered by the oldest coal mining lease in NSW, Consolidated Coal Lease 706 and the most recent mine related areas currently are being rehabilitated to a natural state. The HCA's association with the Australian maritime industry is strong with regular shipping activity from the jetty stretching from its earliest days (1870s) to 2001, when shipping ceased. As recently as 2004-5 the community subscribed \$20,000 to build a memorial at the Bay for its citizens who died in war, most of whom were miners, jetty hands, seamen, or the family of those people. The HCA includes part of the WW11 radar station RS208, near Mine Camp, which was a key unit in Australia's war time protection and was manned in part by Catherine Hill Bay women who were members of the WAAF.

### SHR Criteria c)

[Aesthetic Significance]

The aesthetic significance of the built form at Catherine Hill Bay is significant as a highly intact late nineteenth century company town characterised by a varied range of finishes and scale typified by simple forms of predominately one story height. The area exhibits a high visual significance owing to the diversity of landforms, vegetation communities and waterforms.

### SHR Criteria d)

[Social Significance]

Catherine Hill Bay is significant for its ability to reflect a strong sense of place and history through a number of monuments and memorials and significant also for its association with the development of company towns. The community remains closely integrated despite the aging and passing of older residents who worked in the mines, and their families. For example, some eight movies or TV shows have used the Bay as a location in the past 25 years and these form the core of the Catho Classics Film Festival inaugurated in 2004 with the screening of Mel Gibson's first starring film Summer City and a video documentary produced by local residents which recorded the memories of residents who participated in the movie. A current project by the Progress Association to produce a social history of Catherine Hill Bay miners' cottages focusses on the domestic life and extended networks of families who lived in the cottages from the 1890s to the present.

### SHR Criteria e)

[Research Potential]

The area is a tremendous archaeological resource for Lake Macquarie with great potential as an industrial heritage site. The Progress Association, mentored by a professional heritage architect, has begun mapping the abandoned early village and mine site at Mine Camp. Lake Macquarie City Council's Strategic Issues Study on Wallarah South (1995) included a review of Aboriginal Archaeology which reported six midden sites on the NPWS Register, four of them in the HCA, and recommended inter alia that field study should focus on the Middle Camp Gully, within the HCA; it urged more accurate recording and assessment of the previously recorded sites is required. Further research and consultation are needed in order for appropriate management strategies to be formulated for the Aboriginal cultural heritage resource of the Wallarah Peninsula.

**SHR Criteria f)**

[Rarity]


No other coal mining company town in NSW has retained the integrity of scale, shape and size with in situ comprehensive remnants and memorials of century-long mining activity in a natural coastal location. No other mining locality contains such an intact and compact representation of 19th and 20th century coal mining, rail and sea transportation in an isolated coastal environment which remains in much the same natural state as it was in the 1880s.

**SHR Criteria g)**

[Representativeness]

Catherine Hill Bay village and landscape has well documented and widely acknowledged significance as an intact representative of the era of company towns in the development of Australia's resources. The integrity of the HCA's heritage significance for landscape, seascape, built environment and industrial infrastructure from the 19th Century to the present remains largely intact because of underground mining by coal companies which owned freehold land, thus restraining surface development for more than a century.

**Assessment Criteria**

Items are assessed against the  **State Heritage Register (SHR) Criteria** to determine the level of significance. Refer to the Listings below for the level of statutory protection.

## Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
<i>Heritage Act - Under consideration for SHR/IHO listing</i>					
<i>Heritage Act - Icons Project Nomination for SHR listing</i>			27 May 04		

## References, Internet links & Images

None

Note: Internet links may be to web pages, documents or images.



(Click on Thumbnail for Full Size Image and Image Details)

## Data Source

The information for this entry comes from the following source:

**Name:** Heritage Branch

**Database Number:** 5055517

**File Number:** H04/00091/2 (ICONS)

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State Heritage Register - Proposed Curtilage for Investigation

0 100 200 400 600 800 Metres

Scale: 1:12,500 @A4  
Produced by: Sina Mavaddati  
Date: 21 July 2010

Legend

- Proposed Curtilage
- SHR Curtilage
- LGAs
- Suburbs
- Land Parcels

Proposed SHR Curtilage Plan 2342

Image Type:

Map / Plan

Image Year:

21 Jul 10

Image By:

Sina Mavaddati



Annex E

## Submission On The Proposed SHR Listing



20 August 2010

Heritage Council of NSW  
Locked Bag 5020  
Parramatta NSW 2124

Att: Bill Nethery [Via email: [heritage@planning.nsw.gov.au](mailto:heritage@planning.nsw.gov.au) ]

Dear Mr Nethery,

### Catherine Hill Bay Cultural Precinct

This submission has been prepared by Coal & Allied Industries Ltd (Coal & Allied), the owner of lands at Catherine Hill Bay (Middle Camp), which is included in the proposed State Heritage Register curtilage as shown in the figure below.

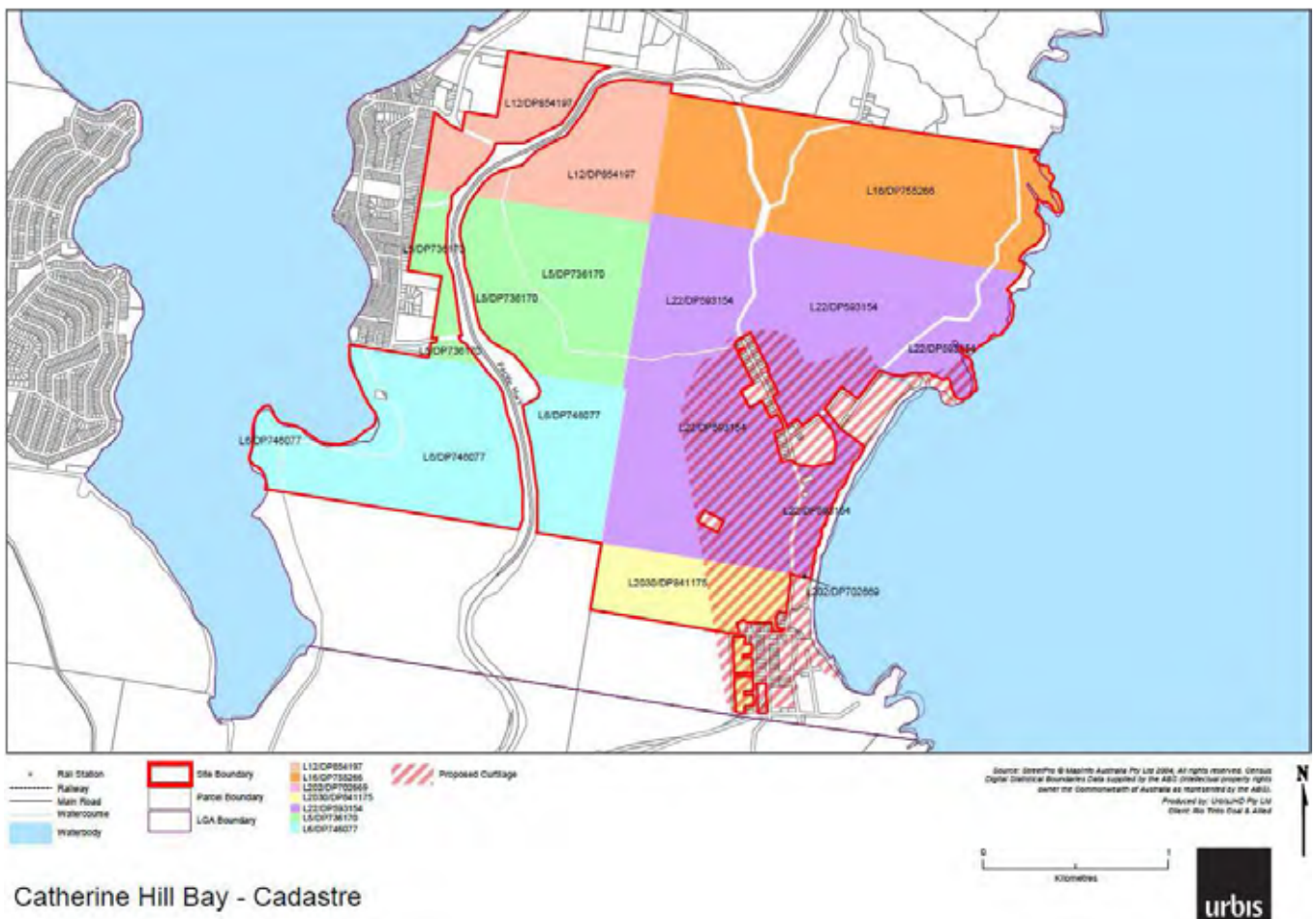


Figure 1: Coal & Allied land holdings at Catherine Hill Bay and the proposed State Heritage Register Precinct

Coal & Allied appreciates the opportunity to comment on the proposed inclusion of the Catherine Hill Bay Cultural Heritage Precinct on the NSW State Heritage Register, recognising that the Precinct's heritage values have already been recognised through regional and local heritage listings under the NSW planning scheme. In addition to this, Coal & Allied recognises the importance of assessing and protecting heritage values and places across Australia. The company has prepared its own inventory of heritage places within its property portfolio to ensure that heritage values are considered when any planning or redevelopment is proposed to these properties.

## **1 The Coal & Allied Proposal**

Coal & Allied has been operating in the Hunter Valley for more than 150 years. Since 2004 Coal & Allied has been majority owned and managed by Rio Tinto Coal Australia (RTCA) and is one of the major coal producers in the Hunter Valley, employing around 1,500 people across three operations.

Coal & Allied has seven separate holdings in the Lower Hunter totalling approximately 4,078 hectares, one of which is the Catherine Hill Bay (Middle Camp) site owned by Catherine Hill Bay Land Pty Ltd and Coal & Allied Operations Pty Ltd, both wholly owned subsidiaries of Coal & Allied Industries Ltd (Coal & Allied) and is legally described as follows:

- Lot 202 DP 702669;
- Lot 2030 DP 841175;
- Part Lot 6 DP 746077;
- Part Lot 5 DP 736170;
- Part Lot 12 DP 854197;
- Lot 223 DP 1102989 (note that this title reference has superseded Lot 22 DP 593154 following a road widening acquisition in favour of Lake Macquarie Council);
- Lot 16 DP 755266; and
- Lots 9 and 10 Sec D DP 163.

The Catherine Hill Bay (Middle Camp) site is approximately 568.93ha in area and includes all the land owned by Coal & Allied located east of the Pacific Highway.

An application to the NSW Department of Planning by Coal & Allied has been submitted by Coal & Allied for the following:

- The subject land at the Catherine Hill Bay (Middle Camp) site to be considered as a potential State Significant Site (SSS) for rezoning/listing under Schedule 3 of State Environmental Planning Policy (Major Development) 2005 (Major Development SEPP) to facilitate:
  - the proposed dedication of land for conservation to NSWG; and
  - a residential development that is not permissible under the existing planning provisions (covering approx 5% of the total land holdings).
- The Minister for Planning to consider the proposal is of a kind described in Group 5 in Schedule 1 (classes of development) of State Environmental Planning Policy – Major Development (2005) (Major Development SEPP) and authorise Coal & Allied to submit a Concept Plan Application.

As part of the Concept Plan, Coal & Allied is preparing a draft Voluntary Planning Agreement (VPA) with the New South Wales Government (NSWG) in accordance with Section 93F of the *Environmental Planning and Assessment Act, 1979* (EP&A Act). Under the draft VPA Coal & Allied proposes to develop 28.2ha of Catherine Hill Bay (Middle Camp) for residential development with a proposed yield of 222 dwelling lots.

Approximately 526.58ha (93%) is proposed to be dedicated to the New South Wales Government for conservation purposes, 12.5Ha is proposed to be retained by Coal & Allied and approximately 2ha being dedicated to Lake Macquarie City Council.

On 15 July 2010, the Minister for Planning formed the opinion that the Catherine Hill Bay (Middle Camp) site would be considered a Part 3A project pursuant to 75B(1) of the EP&A Act and authorised a Concept Plan to be prepared, in addition to a State Significant Listing under Schedule 3 of State Environmental Planning Policy (Major Development) 2005.

Upon receipt of the SSS Study Requirements and Director General Requirements for the environmental assessment for the Concept Plan from the NSW Department of Planning, Coal & Allied will prepare and submit a SSS Study and Concept Plan environmental assessment. We would expect that the Heritage Council of NSW will be included in the authorities for consultation as part of these processes.

## **2 NSW State Heritage Register listing**

Coal & Allied appreciates the history of Catherine Hill Bay, particularly as the company played a key part of the local history, and that of the surrounding region. Coal & Allied recognises the importance of keeping significant parts of this heritage for the appreciation of future generations. In response, the proposed Coal & Allied Concept Plan proposes a range of activities that enhance the heritage values of the Precinct, including in-situ interpretation of the former rail network and the archaeological resources. The Coal & Allied Concept Plan also incorporates visual buffers between existing and proposed development and the incorporation of open spaces/parks to improve facilities for local residents.

The heritage values of the Precinct, as well as individually listed local items, have been central to the planning process for the areas of land near Catherine Hill Bay. Indeed, Coal & Allied supports the proposed State listing of the Precinct as it will ensure the ongoing protection of the important heritage values of the township of Catherine Hill Bay.

Coal & Allied has engaged independent consultants (ERM) to identify heritage constraints and opportunities to achieve a suitable development proposal north of Middle Camp and the proposed Cultural Heritage Precinct which is complimentary to the area's heritage resources. The Concept Planning process has analysed the potential visual impacts, and sought to avoid any visual impact through sensitive design of the proposed development, controlling placement, scale and form of new buildings, that respects both immediate views and the wider visual catchment of Catherine Hill Bay.

An independent assessment by ERM of the proposed State Heritage Cultural Precinct considers the proposed boundaries as appropriate in so far that they reflect the built form, streetscape and visual catchment of the Catherine Hill Bay township. The Precinct also responds to the archaeological resources dating from the operational mining phase of the area's history.

We note that the draft listing record currently available online states that the Precinct has potential Aboriginal sites and values with possible heritage significance (against SHR criterion e). ERM surveyed and assessed this aspect of the local area in accordance with DECCW guidelines and policies and suggest that the identified Aboriginal heritage does not meet the threshold for listing at the State level. This information can be provided to the NSW Heritage Council if required.

In addition, the draft listing also refers to the similarity of the current township and surrounds with that of the 1880s (against SHR criterion f). Historic photographs of the village are attached (*Attachment A*) to further assist the NSW Heritage Council to refine the statement against this criterion, illustrating the extent of the mining activities and the changes these brought to the local landscape during the peak of mining activity.

The independent review by ERM suggests that the comparison between the historical photographs and the current landscape illustrates differences which should be recognised through an appropriate assessment under Criterion f. The landscape at Catherine Hill Bay today, is one that comprises a

distinct built heritage layer along the main street, abutted by a considerable area of regenerated bushland. The archaeological resources are much less readily apparent, and are in fact the most closely connected with the mining heritage of the local region.

### **3 Summary and Recommendations**

Coal & Allied recognise and supports the proposed State Heritage Register listing for the Catherine Hill Bay Cultural Precinct.

All works undertaken to date by Coal & Allied for Middle Camp respect the heritage values of the Precinct, as well as individually listed local items. These items have been central to the planning process for the areas of land near Catherine Hill Bay by Coal & Allied to ensure the ongoing protection of the important heritage values of the township.

Coal & Allied has already confirmed its support for the Conservation Zone by deleting any proposed development in the area nominated.

In summary:

- Coal & Allied supports the concept and scope/area as proposed;
- The proposed Coal & Allied Concept Plan retains separation of the identified heritage areas from the proposed residential development areas. It is acknowledged that the northern boundary of the proposed Cultural Heritage Precinct coincides with the southern boundary at the eastern end of the proposed residential development area. A visual buffer is included in the Concept Plan between the Middle Camp village and the proposed residential development
- There would be no warrant to expand the proposed heritage area further because of Coal & Allied plans to dedicate conservation land adjacent to the Heritage Precinct upon Concept Plan approval by the NSW State Government and the proposed E1 zoning will provide adequate protection for the land adjoining the proposed Heritage Precinct;
- The Aboriginal sites with possible heritage significance do not meet the threshold for listing at the State level in accordance with DECCW guidelines and policies and against SHR criterion e;;
- The similarity of the current township and surrounds with that of the 1880s is questionable in terms of the assessment against SHR criterion f. Historic photographs of the village illustrate the extent of the mining activities and the changes these brought to the local landscape during the peak of mining activity.

Please contact the undersigned on (0400 702 579) or <[keith.dedden@riotinto.com](mailto:keith.dedden@riotinto.com)> should you wish to discuss the above,

Regards,



Keith Dedden  
General Manager Property Development

**Attachment A**

In 1973 H.J. Wright, in the Australian Railway Historical Bulletin, provided a detailed description and history of coal mining activities associated with CHB. This description included information relating to the workings of the E Pit area, which are pertinent to the current study.

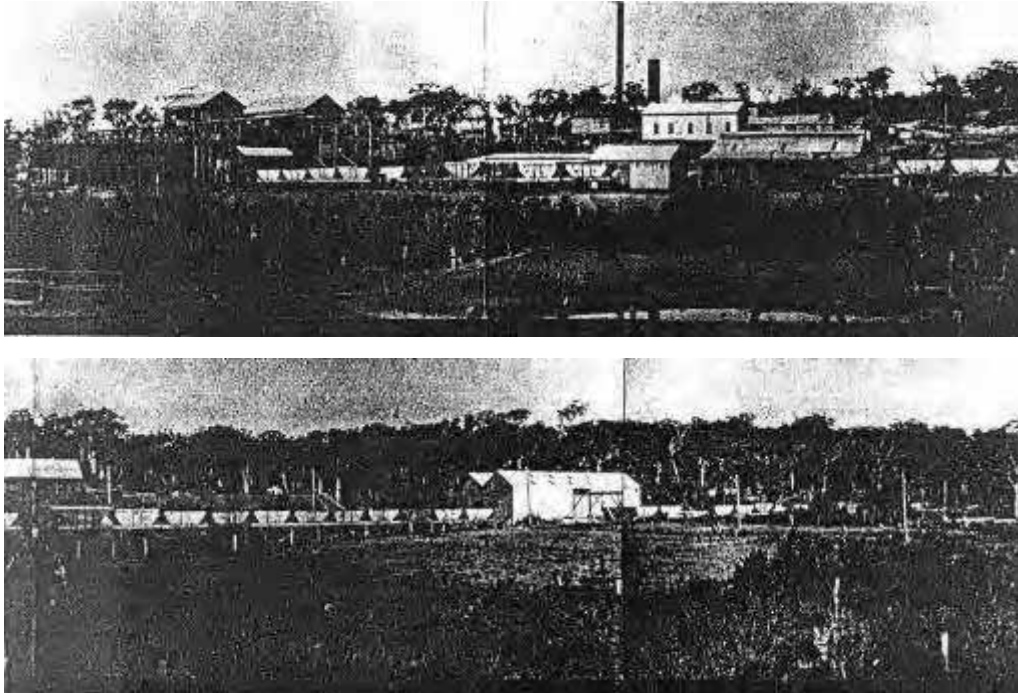


Figure 1 Photo montage of E Pit. "...Operations at the "E" pit in 1912. The line to the jetty extended off to the left while empties were propelled up the grade to the extreme right of the picture and then gravitated down to the screens. In front of the stables in the left centre of the illustration can be seen the outline of one of the Fowler 0-6-0 saddle tank engine." Source: Wright (1973:36-37).



Figure 2 CHB 1947. Source: Lake Macquarie City Council photo ref 4693.



Figure 3 CHB 1952. Source: Lake Macquarie City Council photo ref 4692

## Annex F

### SOHI Questions for Development Adjacent To A SHR Item or Area



## F.1

### SOHI QUESTIONS FOR DEVELOPMENT ADJACENT TO A SHR ITEM OR AREA

The following questions are taken from the NSW Heritage guideline *Statements of Heritage Impact* (page 7): These questions form the basis of the impacts analysis presented at *Sections 8.2.1 and 8.2.2 in Chapter 8* of this report.

How is the impact of the new development on the heritage significance of the item or area to be minimised?

Why is the new development required to be adjacent to a heritage item?

How does the curtilage allowed around the heritage item contribute to the retention of its heritage significance?

How does the new development affect views to, and from, the heritage item?  
What has been done to minimise negative effects?

Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected?

Is the new development sympathetic to the heritage item? In what way (e.g. form, siting, proportions, design)?

Will the additions visually dominate the heritage item? How has this been minimised?

Will the public, and users of the item, still be able to view and appreciate its significance?



**ERM** has over 100 offices  
across the following  
countries worldwide

Australia	Netherlands
Argentina	New Zealand
Belgium	Peru
Brazil	Poland
China	Portugal
France	Puerto Rico
Germany	Singapore
Hong Kong	Spain
Hungary	Sri Lanka
India	Sweden
Indonesia	Taiwan
Ireland	Thailand
Italy	UK
Japan	USA
Korea	Venezuela
Malaysia	Vietnam
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](http://www.erm.com)

