



**Aboriginal Cultural Heritage
and
Historic Heritage
Management Plan**



Williamtown Sand Syndicate Pty Ltd

Williamtown Sand Quarry
Cabbage Tree Road, Williamtown

5 June 2019

Aboriginal Cultural Heritage and Historic Heritage Management Plan

Williamtown Sand Quarry
Cabbage Tree Road, Williamtown

Prepared for:

WILLIAMTOWN SAND SYNDICATE PTY LTD

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EXECUTIVE SUMMARY

This Aboriginal Cultural Heritage and Historic Heritage Management Plan (HMP) has been prepared for Williamtown Sand Syndicate Pty Ltd (Quarry Owner) to guide the management of onsite heritage at the sand quarry on Cabbage Tree Road, Williamtown. The plan addresses both Aboriginal Cultural and Heritage Historic in accordance with the Development Consent Conditions. The quarry is located within the Port Stephens Local Government Area (LGA) on Lot 1012 DP 814078, Lot 11 DP 629503 Lot 121 DP 556403 and Lot 1 DP 224587.

McCardle Cultural Heritage Pty Ltd, following endorsement by the Secretary of NSW Department of Planning & Environment (DPE), has provided input on the management of Aboriginal Cultural Heritage.

This document is intended for both construction and operation of the quarry. This HMP applies to the Project Area as outlined in Section 1. This HMP also outlines the legislative context of the project in respect to heritage and the Aboriginal consultation which has been undertaken (Section 3). For the practical management of Aboriginal cultural heritage, a clear outline of roles and responsibilities is provided along with operational flow charts to be used by the Quarry Manager and contractors who may need to access, or conduct works, within the Project Area.

This HMP has been produced in consultation with the Registered Aboriginal Parties (RAPs) that have expressed an interest in the project. Aboriginal participation has been requested and implemented from the earliest stages of development of this HMP (Section 3 and Appendix 1). Additionally, prior to the finalisation of this document, RAPs were invited to provide input/comment on cultural heritage issues associated with the Project Area, and the heritage management protocols outlined in this document.

One known site (artefact scatter 38-4-1381) is located in the Project Area. The site is located on the mid slope of a dune within an exposed area and situated approximately 300m from an unnamed swamp. Motorbike and walking tracks were present across the site. MCH confirm that the site was disturbed and the artefacts had been exposed through previous rutile extraction and not in situ. The site was assessed as being of low significance due to its highly disturbed nature from past land uses and an Aboriginal Site Impact Recording Form be completed with community surface collection recommended.

Section 4 outlines the roles and responsibilities for the implementation of this HMP.

Section 6 outlines the heritage management protocols which must be implemented and it is a requirement of this HMP that the heritage management protocols are followed.

Unexpected Finds Procedures (Section 7 and Appendix 3) have been developed to provide guidance should Aboriginal objects/material be identified, or if human skeletal remains are uncovered during construction. These protocols must be followed if unexpected Aboriginal objects/material or skeletal remains are uncovered during works.

GLOSSARY

Aboriginal Cultural Heritage Values: traditional values of Aboriginal people, handed down in spiritual beliefs, stories and community practices and may include local plant and animal species, places that are important and ways of showing respect for other people.

Aboriginal Place: are locations that have been recognised by the Minister for Climate Change and the Environment (and gazetted under the National Parks and Wildlife Act 1974) as having special cultural significance to the Aboriginal community. An Aboriginal Place may or may not include archaeological materials.

Harm: is defined as an act that may destroy, deface or damage an Aboriginal object or place. In relation to an object, this means the movement or removal of an object from the land in which it has been situated

Spiritual Significance: the importance of a place in the landscape that is valued by Aboriginal people because it is part of their spiritual culture. Examples include places associated with totem species or places that are the subject of traditional cultural stories.

Traditional Aboriginal Owners: Aboriginal people who are listed in the Register of Aboriginal owners pursuant to Division 3 of the Aboriginal Land Register Act (1983). The Registrar must give priority to registering Aboriginal people for lands listed in Schedule 14 of the National Parks and Wildlife Act 1974 or land subject to a claim under 36A of the Aboriginal Land Rights Act 1983.

Traditional Knowledge: Information about the roles, responsibilities and practices set out in the cultural beliefs of the Aboriginal community. Only certain individuals have traditional knowledge and different aspects of traditional knowledge may be known by different people, e.g. information about men's initiation sites and practices, women's sites, special pathways, proper responsibilities of people fishing or gathering food for the community, ways of sharing and looking after others, etc.

ACRONYMS

ACHMP Aboriginal Cultural Heritage Management Plan

AHIMS Aboriginal Heritage Information Management System. Data base of recorded sites across NSW managed by OEH

HMP Heritage Management Plan, in this document covering Aboriginal Cultural Heritage and Historic Heritage

OEH Office of Environment and Heritage

AHIP Aboriginal Heritage Impact Permit

RAPs Registered Aboriginal Party

1. INTRODUCTION

1.1 BACKGROUND

Newcastle Sand are proposing to construct and operate a sand quarry on four lots of land located at 398 Cabbage Tree Road, Williamtown, approximately 30 km from the Newcastle central business district. Newcastle Sand is a wholly owned subsidiary of Williamtown Sand Syndicate Pty Ltd (WSS), the entity associated with seeking the Project Approval. The Project will extract up to 530,000 tonnes per annum of sand products over a period of up to 15 years.

Development Consent (SSD-6125) was granted by the NSW Independent Planning Commission on 9 May 2018 for construction and operation of the quarry subject to a series of conditions. Condition 32 of Schedule 3 of the Development Consent requires the preparation and implementation of an Aboriginal Heritage Management Plan (AHMP) while Condition 31 outlines management requirements for Historic Heritage items.

Potential heritage impacts associated with the quarry include damage to known or unknown heritage items during quarry construction and operation. Activities that could result in adverse impacts to heritage items include vegetation clearing and topsoil stripping and any bulk earthworks particularly excavation of quarry material.

This plan has been prepared by Kleinfelder in conjunction with Maxim MultiCon Pty Ltd and McCardle Cultural Heritage Pty Ltd to satisfy the historic heritage and Aboriginal heritage Conditions of the Development Consent.

A project information session for the Registered Aboriginal Parties (RAPs) was held on 16th August 2018 at Worimi Local Aboriginal Land Council (WLALC). Attendees included Anthony Anderson and Rebecca Young (Mur-Roo-Ma Inc), Lennie Anderson (Nur-Run-Gee Pty Ltd), Jamie Merrick (WLALC), Penny McCardle (MCH) and Jonathan Berry (Kleinfelder). Representatives of the proponent provided the project outline and updates and the HMP process. This document has been prepared in order to effectively manage Aboriginal cultural heritage resources within the Project Area, and the Historic Heritage elements on the site.

1.2 PROJECT OVERVIEW

The key details of the Project are shown within **Table 1** below. An overview of the project area is shown in **Figure 1**.

Table 1: Key Aspects of the Cabbage Tree Road Sand Project.

Aspect	Key Aspects of the Project
Key elements	Sand quarry extracting up to 530,000 tonnes per annum over 15 years including the construction of an intersection with Cabbage Tree Road, sealed and gravel access roads, site office, workshop and weighbridges. Progressive rehabilitation of quarried land

Aspect	Key Aspects of the Project
	returning to native vegetation communities with potential future use of the facilities area. Biodiversity Offset Strategy and EMP to mitigate and offset project impacts.
Location	398 Cabbage Tree Road, Williamtown, within the Port Stephens local government area.
Property Titles	Four titles within the Parish of Stockton, County of Gloucester including: <ul style="list-style-type: none"> • Lot 1 DP 224587 at 398 Cabbage Tree Road, Williamtown • Lot 121 DP 556403 at 282B Cabbage Tree Road, Williamtown. • Lot 11 DP 629503 at 282A Cabbage Tree Road, Williamtown. • Lot 1012 DP 814078 at 282 Cabbage Tree Road Williamtown.
Area	Total Project Area of approximately 42.3 hectares from a Subject Land Area of approximately 176.2 hectares.
Land Owner	Port Stephens Shire Council under lease to Williamtown Sand with royalty of up to \$17.5 million over the project life.
Proponent	Williamtown Sand Syndicate Pty Ltd
Project Life	Approval is sought to operate the quarry for a period of up to 15 years. At expected demand the quarry is estimated to have an eight-year life, reduced to five years should demand require maximum extraction rates.
Resource and products	Approximately 3.25 Mt of sand, comprising the following products to be extracted from site by truck onto Cabbage Tree Road for transport to markets: <ul style="list-style-type: none"> • Raw fill sand. • Screened sand. • Sandy loam. • Concrete sand. • Glass sand (estimated at about 16% of total resource). The Project covers approximately 42.3 hectares (including access roads) with extraction to a depth of not more than 1m above the highest predicted groundwater level.
Production rate and Products	Up to 530,000 tonnes per annum.
Extraction method	<ul style="list-style-type: none"> • Excavator and/or bulldozer to clear vegetation and strip topsoil. • Bulldozer or grader to windrow sand. • Front-end loader to feed conveyors to convey sand to the processing plant. • Front-end loader and haul truck to convey sand when conveyor unsuitable.
Processing Methods	<ul style="list-style-type: none"> • Raw sand product extracted directly from face with no processing. • Sand fed into electrically powered screen. • Screened sand sold as product or fed to electrically powered air separator. • Products stockpiled for loading directly into truck or fill bulker bags for removal from the site by truck.
Transport	<ul style="list-style-type: none"> • Annual average daily truck movement of 63 laden trucks per day (126 movements), equating to average hourly truck movements of 5 laden trucks per hour (10 trips per hour). • Up to 6 laden trucks per hour (12 trips per hour) during the hours of 6 am to 7 am Monday to Friday. • Up to a maximum of 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 5 pm Monday to Friday (i.e. all haulage hours excluding the morning peak). • Up to a maximum of 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 4 pm Saturdays. • Up to 6 vehicles of employees would be expected to arrive from approximately 5:30 am to 7 am and leave between 5 pm and 7 pm.

Aspect	Key Aspects of the Project
Support facilities and utilities	<ul style="list-style-type: none"> • Site office, workshop, stores, car parking. • Power supply from local network • Water supply from local network.
Operating Hours	<p>Construction of intersection, access and workshop and office:</p> <ul style="list-style-type: none"> • 7:00am to 5:00pm Monday to Friday, 8:00am to 1:00pm Saturday. • No works on Sunday or public holidays. <p>Quarrying Operations:</p> <ul style="list-style-type: none"> • 7:00am to 5:00pm Monday to Friday, 7:00am to 4:00pm on Saturday. • No quarrying on Sunday or a Public Holiday. <p>Loading and dispatch of trucks:</p> <ul style="list-style-type: none"> • 6:00am to 6:00pm Monday to Friday, 7:00am to 4:00pm Saturday. • No works on Sunday or public holidays.

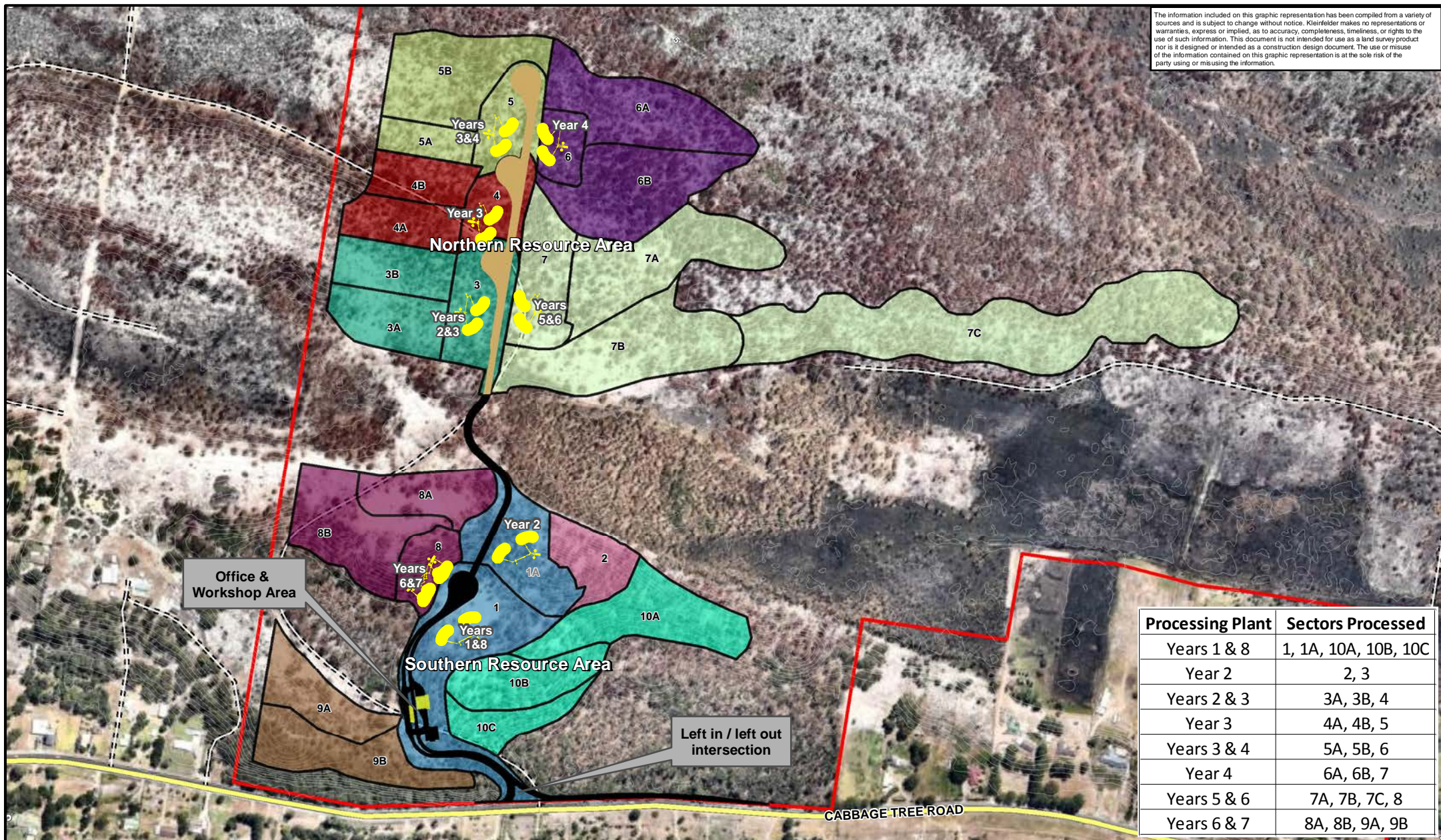
1.3 PURPOSE AND SCOPE

This Management Plan outlines the key management controls to be implemented during quarry construction and operations to minimise impacts to Aboriginal and historic heritage. It also details heritage contingency protocols in the event heritage items are discovered during quarry operations. It provides a clear outline of roles and responsibilities is provided in this document to be used by land managers and contractors who may need to access, or conduct works within the Project Area.

This document satisfies Development Consent Conditions 31 to 33 of Schedule 3 and the Statement of Commitments in Appendix 2. A checklist of where each condition has been addressed in this document is provided in **Table 2**.

An overarching Environmental Management Plan (EMP) has also been prepared for the Project and provides the strategic context for the environmental management of quarry construction and operation along with management for other project aspects. This Heritage Management Plan should be implemented along with the overarching project EMP for the duration of quarry operations.

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.



Legend

- Subject Land
- Road - gravel
- Road - sealed
- Processing Plant & Infrastructure

- Arterial Road
- Track
- Contours (1m)

Sector

- | | |
|---|--|
| 1 | 6 |
| 2 | 7 |
| 3 | 8 |
| 4 | 9 |
| 5 | 10 |

Metres
0 25 50 100 150 200 250



PROJECT REFERENCE: 20190803

DATE DRAWN: 23/07/2018 11:26 Version 1

DRAWN BY: gjoyce

DATA SOURCE:
NSW DFSI - 2017
Nearmap - 2018

Quarry Operations Plan

Cabbage Tree Road Sand Quarry
Cabbage Tree Road, Williamtown, NSW

FIGURE:

1

2. STATUTORY REQUIREMENTS

2.1 LEGISLATION AND GUIDELINES

Legislation relevant to heritage management includes:

- *National Parks and Wildlife Act 1974, as amended.*
- *National Parks and Wildlife Regulation 2009.*
- *Environmental Planning and Assessment Act 1979.*
- *Heritage Act 1977 (as amended 1999)*

2.1.1 Environmental Planning and Assessment Act 1979

The project was granted Development Consent pursuant to Part 4, Division 4.7 of the EP&A Act as State Significant Development (SSD) as declared by the State Environmental Planning Policy (State and Regional Development) 2011 (NSW).

Pursuant to Section 4.41 (d) of the EP&A Act an “*Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974*” is not required.

The *Environmental Planning and Assessment Act 1979* is overseen by the Department of Planning and Environment and requires the consideration of Historic and Aboriginal heritage as part of the development approval process (refer **Section 2.1.4** below).

2.1.2 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act (1974), Amended 2010 (NPW Act), is the primary legislation for the protection of Aboriginal cultural heritage in New South Wales. The NPW Act protects Aboriginal heritage (places, sites and objects) within NSW and the Protection of Aboriginal heritage is outlined in s86 of the Act, as follows:

- “*A person must not harm or desecrate an object that the person knows is an Aboriginal object*” s86(1)
- “*A person must not harm an Aboriginal object*” s86(2)
- “*A person must not harm or desecrate an Aboriginal place*” s86(4)

Penalties apply for harming an Aboriginal object, site or place. The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to \$550,000 for an individual and/or imprisonment for 2 years; and in the case of a corporation the penalty is up to \$1.1 million. The penalty for a strict liability offence (s86[2]) is up to \$110,000 for an individual and \$220,000 for a corporation.

Harm under the National Parks and Wildlife Act (1974, as amended) is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, it is a defence from prosecution if the proponent can demonstrate that:

- Harm was authorised under an Aboriginal Heritage Impact Permit (AHIP) (and the permit was properly followed), or
- The proponent exercised due diligence in respect to Aboriginal heritage.

2.1.3 National Parks and Wildlife Regulation 2009

The National Parks and Wildlife Regulation 2009 (NPW Regulation) provides a framework for undertaking activities and exercising due diligence in respect to Aboriginal heritage. The NPW Regulation (2009) recognises various due diligence codes of practice, including the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW which is pertinent to this report, but it also outlines procedures for Aboriginal Heritage Impact Permit (AHIP) applications and Aboriginal Cultural Heritage Consultation Requirements (ACHCRs); amongst other regulatory processes.

Aboriginal heritage (places, sites and objects) in NSW is protected by the *National Parks and Wildlife Act 1974, Amendment 2010*. Managed by OEH and Registered Aboriginal Parties, Aboriginal heritage includes places, sites and objects that are of significance to Aboriginal people because of their traditions, beliefs and history.

While under the EP&A Act, an AHIP is not required, the processes outlined within Clause 80C, and Clause 80D are followed through the Development Application process with the development of the Cultural Heritage Assessment Report (previously provided to registered Aboriginal parties (RAPs)) and the consequential preparation of this management plan in consultation with RAPs.

2.1.4 Heritage Act 1977

Historic heritage in NSW is protected by the *Heritage Act 1977* (as amended 1999) which is overseen by the Office of Environment and Heritage (OEH). Historic heritage includes archaeological sites, buildings, structures, areas and individual objects that are significant to the state of NSW. Certain types of Aboriginal heritage sites may also be listed under the Act; however, this is not relevant to this project.

2.2 ASK FIRST: A GUIDE TO RESPECTING INDIGENOUS HERITAGE PLACES AND VALUES

Ask First: A guide to respecting Indigenous heritage places and values (2002) was commissioned by the Australian Heritage Commission to provide a practical guide for land developers, land users and managers, cultural heritage professionals and others who may impact on Indigenous cultural heritage. Ask First is intended to be complementary to the

Australia ICOMOS Burra Charter and the Australian Natural Heritage Charter. The main focus of Ask First is to emphasise that consultation and negotiation with Aboriginal parties is the best way of addressing Aboriginal cultural heritage issues.

Ask First acknowledges that maintaining Indigenous cultural values and places is a vital part of the community's sense of place, cultural identity and well-being. Indigenous Australians' heritage creates and maintains links between their ancestors, people and the land.

Ask First states that in recognising the rights and interests of Aboriginal peoples in their heritage, all parties concerned with identifying, conserving and managing this heritage should acknowledge, accept and act on the principles that Aboriginal people:

- Are the primary source of information on the value of their heritage and how it is best conserved;
- Must have an active role in any Aboriginal heritage planning process;
- Must have input into primary decision-making in relation to Aboriginal heritage so that they can continue to fulfil their obligations towards this heritage; and
- Must control intellectual property and other information relating specifically to their heritage, as this may be an integral aspect of its heritage value.

Ask First also emphasise the benefits of consultation and negotiation in the management of Indigenous cultural heritage and the need to comply with relevant Territory and Commonwealth Aboriginal cultural heritage legislation and statutory authorities, as outlined above. These guidelines have been considered in the development of this HMP.

2.3 DEVELOPMENT CONSENT

Development Consent was granted for the Project under the *Environmental Planning and Assessment Act 1979* by the NSW Independent Planning Commission. The requirement for an AHMP arises from Condition 32 within Schedule 3 of the Development Consent. Other heritage management requirements include Conditions 31 and 33 of Schedule 3 and Appendix 2 – Statement of Commitments.

Table 2 provides a summary of where each requirement of the consent relating to Heritage are addressed in this document.

Table 2: Development Consent Conditions

Condition	Description	Addressed in Section
Schedule 3 – Specific Environmental Conditions		
31	If footings and/or other physical evidence are discovered of a World War II radar station reputed to have been located on the site, then the Applicant must undertake, using a qualified archaeologist or heritage specialist endorsed by the Secretary, an assessment of the significance of the item in conjunction with a photographic archival recording of the item and/or other evidence relevant to its use. A report documenting these findings must be prepared and submitted within six months of the identification of the find for the information of the Secretary, the Heritage Council of NSW and the relevant local historical society.	Section 5
32	Aboriginal Heritage Management Plan	Section 1-7

Condition	Description	Addressed in Section
	<p>The Applicant must prepare an Aboriginal Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary; b) be prepared in consultation with OEH and Registered Aboriginal Parties and be submitted to the Secretary for approval prior to commencing ground disturbing activities on the site, unless the Secretary agrees otherwise; and (c) include a description of the measures that would be implemented to: <ul style="list-style-type: none"> (i) protect, monitor and manage known sites of archaeological significance; (ii) salvage and manage all identified Aboriginal sites within the quarry's disturbance area, including surface collection of AHIMS site #38-4-1381; (iii) monitor vegetation clearing operations to identify any previously unknown Aboriginal sites; (iv) regularly monitor screened oversize material from the sand processing plant for Aboriginal objects or relics; (v) manage any new Aboriginal sites, objects or relics that are discovered; (vi) implement an Aboriginal cultural heritage awareness and induction program for all persons working on the site, not including drivers of sand haulage trucks; (vii) store Aboriginal heritage items that are salvaged on the site; and (viii) ensure ongoing consultation and involvement of the Registered Aboriginal Parties in the conservation and management of Aboriginal cultural heritage on the site. <p>The Applicant must not commence ground disturbing activities until the Aboriginal Heritage Management Plan is approved by the Secretary.</p> <p>The Applicant must implement the Aboriginal Heritage Management Plan as approved from time to time by the Secretary.</p>	
33	<p>Aboriginal Heritage Management Plan</p> <p>If any item or object of Aboriginal heritage significance is identified on site, the Applicant must ensure that:</p> <ul style="list-style-type: none"> (a) all work in the immediate vicinity of the suspected Aboriginal item or object ceases immediately; (b) a 10 m buffer area around the suspected item or object is cordoned off; and (c) the OEH is contacted immediately. <p>Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the <i>National Parks and Wildlife Act 1974</i>.</p>	Section 6.2
Schedule 5 – Environmental Management, Reporting and Auditing		
3	<p>Management Plan Requirements</p> <p>The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> (a) detailed baseline data; (b) a description of: <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the measures that to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: 	Section 1-7

Condition	Description	Addressed in Section
	<ul style="list-style-type: none"> impacts and environmental performance of the development; and effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan	
Appendix 2 – Statement of Commitments 8.3.14 Aboriginal Heritage		
a)	An Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed in consultation with the relevant Aboriginal stakeholders and OEH prior to the commencement of the Project. The ACHMP will address the following matters: <ul style="list-style-type: none"> A protocol for managing any archaeological material exposed during the course of operations. Recommendations for the ongoing management of the study area. 	Section 5-6
b)	All staff and contractors will undergo site induction incorporating Aboriginal cultural awareness and be made aware of statutory legislation protecting sites and places of significance.	Section 5
c)	Management of any artefacts will be undertaken in consultation with Aboriginal stakeholder groups in accordance with the ACHMP.	Section 3
Appendix 2 – Statement of Commitments 8.3.15 Historic Heritage		
a)	Footings associated with the former World War II radar station will be subject to photographic archival recording of footings and survey of its location prior to disturbance by a qualified archaeologist.	Section 5
b)	Should unexpected heritage items be discovered during the Project and are likely to be disturbed by the Project, all works in the immediate area will cease and a qualified archaeologist or heritage consultant will provide an assessment and, if necessary, the Heritage Branch, Department of Planning will be notified.	Section 5-6

3. CONSULTATION

3.1 ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS (ACHCRS)

This HMP has been produced in consultation with the Registered Aboriginal Parties (RAPs) as identified throughout the Aboriginal Cultural Heritage Consultation Requirements for proponents (ACHCRs), (DECCW now OEH; April 2010) identified during the earlier assessment (MCH 2015) and subsequent revision to the assessment in MCH 2017. RAPs were invited to provide input/comment throughout the project on any cultural heritage issues associated with the local area, the Project Area, and the HMP outlined in this document.

Following consultation with the Office of Environment and Heritage (OEH), the RAPs who registered for the project during the 2015 archaeological assessment (MCH 2017) were to be consulted for this HMP. Undertaking new consultation for this HMP was not required by OEH.

The ACHCRs include a four staged approach of Aboriginal consultation with specific timeframes for the various components throughout the process. This process was completed as part of the assessment undertaken by MCH in 2015 (details of full consultation can be found in the 2015 assessment report) and OEH confirmed that consultation should continue with those RAPs for this HMP. This plan has been developed in consultation with the RAPs in **Table 3**.

Table 3: List of Registered Aboriginal Parties

Aboriginal Party	Contact
Worimi LALC	Jamie Merrick
Nur-Run-Gee Pty Ltd	Lennie Anderson
Mur-Roo-Ma Inc	Anthony Anderson

The RAPs were invited to attend a meeting at WLALC on 16th August 2018 to provide project information to ensure all parties understood the project. Project representatives provided project background, legislative context, environmental and archaeological background (previous assessments) and outlined the HMP process. MCH representative outlined the archaeological context to date, previously identified site and discussed the HMP. A copy of the draft HMP was forwarded to all RAPs and OEH in December 2018 for their review and were asked to provide their comments within 28 days, as of April 2019, no comments have been received, as such this is consistent with the Final version. A final copy of the HMP will be forwarded to all RAPs on DPE approval.

3.2 PROTOCOL FOR CONTINUED ABORIGINAL CONSULTATION

Subject to any modifications initiated by the RAPs (listed above), the following protocol (replicated in Section 6.3). will be followed with respect to consultation.

- The Quarry Manager will advise the RAPs of the date of planned commencement of activities within the Project area.
- The Quarry Manager will contact the RAPs every six months to advise of the project's progress and all consultation will be documented.
- In the event that any possible archaeological sites are identified during construction works, the Quarry Manager will notify a qualified Heritage Consultant and RAPs following the Unexpected Finds Procedure in Section 7.2.1.
- The effectiveness and value of the consultation will be periodically reviewed with the RAPs. In the event there is agreement that the approach to consultation needs to change, the changed procedures would be documented in the HMP.

Records of the ongoing consultation is contained in **Appendix 1**.

3.3 CONFIDENTIALITY

All individuals and organisations involved with this management plan will respect that some information shared will be confidential. This may include:

- Commercial information, or
- Sensitive Aboriginal cultural information.

Other than in accordance with a written agreement by the identified individuals/ organisations, no information will be provided to any other persons other than to:

- Enable project works, or
- As required by law.

3.4 INTELLECTUAL PROPERTY RIGHTS

Some works undertaken for this development will contain Aboriginal cultural information. Such materials will be developed between the Quarry Manager and the RAPs and shall be jointly owned so that both parties may reference the material. Any culturally sensitive material or information not be included in public documents may include sacred knowledge. The RAPs will retain copyright to their cultural information.

4. ROLES AND RESPONSIBILITIES

Roles used within this plan are defined below, responsibilities are shown in Section 6 or otherwise defined below.

4.1 KEY CONTACTS

The following contacts are available in the event of a compliant, enquiry or emergency.

Table 4: Key contacts for management of Heritage

Contact	Name	Phone	Email
Quarry Manager	TBA	TBA	TBA
Heritage Consultant (Aboriginal Heritage)	Penny McCardle	0412 702 396	mcheritage@iprimus.com.au
Heritage Consultant (Historic Heritage)	Paul Rheinberger	0427 70 4432	maximnsw@gmail.com
OEH – Incidents Line		131 555	
OEH – Regional Operations - Newcastle		02 4927 3119	
Heritage Council of NSW		02 9873 8500	
RAPs			
Worimi LALC	Jamie Merrick		
Nur-Run-Gee Pty Ltd	Lennie Anderson		
Mur-Roo-Ma Inc	Anthony Anderson		

4.2 QUARRY OWNER

The Quarry Owner is WSS who operates the quarry under Newcastle Sand. The Quarry Owner is responsible for the development and assignment of a suitably qualified Quarry Manager and to provide sufficient support to the Quarry Manager to undertake the required actions defined in this plan.

4.3 QUARRY MANAGER

The Quarry Manager is the person who manages the Quarry and is responsible for the day to day activities on the site. The Quarry Manager reports to the Quarry Owner.

The Quarry Manager must read, understand and implement the practical application of this plan. All activities being undertaken on the quarry site are the responsibility of the Quarry Manager.

The responsibilities of the Quarry Manager are defined by **Section 6**.

4.4 ONSITE PERSONNEL

Onsite personnel constitutes all employees and contractors working on the site.

It does not include the drivers of sand haulage trucks.

Onsite personnel have the following responsibilities, in addition to those outlined in Section 6:

- Undertake the Cultural Heritage Induction prior to starting any works onsite.
- Stop work and immediately notify the Quarry Manager in the event of any unexpected finds or human remains.

4.5 REGISTERED ABORIGINAL PARTIES

The person(s) or organisations, of Aboriginal decent who have registered as holders of traditional knowledge in the Project Areas part of the consultation process undertaken for this HMP. Following consultation with the Office of Environment and Heritage (OEH), the RAPs who registered for the project during the 2015 archaeological assessment (MCH 2017) were to be consulted for this HMP.

The responsibilities of the RAPs, are as follows, in addition to those outlined in Section 6:

- Report to the site office prior to entering the site to ensure they are aware of any site conditions that may have changed, such as safety, and obtain the relevant update of works being undertaken that day.
- Provide advice on Aboriginal cultural heritage issues that may arise during the Project in a timely manner (within 7 days).
- Assist in the identification of cultural heritage sites.
- Participate in the cultural heritage activities in this HMP.
- Assist the Quarry Manager with the implementation of this HMP if required.
- Assist with the Cultural Heritage Induction if required.
- Assist with the recording, salvage (if appropriate), analysis and reporting of any new sites identified within the Project Area in accordance with the relevant legislation, consultation with the Heritage Consultant and this HMP.
- Provide advice and assistance to the Quarry Manager and Heritage Consultant with the review and amendment(s) and/or updating of this HMP as required.

4.6 HERITAGE CONSULTANT

The Heritage Consultant (Historic and/or Aboriginal heritage specialisation) is an individual engaged by the Quarry Manager who possess the appropriate qualifications (minimum Honours in Archaeology) and experience to undertake the heritage assessment, management activities and consultation required for the ongoing management of the provisions of this plan.

The Heritage Consultant must be approved by the Secretary of the Department of Planning & Environment, refer to **Appendix 2**, for approved consultants.

The Heritage Consultant has the following responsibilities, in addition to those outlined in Section 6:

- Report to the site office prior to entering the site to ensure he/she are aware of any site conditions that may have changed, such as safety, and obtain the relevant update of works being undertaken that day.
- Assist the Quarry Manager with the implementation of this HMP if required.
- Assist with the Cultural Heritage Induction if required.
- Provide heritage advice to the Quarry Manager and RAPs in accordance with the relevant legislation.
- Undertake the assessment, recording, salvage (if appropriate), analysis and reporting of any new sites identified within the Project Area in accordance with the relevant legislation, consultation with the RAPs and this HMP.
- Provide advice and assistance to the Quarry Manager and RAPs with the review and amendment(s) and/or updating of this HMP as required.
- Liaise with the RAPs as required.

5. EXISTING ENVIRONMENT

The Subject land has been the subject of various past land disturbances including:

- Clearing, fencing and grazing.
- Silica sand extraction (from the two bare sand exposed areas on the site).
- Mineral sand mining, that involved clearing, stripping and stockpiling of topsoil, burning of vegetation, extraction of mineral sands using a dredge down to as much as 2 m below the water table, replacement of sand, redistribution of topsoil and burnt vegetation.
- Construction of various roads and pipelines and filling of areas of the site.

Figure 2 illustrates the areas of known previous disturbance on the site and within the proposed quarry footprint. Sectors 3, 3A, 3B, 4, 4A, 4B, 5, 5A, 6, 6A, 6B, 7, 7A, part of 7B, part of 8A and 8B and part of 9A and 9B (as per **Figure 1**) are considered likely to have been the subject of extensive topsoil stripping and past disturbance. Other areas, while subject to past disturbance have more potential to have intact subsurface heritage.

5.1 HISTORIC HERITAGE

A historic heritage assessment was undertaken by Maxim Archaeology and Heritage Pty Ltd in October 2015 as part of the Environmental Impact Assessment process for the Project. A desktop assessment determined that the project area has not been listed on the Local Environmental Plans, the State Heritage Register or Inventory, the National Heritage List, the non-statutory Register of the National Estate Database or the non-official Register of the National Trust (NSW). In addition, a site assessment found no evidence that indicated the project area supports heritage values.

Consultation with members of the community (neighbours) indicated that the foundations of a World War 2 Royal Australian Air Force radar installation may be located within the Project Area. On-site investigations did not successfully locate the installation. If the installation remains (i.e. was not removed by past silica mining) it is unlikely to present a significant item of historical heritage value due to the removal of the rest of the structure. Notwithstanding, a protocol for the management of historic heritage items are necessary.

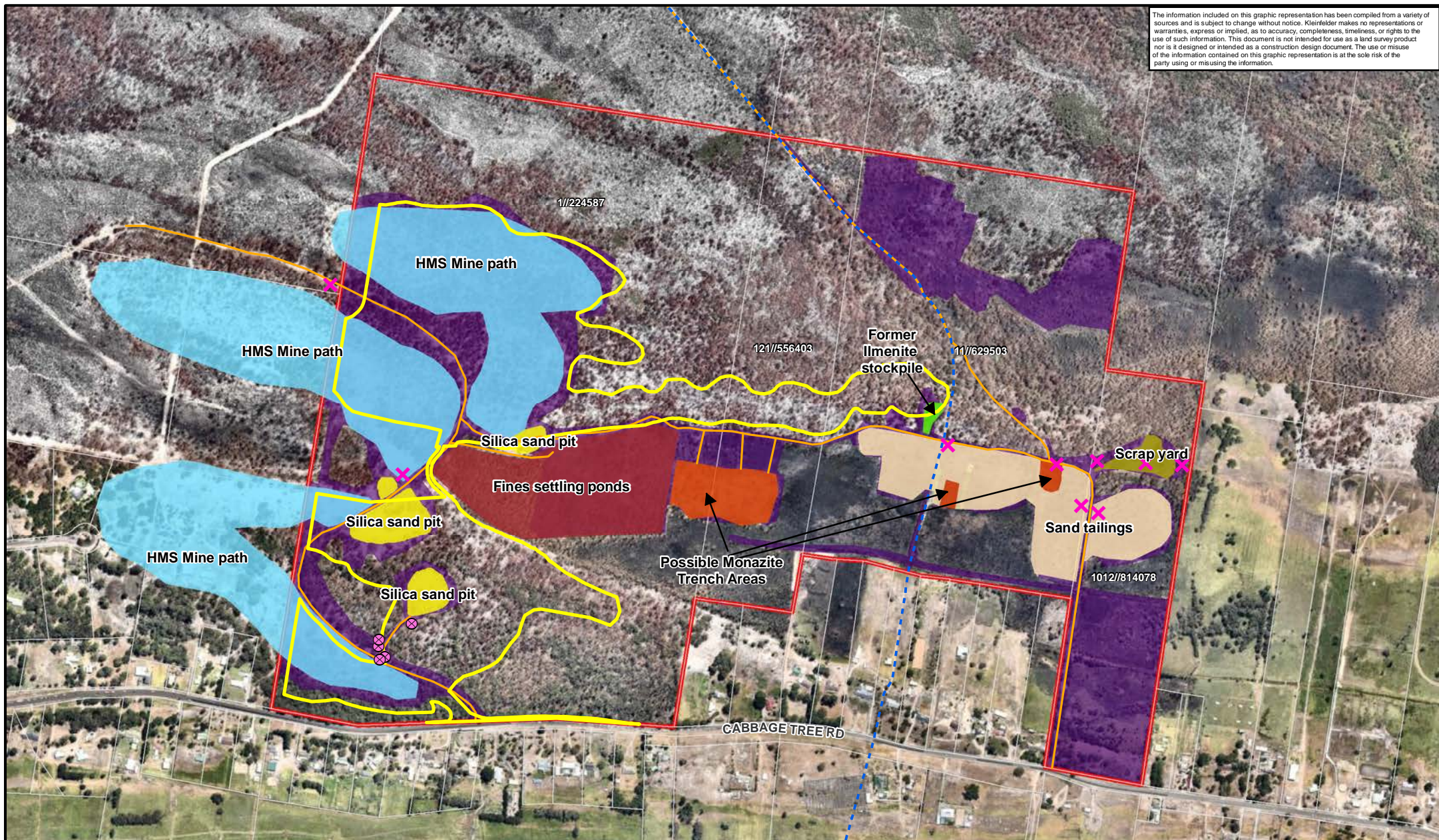
The location of the general area of the potential radar installation is shown in **Figure 3**.

5.2 KNOWN ABORIGINAL HERITAGE

One site (artefact scatter 38-4-1381) was re-located and reassessed to examine erosion and other impacts since its first recording. The site was located on the mid slope of a dune within an exposed area and situated approximately 300m from an unnamed swamp. Motorbike and walking tracks were present across the site. MCH confirm that the site was disturbed and the artefacts had been exposed through previous rutile extraction and not in situ. The site was assessed as being of low significance due to its highly disturbed nature from past land uses and an AHIP for a community surface collection was recommended. No additional sites were identified.

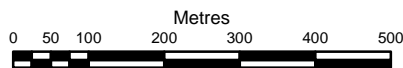
The location of the heritage site 38-4-1381 is shown in **Figure 3**.

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Legend

- | | | |
|--|---|--|
| Subject Land | — Access Road | Former ilmenite stockpile area |
| Project Area | - - - Pipeline | Sand tailings |
| Areas Disturbed to 2015 | HMS mine path | Scrap yard |
| X Known Previous Infrastructure Locations | Possible monazite trench areas | Silica sand pit |
| ⊗ Dumped Objects | Fines settling ponds | |
| Lot Boundaries | | |



PROJECT REFERENCE: 20190803

DATE DRAWN: 23/07/2018 11:34 Version 1

DRAWN BY: gjoyce

DATA SOURCE:
NSW DFSI - 2017
Nearmap - 2018

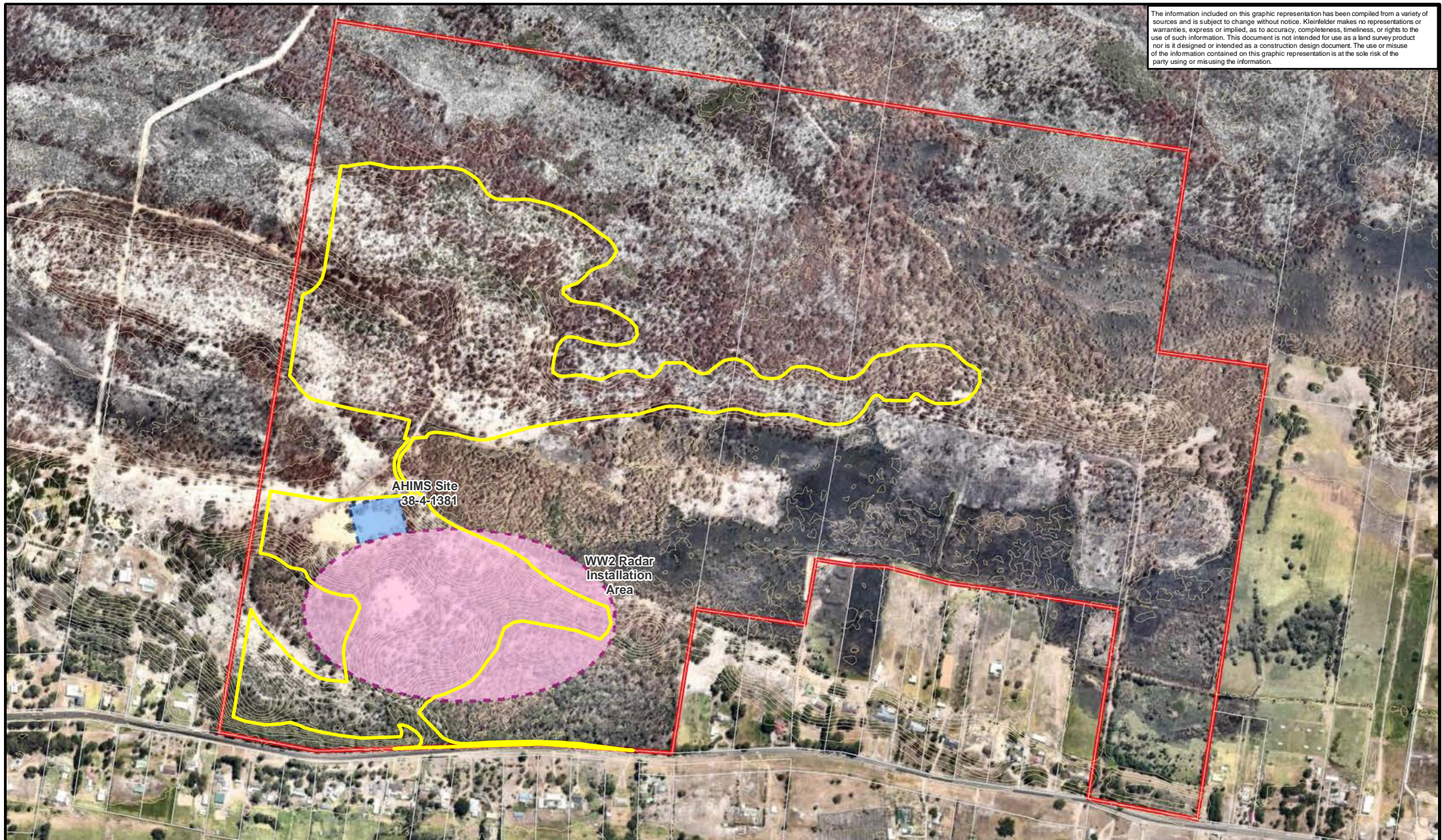
Cumulative Disturbance Area
1976-2015

Cabbage Tree Road Sand Quarry
Cabbage Tree Road, Williamtown, NSW

Figure:

2

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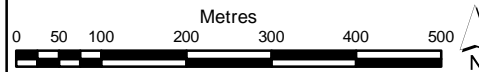


Legend

- Subject Land
- Project Area
- Lot Boundaries
- Contour Lines (1m interval)

Heritage Features (indicative location)

- AHIMS Site 38-4-1381
- WW2 Radar Installation Area



PROJECT REFERENCE: 20190803

DATE DRAWN: 28/08/2018 11:31 Version 1

DRAWN BY: gjoyce

DATA SOURCE:
NSW DFSI - 2017
Nearmap - 2018

Locations of Known Historic and Aboriginal Heritage Sites

Cabbage Tree Road Sand Quarry
Cabbage Tree Road, Williamtown, NSW

Figure:

3

6. MANAGEMENT CONTROLS

Tables 6, 7, and 8 describe the relevant heritage management actions and controls to be implemented for the Project. These controls are based on achieving the Development Consent Management Conditions in **Table 2**.

Table 5: Heritage management metrics

Aspects	<ul style="list-style-type: none"> Vegetation clearance. Topsoil stripping. Excavations and earthworks. 	Impacts	<ul style="list-style-type: none"> Damage to heritage items. Loss of representative value and historic significance.
Objectives	<ul style="list-style-type: none"> Minimise disturbance to known or unknown heritage items or places. Salvage all sites found on the site in an approach agreed by Heritage Consultant, RAPs and the Quarry Owner. Comply with Development Consent conditions. 	Targets	<ul style="list-style-type: none"> Zero fines or notices. Regular communication with RAPs. No damage to known heritage items or places.

Table 6: General controls

Item	Action	Trigger/Timing	Responsibility	Reporting
A	Ground disturbing activities will not commence until this Heritage Management Plan has been approved by the DPE and has included consultation with the Registered Aboriginal Parties (RAPs).	Prior to commencement of Construction	Quarry Manager	Approval of this plan by DPE and RAPs, refer to Appendix 1 & 2.
6.1 INDUCTION				
B	<p>All staff and contractors (excluding drivers of sand haulage trucks) will undergo site induction incorporating Aboriginal cultural awareness and awareness of potential Historic Heritage sites. The induction will include:</p> <ul style="list-style-type: none"> • The content of this HMP. • NSW and Commonwealth legislative requirements and fines for causing harm to cultural heritage. • Statement explaining what cultural significance is. <p>The induction will:</p> <ul style="list-style-type: none"> • Be developed and delivered to staff in conjunction with the Quarry Manager initially by the Heritage Consultant and the RAPs. • Be delivered by the Quarry Manager for future site workers. • Attendees will acknowledge understanding and participation of the cultural heritage induction content by signing an attendee sheet. 	Ongoing	Quarry Manager	<p>Induction and training register</p> <p>Induction Awareness Signing Sheet</p>
6.2 COMPLIANCE				
A	<p>All complaints will be recorded in the Consultation Register and resolved in line with the project Complaints Procedure in Section 5.2.1.2 of the Project EMP.</p> <ul style="list-style-type: none"> • Complaints are to be directed to the Quarry Manager on the contact details in Section 4. 	Ongoing	Quarry Manager	Summary in AEMR

Item	Action	Trigger/Timing	Responsibility	Reporting
B	Damage to a known heritage sites is considered a project non-compliance. The relevant statutory authority will be notified within 24 hours of the non-compliance and be sent a report within 7 days outlining non-compliances and corrective actions undertaken.	At all times	Quarry Manager	Summary in AEMR
C	<p>Annual review of compliance with this plan will undertaken through consideration of the following key indicators:</p> <ul style="list-style-type: none"> • Consistent communication between with RAPs (i.e. minimum 6 monthly). • Survey of site conducted completed following clearing prior to quarrying of previously unmined areas. • If able to be located, WW2 radar footing archival recording completed prior to disturbance. • No damage to known site prior to Salvage. • Salvage actions completed as recommended. • ASIRF and AHIMS site cards completed and lodged with OEH within 14 days of change of site. 	Annual	Quarry Manager	Summary in AEMR
B	Monthly internal inspections as per 6.2 of the Project EMP	Monthly	Quarry Manager	Monthly Inspection Report
C	Three-yearly Independent Environmental Audits as per Section 6.3 of the project EMP.	Three-yearly	Quarry Manager	Audit Report
6.3 CONTINUOUS IMPROVEMENT				
A	<p>All heritage management controls will be reviewed and if necessary, revised to confirm their applicability on an ongoing basis throughout the life of the Project.</p> <p>Additionally, monthly internal compliance inspections and three yearly independent environmental audits will assess whether continual improvement processes have been implemented.</p>	At all times	Quarry Manager	Summary in AEMR

Item	Action	Trigger/Timing	Responsibility	Reporting
6.4 CORRECTIVE ACTIONS				
A	<p>Where monitoring, observations or complaints suggest the project is non-compliant, WSS will undertake the following sequence of investigations and controls:</p> <ul style="list-style-type: none"> • Review the details of the non-compliance including activities at the time and the nature of the reported damage. • If due to failure or equipment or to follow operational procedures, undertake corrective actions to prevent recurrence. • If damage is not as a result of failure, review and refine procedures. 	Non-compliance	Quarry Manager	Summary in AEMR

Table 7: Historic Heritage Management Measures

Item	Action	Trigger/Timing	Responsibility	Reporting
6.5 HISTORIC HERITAGE				
A	If able to be located, the footings associated with the former World War II radar station will be subject to photographic archival recording of footings and assessment of its location prior to disturbance by a qualified Heritage Consultant endorsed by the Secretary. Refer to Section 7.1 for protocol.	Prior to disturbance of footings if able to be located – expected within Sector 1A or 2.	Quarry Manager	Radar Station Archival Report
B	Should unexpected heritage items be discovered during the Project and are likely to be disturbed by the Project, all works in the immediate area will cease and a qualified Heritage Consultant or heritage consultant will provide an assessment and, if necessary, the Heritage Branch, Department of Planning & Environment will be notified.	On disturbance of unexpected heritage item.	Quarry Manager	Summary in AEMR Reported to DPE

Table 8: Aboriginal Heritage Management Measures

Item	Action	Trigger/Timing	Responsibility	Reporting
6.6 CONSULTATION				
A	<p>Subject to modification initiated by the RAPs, the following protocol will be followed with respect to consultation:</p> <ul style="list-style-type: none"> Advise the RAPs of the date of planned commencement of the quarry. Contact the RAPs every six months to advise of the project's progress and all consultation will be documented, and periodically included in Appendix 1 (unless of a sensitive nature). In the event that any possible archaeological sites are identified during construction works, the Quarry Manager will notify a qualified Heritage Consultant and RAPs following the Unexpected Finds Procedure in Section 7.2.1. The effectiveness and value of the consultation will be periodically reviewed with the RAPs. In the event there is agreement that the approach to consultation needs to change, the changed procedures would be documented in the HMP. 	<ul style="list-style-type: none"> Prior to commencement. Every six months. New Site. Salvage of Artefacts. Substantial amendment to this plan. 	Quarry Manager	Record of consultation with RAPs
6.7 MONITORING				
A	<p>An appropriately qualified RAP representative will monitor vegetation clearing and top soil removal. Monitoring will include the following:</p> <ul style="list-style-type: none"> Interested RAPs to undertake inspection immediately following clearing prior to topsoil stripping. Sites or artefact scatters found during this process to be recorded by RAPs or qualified Heritage Consultant and salvaged according to the Salvage Protocol. If a site of <exceptional scientific and cultural significance> is found review extraction methodology, extent and salvage methods in consultation with RAPs, WSS, and Council, to determine if alternate options for the site are viable. 	Vegetation clearing & topsoil removal	Quarry Manager	Completed AHIMS Form Monitoring results summarised in AEMR

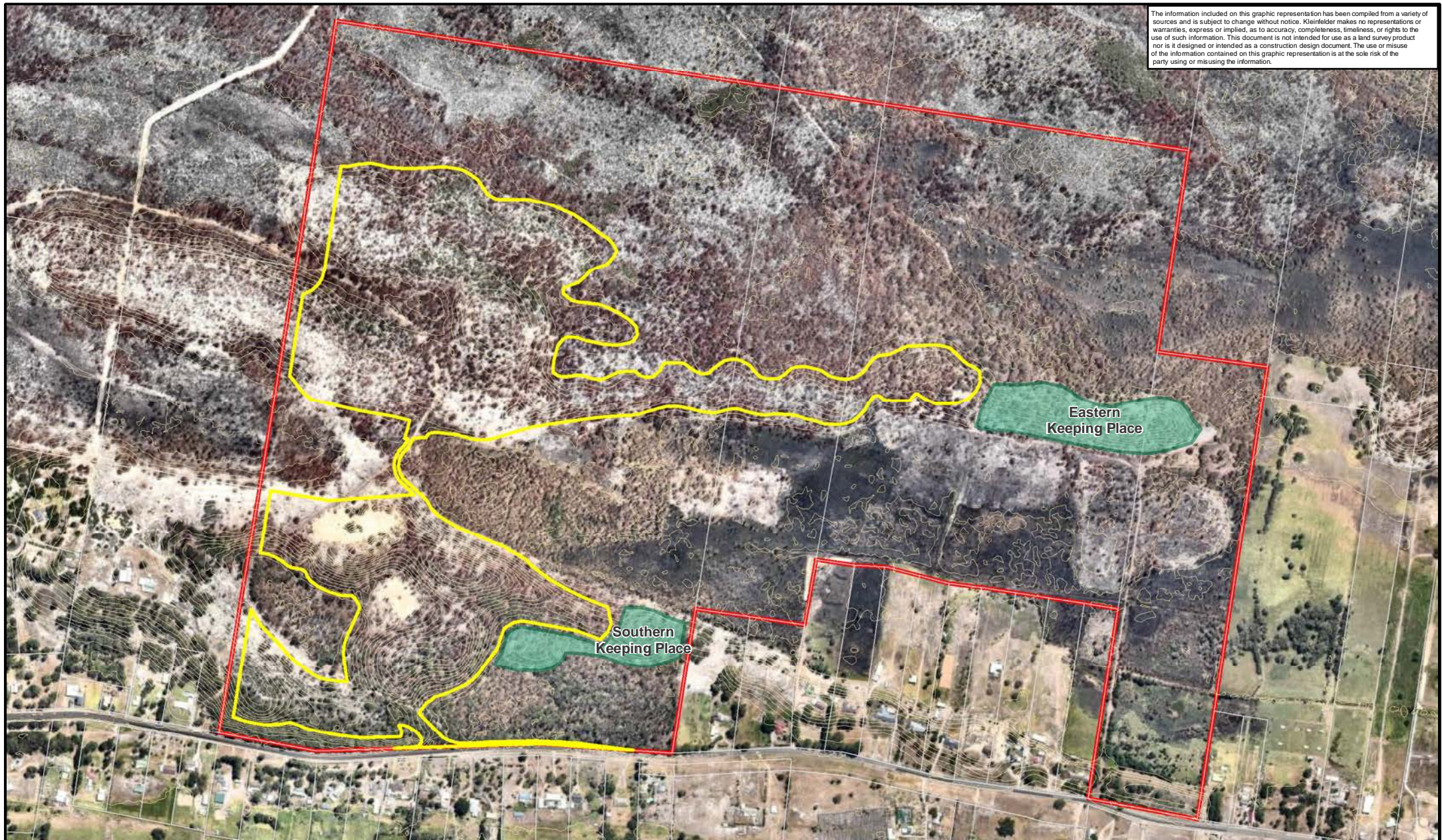
Item	Action	Trigger/Timing	Responsibility	Reporting
	<ul style="list-style-type: none"> RAPs will provide a report outlining the area monitored, methods and results at the completion of each monitoring stage 			
6.8 CONTINGENCY PROTOCOL				
A	In the event new Aboriginal sites or objects are discovered follow protocol in Section 7 , also refer to Appendix 3 for the Unexpected Finds Investigation Methods	Unexpected Aboriginal Objects or Human Remains / Unidentifiable bone.	Quarry Manager	Aboriginal Site Impact Recording Form (ASIRF) Lodge ASIRF with AHIMS Report in AEMR
6.9 SALVAGE				
A	<p>No previously unidentified site uncovered during works or AHIMS site #38-4-1381 will be impacted without completion of the required Aboriginal Site Impact Recording Form (ASIRF) by the Heritage Consultant in consultation with the RAPs.</p> <p>The Quarry Manager is to implement all reasonable salvage measures recommended in accordance with OEH regulations and the NSW NPW Act.</p>	At all times	Quarry Manager All Site Personnel RAPs Heritage Consultant	As below.
B	<p>AHIMS site #38-4-1381</p> <p>Salvage by Community surface collection of AHIMS site #38-4-1381. Survey of the site identified one site (AHIMS site #38-4-1381) that was determined to have been previously disturbed by past sand extraction activities.</p> <p>Salvage of this site will be undertaken by the Heritage Consultant in conjunction with the RAPs. The Heritage consultant will complete an ASIRF and lodge the form with an updated AHIMS to OEH.</p> <p>The ASIRF requires the following documentation (as may be amended by OEH):</p> <ul style="list-style-type: none"> Location. Site information. Site condition. Site map. 	Prior to disturbance	Quarry Manager to engage Heritage Consultant and RAPs	Aboriginal Site Impact Recording Form (ASIRF) Lodge ASIRF with AHIMS Report in AEMR

Item	Action	Trigger/Timing	Responsibility	Reporting
	<ul style="list-style-type: none"> Methodology and results of the salvage activity. Any management recommendations relating to the site, if left partially insitu. Post investigation significance. Site photographs. 			
C	<p>Unknown Sites</p> <p>As per the Contingency Protocol, works near newly found, previously unknown sites will be cordoned off by the Quarry Manager for consideration by the Heritage Consultant. The Heritage Consultant will inspect the site and if a confirmed Archaeological site will contact the RAPs. If the site consists of Human Remains refer to Section 7.2.2.</p> <p>The Heritage Consultant will prepare an AHIMS site card for each site.</p> <p>In consultation with the RAPs, the Heritage Consultant will determine and undertake the most appropriate salvage methodology. Salvage methodology (of non-skeletal remains) is expected to be generally managed as follows, subject to refinement based on the specifics of each site:</p> <ul style="list-style-type: none"> Previously undisturbed complex sites of moderate to very High Significance (such as shell middens, knapping floors, hearths etc) will include salvage excavations including the following: <ul style="list-style-type: none"> Excavation methodology will be designed to conform to DECCW 2010 guidelines. Division of site into one square metre units in 100mm splits, or an appropriated depth, until a sterile layer is reached. Sieving through 5mm mesh. Characteristics of artefacts located (both surface and sub-surface material) will be individually recorded. This will include artefact type, raw material, dimensions and diagnostic features (eg cortex, platform, termination, edge wear, backing etc). Previously undisturbed sites of lower significance (such as isolated finds) will be salvaged through surface collection including: <ul style="list-style-type: none"> Record location by GPS. Collection of artefacts. 	On identification	Quarry Manager to engage Heritage Consultant and RAPs	Aboriginal Site Impact Recording Form (ASIRF) Lodge ASIRF with AHIMS Report in AEMR

Item	Action	Trigger/Timing	Responsibility	Reporting
	<ul style="list-style-type: none"> Sites found within areas subject to previous surface mining are expected to have been significantly modified and will be salvaged through surface collection including: <ul style="list-style-type: none"> Record location by GPS. Collection of artefacts. <p>All sites impacted by the quarry will require the preparation of an ASIRF as noted within Section 8.1 above.</p>			
D	<p>The Heritage Consultant or appropriately qualified RAPs will be provided screened oversized material from the sand processing plant for inspection and salvage prior to re-use onsite or disposal.</p> <p>The following information is to be recorded by the RAPs and provided to the Quarry Manager:</p> <ul style="list-style-type: none"> Sector where the sand has been quarried that generated the artefacts (as provided by the Quarry Manager). A tally of the artefact type and material type collected. 	Monthly during operations, or as agreed by RAPs and Quarry Manager.	Quarry Manager	<p>Tally of results summarised in AEMR</p> <p>Aboriginal Site Impact Recording Form (ASIRF)</p> <p>Lodge ASIRF with AHIMS</p>
6.10 STORAGE				
D	<p><u>Temporary Storage</u></p> <p>Temporary storage of Aboriginal heritage items that are salvaged on the site will be undertaken as follows:</p> <ul style="list-style-type: none"> Site office Secure locked cabinet in Quarry Managers Office 	At all times where Quarry Operator is the custodian of artefacts.	Quarry Manager	Chain of Custody Form to be completed by RAPs and Quarry Manager at the completion of each salvage
E	<p><u>Permanent Storage</u></p> <p>The repatriation of all Aboriginal objects to a permanent keeping place within the Project Area has been identified. Two locations (Figure 4) have been selected as ideal and the RAPs will decide the final location of the keeping place that will be protected in perpetuity. Adjoining lands will be protected in perpetuity by a Biodiversity Stewardship Agreement.</p> <p>This will be documented in a <i>Transfer of Aboriginal Objects for Safekeeping agreement</i> which will be submitted to OEH.</p>	Prior to completion of the Quarry, an any transfer of artefacts from Temporary Storage.	Heritage Consultant and RAPs	<p><i>Transfer of Aboriginal Objects for Safekeeping agreement.</i></p> <p>AHIMS Card</p>

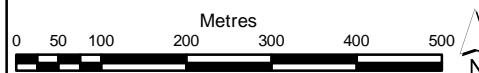
Item	Action	Trigger/Timing	Responsibility	Reporting
	The re-burial will be undertaken in accordance with Worimi cultural protocols and tradition and documented in an AHIMS site card that will include a photographic record, field notes and GPS location that will be submitted to OEH. A culturally appropriate depositional container selected by the RAPs will be used for reburial and may include traditional bark containers for wrapping the Aboriginal objects.			

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Legend

- Subject Land
- Project Area
- Potential Keeping Place
- Lot Boundaries
- Contour Lines (1m interval)



PROJECT REFERENCE: 20190803

DATE DRAWN: 29/08/2018 09:16 Version 1

DRAWN BY: gjoyce

DATA SOURCE:
NSW DFSI - 2017
Nearmap - 2018

Potential Keeping Places

Cabbage Tree Road Sand Quarry
Cabbage Tree Road, Williamstown, NSW

Figure:

4

7. CONTINGENCY PROTOCOLS

7.1 HISTORIC HERITAGE

In the event footings and/or other physical evidence are discovered of a World War II radar station the following protocol will be undertaken:

- Using a qualified Heritage Consultant or heritage specialist endorsed by the Secretary, an assessment of the significance of the item in conjunction with a photographic archival recording of the item and/or other evidence relevant to its use.
- Preparation of a report documenting these findings will be prepared and submitted within six months of the identification of the find for the information of DPE, the Heritage Council of NSW and the relevant local historical society.

Should unexpected heritage items be discovered during quarry operations and are likely to be disturbed by the Project, all works in the immediate area will cease and a heritage consultant will provide an assessment and, if necessary, the Heritage Branch, Department of Planning will be notified.

Pursuant to Condition 31 of the Development Consent, Paul Rheinberger of Maxim Multicon has been endorsed by The Secretary for NSW DPE to undertake the archival recording (refer to **Appendix 2**). In the event Paul Rheinberger is unable to undertake the recording a suitable replacement will be identified to be endorsed by the Secretary.

7.2 ABORIGINAL HERITAGE

Refer to **Appendix 3** for the investigation methodology.

7.2.1 Unexpected Aboriginal Objects

Should unexpected Aboriginal objects be uncovered during any stage of the development, **Figure 5** illustrates the protocols. Unexpected Aboriginal objects may include, but not limited to, isolated artefacts, artefact scatters, scarred trees and hearths (descriptions of such objects are provided in Appendix B).

Work must stop immediately in that location, the objects cordoned off with at least a 5m perimeter surrounding the object(s) with high visibility fencing/barrier and the Quarry Manager notified immediately. The Quarry Manager will then contact the Heritage Consultant, who will engage with the RAPs, who in consultation with each other, will assess the object(s) and recommend appropriate salvage methods as per **Section 6.9**.

Provided these heritage unexpected finds protocols have been followed, works in that location may proceed.

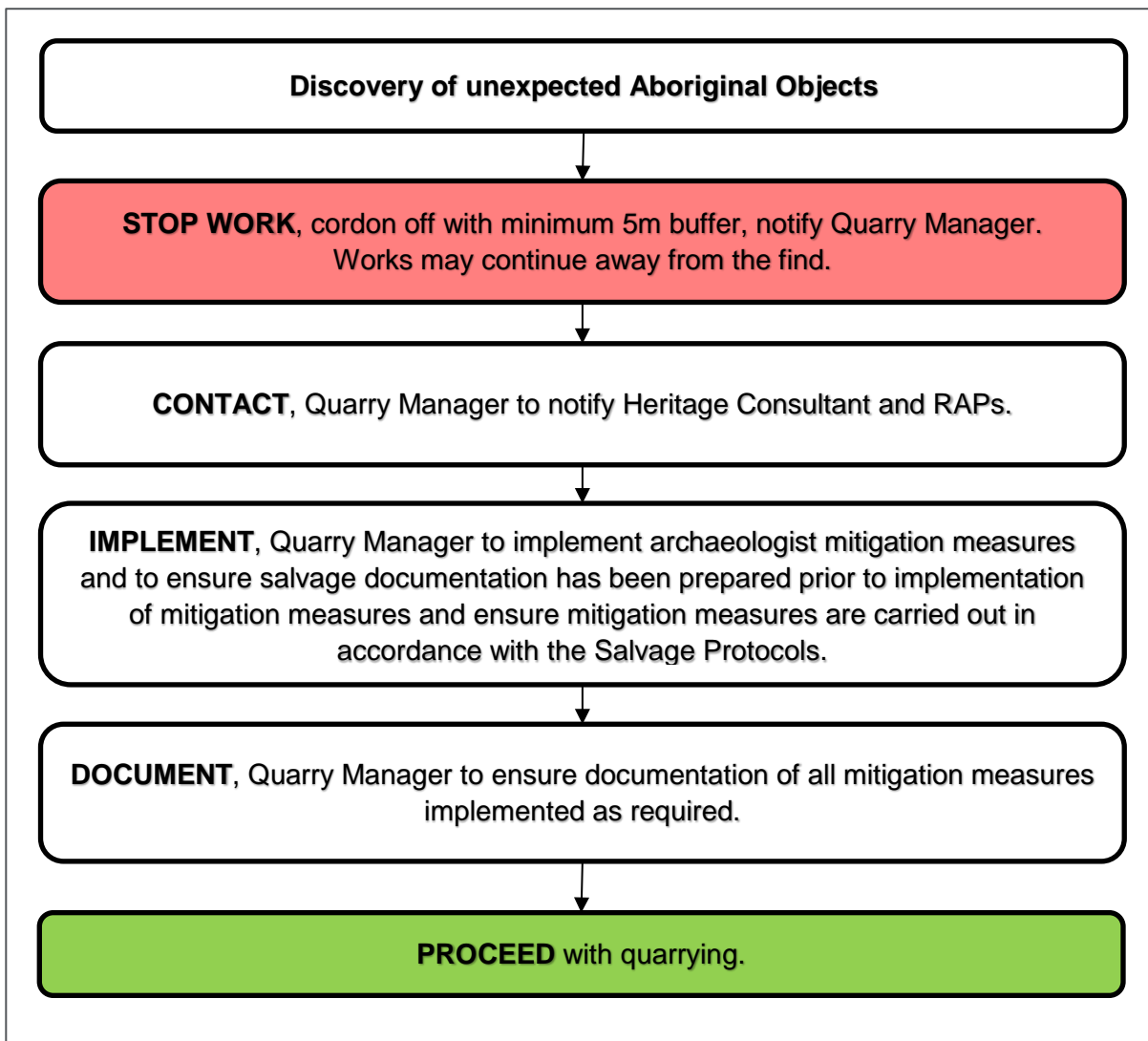


Figure 5: Unexpected finds protocol flow chart (Land Manager is Quarry Manager)

7.2.2 Discovery Of Human Remains

Human skeletal remains are of the highest significance and importance to Aboriginal people, and all care, respect and dignity will be extended by all parties should human remains be uncovered.

If human remains or unidentified bone are uncovered during any stage of the development and maintenance activities, the appropriate State legislation will be followed. All human remains fall under the *Coroners Act 2009* in the first instance. If they are identified as Aboriginal and younger than 100 years old, they will fall under the NSW NPWS Act 1974 (as amended). **Figure 6** outlines the required protocols should human remains be uncovered.

Should any human remains or unidentifiable bone be found, work is to stop in that area immediately and an area of 15 m cordoned off surrounding the remains/bone in high visibility fencing. The Quarry Manager is to be notified immediately.

The Quarry Manager will contact the heritage consultant and local NSW Police immediately, who will then contact the NSW Forensic Services who will determine if they are:

- Human.
- Aboriginal or non-Aboriginal.
- If Aboriginal, determine antiquity (older or younger than 100 years).

If it is determined the remains are Aboriginal and older than 100 years old, the Police will notify the Quarry Manager who must contact OEH immediately and an OEH officer will confirm the identification in writing. OEH, in consultation with the RAPs and the heritage consultant will develop a human remains management strategy and the Quarry Manager is to ensure this strategy is implemented. The Quarry Manager must also document the human remains management strategy and the heritage consultant will provide a letter of clearance prior to any works recommencing at that location.

If the remains are determined to be a Police matter, Police instructions will be followed and clearance to recommence works should be sought from the Police.

Provided the human skeletal protocols have been followed and documented, and a clearance letter from the heritage consultant or Police has been obtained, construction/maintenance works may proceed in that location.

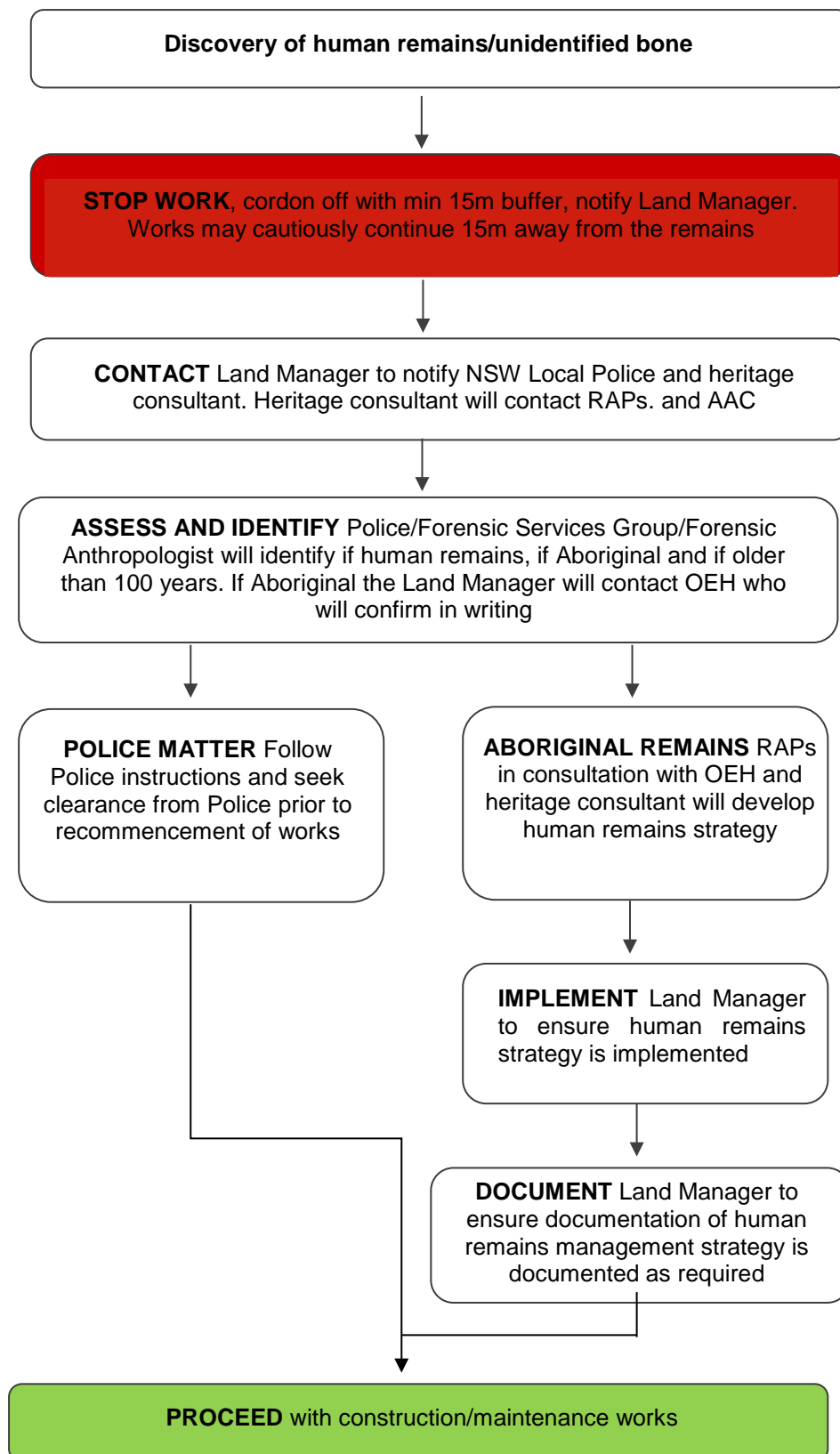


Figure 6: Human remains protocol flow chart (Land Manager is Quarry Manager)

7.3 DISPUTE RESOLUTION

In event of unresolved dispute between Stakeholders and Newcastle Sand, Newcastle Sand will commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate and seek resolution between parties. In the event of dispute on the selection of a suitable person the matter will be referred to the Secretary of NSW Planning for resolution.

8. REPORTING

Table 9 provides a summary of the key reporting required in the implementation of this plan.

Table 9: Reporting Requirements

Item	Report	Trigger	Responsibility	Reporting Authority
A	Radar Station Archival Report	Prior to disturbance of WWII footings – expected within Sector 1A or 2	Quarry Manager	DPE
B	Unexpected Historic Heritage Item Report	On disturbance of unexpected historic heritage item.	Quarry Manager	DPE
C	Aboriginal Site Impact Recording Form (ASIRF)	Prior to salvage of Aboriginal Object other than Skeletal Remains.	Heritage Consultant and RAPs	OEH
D	Aboriginal Heritage Information Management System (AHIMS) site card.	When conditions of a site change.	Heritage Consultant and RAPs	OEH
E	Aboriginal Heritage Monitoring Results	Following Aboriginal heritage monitoring event	Quarry Manager	RAPs
F	Non-Compliance and Corrective Action Report	Following identification of a heritage non-compliance	Quarry Manager	DPE
G	Monthly Inspection Report	Following monthly internal inspections	Quarry Manager	Internal
H	Three-yearly Independent Environmental Audits	Following three-yearly independent audit	Quarry Manager	DPE
I	<p>Annual Environmental Management Report (AEMR). AEMR to include:</p> <ul style="list-style-type: none"> Summary of all heritage monitoring results and management actions undertaken in the 12-month period; Summary of any heritage non-compliances recorded in the 12-month period; Summary of any heritage-related complaints recorded in the 12-month period; Summary of corrective actions and improvements to reduce impacts to heritage. <p>AEMR will be uploaded to Project website within two weeks of report being issued.</p>	Annually at time agreed with DPE	Quarry Manager	DPE

APPENDIX 1: STAKEHOLDER CONSULTATION

Table 10: Contact details of Registered Aboriginal Parties **[PHONE AND EMAIL DELETED FOR WEBSITE VERSION]**

Aboriginal Party	Contact	Phone	Email
Worimi LALC	Jamie Merrick		
Nur-Run-Gee Pty Ltd	Lennie Anderson		
Mur-Roo-Ma Inc	Anthony Anderson		

Date	Consultation type	RAP/Agency	Contact person	Description
	meeting	All parties		Project meeting, consultation

Date	Consultation type	RAP/Agency	Contact person	Description

Date	Consultation type	RAP/Agency	Contact person	Description

25 July 2018

*Anthony Anderson
Mur-Roo-Ma Inc
7 Vardon Road
Fern Bay NSW 2295*

Dear Anthony,

RE: Williamtown Sand Extraction re-Start: Heritage Management Plan and project meeting

MCH have been engaged by Kleinfelder to re-start the cultural heritage component of the Williamtown Sand Extraction project and develop a Cultural Heritage Management Plan for the project.

The proponent, Williamtown Sane Syndicate, Kleinfelder and MCH would like to invite you to a project meeting at Worimi LALC on 16th August 2018 at 10am.

The meeting will outline and update the project, provide a summary of the indigenous archaeological assessment (MCH 2015), a summary of the Historic archaeological findings, discussion of the draft Aboriginal Cultural Heritage and Historic Management Plan (ACHHMP) and future works.

Please find enclosed a copy of the MCH 2015 assessment and the DRAFT ACHHMP for your review prior to the project meeting.

Should you have any questions please feel free to contact me on 0412 702 396.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

25 July 2018

*Lennie Anderson
Nur-Run-Gee Pty Ltd
22 Popplewell Road
Fern Bay NSW 2295*

Dear Lennie,

RE: Williamtown Sand Extraction re-Start: Heritage Management Plan and project meeting

MCH have been engaged by Kleinfelder to re-start the cultural heritage component of the Williamtown Sand Extraction project and develop a Cultural Heritage Management Plan for the project.

The proponent, Williamtown Sane Syndicate, Kleinfelder and MCH would like to invite you to a project meeting at Worimi LALC on 16th August 2018 at 10am.

The meeting will outline and update the project, provide a summary of the indigenous archaeological assessment (MCH 2015), a summary of the Historic archaeological findings, discussion of the draft Aboriginal Cultural Heritage and Historic Management Plan (ACHHMP) and future works.

Please find enclosed a copy of the MCH 2015 assessment and the DRAFT ACHHMP for your review prior to the project meeting.

Should you have any questions please feel free to contact me on 0412 702 396.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

25 July 2018

*Jackie Henderson
Worimi LALC
2163 Nelson Bay Road
Williamtown NSW 2318*

Dear Jackie,

RE: Williamtown Sand Extraction re-Start: Heritage Management Plan and project meeting

MCH have been engaged by Kleinfelder to re-start the cultural heritage component of the Williamtown Sand Extraction project and develop a Cultural Heritage Management Plan for the project.

The proponent, Williamtown Sand Syndicate, Kleinfelder and MCH would like to invite you to a project meeting at Worimi LALC on 16th August 2018 at 10am.

The meeting will outline and update the project, provide a summary of the indigenous archaeological assessment (MCH 2015), a summary of the Historic archaeological findings, discussion of the draft Aboriginal Cultural Heritage and Historic Management Plan (ACHHMP) and future works.

Please find enclosed a copy of the MCH 2015 assessment and the DRAFT ACHHMP for your review prior to the project meeting.

Should you have any questions please feel free to contact me on 0412 702 396.

Yours sincerely,

for McCardle Cultural Heritage Pty Ltd



Penny McCardle
Principal Archaeologist
Forensic Anthropologist

Penny McCardle

From: Penny McCardle <mcheritage@iprimus.com.au>
Sent: Wednesday, 25 July 2018 1:23 PM
To: 'murroomainc1@gmail.com'
Subject: Williamtown Sand Extraction
Attachments: AA Meeting invite 25 7 2018.pdf

Hi Anthony,

Please see the attached letter and documents can be found at:

https://www.dropbox.com/sh/c8hssls301v0thv/AACPp_15Ksh3Sp6FERzy8IQIa?dl=0

Kind regards,

Penny McCardle
Archaeologist & Forensic Anthropologist



PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

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Penny McCardle

From: Penny McCardle <mcheritage@iprimus.com.au>
Sent: Wednesday, 25 July 2018 1:24 PM
To: 'lennie.anderson011@bigpond.com'
Subject: Williamtown Sand Extraction
Attachments: LA Meeting invite 25 7 2018.pdf

Hi Lennie,

Please see the attached letter and documents can be found at:

https://www.dropbox.com/sh/c8hssls301v0thv/AACPp_15Ksh3Sp6FERzy8IQIa?dl=0

Kind regards,

Penny McCardle

Archaeologist & Forensic Anthropologist



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Penny McCardle

From: Penny McCardle <mcheritage@iprimus.com.au>
Sent: Wednesday, 25 July 2018 1:24 PM
To: 'sites@worimi.org.au'
Subject: Williamtown Sand Extraction
Attachments: JA Meeting invite 25 7 2018.pdf

Hi Jamie,

Please see the attached letter and documents can be found at:

https://www.dropbox.com/sh/c8hssls301v0thv/AACPp_15Ksh3Sp6FERzy8IQIa?dl=0

Kind regards,

Penny McCardle

Archaeologist & Forensic Anthropologist



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Penny McCardle

From: lennie.anderson011 lennie.anderson011 <lennie.anderson011@bigpond.com>
Sent: Wednesday, 1 August 2018 4:38 PM
To: Penny McCardle
Subject: Re: RE: Williamtown Sand Extraction

Hi Penny,

Thank You, I've read the Report and Find it Quite accurate and Culturally sound in the Recommendations. As a RAP Member it is pleasing to see our thoughts and wishes being treated with Respect.

Lennie Anderson OAM

Nur-Run-Gee Pty Ltd (Director)

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

From: "Penny McCardle" <mcheritage@iprimus.com.au>
To: "'lennie.anderson011 lennie.anderson011'" <lennie.anderson011@bigpond.com>
Sent: Thursday, 26 Jul, 2018 At 2:13 PM
Subject: RE: Williamtown Sand Extraction

Kind regards,

Penny McCardle

Archaeologist & Forensic Anthropologist



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Meeting Sign In Form

Project: Williamtown Sand

Facilitator:

Place/Room: WLALC

Date:

Time: 16-8-18



MCCARDLE
CULTURAL HERITAGE

[illegible]

Penny McCardle

From: Penny McCardle <mcheritage@iprimus.com.au>
Sent: Wednesday, 19 December 2018 3:12 PM
To: 'Sites'; 'lennie.anderson011@bigpond.com'; 'Anthony Anderson'
Subject: William town Sand Extraction HMP
Attachments: HMP 18 12 2018 Final.pdf

HI all,

Apologies for this getting to you so late, the client just finalised this yesterday.

Please find the final HMP for the above named project.

Hope you all have a great Christmas and New Year, keep safe and see you in 2019.

Kind regards,

Penny McCardle
Archaeologist & Forensic Anthropologist



PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

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APPENDIX 2: REGULATOR CONSULTATION

Table 11: Summary of agency correspondence and issue resolution

Correspondence	Comment	Response
OEH	<ul style="list-style-type: none"> Clarified that existing RAP consultation for the site assessment was suitable for the development of the ACHMP. 	<ul style="list-style-type: none"> Nil required – existing parties consulted as required under guideline.
DPE comments of 21 May 2019	<ul style="list-style-type: none"> Page numbers. They start with small roman numerals up to page v. Then the next pagination is Page 7. It seems the even pagination is missing from page 6 to 26. Then it seems OK. 	<ul style="list-style-type: none"> Corrected.
	<ul style="list-style-type: none"> Page 7. The Worimi Statement of Significance is blank. 	<ul style="list-style-type: none"> Included.
	<ul style="list-style-type: none"> Page 9, Executive Summary. The last line states that “<i>Section 9 provides protocols for compliance, dispute resolution and review procedures.</i>” There is no Section 9 to the HMP, nor its proposed content that I can see. 	<ul style="list-style-type: none"> Line removed, dispute resolution procedure including within Section 7.3.
	<ul style="list-style-type: none"> Page 25, Section 4.4. Remove the words following “<i>It does not include the drivers of sand haulage trucks</i>”. Reason: to be in accordance with the conditions of consent and the office workers would benefit from such an induction. 	<ul style="list-style-type: none"> Corrected.
	<ul style="list-style-type: none"> Page 31, item 6.1, last dot point. Remove the words “<i>Not to exceed 30 minutes in length and</i>” Reason: the Department is not willing to approve a HMP with a time limit to the induction. 	<ul style="list-style-type: none"> Corrected.
	<ul style="list-style-type: none"> Page 32, Item 6.2 C, third dot point. change wording to “If able to be located, WW2 radar footing archival recording completed prior to their disturbance”. 	<ul style="list-style-type: none"> Corrected.
	<ul style="list-style-type: none"> Page 34, Item 6.5 A. Similar comments to immediately above. 	<ul style="list-style-type: none"> Corrected.
	<ul style="list-style-type: none"> Page 44, Figure 6. Text in the bottom two text boxes has been cut off. 	<ul style="list-style-type: none"> Corrected.
	<ul style="list-style-type: none"> Page 51, Appendix 2. Please include regulatory consultation in this Appendix. 	<ul style="list-style-type: none"> Included.

From: [Nicole Davis](#)
To: [Jonathan Berry](#); [Penny McCardle](#)
Subject: Fwd: ACHMP
Date: Thursday, 6 June 2019 5:04:53 PM
Attachments: [image001.png](#)

External Email.

Email as requested.

Cheers Nicole

Sent from my iPhone

Begin forwarded message:

From: Nicole Davis <Nicole.Davis@environment.nsw.gov.au>
Date: 6 June 2019 at 12:59:08 pm AEST
To: 'Penny McCardle' <mcheritage@iprimus.com.au>
Subject: FW: ACHMP

From: Steven Cox
Sent: Tuesday, 6 March 2018 5:49 PM
To: 'Penny McCardle' <mcheritage@iprimus.com.au>
Cc: Nicole Davis <Nicole.Davis@environment.nsw.gov.au>
Subject: RE: ACHMP

Hi Penny,

In this case, the preparation of the ACHMP should be undertaken with the previously registered RAPs – no need to seek an updated list of RAPs.

Regards
Steven

Steven Cox
Senior Team Leader Planning
Hunter Central Coast Branch
Regional Operations Division
Office of Environment & Heritage

Level 4/26 Honeysuckle Drive Newcastle NSW 2300
Locked Bag 1002 Dangar NSW 2309
T 02 4927 3140
M 0472 800 088

From: Penny McCardle [<mailto:mcheritage@iprimus.com.au>]
Sent: Monday, 5 March 2018 4:05 PM
To: Nicole Davis
Subject: ACHMP

Importance: High

Hi Nicole,

Our client working on the Williamstown Sand Extraction project have received the development conditions part of which is an ACHMP. We completed the archaeological works about 2 years ago. Do we have to re do consultation for the management plan or can we just consult with the previously registered RAPs?

Kind regards,

Penny McCardle

Archaeologist & Forensic Anthropologist



PO Box 166,
Adamstown 2289 NSW
P: 0412 702 396
mcheritage.com.au

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL



Mr Jonathan Berry
Senior Advisor
Kleinfelder Australia Pty Ltd
95 Mitchell Road
CARDIFF NSW 2285

Dear Mr Berry

**Cabbage Tree Road Sand Quarry (SSD 6125)
Approval of Heritage Management Plan**

I refer to your recent submission of a revised draft management plan for the Cabbage Tree Road Sand Quarry.

The Secretary has approved the most recently submitted version of the Aboriginal Cultural Heritage and Historic Heritage Management Plan required by conditions 31, 32 and 33 of Schedule 3.

Please contact Colin Phillips on the details above if you have any questions.

Yours sincerely

Howard Reed

Director

Resource Assessments

As nominee of the Secretary

17.6.19

APPENDIX 3: UNEXPECTED FINDS HERITAGE INVESTIGATION METHODOLOGIES

Verification and management of all Aboriginal objects (sites)

All potential Aboriginal sites will be verified by the Heritage Consultant and representatives from the RAPs.

The purpose of the verification process is to determine whether or not the objects in question are in fact Aboriginal objects to ensure appropriate management measures be implemented.

The verification process will include the following provisions:

1. One representative from each RAP may assess the Aboriginal object (site) for its cultural status and must provide evidence and justification for significance.
2. A Heritage Consultant may assess the scientific status of the Aboriginal object (site) and provide evidence and justification for significance.
3. An AHIMS site card and pro-forma assessment sheet will be completed for each Aboriginal object (site).
4. Management recommendations specific to each Aboriginal object (site), based on both traditional knowledge and scientific methodology, will be provided to the Quarry Manager. Should a potential site be either scientifically or culturally significant but no evidence or justification is provided, the matter will be put to the OEH for determination.
5. As the site is subject to Part 4 State Significant Development, an AHIP is not required prior to salvage, however an ASIRF must be completed for each site and the AHIMS updated accordingly.

Shell middens

Shell middens are places where debris from eating shell fish has accumulated. Middens preserve a range of past dietary remains which have the potential to inform about past dietary consumption and availability of food resources. Most shell middens analysed to date pertain to coastal environments with few pertaining to inland middens. In NSW, middens are located on headlands, beaches and dunes, around estuaries, swamps, the tidal stretches of creeks and rivers and along the banks of inland rivers, creeks and lakes. Shell middens may be found in the open or in rock shelters and often those in the open are disturbed through erosion and land use impacts and those in shelters are usually well preserved. The location of middens is influenced by a variety of factors including, but not limited to, the availability of shell fish, aspect, accessibility and the nature of the immediate area and are typically located within a reasonable distance from water on level, sheltered surfaces.

Ranging in size from small scatters to deep layered deposits that have built up over time, the size of the midden may relate to its location (e.g. riverbank middens tend to be smaller than estuarine and coastal middens). Small middens may represent short term occupation or the debris from a single meal. Major estuarine species include bivalves such as cockle, whelk, mud and rock oyster and both edible and hairy mussels. Rock platform species of gastropods include limpets, turban shell, periwinkles, nerits, tritons and cartrut shell fish and the most important beach species is the pipi.

Shell middens may also include fish, sea birds, sea mammals and land mammals. Stone artefact are also typically found within middens and indicate trade and/or transportation of raw materials. Bone and shell artefacts, such as fish hooks and barbs, evidence of cooking may be present in the form of charcoal, ash, fire stones, hearths, burnt clay and/or burnt earth. The midden usually occurs within a soil or sand layer that is darker than the surrounding sediment. Middens may also contain burials and if present are usually located under the midden.

Preservation varies with food stuffs such as berries and fruits leaving no archaeological traces, sea foods such as cartilageous fish, stingrays, octopus and fish eggs are likely to be equally invisible in the archaeological record. However, tissue such as shell and crustations and bone may be preserved. Preservation is also dependant on land use impacts and associated soil pH.

An important contribution to the study of coastal shell middens was made by Meehan (1975, 1977a, b) through ethnographic studies of coastal hunter and gatherers in northern Arnhem Land. Through a yearlong quantitative record of the total diet, Meehan provides unique insights into all aspects of shell fish gathering and the creation of shell middens with pertinent data to the interpretation of midden data. Shell middens may be distinguished from natural shell beds as follows (Attenbrow 1992; Bailey 1994; Gill 1951; Coutts 1966; Hughes and Sullivan 1974):

1. Middens contain charcoal, burnt wood, clay and/or earth, blackened shells, sone artefacts, hearth stones. These are absent from natural shell beds.
2. Middens are either unstratified or roughly stratified whereas natural shell deposits are well stratified and exhibit sedimentary features of water laid deposits.
3. Middens contain edible species and sizes whereas shell beds contain shells of varied species and sizes as well as both edible and non-edible species.
4. Middens do not contain worn shell resulting from transportation from the off shore or beach zone, whereas shell beds do.
5. Middens contain mammal bones used in food consumption, shell beds do not.

6. Middens do not contain certain forms of marine life not used by Aboriginal people (e.g. corals, tube worms) but shell beds do.

Interpretation of shell middens usually falls into three main categories;

7. Taphonomy: differential survival value of different species may be considered.
8. Environmental/ecological: changes in habitat may bring about changes in the availability of species (Coutts 1970).
9. Economic/behavioural: changes in gathering habits brought about by some purely cultural factor may be considered (Bowdler 1970, 1976).

The interpretation of shell middens is only as good as ones' analysis, which is only as good as ones' sample, all of which are typically limited during surface survey only.

- Large camp sites, where everyday activities such as habitation, maintenance of stone or wooden tools, manufacturing of such tools, management of raw materials, preparation and consumption of food and storage of tools has occurred;
- Medium/small camp sites, where activities such as a small meal was cooked and/or consumed;
- Hunting and/or gathering events;
- Other events spatially separated from a camp site, or
- Transitory movement through the landscape.

If a potential shell midden has been identified, the Unexpected Finds Protocol must be followed immediately.

Examples of shell middens (MCH)



Surface artefact scatters

Also described as open campsites, artefact scatters and open sites, these deposits have been defined at two or more stone artefacts within 50 or 200 metres of each other and may include archaeological remains such as stone artefacts, shell, and sometimes hearths, stone lined fire places and heat treatment pits. These sites are usually identified as surface scatters of artefacts in areas where ground surface visibility is increased due to lack of vegetation. Erosion, agricultural activities (such as ploughing) and access ways can also expose surface campsites. Artefact scatters may represent evidence of:

- Camp sites, where everyday activities such as habitation, maintenance of stone or wooden tools, manufacturing of such tools, management of raw materials, preparation and consumption of food and storage of tools has occurred;
- Hunting and/or gathering events;
- Other events spatially separated from a camp site, or
- Transitory movement through the landscape.

If a potential artefact scatter has been identified, the Unexpected Finds Protocol must be followed immediately.

Examples of artefact scatters (MCH)



Surface isolated finds

Isolated artefacts are usually identified in areas where ground surface visibility is increased due to lack of vegetation. Erosion, agricultural activities (such as ploughing) and access ways can also expose surface artefacts. Isolated finds may represent evidence of:

- Hunting and/or gathering events; or
- Transitory movement through the landscape.

If a potential isolated find has been identified, the Unexpected Finds Protocol must be followed immediately.

Examples of isolated artefacts (MCH)



Examples of artefacts in the local area





Hearths

A hearth may also be known as an oven, earth oven, campfire or fireplace. In general, a hearth is a relatively small (<2m diameter) roughly circular piles of ash-stained, heat fractured rock and/or lumps of burnt clay (known as hearth stones) and are often associated with an ash-stained substrate and charcoal fragments found on or in open ground. Hearths are typically associated with burnt flora, faunal remains (particularly bone and shell) and other cultural material, including stone artefacts. Hearths are assumed to have been used for food cooking and/or heating and/or heat treating stone for stone tool manufacture,

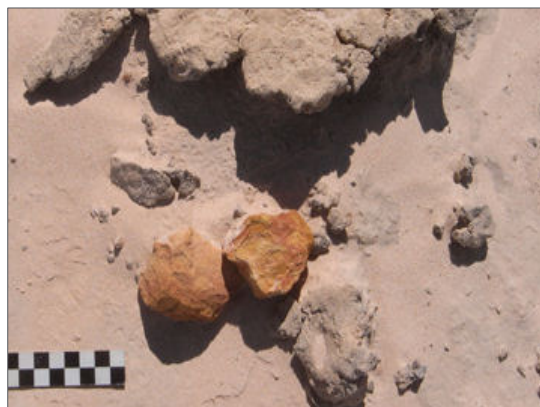
These sites are usually identified as surface and/or subsurface sites in areas where ground surface visibility is increased due to lack of vegetation. Erosion, agricultural activities (such as ploughing) and access ways can also expose hearths, although this usually results in a disturbed hearth with hearth stones dispursed over a slightly larger area than their original location.

Hearths may represent evidence of;

- Camp sites, where everyday activities such as habitation, maintenance of stone or wooden tools, manufacturing of such tools, management of raw materials, preparation and consumption of food and storage of tools has occurred; and
- Hunting and/or gathering events.

If a potential hearth has been identified, the Unexpected Finds Protocol must be followed immediately.

Examples of hearths and a hearth stone (MCH; OEH)



Burials

Burials can occur anywhere (ground, cave, and hollow tree). Cave burials usually do not survive due to both animal and human disturbances and extant tree burials are rare due to logging and land clearance. Ground burials tend to be in soft sandy soils, but can be found in soil and clay. Burials are also commonly found in association with burial goods including stone axe heads (Howitt 1996:464-465). Generally they are only identified through accidental exposure. Although factors such as land clearance and associated erosion reduce the likelihood of burials surviving intact, bone is durable and commonly survives in such environments, albeit in fragmentary form.

If a burial or skeletal remains are uncovered, the Skeletal Remains Protocol must be followed immediately. Once verified by the appropriate specialists and Police, the burial/skeletal remains will be recorded and assessment undertaken. Management recommendations will be made in consultation with the RAPs, OEH and the Heritage Consultant.