

APPENDIX B5

Construction Heritage Management Plan

Woolgoolga to Ballina

Pacific Highway Upgrade (sections 3 to
11)

APRIL 2016

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- Appendix A** Aboriginal & non-Aboriginal heritage education and training package
- Appendix B** Roads and Maritime Standard Management Procedure – Unexpected Archaeological Finds
- Appendix C** Salvage Status Register

Glossary/Abbreviations

AFG	Aboriginal Focus Group
AHIMS	Aboriginal Heritage Information Management System
CEMP	Construction Environmental Management Plan
MCoA	Minister's Condition of approval
CHMP	Construction Heritage Management Plan
DoE	Commonwealth Department of Environment
DP&E	NSW Department of Planning and Environment
DPI (Fisheries)	Department of Primary Industries (Fisheries)
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>
EWMS	Environmental Work Method Statements
ERG	Environmental Review Group
NPW Act	<i>NSW National Parks and Wildlife Act 1974</i>
OEH	NSW Office of Environment and Heritage
PAD	Potential archaeological deposit
PC	Pacific Complete
Project, the	The Woolgoolga to Ballina Pacific Highway Upgrade (sections 3-11)
RAPS	Registered Aboriginal Parties
Secretary	Secretary of the Department of Planning and Environment
SPIR	Submissions/Preferred Infrastructure Report
RMS, Roads and Maritime Services	Roads and Maritime

1 Introduction

1.1 Context

This Construction Heritage Management Plan (CHMP) forms part of the Construction Environmental Management Plan (CEMP) for the planned construction of sections 3 to 11 of the Woolgoolga to Ballina Pacific Highway Upgrade. Sections 1 and 2 of the upgrade and soft soil early works (Wave 1, Wave 2, Wave 3 and Wave 4) have been included/will be included in separate CEMPs and their sub plans.

This CHMP has been prepared to address the requirements of the Minister's Conditions of Approval (MCoA), the mitigation and management measures listed in the Pacific Highway Upgrade Woolgoolga to Ballina Environmental Impact Statement (EIS) and the Submissions/Preferred Infrastructure Report (SPIR), and all applicable legislation.

There are three tie in projects within the work limits, namely the Glenugie Upgrade, Devils Pulpit and Ballina Bypass projects. These tie in projects have been approved separately by the Minister for Planning.

1.2 Background

The Pacific Highway Upgrade Woolgoolga to Ballina EIS (RMS 2012) assessed the impacts of construction and operation of the Project on Aboriginal and non-Aboriginal heritage.

As part of EIS development, detailed non-Aboriginal heritage and Aboriginal cultural heritage assessments were prepared to address the Environmental Assessment Requirements issued by the Department of Planning and Infrastructure. The non-Aboriginal heritage assessment was included in the EIS as Working Paper: Historic (non-Aboriginal) Heritage Assessment. The Aboriginal cultural heritage assessment was included in the EIS as Working Paper: Aboriginal Cultural Heritage Assessment (Woolgoolga to Wells Crossing Section); Working Paper: Aboriginal Cultural Heritage Assessment (Wells Crossing to Iluka Road Section); Working Paper: Aboriginal Cultural Heritage Assessment (Iluka Road to Woodburn Section); and Working Paper: Aboriginal Cultural Heritage Assessment (Woodburn to Ballina Section)

The EIS identified that one potential archaeological deposit, 38 archaeological sites and 11 Aboriginal cultural places are likely to be directly or indirectly impacted by the overall project. With the implementation of appropriate management measures, the risk of residual impacts on Aboriginal heritage would be reduced to moderate.

The EIS identified that 18 non-Aboriginal heritage items within the overall project would be directly or indirectly impacted by the Project and a further two heritage properties would be impacted but the impacts would occur outside the curtilage of the item.

Additional Aboriginal heritage and non-Aboriginal heritage assessments were conducted as part of the Submissions/Preferred Infrastructure (SPIR) report to address the impacts of design changes and additional ancillary sites. These assessments were included in the SPIR as: Appendix D – Ancillary facilities and design changes Aboriginal Cultural Heritage Assessment and Addendum Aboriginal Cultural Heritage Assessment and Appendix E Historic heritage – Statement of Heritage Impact and site description. Additional significant sites were identified with applicable management measures from the reports included as part of this CHMP.

Within sections 3-11 there are 37 archaeological sites, 10 Aboriginal cultural places and 15 non-Aboriginal heritage items are likely to be directly or indirectly impacted by the project.

1.3 Environmental management systems overview

The CEMP describes the overall system for environmental management. That system forms part of the environmental management framework being delivered by Pacific Complete (PC) in partnership with Roads and Maritime.

The CHMP has been developed in consultation with:

- NSW Office of Environment and Heritage (OEH)
- NSW Heritage Council
- Registered Aboriginal Parties (RAPs).

Management measures identified in this plan will be incorporated into site or activity specific Environmental Work Method Statements (EWMS) by the contractor.

Contractor EWMS will be developed and signed off by the Pacific Complete Environment Manager prior to commencement of works and construction personnel will be required to undertake works in accordance with the identified mitigation and management measures.

Additionally an online GIS system of mapping (SiteMap) has been developed for the project and this includes all the Aboriginal and non-Aboriginal heritage items identified during the assessment process for the project. Used together, this CHMP, SiteMap, strategies, procedures and EWMS form a management system that clearly identifies required environmental management actions for reference by project personnel.

The review and document control processes for this plan are described in Chapters 9 and 10 of the CEMP.

2 Purpose and objectives

2.1 Purpose

The purpose of this plan is to describe how Aboriginal and non-Aboriginal heritage will be protected and managed during construction of the work.

2.2 Objectives

The key objective of the CHMP is to ensure that impacts to Aboriginal and non-Aboriginal heritage are minimised and within the scope permitted by the planning approval. To achieve this objective, the following will be undertaken:

- Facilitate engagement with the local Aboriginal community in partnership to appropriately manage the Aboriginal cultural heritage values associated with the work
- Ensure appropriate controls and procedures are implemented during construction activities to avoid or minimise potential adverse impacts to Aboriginal and non-Aboriginal heritage along the work footprint
- Ensure appropriate measures are implemented to address the relevant MCoA outlined in Table 3.1 and the safeguards detailed in the EIS and SPIR
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 of this Plan
- Provide an organised, integrated and systematic approach to effectively address Aboriginal and non-Aboriginal heritage management issues
- Avoid damage or destruction of items of Aboriginal and non-Aboriginal value during pre-construction, construction and post construction phases of the work
- Ensure site/artefacts of Aboriginal and non-Aboriginal value during construction and post construction phases of the work are managed in accordance with relevant sections of the *Heritage Act 1977* (NSW) and *National Parks and Wildlife Services Act 1974* (NSW)
- Provide staff with an increased level of understanding and awareness of heritage management issues & ensure effective communication is maintained with statutory authorities and all statutory requirements are met to control impacts on items of historical heritage value.

2.3 Targets

The following targets have been established for the management of Aboriginal cultural heritage and non-Aboriginal heritage impacts during the work:

- Ensure full compliance with the relevant legislative requirements and MCoA
- Minimise or avoid impacts on known Aboriginal and non-Aboriginal heritage sites
- Follow correct procedure and ensure notification of any Aboriginal heritage objects/places uncovered during construction
- Ensure Aboriginal Cultural Heritage Awareness Training is provided to all personnel in the form of inductions before they begin work on-site.

3 Environmental requirements

This chapter describes legislative, regulatory and guidance framework that applies to the work.

3.1 Relevant legislation and guidelines

Attachment A of the CEMP contains details of the legislative, regulatory, guideline and standard provisions and their relevance to this management plan.

3.1.1 Legislation

Table 3-1 and Table 3-2 list the principal legislation and regulation that applies to Aboriginal heritage and non-Aboriginal heritage management and conservation.

Table 3-1 Principal legislation and regulation relevant to Aboriginal heritage

Legislation and regulation	Relevance
Commonwealth	
<i>Environment Protection Biodiversity Conservation Act, 1999</i> (EPBC Act) (Commonwealth)	Provides for the protection of matters of national environmental significance including species, populations, communities and their habitat that could be impacted by the work
<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i> (Commonwealth)	Enacted to specifically protect Aboriginal and Torres Strait Islander heritage
Aboriginal and Torres Strait Islander Heritage Protection Regulation 1984 (as amended)	Defines the existing Aboriginal heritage community areas. Describes the processes for making an emergency declaration of preservation.
State	
<i>Environmental Planning and Assessment Act 1979</i> (EP&A Act).	Describes the processes for consenting development in NSW, managing land use and implementing environmental planning instruments. Describes certain permitting and licencing streaming and exclusion provisions that will apply to the work
<i>National Parks and Wildlife Act 1974</i> (NPW Act)	Provides statutory protection for some aspects of Aboriginal heritage
<i>National Parks and Wildlife Amendment Act 2010</i>	Introduced changes to Aboriginal cultural heritage offences
National Parks and Wildlife Regulation 2009	Supporting the Act by regulating for the protection of Aboriginal land and objects
National Parks and Wildlife Amendment Regulation 2010	Amendments captured under the National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010
National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010	Introduces new inclusions and exclusions with regards to Aboriginal heritage impacts and management.

Table 3-2 Principal legislation and regulation relevant to non-Aboriginal heritage

Legislation and regulation	Relevance
<i>State</i>	
<i>Heritage Act 1977 (Heritage Act)</i>	Provides for the conservation of buildings, works, archaeological relics and places of heritage value
Heritage Regulation 2012	Supplements the Act by describing the minimum standards for maintaining heritage items. Also provides better definition about the classification of items on state-agency heritage and conservation register.

3.1.2 Guidelines

Guidelines and standards relevant to **Aboriginal heritage** and this management plan include the following publications:

- *RMS QA Specification G36 – Environmental Protection (Management System)*
- *RMS Standard Procedure – Unexpected Archaeological Finds (November 2011)*
- *Procedure for Aboriginal Cultural Heritage Consultation and Investigation (RMS 2011)*
- *Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010) (for reference only)*
- *Altering Heritage Assets (Heritage Office and DUAP 1996)*
- *Assessing Heritage Significance (NSW Heritage Office 2001)*
- *RTA Heritage Guidelines (March 2004)*
- *Archaeological Assessment Guidelines (NSW Heritage Office and NSW Department of Urban Affairs and Planning 1996)*
- *NSW Government’s Aboriginal Participation in Construction Guidelines (2007)*
- *How to Prepare Archival Recording of Heritage Items (Heritage Branch 1998)*
- *Photographic Recording of Heritage Items Using Film or Digital Capture (Heritage Branch 2006).*
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011)*
- *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW, 2010 (OEH, 2010)*
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010)*
- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (ICOMOS, 1999).*

Guidelines and standards relevant to **non-Aboriginal heritage** and this management plan include the following publications:

- *NSW Heritage Manual* (Heritage Office and Department of Urban Affairs and Planning, 1996)
- *Guidelines for Preparing Archaeological Management Plans* (Heritage Department, Department of Planning, 2009)
- *Assessing Heritage Significance* (Heritage Office, 2001)
- *Statements of Heritage Impact* (Heritage Office and Department of Urban Affairs and Planning, 2002).
- *Conservation Management Plan Checklist* (Heritage Council, 2003)
- *How to Prepare Archival Records of Heritage Items*, (Heritage Office, 1998)
- *Levels of Heritage Significance* (Heritage Office, 2008)
- *Standard Management Procedure, Unexpected Archaeological Finds* (Roads and Maritime, 2012).

3.2 Minister’s Conditions of Approval

The MCoAs relevant to this Plan are listed Table3-3. A cross reference is also included to indicate where the condition is addressed in this plan or other Project management documents.

Table 3-3 Conditions of Approval relevant to the CHMP

MCoA No.	Condition requirements	Document reference
D26 (d)	<p>a Construction Heritage Management Plan to detail how construction impacts on Aboriginal and non-Aboriginal heritage will be minimised and managed. The plan shall be developed in consultation with the EPA, the NSW Heritage Council (for non-Aboriginal heritage) and Registered Aboriginal Parties (for Aboriginal heritage), and include, but not necessarily be limited to:</p> <p>(i) in relation to Aboriginal Heritage:</p> <ul style="list-style-type: none"> a) details of further investigation and identification of Aboriginal cultural heritage sites within the SSI boundary; b) details of management measures to be carried out in relation to Aboriginal heritage, including a detailed methodology and strategies for protection, monitoring, salvage, and conservation, of sites and items associated with the SSI; c) procedures for dealing with previously unidentified Aboriginal objects (excluding human remains) including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can recommence by a suitably qualified archaeologist in consultation with Department of Planning and Environment, EPA and Registered Aboriginal Parties and assessment of the consistency of any new Aboriginal heritage impacts against the approved impacts of the SSI, and registering of the new site in the OEH’s Aboriginal Heritage Information Management System (AHIMS) register; d) procedures for dealing with human remains, including cessation of works in the vicinity and notification of Department of Planning and Environment, NSW Police Force, EPA and Registered Aboriginal Parties and not recommencing any works in the area unless authorised by the EPA and/or the NSW Police Force; e) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions) and obligations under the conditions of this approval including site identification, protection and conservation of Aboriginal cultural heritage; and f) procedures for ongoing Aboriginal consultation and involvement for the duration of the SSI; and 	<p>Chapter 5 and Appendix C Table 6.2, Chapter 7, Chapter 8 Appendix B Appendix B Chapter 8 Section 4.2</p>

MCoA No.	Condition requirements	Document reference
	<ul style="list-style-type: none"> (ii) in relation to non-Aboriginal Heritage: <ul style="list-style-type: none"> g) identification of heritage items directly and indirectly affected by the SSI; h) details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity); i) details of monitoring and reporting requirements for impacts on heritage items; j) procedures for dealing with previously unidentified heritage objects, (including cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified and experienced archaeologist in consultation with the OEH, NSW Heritage Council and Department of Planning and Environment, and assessment of the consistency of any new heritage impacts against the approved impacts of the SSI; and k) heritage training and induction processes for construction personnel (including procedures for keeping records of inductions and obligations under this approval including site identification, protection and conservation of non-Aboriginal cultural heritage; and (iii) mechanisms for the monitoring, review and amendment of this plan. 	<p>Section 5.2 Section 6.3 and Chapter 7</p> <p>Chapter 8 Appendix B</p> <p>Chapter 8</p> <p>Chapter 9</p>
D25	<p>The Applicant shall prepare and implement (following approval) a Construction Environmental Management Plan for the SSI, prior to the commencement of construction, or as otherwise agreed by the Secretary. The Plan shall be prepared in consultation with the EPA, OEH, DPI (Fisheries), NOW and DoE and outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the relevant government agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> (d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase and details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impact arising from the staging of the construction of the SSI). In particular, the following environmental performance issues shall be addressed in the Plan: <ul style="list-style-type: none"> (ix) measures to monitor and manage spoil, fill and materials stockpile sites including details of how spoil, fill or material would be handled, stockpiled, reused and disposed in a Stockpile Management Protocol. The Protocol shall include details of the locational criteria that would guide the placement of temporary stockpiles, and management measures that would be implemented to avoid/minimise amenity impacts to surrounding residents and environmental 	Stockpile Management Protocol

MCoA No.	Condition requirements	Document reference
	risks (including surrounding water courses). Stockpile sites that affect heritage, threatened species, populations or endangered ecological communities require the approval of the Secretary, in consultation with the EPA, OEH and DPI (Fisheries);	
D20	<p>The Applicant shall prepare and implement an Urban Design and Landscape Plan prior to the commencement of permanent built works and/or landscaping, unless otherwise agreed by the Secretary, to present an integrated landscape and design for the SSI. The Plan shall be prepared in accordance with the Roads and Maritime Services urban design and visual guidelines, the design principles outlined in the EIS, and the revegetation principles outlined in the EIS Working Paper—Biodiversity. The Plan shall be prepared by an appropriately qualified expert consultation with the relevant council and community, to the satisfaction of the Secretary. The Plan shall include, but not necessarily be limited to:</p> <p>(a)(ii) heritage values;</p> <p>(d) take into account appropriate roadside plantings and landscaping in the vicinity of heritage items and ensure no additional heritage impacts;</p>	Urban Design and Landscape Plan
D22	<p>The Applicant shall prepare and implement a Borrow Sites Management Plan, to manage the construction, operation and rehabilitation of the borrow sites used to source construction material for the SSI, prior to the commencement of construction at the borrow sites, or as otherwise agreed by the Secretary. The Plan shall be prepared in consultation with the EPA and DPI (Fisheries) and to the satisfaction of the Secretary, and shall include, but not necessarily be limited to:</p> <p>(b) management and mitigation measures to be used to minimise surface and groundwater impacts, Aboriginal and non-Aboriginal heritage, air quality, noise and vibration, biodiversity and visual impacts;</p>	Borrow Sites Management Plan
B23	The Applicant shall ensure that Ground vibration generated by blasting associated with the SSI shall not exceed the criteria specified in Table 2 and Table 3 when measured at the most affected residence or other sensitive receiver.	Noise and Vibration Management Plan
B20	<p>The SSI shall be constructed with the aim of achieving the following construction vibration goals:</p> <p>(a) for structural damage to heritage structures, the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration – Part 3 Effects of vibration on structures;</p>	Noise and Vibration Management Plan
B73	<p>The sites for ancillary facilities that are associated with the construction of the SSI and that have not been identified and assessed in the documents listed in condition A2 shall:</p> <p>(n) be located in areas of low heritage conservation significance (including areas identified as being of Aboriginal cultural value) and not impact on heritage sites beyond those already impacted by the SSI.</p>	Ancillary Facilities Management Plan

MCoA No.	Condition requirements	Document reference
B74	Ancillary facilities that have not been previously identified and assessed in the documents listed in condition A2, and do not meet the criteria set out under condition B73, shall be approved by the Environmental Representative prior to its establishment. In obtaining this approval, the Applicant shall consult with the relevant public authority(s) and the relevant council, and demonstrate to the satisfaction of the Environmental Representative, how the potential environmental impacts can be mitigated and managed to acceptable standards. The outcomes of the assessment shall be documented in a report and include, but not necessarily be limited to: an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to... heritage...;	Ancillary Facilities Management Plan
B75	Notwithstanding condition B74, ancillary facilities that that have not been previously identified and assessed in the documents listed in condition A2 and result in additional impacts to biodiversity, heritage, flooding and noise beyond those approved for the SSI, shall be approved by the Secretary prior to their establishment. In order to obtain this approval, the Applicant shall undertake an assessment of the ancillary facility in accordance with condition B74 and forward a copy of the assessment report to the Secretary, as part of the approval submission, at least one month prior to the establishment of the facility.	Ancillary Facilities Management Plan
B77	Where changes are made to the boundary or use of an ancillary facility, including facilities identified in the documents listed in condition A2, the Applicant shall assess the facility against the criteria set out in condition B73. If the ancillary facility site: (b) results in impacts to... heritage... beyond those approved for the SSI, the Applicant shall seek the approval of the Secretary in accordance with condition B75.	Ancillary Facilities Management Plan
C1	Issues that shall be addressed through the Community Communication Strategy include (but are not necessarily limited to): (ii) heritage matters;	Community Communication Strategy
	Aboriginal Heritage	
B44	Prior to the commencement of construction affecting PAD site WWC Dirty Creek 1 and ancillary facilities at Section 4, Site 1; Section 4, Site 3; Section 7, Site 1; Section 10, Site 1a; and Section 11, Site 1a , the Applicant shall: (a) undertake field investigation, and where required, an archaeological investigation of the site(s) using a methodology generally consistent with testing undertaken for the Environmental Impact Statement, and prepared in consultation with the EPA and the relevant Registered Aboriginal Parties; and (b) prepare a report on the results of the archaeological investigation, including recommendations (such as for further archaeological work) in consultation with the EPA and to the satisfaction of the Secretary, and shall include, but not necessarily be limited to:	Chapter 7

MCoA No.	Condition requirements	Document reference
	<ul style="list-style-type: none"> (i) consideration of measures to avoid or minimise disturbance to Aboriginal objects where objects of moderate to high significance are found to be present; (ii) recommendations for any further investigations under condition B45 where impacts cannot be avoided; and (iii) details of management and mitigation measures to ensure there are no additional impacts due to pre-construction and construction activities; and <p>(c) submit the report to the relevant Registered Aboriginal Parties, the EPA and the Secretary.</p>	
B45	<p>Prior to the commencement of construction activities affecting Aboriginal sites WWC39, WWC46, Tyndale 2 site, IR2W4, Site 11, E2/2, WWC37, Dubaljeen site (New Italy 1), The Gap Road 1, WX21 Site 8, Site 1, Site 2, Site 3 and Site 4 and sites recommended by condition B44 for further investigation, the Applicant shall:</p> <ul style="list-style-type: none"> (a) develop a detailed salvage strategy, prepared in consultation with the EPA and the Aboriginal stakeholders. The salvage strategy shall be prepared to the satisfaction of the Secretary; and (b) undertake any further archaeological excavation works recommended by the results of the detailed salvage strategy. <p>Within twelve months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall prepare a report containing the findings of the excavations, including artefact analysis and Aboriginal Site Impacts Recording Forms (ASIR), and the identification of final storage location for all Aboriginal objects recovered (testing and salvage), in consultation with the relevant Registered Aboriginal Parties, the EPA and to the satisfaction of the Secretary.</p> <p>The report shall be submitted to the relevant Registered Aboriginal Parties, the OEH (Aboriginal heritage) and the Secretary.</p> <p>Note: Where archaeological testing has occurred as part of the environmental assessment and the results are included in the documents referred to in condition A2, the sites tested shall be included in the final report prepared under condition B46.</p>	Chapter 7
B46	<p>Identified impacts to Aboriginal heritage, shall be minimised to the greatest extent practicable through both detailed design and construction, particularly with regard to the Aboriginal sites Gittoes Jali and the Melino site, and the Aboriginal culturally significant places identified as Corindi Massacres (section 4), Burials (section 4), Halfway Creek Ceremonial Site, Birrugan and Mindi spiritual sites (sections 1, 2, 5 and 10), Pillar Valley men's and women's sites, Place H, Place I and Place J. Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan.</p>	Chapter 7

MCoA No.	Condition requirements	Document reference
B47	The Applicant shall not destroy, modify or otherwise physically affect Aboriginal sites WWC5, WWC7, WWC26, WWC92, WWC115, WWC139, Tyndale 1, Scarred/engraved Tree (section 7), C3/2/2, Saw Pit Creek / New Italy, Gittoes Jali 2, Cooks Hill, Broadwater, Law (potential archaeological deposit) PAD, Law Scarred Tree, MST 3, C21, Melino Scarred Tree 4, MST 2, MST1, Rudgley Scarred Tree or Saezza 1.	Chapter 7
	Non Aboriginal Heritage	
B48	Prior to the commencement of construction affecting the Convent (12-14 Rivers Street), Harwood (item 21), the Applicant shall carry out further historical research and investigate the options for relocation of the convent building, in consultation with Planning and Infrastructure and the OEH (Heritage Division), to the satisfaction of the Secretary.	Chapter 7
B49	<p>Prior to the commencement of construction in proximity to the following heritage items: 21; 23 (Roder's well and orchard); 26; 28; 29; and 43, the Applicant shall complete all archival recordings, including photographic recording of these heritage items, unless otherwise agreed by the Secretary.</p> <p>The archival recording shall be undertaken by an experienced heritage consultant, in accordance with the Guidelines issued by the Heritage Council of NSW. The areas containing these items shall be clearly identified and/or fenced until the completion of the archival recordings. Within 6 months of completing the archival recording, the Applicant shall submit a report containing the archival and photographic recordings and the historical research, where required, to Planning and Infrastructure, the Heritage Council of NSW, and the local library and the local Historical Society in the relevant local government area(s).</p>	Chapter 7
B50	<p>Prior to construction affecting the following heritage items: 7; 23 (Roder's well and orchard) and 28, the Applicant shall carry out further historical and physical archaeological investigations of these heritage items, in consultation with Planning and Infrastructure and the OEH (Heritage Division), to the satisfaction of the Director-General. These investigations shall:</p> <ul style="list-style-type: none"> (a) include archaeological investigations and excavation in accordance with the Heritage Council's <i>Archaeological Assessments Guideline</i> (1996) using a methodology prepared, in consultation with the OEH (Heritage Division), and to the satisfaction of the Secretary. The archaeological investigation shall be undertaken by an archaeological heritage consultant, whose appointment has been endorsed by the Director-General. The nomination for the Excavation Director shall demonstrate ability to comply with the Heritage Council's <i>Criteria for the Assessment of Excavation Directors</i> (July 2011); (b) provide for the detailed analysis of any heritage items discovered during the investigations; (c) include management options for these heritage items (including options for relocation and display); and 	Chapter 7

MCoA No.	Condition requirements	Document reference
	<p>(d) if the findings of the investigations are significant, provide for the preparation and implementation of a heritage interpretation plan.</p> <p>Within 12 months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall prepare a report containing the findings of the excavations, including artefact analysis, and the identification of a final repository for finds, prepared in consultation with the OEH (Heritage Division) and to the satisfaction of the Secretary. The report shall be submitted to Planning and Infrastructure, the Heritage Council of NSW, and the local library and the local Historical Society in the relevant local government area(s).</p> <p><i>Note:</i> <i>Where archaeological testing has occurred as part of the environmental assessment for the SSI and the results are included in the documents referred to in condition A2, the sites tested shall still form part of the methodology and final report prepared for the non-Aboriginal archaeological investigation program.</i></p>	
B51	The Applicant shall not destroy, modify or otherwise physically affect the heritage items listed in Table 5-1, <i>Historic (non-Aboriginal) Heritage Assessment Working Paper</i> and Table 3-38, <i>Submissions/Preferred Infrastructure Report</i> (RMS, November 2013).	Chapter 7
	Heritage – general	
B52	<p>Identified impacts to heritage sites shall be minimised where feasible and reasonable through both detailed design and construction, particularly with regard to the historic site known as the North Coast Railway Branch Tramway, Glenugie.</p> <p>Where impacts are unavoidable, works shall be undertaken in accordance with the actions to manage heritage construction impacts required by condition D26 (d) and under the guidance of an appropriately qualified heritage specialist.</p>	Chapter 7
B53	This approval does not allow the Applicant to destroy, modify or otherwise physically affect human remains as part of the SSI.	Chapter 7
B54	The Applicant shall not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint, unless otherwise agreed by the Secretary in accordance with condition B54A.	Chapter 7
B54A	<p>The Applicant may undertake archaeological investigations at sites outside the SSI boundary where the following works associated with the construction of the highway are proposed:</p> <ul style="list-style-type: none"> i. ancillary sites that do not meet the criterion set out in condition B73; or ii. utilities or services, or iii. access and service roads and driveways; or iv. or similar works required for the project that are located within 5 metres of 	Chapter 7

MCoA No.	Condition requirements	Document reference
	<p>the SSI boundary (with the exception of drainage works in flood prone areas where such activities can be investigated within 20 metres of the SSI boundary).</p> <p>These investigations are permitted where this is required to assess the potential Aboriginal and non-Aboriginal archaeological impacts of the ancillary facility or other works on previously unidentified heritage sites, provided:</p> <p>(a) any archaeological investigations undertaken under this condition shall be consistent with the requirements in condition B44 for Aboriginal heritage and condition B50 for non-Aboriginal heritage and with the Construction Heritage Management Plan or a methodology prepared to the satisfaction of the Secretary in consultation with OEH; and</p> <p>(b) the results of any relevant archaeological investigations undertaken under this condition shall be consistent with the reporting requirements of condition B45 for Aboriginal heritage and condition B50 for non-Aboriginal heritage, and for ancillary sites, be described in the assessment of the ancillary facility required under conditions B74 and B75.</p>	
B55	The measures to protect heritage sites near or adjacent to the SSI during construction shall be detailed in the Construction Heritage Management Plan.	Chapter 6, Chapter 7 and Appendix C

4 Consultation

4.1 Consultation undertaken to date

4.1.1 Aboriginal consultation

Consultation and collaboration with Registered Aboriginal Parties (RAPs) has been integral to the assessment and management of Aboriginal cultural heritage for the work. Consultation is outlined in the EIS and SPIR.

The RAPs have been provided with relevant information about the work, participated in the Aboriginal Focus Group meetings, and have been involved in a number of formal and informal meetings and discussions.

Table 4-1 lists the RAPs who have been consulted for the works:

Table 4-1 Registered Aboriginal Parties

Location	Section(s)	Aboriginal parties
Wells Crossing to Illuka Road	3 to 5	Birrigan-Gargle LALC Grafton-Ngerrie LALC Yaegl LALC Yaegl People Native Title Claimants Yarrowarra Aboriginal Corporation (incorporating the Gaabi Elders Group – previously referred to as the Garby Elders Group)
Illuka Road to Woodburn	6 to 8	Bandjalang People #1 and #2 Native Title Claimants Birrigan-Gargle LALC Bogal LALC Jali LALC Ngulingah LALC Yaegl LALC Yaegl People Native Title Claimants
Woodburn to Ballina	8 to 11	Bandjalang People #1 and #2 Native Title Claimants Bogal LALC Burabi Aboriginal Corporation Bunjum Aboriginal Corporation Cultural Concepts Jali LALC Numbahjing Native Title Claimants Tweed, Byron and Ballina Community Transport Inc Gubba Gunya Aboriginal Corporation

4.1.2 Non-Aboriginal consultation

The Heritage Division of OEH has been consulted by Roads and Maritime as part of the Woolgoolga to Ballina EIS. The draft heritage management plan will be issued to the Heritage Division of OEH for comments and review. Roads and Maritime have engaged a heritage consultant to address any matters on non-Aboriginal heritage.

4.2 Ongoing consultation

The Communications and Stakeholders Engagement Strategy, required under condition of approval C1, outlines the approach for community consultation and engagement.

Ongoing Environmental Review Group (ERG) meetings and Aboriginal Focus Group (AFG) meetings have been held regularly since the EIS and SPIR were exhibited.

Government agencies and Registered Aboriginal Parties (RAP's) have been consulted during the writing of the draft construction heritage management plan. The draft construction heritage management plan was discussed at the AFG meeting on the 18 August 2015. The group were given the opportunity to provide feedback on this plan. The Numbahging Elders Group raised issues in relation to access to traditional fishing and dreaming sites. Access to these sites will be considered during detailed design.

In the event that additional Aboriginal or non-Aboriginal heritage items are located during construction, consultation with the Aboriginal parties and OEH will be conducted. This will be managed in accordance with the *Roads and Maritime Standard Management Procedure – Unexpected Archaeological Finds* (refer Appendix B of this CHMP).

The RAPs for the project may have further involvement including, but not limited to, the following tasks:

- Attendance at Aboriginal Focus Group meetings (at timeframes agreed with Aboriginal parties or at least every six months) to review the implementation of any management strategies and other agreed tasks
- Involvement in unexpected heritage items management process (ie significance assessment of any new finds)
- Involvement in incident management process (ie assessment of impacts and development of management strategies)
- Consultation with, and agreement for, long-term management arrangements for recovered artefacts
- Consultation during the development and delivery of the Cultural Heritage Education and Training Package
- The development of the cultural heritage training induction
- Involvement in any further investigations and assessments for areas proposed to be used outside the approved work boundary as required under Condition B77.

5 Existing environment

The following sections summarise what is known about Aboriginal and non-Aboriginal heritage within and adjacent to the work footprint.

The key reference documents include:

- Chapters 12 and 13 of the EIS
 - Working Paper: Historic (non-Aboriginal) Heritage Assessment
 - Working Paper: Aboriginal Cultural Heritage Assessment.
- Submissions/Preferred Infrastructure Report (SPIR)
 - Appendix D: Ancillary facilities and design changes Aboriginal Cultural Heritage Assessment and Addendum Aboriginal Cultural Heritage Assessment
 - Appendix E: Historic heritage – Statement of Heritage Impact and site description.

5.1 Aboriginal cultural heritage

5.1.1 Archaeological sites

The work would have direct, indirect and potential impacts on various identified archaeological sites, refer Table 5-1. Heritage items in the tables have been mapped to the online SiteMap system, which is a live visual database created for the project. This mapping forms the sensitive area plans for the project and will be updated with additional information if required.

Table 5-1 Archaeological sites

Name	Scientific Significance	Aboriginal Significance
Section 3		
WX2I Site 7 (09-4-0107): Site – Artefact scatter	Low	High
WX2I Site 6 (09-4-0106): Site – Isolated artefact	Low	Moderate-high
WX2I Site 5 (09-4-0105): Site – Isolated artefact	Low	Moderate-high
WX2I Site 4 (09-4-0104): Site – Artefact scatter	Low	Low
WX2I Site 8 (09-4-0108): Site – Artefact scatter	Low	Low
Chaffin Creek Tree 1: Site – Modified Tree	Moderate	Moderate
Chaffin Creek Tree 2: Site – Modified Tree and PAD	Moderate	Moderate
Old Tucabia Dump 1 (13-4-0184): Site – Modified Tree	Moderate	Moderate
Upper Coldstream 1 (13-4-0182): Site – Isolated artefacts	Low	Low

Name	Scientific Significance	Aboriginal Significance
Section 4		
Tyndale 1 (09-4-0099): Site – Artefact scatter	Low	Moderate-high
Tyndale 2 (13-4-0177): Site – Artefact scatter	Low	To be assessed
Shark Creek Site 2 (13-4-0170): Site – Artefact scatter	Low-moderate	Low-moderate
Hirst 1 (13-1-0206): Site – Isolated artefact	Low	High
Hirst 2 (13-1-0185): Site – Isolated artefact	Low	Moderate-high
Hirst 3 (13-1-0192): Site – Artefact scatter	Low	Low
Section 5		
Mororo Creek 1 (13-1-0191): Site – Artefact scatter	Low-moderate	Low-moderate
Mororo Creek 2 (13-1-0193): Site – Artefact scatter	Low	Low-moderate
Section 7		
IR2W1 (13-1-0114): Site – Isolated artefact	Low	Low
Withheld (13-1-0111) : Site – Modified tree	Moderate	High
New Italy 1 (Dubaijeen Site) (Not registered): Site – Artefact scatter	Moderate	Moderate
The Gap 1 (13-1-0194): Site – Artefact scatter	Moderate	Low-moderate
Section 8		
IR2W2 (13-1-0112): Site – Artefact scatter	Low	Low-moderate
C3/2/2 (13-1-0110): Site – Burial	Moderate-high	Moderate-high
IR2W3 (13-1-0113): Site – Isolated artefact	Low	Low
Saw Pit Creek / New Italy (13-1-0059): Site – Burial	Moderate	Moderate-high
IR2W4 (13-1-0115): Site – Artefact scatter	Low	Low-moderate
Gittoes Jali (09-1-0204, 09-1-0205, 09-1-0203): Site – Artefact scatter, paint wells, ground stone, scarred tree	High	High
Gittoes Jali 2 (Not registered): Site – Artefact scatter	Low	Low
Gittoes Jali 3 (Not registered): Site – Isolated artefact	Low	Low
Section 9		
Site 11 (13-1-0189): Site – Artefact scatter	Moderate-high	Moderate-high
E2/2 (13-1-0109): Site – Artefact scatter, shell midden and PAD	Moderate	Moderate-high

Name	Scientific Significance	Aboriginal Significance
Cooks Hills Broadwater (13-1-0038 and 13-1-0010): Site – Ceremonial ground (Bora ring)	Unknown	Moderate
Cooks Hill 1 (Not-registered): Site – Artefact scatter	Low	Low-moderate
Eversons Swamp 1 (Not-registered): Site – Modified tree	Moderate	Moderate-high
Section 10		
Gumi Site (04-4-0180): Site – Possible scarred tree	None	Low- moderate
Law PAD (04-4-0168): PAD	Unable to be assessed	Unable to be assessed. Low potential
Melino Site (04-4-0173): Site – Artefact scatter, shell midden	High	High
Melino Scarred Tree 4 (04-4-0166): Site – Scarred tree	Moderate	Moderate-high
Melino Artefact Scatter (Not registered): Site – Artefact scatter	Low	Low
Melino Artefact Collection (Not-registered): Site – Artefact scatter	Low	Low-moderate
MST3 (04-4-0131): Site – Scarred tree	High	High
C21 (04-4-0107): Site – Scarred tree	High	High
MSRT2 (04-4-0130): Site – Scarred tree	High	High
MST1 (04-4-0129): Site – Scarred tree	Moderate-high	Moderate-high
Site 2 (04-4-0178): Site – Artefact scatter	Low-moderate	Low-moderate
Site 3 (04-4-0175): Site – Artefact scatter	Low-moderate	Low-moderate
Site 4 (04-4-0132): Site – Artefact scatter	Low	Low-moderate
Site 1 (04-4-0179): Site – Artefact scatter	Low	Low-moderate
Rudgley Scared Tree 2 (Not- registered): Site0020– Modified tree	Moderate	Moderate
Rudgley Scarred Tree (04-4-0170): Site – Scarred tree	Moderate-high	Moderate-high
Rudgley Site 2 (04-4-0169): Site – Artefact scatter	Low-moderate	Low-moderate
Rudgley Site 1A and 1B (04-4-0167): Site – Artefact scatter	Low	Low
Section 11		
Saezza 1 (04-4-0171): Site – Artefact scatter	Low-moderate	Moderate
Site 12 (04-4-0176): Site – Artefact scatter	Low-moderate	Moderate

5.1.2 Cultural sites

Ten cultural sites were identified within sections 3 to 11 of the Woolgoolga to Ballina Pacific Highway Upgrade through the cultural assessment and consultation process undertaken for the EIS and are shown in Table 5-2. No new Aboriginal cultural places were identified in the SPIR. These sites have also been captured in the online geospatial information for the project and are available via the Sensitive Area Plans included in the appendix to the CEMP.

Table 5-2 Aboriginal cultural sites

Name	Aboriginal Significance	Scientific Significance
Section 3		
Pillar Valley Corridors of Movement	Moderate	N/A
Tyndale and Woodford Island Corridors of Movement	Moderate	N/A
Section 8		
Place A	Moderate	None
Section 9		
Place B	Moderate	None
Place C	High	None
Place D	High	None
Place E	Moderate	None
Section 10		
Place F	Low-moderate	None
Place G	Low-moderate	None
Section 9-11		
Place K	Moderate-high	None

5.2 Non-Aboriginal heritage

Non-Aboriginal heritage items located within or adjacent to the works footprint are listed in Table 5-3. The location of these items is shown on the online Sensitive Area Plans.

Table 5-3 Non-Aboriginal heritage items

Name	Location	Significance
Section 3		
Residence	Tyndale	Local
Section 4		
Shed and cane barracks	Tyndale	Local
Punt and former Ashby ferry	Maclean	Local
Former house site	Goodwood Street, Maclean	No significance

Name	Location	Significance
Residence	Townsend	Local
Section 5		
'Highfield' residence	James Creek	Local
Residence	James Creek	Local
Harwood School residence	Harwood	Local
Harwood School	Harwood	Local
Harwood tram tracks	Harwood	Local
Harwood Water Brigade Hall	Harwood	Local
Harwood War Memorial	Harwood	Local
Harwood Bridge	Harwood	Local
Convent	Harwood	Local
Harwood Heritage Conservation Area	Harwood	Local
River Street trees	Harwood	Local
Section 7		
New Italy Settlement Landscape (including Historic New Italy Village Area)	New Italy	State
Vineyard Haven	New Italy Settlement	State
Section 8		
Woodburn slaughterhouse	Trustrums Hill	Local
Section 9		
Maloney property	Broadwater	Local
Cemetery reserve	Broadwater	Local
Byrne property	Broadwater	Local
Section 10		
Meerscham Vale brickworks	Wardell	Local
'Stonehenge' property	Wardell	Local
Drainage channels	Broadwater	Local
Bamboo stands, properties 723 and 725	Wardell	Local
Potential house site	Wardell	No significance
Multiple sections (2, 6 and 7)		
High Conservation Value Old Growth Forests	Multiple locations	State

5.3 Status of site investigations and archaeological salvage

Since receipt of project approval RMS has progressed further site investigations and archaeological salvage (salvage) at a number of the impacted sites identified during the EIS and SPIR investigations. A number of proposed locations for ancillary facilities and design changes were unable to be assessed due to property restrictions at the time of site investigations, and uncertainty over potential locations for ancillary facilities. Where required, future investigations will be undertaken to understand the scientific and cultural significance of these sites and determine the potential impacts from the work.

Appendix C outlines the status of further investigations and salvage. The salvage programme is currently targeted to be completed by December 2015. Clearance letters will be provided by contractors carrying out the salvage works to confirm each site has been successfully cleared of heritage items. If further mitigation measures are required, these will be specified in the clearance letters and the construction contractor's documentation will be updated accordingly. Construction can commence once the clearance letter has been received and additional mitigation measures are in place. Analysis and reporting is scheduled to be completed by December 2016. If the site is declared as Nationally Significant further analysis may be required prior to any works being carried out that may impact the site. The results of these investigations will be submitted to the Department of Planning and OEH when they become available.

6 Environmental aspects and impacts

6.1 Construction activities

Key aspects of the work that could result in adverse impacts to Aboriginal and Non-Aboriginal heritage include:

- Pre-construction activities including utility adjustment, site access provisions, property adjustments
- Geotechnical test pitting
- Planned investigations and salvage of Aboriginal heritage items
- Clearing of vegetation
- Blasting
- Earthworks
- Construction of fencing
- Erosion and sediment control measures (basins)
- Construction of site compounds and spoil/mulch and/or equipment stockpile areas
- Relocation of historical items
- Temporary access roads, creek crossings and work platforms used during construction.

Refer to Appendix A2 of the CEMP – Aspects and impacts register.

6.2 Aboriginal cultural heritage impacts

Table 6-1 summarises identified impacts and management measures in relation to Aboriginal archaeological sites.

Table 6-1 Aboriginal archaeology – impacts and management

Name	Impact	Management
Section 3		
WX21 Site 7 (09-4-0107): Site – Artefact scatter	Direct impact	Collection
WX21 Site 6 (09-4-0106): Site – Isolated artefact	Direct impact	Collection
WX21 Site 5 (09-4-0105): Site – Isolated artefact	Direct impact	Collection
WX21 Site 4 (09-4-0104): Site – Artefact scatter	Direct impact	Salvage within road corridor only
WX21 Site 8 (09-4-0108): Site – Artefact scatter	Direct impact	Collection
Chaffin Creek Tree 1: Site – Modified Tree	No direct impact	Exclusion Zone
Chaffin Creek Tree 2: Site – Modified Tree and PAD	No direct impact	Exclusion Zone

Name	Impact	Management
Old Tucabia Dump 1 (13-4-0184): Site – Modified Tree	No direct impact	Exclusion Zone
Upper Coldstream 1 (13-4-0182): Site – Isolated artefacts	Direct impact	Collection Exclusion Zone
Section 4		
Tyndale 1 (09-4-0099): Site – Artefact scatter	Avoid	Avoid
Tyndale 2 (13-4-0177): Site – Artefact scatter	Direct impact	Collection Salvage
Shark Creek Site 2 (13-4-0170): Site – Artefact scatter	Direct impact	Exclusion Zone if necessary
Hirst 1 (13-1-0206): Site – Isolated artefact	Direct impact	Collection
Hirst 2 (13-1-0185): Site – Isolated artefact	Direct impact	Collection
Hirst 3 (13-1-0192): Site – Artefact scatter	Direct impact	Exclusion Zone/ if required salvage
Section 5		
Mororo Creek 1 (13-1-0191): Site – Artefact scatter	Direct impact	Exclusion Zone
Mororo Creek 2 (13-1-0193): Site – Artefact scatter	Direct impact	Exclusion Zone
Section 7		
IR2W1 (13-1-0114): Site – Isolated artefact	Direct impact	Collection
Withheld (13-1-0111): Site – Modified tree	No direct or indirect impact	
New Italy 1 (Dubaijeen Site) (Not registered): Site – Artefact scatter	Direct impact	Salvage Exclusion zone
The Gap 1 (13-1-0194): Site – Artefact scatter	Direct impact	Salvage Exclusion Zone
Section 8		
IR2W2 (13-1-0112): Site – Artefact scatter	Direct impact	Collection
C3/2/2 (13-1-0110): Site – Burial	No direct or indirect impact	None required
IR2W3 (13-1-0113): Site – Isolated artefact	Direct impact	Collection
Saw Pit Creek/New Italy (13-1- 0059): Site – Burial	No direct or indirect impact	None required
IR2W4 (13-1-0115): Site – Artefact scatter	Direct impact	Salvage

Name	Impact	Management
Gittoes Jali (09-1-0204, 09-1-0205, 09-1-0203): Site – Artefact scatter, paint wells, ground stone, scarred tree	Direct impact	Where possible, reduce or avoid Collection Salvage
Gittoes Jali 2 (Not registered): Site – Artefact scatter	No direct or indirect impact	None required
Gittoes Jali 3 (Not registered): Site – Isolated artefact	Direct impact	Remove
Section 9		
Site 11 (13-1-0189): Site – Artefact scatter	Direct impact	Collection Salvage
E2/2 (13-1-0109): Site – Artefact scatter, shell midden	Direct impact	Collection Salvage
Cooks Hills Broadwater (13-1-0038 and 13-1-0010): Site – Ceremonial ground (Bora ring)	No direct or indirect impact	Avoid
Cook Hill 1 (Not-registered): Site – Artefact scatter	Direct impact	Salvage Exclusion zone
Eversons Swamp 1 (Not-registered): Site – Modified tree	No impact	
Section 10		
Gumi Site (04-4-0180): Site – Possible scarred tree	Direct impact	Relocate
Law PAD (04-4-0168): PAD	No direct or indirect impact	Fencing / protection
Melino Site (04-4-0173): Site – Artefact scatter, shell midden	Direct impact	Collection Salvage
Melino Scarred Tree 4 (04-4-0166): Site – Scarred tree	Indirect impact	Exclusion zone
Melino Artefact Scatter (Not registered): Site – Artefact scatter	Direct impact	Collection
Melino Artefact Collection (Not-registered): Site – Artefact scatter	No direct impact, impacts from associated works	Collection
MST3 (04-4-0131): Site – Scarred tree	No direct or indirect impact	Exclusion zone
C21 (04-4-0107): Site – Scarred tree	Indirect impact	Exclusion zone
MSRT2 (04-4-0130): Site – Scarred tree	Indirect impact	Exclusion zone
MST1 (04-4-0129): Site – Scarred tree	No direct or indirect impact	Avoid
Site 2 (04-4-0178): Site – Artefact scatter	Direct impact	Collection Salvage

Name	Impact	Management
Site 3 (04-4-0175): Site – Artefact scatter	Direct impact	Collection Salvage
Site 4 (04-4-0132): Site – Artefact scatter	Direct impact	Salvage
Site 1 (04-4-0179): Site – Artefact scatter	Direct impact	Collection Salvage
Rudgley Scared Tree 2 (pending AHIMS ID)	Indirect impact	Exclusion zone
Rudgley Scarred Tree (04-4-0170): Site – Scarred tree	No direct or indirect impact	Exclusion zone
Rudgley Site 2 (04-4-0169): Site – Artefact scatter	Direct impact	Collection/salvage
Rudgley Site 1A and 1B (04-4-0167): Site – Artefact scatter	Direct impact	Collection
Section 11		
Saezza 1 (04-4-0171): Site – Artefact scatter	Direct impact	Salvage/fencing/protection
Site 12 (04-4-0176): Site – Artefact scatter	Direct impact	Salvage within the project boundary

Table 6-2 summarises identified impacts and management measures in relation to Aboriginal cultural heritage sites.

Table 6-2 Aboriginal cultural heritage – impacts and mitigation

Name	Impact	Management
Section 3		
Pillar Valley Corridors of Movement	Direct	Pedestrian access across work provided if reasonable and feasible
Tyndale and Woodford Island Corridors of Movement	Direct	Pedestrian access across work provided if reasonable and feasible
Section 8		
Place A	Indirect	As per Gittoes Jali (archaeological site)
Section 9-10		
Place B	Direct	Maintain connectivity Pedestrian access across work provided if reasonable and feasible
Place C	Indeterminate	Education package Caution with regard to potential human remains
Place D	Direct	Signage

Name	Impact	Management
Section 9		
Place E	Indirect	Fencing Surface water runoff prevented from directly entering
Section 10		
Place F	Direct	None required. Recording in EIS sufficient
Place G	Direct	None required. Recording in EIS sufficient
Section 9-11		
Place K	Direct	Geomorphological assessment and report

6.3 Non-Aboriginal heritage impacts

Table 6-3 summarises identified impacts and management measures in relation to non-Aboriginal cultural heritage sites.

Table 6-3 Non-Aboriginal heritage – impacts and mitigation

Name	Impact	Management
Section 3		
Residence	Indirect impact (initial upgrade)	Location and condition of mature bunya trees recorded by an arborist Fencing Architectural noise treatment developed in consultation with heritage specialist and detailed Statement of Heritage Impact prepared
Section 4		
Shed and cane barracks	No direct or indirect impact	None required
Punt and former Ashby ferry	Indirect impact (initial upgrade)	Photographic condition survey Loose or unstable components secured Directional signage
Former house site	N/A	None required
Residence	Indirect impact	Architectural noise treatment developed in consultation with heritage specialist and detailed Statement of Heritage Impact prepared

Name	Impact	Management
Section 5		
'Highfield' residence	No direct or indirect impact	None required
Residence	No direct or indirect impact	None required
Harwood School residence	No direct or indirect impact	None required
Harwood School	No direct or indirect impact	None required
Harwood tram tracks	Direct impact (initial upgrade)	Protective covering
Harwood Water Brigade Hall	No direct or indirect impact	None required
Harwood War Memorial	No direct or indirect impact	None required
Harwood Bridge	Indirect impact (initial upgrade)	Design of new bridge undertaken in accordance with Roads and Maritime Bridge Aesthetics guidelines
Convent	Direct impact (initial upgrade)	Archival photographic recording Investigate feasibility of relocation
Harwood Heritage Conservation Area	Direct impact (initial upgrade)	
River Street trees	No direct or indirect impact	None required
Sections 6 and 7		
High Conservation Value Old Growth Forests	Direct impact (initial and class M upgrade)	Minimise impacts during detailed design Delineate areas to be cleared
Section 7		
New Italy Settlement Landscape (including Historic New Italy Village Area)	Direct and indirect impacts	Photographic condition survey Dust monitoring Fencing Directional signage Archival photographic recording Dilapidation survey Salvage – Rodger's Well Location and condition of each mango tree recorded by an arborist If remains found, follow unexpected finds procedure
Vineyard Haven	No direct or indirect impact	None required
Section 8		
Woodburn slaughterhouse	No direct or indirect impact	None required
Section 9		

Name	Impact	Management
Maloney property	Direct and indirect impact (initial upgrade)	Archival photographic recording Architectural noise treatment developed in consultation with heritage specialist and detailed Statement of Heritage Impact prepared
Cemetery reserve	Direct impact (initial upgrade)	Protection
Byrne property	Direct impact (initial upgrade)	Archival photographic recording Salvage Brick-lined well retained in situ and protected with fencing Photographic condition survey Detailed assessment of vibration impacts Fencing
Section 10		
Meerschaum Vale brickworks	Direct impact (initial upgrade)	If remains found, follow unexpected finds procedure
'Stonehenge' property	Direct and indirect impact (initial upgrade)	Archival photographic recording Architectural noise treatment developed in consultation with heritage specialist and detailed Statement of Heritage Impact prepared
Drainage channels	Direct	Archival photographic recording prior to destruction
Bamboo stands, properties 723 and 725	No direct or indirect impact	None required
Potential house site	N/A	None required

7 Environmental mitigation and management measures

A range of environmental requirements and control measures are identified in the various environmental documents, including the EIS, Submissions/Preferred Infrastructure Report (SPIR), supplementary assessments, Conditions of Approval and other Roads and Maritime documents. Specific measures and requirements to address impacts on Aboriginal and non-Aboriginal heritage are outlined in Table 7-1 and Table 7-2. Some mitigation measures will apply to specific areas whereas some will apply to the whole project. Mitigation measures are labelled accordingly.

Table 7-1 Aboriginal heritage management and mitigation measures

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
GENERAL ABORIGINAL HERITAGE MANAGEMENT/MITIGATION MEASURES					
General impacts to Aboriginal archaeological sites					
AH1	If any part of the project (such as an ancillary facility) is located in an area which has not been subject to Aboriginal heritage field survey and assessment, an assessment will be undertaken before that part of the project proceeds. The project would only proceed on that site if the Aboriginal heritage field survey and assessment found no Aboriginal objects or the site was assessed to have low to moderate significance.		Pre-construction		Submissions/PIR (AH3)
AH2	Where artefact concentrations per square metre (over all depths) encountered are 50 per cent greater than previously encountered, additional salvage excavation using hand tools will be undertaken. If these artefact concentrations are encountered during machine excavation, then machine excavation will stop within 20 metres of the artefact concentrations. Up to, but no more than, an additional six square metres will be excavated in this situation at that site, unless rare features are encountered, in which case discussions with the RAPs and NSW Office of Environment and Heritage will be undertaken to agree on a suitable approach.		Pre-construction/ Construction	Environment Manage/Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH1)
AH3	For areas avoided by construction, exclusion zones will be put in place. These would be fenced with high visibility construction webbing or other similar fencing and have a 'Do Not Enter' sign. Exclusion zones will be marked on construction plans and be maintained until construction is		Construction	Environment Manager / Contractor's Rep	Submissions/PIR (AH2)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	completed. A representative of the Local Aboriginal Land Council will be present during establishment of the fencing.				
AH4	<p>Salvage excavation and systematic collection of previously recorded artefacts that will be impacted by the project, along with any other impacted sites that are identified prior to or during construction, are to be undertaken by qualified archaeologists in conjunction with the RAPs.</p> <ul style="list-style-type: none"> The location of excavations will be within the area of the site to be impacted, and would be decided upon in the field by a qualified archaeologist and RAPs. If any datable material is located, a minimum of two samples (per archaeological site) will be subject to either radiocarbon, standard or accelerated mass spectrometry dating. For all salvaged material, suitable storage will be agreed upon with the RAPs prior to commencing salvage in those areas. 		Construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH4)
AH5	Aboriginal Site Impact Recording (ASIR) forms will be lodged with the Aboriginal Heritage Information Management Systems (AHIMS) Register within three months of sites being impacted.		Construction	Environment Manager/Project Archaeologist	
AH6	Curation of any collected heritage evidence in an appropriate manner, as determined in consultation with the RAPs and the NSW Office of Environment and Heritage and in accordance with the National Parks and Wildlife Act 1974, details of the material's nature and context will also be provided.		Construction/ Post-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH5)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH7	A detailed technical report documenting the results of the salvage excavations and the archaeological material analysis will be prepared. A summary report (to be made public) will be developed to accompany the technical report.		Construction/ Post- construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH6)
AH8	Site records will be lodged with NSW Office of Environment and Heritage for any previously unrecorded Aboriginal heritage evidence that is identified and for any evidence that is salvaged.		Construction and post- construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH7)
Human skeletal remains					
AH9	<ul style="list-style-type: none"> An unexpected finds (including human skeletal remains) procedure will be developed (in accordance with ROADS AND MARITIME Standard Management Procedures: Unexpected Archaeological Finds 2012 as provided in Appendix B): 	ROADS AND MARITIME Standard Management Procedure – Unexpected Archaeological Finds (Refer Appendix B)	Construction	All personnel and works Contractor	Submissions/PIR (AH8)G36 Section 4.9
Aboriginal stakeholder consultation					
AH10	Aboriginal focus group consultation (through letters or meetings), will occur at least once every six months, prior to and during construction (unless management actions have been completed).		Pre- construction/ Construction	Environment Manager	Submissions/PIR (AH9)
Awareness of Aboriginal heritage					
AH11	Aboriginal culture awareness training for all relevant staff and contractors will occur prior to commencing work on-site in accordance with the Aboriginal heritage and education training package provided in Appendix A.	Heritage education and training package (refer Appendix A)	Pre- construction/ Construction	Environment Manager	Submissions/PIR (AH11)G36 Sections 4.9

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	This could include information about the Aboriginal culture and history of the locality, the location of sites and items that require protection and movement corridors within the project boundary, heritage management measures and protocols, and legal obligations. This training will be developed in consultation with suitably trained personnel from local Aboriginal organisations represented by the relevant RAPs for that area.				
AH12	An Aboriginal heritage interpretation strategy will be prepared as part of the Aboriginal heritage management plan. Measures will include opportunities for promoting salvage and investigation, the recovery of information, permanent installations and ways of marking the presence of Aboriginal people in the landscape, including, signage, interpretation products such as written materials, and through place naming.		Pre-construction/ Construction	Environment Manager	Submissions/PIR (AH12)
AH13	Compliance auditing of the cultural heritage management measures will be undertaken as part of the environmental management audit regime.		Pre-construction/ Construction	Environment Manager	Submissions/PIR (AH13)
Ancillary facilities					
AH14a (Section 3)	<p>Ancillary facility - Section 3, Site 3b (at WX2I Site 8 (09-4-0108)):</p> <ul style="list-style-type: none"> All previously recorded artefacts will be recovered and removed off-site before construction, subject to a care agreement being established. All cultural material recovered will be subject to detailed analysis, which will be included in a technical report, including detailed discussion and interpretation. 		Pre-construction	RMS Environment Manager/ Project Archaeologist/	Submissions/PIR (AH14h)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH14b (Section 3)	<p>Ancillary facility - Section 3, Site 9 (at Upper Coldstream 1 (13-4-0182):</p> <ul style="list-style-type: none"> All previously recorded artefacts will be recovered and removed off-site, subject to a care agreement being established. <p>Any portions of the Aboriginal archaeological site not to be impacted will be protected by exclusion zones as per management measure AH2.</p>		Pre-construction and construction	RMS Environment Manager/Project Archaeologist	Submissions/PIR (AH14j)
AH14c (Section 3)	<p>Ancillary facility - Section 3, Site 6b (at Old Tucabia Dump 1 (13-4-0184)):</p> <ul style="list-style-type: none"> An exclusion zone will be established at the boundary of the Aboriginal archaeological site (including a buffer based on the drip zone of the tree) as per management measure AH2. 		Construction	Environment Manager/Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH14i)
AH14d (Section 4)	<p>Ancillary facility - Section 4, Site 1:</p> <ul style="list-style-type: none"> Sub-surface test excavations will be undertaken in accordance with the methodology used in the working paper, and will occur before any ground disturbance at this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the RAPs. 		Pre-construction	RMS Environment Manager/Project Archaeologist	Submissions/PIR (AH14k)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH14e (Section 4)	<p>Ancillary facility - Section 4, Site 3:</p> <ul style="list-style-type: none"> This property could not be accessed for field investigations. Sub-surface test excavations are to be undertaken. This will be conducted in accordance with the methodology used in the working paper, and will occur before ground disturbing work for the project or ancillary activities being undertaken at this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the RAPs. 		Pre-construction	RMS Environment Manager/Project Archaeologist	Submissions/PIR (AH14l)
AH14f (Section 4)	<p>Ancillary facility - Section 4, Site 5 (at Hirst 3 (13-1-0192):</p> <ul style="list-style-type: none"> This Aboriginal archaeological site is to be avoided if possible unless agreement can be reached with the RAPs. An exclusion zone will be established as per management measure AH2. If agreement to use the site is reached with RAPs, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/Preferred Infrastructure Report) and in consultation with RAPs. 		Pre-construction	RMS Environment Manager/Project Archaeologist	Submissions/PIR (AH14m)
AH14g (Section 5)	<p>Ancillary facility - Section 5, Site 7 (at Mororo Creek 1 (13-1-0191)):</p> <ul style="list-style-type: none"> This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal archaeological site will be established as per management measure AH2. 		Construction	RMS Environment Manager/Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH14n)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH14h (Section 5)	<p>Ancillary facility - Section 5, Site 5 and Site 7 (at Mororo Creek 2 (13-1-0193):</p> <ul style="list-style-type: none"> This Aboriginal archaeological site within the ancillary facility location will be avoided. An exclusion zone at least five metres outside the boundary of the Aboriginal archaeological site will be established as per management measure AH2. 		Construction	RMS Environment Manager/ Contractor's Rep	Submissions/PIR (AH14o)
AH14i (Section 7)	<p>Ancillary facility - Section 7, Site 1:</p> <ul style="list-style-type: none"> A site walk over survey will be undertaken to confirm whether sub-surface test excavations are required. This will be conducted in accordance with the methodology used in the working paper, and will occur several months before any ground disturbance at this location. Further recommendations and use of the Aboriginal archaeological site will be developed in agreement with the RAPs. 		Pre-construction	RMS Environment Manager/Project Archaeologist	Submissions/PIR (AH14p)
AH14j (Section 7)	<p>Ancillary facility - Section 7, Site 3 (Dubaijeen Site (New Italy 1):</p> <ul style="list-style-type: none"> Salvage excavation of the portion of the Aboriginal archaeological site to be used will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/Preferred Infrastructure Report) and in consultation with RAPs. The excavations apply to the portion of the site that be impacted by the project as well as the ancillary facility. Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2. 		Pre-construction and construction	RMS Environment Manager/Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH14q)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH14k (Section 7)	<p>Ancillary facility - Section 7, Site 4 (The Gap Rd 1(13-1-0194)):</p> <ul style="list-style-type: none"> If impact to The Gap Rd 1 is necessary, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/Preferred Infrastructure Report) and in consultation with RAPs. Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones will be established as per management measure AH2. 		Pre-construction and construction	RMS Environment Manager/ Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH14r)
AH14l (Section 10)	<p>Ancillary facility - Section 10, Site 1a:</p> <ul style="list-style-type: none"> A site walk over survey will be undertaken to confirm whether sub-surface test excavation is required. This will be conducted in accordance with the methodology used in the working paper, and will occur several months before any ground disturbance at this location. Further recommendations for the Aboriginal archaeological site will then be made in consultation with the RAPs. 		Pre-construction	RMS Environment Manager/ Project Archaeologist	Submissions/PIR (AH14s)
AH14m (Section 10)	<p>Ancillary facility - Section 10, ancillary facility 5 at Rudgeley Site 1 (04-4-0167):</p> <ul style="list-style-type: none"> This Aboriginal archaeological site will be avoided, where practical, using an exclusion zone as per management measure AH2. If avoidance is not possible, salvage excavation of the portion of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility 		Pre-construction and construction	Design/Environment Manager/Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH14t)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>and design change CHAR (Appendix D of the Submissions/Preferred Infrastructure Report) and in consultation with RAPs.</p> <ul style="list-style-type: none"> Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2. 				
<p>AH14n (Section 10)</p>	<p>Ancillary facility - Section 10, Site 6 (Site 12 (11-2-0082)):</p> <ul style="list-style-type: none"> If avoidance is not possible, salvage excavation of all portions of the Aboriginal archaeological site to be impacted will be undertaken as detailed in the Ancillary facility and design change CHAR (Appendix D of the Submissions/Preferred Infrastructure Report) and in consultation with RAPs. Any portions of the Aboriginal archaeological site that are not to be impacted will be protected by exclusion zones as per management measure AH2. 		<p>Pre-construction and construction</p>	<p>Design/Environment Manager/Project Archaeologist/ Contractor's Rep</p>	<p>Submissions/PIR (AH14u)</p>
<p>AH14o (Section 11)</p>	<p>Ancillary facility - Section 11, Site 1a:</p> <ul style="list-style-type: none"> The ground will be inspected for any Aboriginal archaeological material by an archaeologist and RAPs during and following clearing activities. Any archaeological material will be recorded, removed from the Aboriginal archaeological site, and a suitable location for the material determined in consultation with the stakeholders. An AHIMS record will be submitted for any finds and any locations where the material is to be stored – unless reburied on or near Aboriginal archaeological 		<p>Pre-construction and construction</p>	<p>Design/Environment Manager/ Project Archaeologist/ Contractor's Rep</p>	<p>Submissions/PIR (AH14v)</p>

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	site, establishing a care agreement will also be necessary.				

SITE SPECIFIC ABORIGINAL HERITAGE MANAGEMENT / MITIGATION MEASURES

Impacts on Aboriginal archaeological sites

AH15	Identified impacts to Aboriginal heritage, shall be minimised to the greatest extent practicable through both detailed design and construction, particularly with regard to the Aboriginal sites Gittoes Jali and the Melino site, and the Aboriginal culturally significant places identified as Birrugan and Mindi spiritual sites (sections 1, 2, 5 and 10), Pillar Valley men's and women's sites, Place H, Place I and Place J. Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan required by condition D25(d).			Design/Environment Manager	MCoA B46
AH16	The Applicant shall not destroy, modify or otherwise physically affect Aboriginal sites WWC5, WWC7, WWC26, WWC92, WWC115, WWC139, Tyndale 1, Scarred/engraved Tree (section 7), C3/2/2, Saw Pit Creek/New Italy, Gittoes Jali 2, Cooks Hill, Broadwater, Law PAD, Law Scarred Tree, MST 3, C21, Melino Scarred Tree 4, MST 2, MST1, Rudgley Scarred Tree or Saezza 1.			Environment Manager/ Contractor's Rep	MCoA B47
AH17	Prior to the commencement of construction affecting PAD site WWC Dirty Creek 1 and ancillary facilities at Section 4, Site 1; Section 4, Site 3; Section 7, Site 1; Section 10, Site 1a; and Section 11, Site 1a , the Applicant shall: a) undertake field investigation, and where required, an archaeological investigation of the site(s) using a methodology generally		Pre-construction	Environment Manager/Project Archaeologist	MCoA B44

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>consistent with testing undertaken for the Environmental Impact Statement, and prepared in consultation with the OEH (Aboriginal heritage) and the relevant Registered Aboriginal Parties; and</p> <p>b) prepare a report on the results of the archaeological investigation, including recommendations (such as for further archaeological work) in consultation with the OEH and to the satisfaction of the Secretary, and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. consideration of measures to avoid or minimise disturbance to Aboriginal objects where objects of moderate to high significance are found to be present; ii. recommendations for any further investigations under condition B46 where impacts cannot be avoided; and iii. details of management and mitigation measures to ensure there are no additional impacts due to pre-construction and construction activities; and <p>c) submit the report to the relevant Registered Aboriginal Parties, the OEH (Aboriginal heritage) and the Secretary.</p>				
AH18 (Section 4)	<p>For the Tyndale 2 site: Salvage excavation be undertaken within the portion of the site to be impacted by the project footprint as detailed in the Working paper Aboriginal Cultural Heritage (Wells Crossing to Iluka Road) and in consultation with RAPs.</p>		Pre-construction	Environment Manager/Project Archaeologist	Submissions / PIR (AH18)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH19	<p>Prior to the commencement of construction activities affecting Aboriginal sites WWC39, WWC46, Tyndale 2 site, IR2W4, Site 11, E2/2, WWC37, Dubaljeen site (New Italy 1), The Gap Road 1, WX21 Site 8, Site 1, Site 2, Site 3 and Site 4 and sites recommended by condition B45 for further investigation, the Applicant shall:</p> <p>a) develop a detailed salvage strategy, prepared in consultation with the OEH (Aboriginal heritage) and the Aboriginal stakeholders. The salvage strategy shall be prepared to the satisfaction of the Secretary; and</p> <p>b) undertake any further archaeological excavation works recommended by the results of the detailed salvage strategy.</p> <p>Within twelve months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall prepare a report containing the findings of the excavations, including artefact analysis and Aboriginal Site Impacts Recording Forms (ASIR), and the identification of final storage location for all Aboriginal objects recovered (testing and salvage), in consultation with the relevant Registered Aboriginal Parties, the OEH (Aboriginal heritage) and to the satisfaction of the Secretary.</p> <p>The report shall be submitted to the relevant Registered Aboriginal Parties, the OEH (Aboriginal heritage) and the Secretary.</p> <p><i>Note:</i></p> <p><i>Where archaeological testing has occurred as part of the environmental assessment and the results are included in the documents referred to in</i></p>		Pre-construction	Environment Manager/Project Archaeologist	MCoA B45

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<i>condition A2, the sites tested shall be included in the final report prepared under condition B46.</i>				
AH20 (Section 3)	Chaffin Creek scarred tree (Chaffin Creek Tree 2): <ul style="list-style-type: none"> Before construction, an exclusion zone will be established as per management measure AH2. An arborist will be consulted to develop a management strategy to ensure the health and preservation of the tree. 		Pre-construction	Design/Environment Manager/Project Archaeologist	Submissions/PIR (AH19)
AH21 (Section 8)	Salvage excavation will be undertaken within the portion of the site to be impacted by the project footprint as detailed in the Working paper Aboriginal Cultural Heritage (Iluka Road to Woodburn) and in consultation with RAPs.		Pre-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH20)
AH22 (Section 8)	For the Gittoes Jali (09-1-0204, 09-1-0205, 09-1-0203) site: <ul style="list-style-type: none"> Where possible, impacts on the Gittoes Jali site will be reduced or avoided. Avoided areas will be protected by an exclusion fence as per management measure AH2. If avoidance is not an option, then extensive salvage will be undertaken as per the methodology detailed in the Ancillary facilities and design change CHAR (refer to Appendix D of the Submissions/Preferred Infrastructure Report). Any sediment from the site to 0.6 metre depth proposed to be used outside the site will be sieved to remove any cultural material. Paint wells and grinding rock: <ul style="list-style-type: none"> Residue analysis will be undertaken to determine if any pigment is found within the 		Pre-construction/Construction	Environment Manager/Design Manager/Project Archaeologist	Submissions/PIR (AH21)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>wells. This will be undertaken by a suitably qualified consultant.</p> <ul style="list-style-type: none"> The location of these paint wells will be accurately plotted and drawn. If the paint wells cannot be avoided, they will be relocated; this requires consultation with the RAPs. <p>Geomorphology assessment:</p> <ul style="list-style-type: none"> A geomorphology assessment will be undertaken. The assessment will be non-invasive, but could use observations of the machine salvage excavation. Borrow site: Haul routes from the project formation to the borrow source that limit direct impacts to Aboriginal heritage will be confirmed in consultation with RAPs. 				
<p>AH23 (Section 9)</p>	<p>For the E2/2 (13-1-01-09) site:</p> <ul style="list-style-type: none"> Salvage excavation will be undertaken at and around the shell midden by the project footprint as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs Any sediment from the site to 1.5 metre depth proposed to be used outside sites will be sieved to remove any cultural material. <p>Shell Midden:</p> <ul style="list-style-type: none"> A sequence of dates (radiocarbon or AMS) will be collected from the hand excavation. 		<p>Pre-construction/ Construction</p>	<p>Environment Manager/Project Archaeologist</p>	<p>Submissions/PIR (AH22)</p>

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<ul style="list-style-type: none"> All shell recovered will be subject to analysis including minimum number of individuals (MNI) and weight (g). An analysis of the number of individual specimens (NISP) may also be undertaken if deemed appropriate. <p>Overburden:</p> <ul style="list-style-type: none"> All overburden will be removed and sieved for cultural materials. <p>Geomorphology assessment:</p> <ul style="list-style-type: none"> A geomorphology assessment will be undertaken. The assessment will be non-invasive, but could use observations of the machine salvage excavation. 				
AH24 (Section 9)	<p>For Site 11 (13-1-0189):</p> <ul style="list-style-type: none"> Salvage excavation will be undertaken by the project footprint as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs. Any sediment from the sites to 1.5 metre depth proposed to be used outside the site will be sieved to remove any cultural material. <p>Geomorphology assessment:</p> <ul style="list-style-type: none"> A geomorphology assessment will be undertaken. The assessment will be non-invasive, but could use observations of the machine salvage excavation. 		Pre-construction/ Construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH23)
AH25 (Section 10)	<p>For the Melino (04-4-0173) site:</p> <ul style="list-style-type: none"> Salvage excavation will be undertaken at the artefact scatter including a discrete knapping floor as detailed in the Working paper 		Pre-construction/ Construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs.</p> <ul style="list-style-type: none"> Any sediment from the sites to 1.5 metre depth proposed to be used outside the site will be sieved to remove any cultural material. <p>Shell Midden:</p> <ul style="list-style-type: none"> Salvage excavations as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs. A sequence of dates (radiocarbon or AMS) will be collected from the hand excavation. All shell recovered will be subject to analysis including minimum number of individuals (MNI) and weight (g). An analysis of the number of individual specimens (NISP) may also be undertaken if deemed appropriate. <p>Area surrounding the shell midden:</p> <ul style="list-style-type: none"> Salvage excavations will be undertaken as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs. Geomorphology assessment: <ul style="list-style-type: none"> A geomorphology assessment will be undertaken. The assessment will be non-invasive, but could use observations of the machine salvage excavation. 				
AH26 (Section 10)	<p>For Site 1 (04-4-0179):</p> <ul style="list-style-type: none"> Further salvage excavations will be undertaken as detailed in the Working paper 		Pre-construction/ Construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH25)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs.</p> <ul style="list-style-type: none"> Any sediment to one metre depth from the site proposed to be used outside the site will be sieved to remove any cultural material. 				
<p>AH27 (Section 10)</p>	<p>For Site 2 (04-4-0178):</p> <ul style="list-style-type: none"> Salvage excavation will be undertaken as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs. Any sediment to 1.5 metres depth from the site proposed to be used outside the site will be sieved to remove any cultural material. Excavation at Site 2 will be undertaken at a time of the year when the water table is at its lowest, to ensure maximum depth can be reached with a machine. 		<p>Pre-construction/ Construction</p>	<p>Environment Manager/Project Archaeologist</p>	<p>Submissions/PIR (AH26)</p>
<p>AH28 (Section 10)</p>	<p>For Site 3 (04-4-0175):</p> <ul style="list-style-type: none"> Further salvage excavations will be undertaken as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs. Any sediment to 1.5 metres depth from the site proposed to be used outside the site will be sieved to remove any cultural material. Excavation at Site 3 will be undertaken at a time of the year when the water table is at its lowest, to ensure maximum depth can be reached with a machine. 		<p>Pre-construction and construction</p>	<p>Environment Manager/Project Archaeologist</p>	<p>Submissions/PIR (AH27)</p>

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH29 (Section 10)	For Site 4 (04-04-0132): <ul style="list-style-type: none"> Further salvage excavations will be undertaken as detailed in the Working paper Aboriginal Cultural Heritage (Woodburn to Ballina) and in consultation with RAPs. Any sediment to 0.5 metre depth from the site proposed to be used outside the site will be sieved to remove any cultural material. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH28)
AH30 (Section 10, 11)	For Site 12 (04-4-0176): <ul style="list-style-type: none"> An exclusion zone be established at the boundary of the site where construction is to occur within 10 m of the site, as per management measure AH2. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH29)
AH31 (Section 10)	For the Gumi site (04-4-0180): <ul style="list-style-type: none"> The tree (registered on AHIMS database) will be removed and the trunk will be relocated to an area agreed to with the registered stakeholder groups and Roads and Maritime – an arborist will be consulted to guide in the removal of the tree. The final tree location will be visually protected with culturally sensitive plantings or by existing vegetation. Access to the tree will be provided for local Aboriginal people to enable them to be able to use the tree as a teaching site. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH30)
AH32 (Section 10)	For the Melino Scarred Tree 4 (04-4-0166) site: <ul style="list-style-type: none"> Prior to construction a 15 metre exclusion zone will be established around the scarred tree as per management measure AH2. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH31)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<ul style="list-style-type: none"> An arborist will be consulted to develop an ongoing management strategy to ensure the preservation and health of the tree. 				
AH33 (Section 10)	<p>For the MST3 (04-4-0131) site:</p> <ul style="list-style-type: none"> Prior to construction a 15 metre exclusion zone will be established around the scarred trees as per management measure AH2. An arborist will be consulted to develop an ongoing management strategy to ensure the preservation and health of the tree. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH32)
AH34 (Section 10)	<p>For the C21 (04-4-0107) site:</p> <ul style="list-style-type: none"> Prior to construction a 15 metre exclusion zone will be established around the scarred trees as per management measure AH2. An arborist will be consulted to develop an ongoing management strategy to ensure the preservation and health of the tree. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH33)
AH35 (Section 10)	<p>For the MSRT2 (04-4-0130) site:</p> <ul style="list-style-type: none"> Prior to construction a 15 metre exclusion zone will be established around the scarred trees as per management measure AH2. An arborist will be consulted to develop an ongoing management strategy to ensure the preservation and health of the tree. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH34)
AH36 (Section 10)	<p>For the Rudgley Scarred Tree (04-4-0170) site:</p> <ul style="list-style-type: none"> Prior to construction a 15 metre exclusion zone will be established around the scarred trees as per management measure AH2. An arborist will be consulted to develop an ongoing management strategy to ensure the preservation and health of the tree. 		Pre-construction and construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH35)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
AH37 (Section 10)	An exclusion zone will be established 5 metres from the boundary of Rudgley Scarred Tree 2 as per management measure AH2.		Pre-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH36)
AH38 (Section 10)	The area of site to be impacted be subject to salvage excavation as detailed in the Addendum CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs. All cultural material recovered will be subject to detailed analysis, interpretation and reporting.		Pre-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH37)
Impacts to corridors of movement					
AH39 (Section 3)	Tyndale and Woodford Island Corridors of Movement: <ul style="list-style-type: none"> • Pedestrian access across the project will be provided if reasonable and feasible within the existing local road network, to maintain the connectivity of this corridor of movement. 		Pre-construction/ Construction/ Post-construction	Environment Manager/Design Manager	Submissions/PIR (AH39)
AH40 (Section 3)	Pillar Valley Corridors of Movement: <ul style="list-style-type: none"> • Pedestrian access across the project will be provided if reasonable and feasible within the existing local road network, to maintain the connectivity of this corridor of movement. 		Pre-construction/ Construction/ Post-construction	Environment Manager/Design Manager	Submissions/PIR (AH40)
Direct impacts on culturally significant places					
AH41 (Section 9/10)	Place B: <ul style="list-style-type: none"> • To maintain connectivity, access will be provided across the project area, from the end of Richmond Road, Pine Tree Road, or Fischer Street to Broadwater National Park during construction and operation, in consultation with the traditional owners. 		Pre-construction/ Construction/ Post-construction	Environment Manager/Design Manager	Submissions/PIR (AH41)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<ul style="list-style-type: none"> • Pedestrian access within the project boundary will be provided where feasible and reasonable from the eastern side of the project to the western side of Broadwater National Park. A connection from the existing Pacific Highway to Broadwater National Park along Eversons Lane would be considered, in consultation with traditional owners and relevant land owners. 				
AH42 (Section 9/10)	Place D: <ul style="list-style-type: none"> • Welcome to country signage will be installed within the highway corridor between Woodburn and Wardell and information on culture installed at the rest area in Section 10, as agreed with the RAPs. 		Pre-construction/ Construction/ Post-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH42)
AH43 (Section 11)	Place K: <ul style="list-style-type: none"> • A geomorphological assessment will be undertaken, including the geomorphological setting of the archaeological sites within this landscape, and how the landscape has formed and changed over the last 40,000 years. This takes into account both the cultural and scientific significance of the place. • A report would be produced by a geomorphologist in conjunction with an archaeologist/anthropologist. 		Pre-construction/ Construction/	Environment Manager/Project Archaeologist	Submissions/PIR (AH43)
Indirect impact on culturally significant places					
AH44 (Section 9)	Place E: <ul style="list-style-type: none"> • This place will be fenced prior to and during construction to avoid incidental impact on it. • Surface water runoff from the construction site or from the highway pavement during 		Pre-construction/ Construction/ Post-construction	Environment Manager/ Contractor's Rep	Submissions/PIR (AH44)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	operation of the project will be prevented from directly entering into Place E.				
Indeterminate impact on culturally significant places					
AH45 (Section 9/10)	Place C: <ul style="list-style-type: none"> An education package will be prepared to pass information associated with this area onto future generations. This will include at a minimum a printed document detailing the story of the occupation of this area and the ensuing massacre. Further research and interviews will be undertaken for this purpose. Where possible, oral recordings and/or video footage will also be compiled into the package Caution will be undertaken in and around the project in this area with regard to potential human remains. 		Pre-construction/ Construction/ Post-construction	Environment Manager/Project Archaeologist/ Contractor's Rep	Submissions/PIR (AH45)
Mororo Cutting Site					
AH46 (Section 6)	Before construction at Mororo Road, between station 97.45 and 98.9, a field inspection of the area to be cleared and excavated will be undertaken by an Aboriginal heritage consultant with RAPs.		Pre-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH46)
Old Bagotville Road Lot 109 DP1137975					
AH47 (Section 10)	As the property occurs in an area of low-moderate Aboriginal heritage potential, survey, and if necessary test excavation, should be undertaken to determine the presence and extent of potential archaeological evidence. This will be conducted in accordance with the methodology agreed with RAPs, and prior to ground disturbing works for the project and/or proposed design change. Further		Pre-construction	Environment Manager / Project Archaeologist	Submissions/PIR (AH47)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	recommendations for the site will then be made in consultation with the RAPs.				
Saezza 1 artefact scatter: salvage excavation					
AH48 (Section 10)	<p>The area of this site to be impacted will be subject to salvage excavation as detailed in the Addendum CHAR (Appendix D of the Submissions/ Preferred Infrastructure Report) and in consultation with RAPs.</p> <p>All cultural material recovered will be subject to detailed analysis, interpretation and reporting. The portion of the site that not be impacted (at least 70%), will be protected by fencing as per management measure AH2.</p>		Pre-construction	Environment Manager/Project Archaeologist	Submissions/PIR (AH48)

Table 7-2 Non-Aboriginal heritage management and mitigation measures

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
GENERAL NON-ABORIGINAL HERITAGE MANAGEMENT/MITIGATION MEASURES					
Unidentified historical heritage materials, features and/or deposits					
HH1	The contractor shall not destroy, modify or otherwise physically affect the heritage items listed in Table 5-2, Historic (non-Aboriginal) Heritage Assessment Working Paper and Table 3-38, Submissions/Preferred Infrastructure Report (RMS, November 2013). Table 6-3 in this Construction Heritage Management Plan outlines specific management measures for the identified non-Aboriginal heritage items.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	MCoA B51
HH2	If at any time during construction associated with the project, unidentified historical heritage materials, features and/or deposits are found, the NSW Roads and Maritime Services' Standard Management Procedure: Unexpected Archaeological Finds (2012) provided in Appendix B will be followed.	RMS Standard Management Procedure – Unexpected Archaeological Finds (Refer Appendix B)	Construction	All personnel and works Contractor	Submissions/PIR (HH1)G36 Section 6.13 and 6.14
Awareness of non-Aboriginal heritage items					
HH3	Should the impact to any historic heritage item change during detailed design, further assessment of impacts on the items will be undertaken.		Pre-construction	Environment Manager	Submissions/PIR (HH4)
HH4	Identified impacts to heritage sites shall be minimised where feasible and reasonable through both detailed design and construction, particularly with regard to the historic site known as the North Coast Railway Branch Tramway, Glenugie . New Italy Settlement, Vineyard Haven and the High Conservation Value Old Growth Forest.		Pre-construction/ Construction	Design Manager/ Environment Manager	CoA B52 (with changes)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	Where impacts are unavoidable, works shall be undertaken in accordance with the actions to manage heritage construction impacts required by condition D26 (d), the site specific mitigation measures outlined in Table 6-3 of this management plan and under the guidance of an appropriately qualified heritage specialist.				
HH5	<p>This approval does not allow the Applicant to destroy, modify or otherwise physically affect human remains as part of the SSI.</p> <p>The Applicant shall not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint, unless otherwise agreed by the Secretary in accordance with condition B54.</p>		Pre-construction/ Construction	Environment Manager	MCoA B53, MCoA B54
HH6	Contractors will be given awareness training on non-Aboriginal historical heritage in accordance with the Heritage Education and Training Package provided in Appendix A prior to commencement of construction works to ensure understanding of potential heritage items and the procedure in the event of discovery of historical heritage materials, features or deposits, or the discovery of human remains.	Heritage education and training package (refer Appendix A)	Construction	Environment Manager	Submissions/PIR (HH2)G36 Sections 4.10
HH7	The construction heritage management plan will be developed in consultation with the Heritage Council of NSW.		Construction	Environment Manager	Submissions/PIR (HH3) MCoA B55, MCoA D26(d)
Ancillary facilities					
HH8 (Section 10)	At project section 10, ancillary facility 4: a temporary barrier fence will be erected to protect the drainage channel that is not directly impacted by the project (item 43). The fence will remain in			Environment Manager/ Contractor's Rep	Submissions/PIR (HH6)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	place until the conclusion of the use of the ancillary site at which time it will be removed.				
HH9	Where local or state significant heritage items not previously identified are identified on an ancillary site and use of the site will impact on the heritage significance of the item, the site will not be used for ancillary facilities.			Environment Manager/ Project Archaeologist/ Construction Manager	Submissions/PIR (HH7)
HH10	Where local or state significant heritage items are identified on an ancillary site and use of the site will not impact on the heritage significance of the item, appropriate management measures (such as barrier fencing) will be put in place to clearly identify the heritage item and exclude use of the ancillary site within the heritage item's curtilage. Use of these ancillary facilities may commence: <ul style="list-style-type: none"> • When the appropriate protective measures have been implemented. • When the relevant records have been updated and/or completed. 			Environment Manager/ Project Archaeologist/ Contractor's Rep	Submissions/PIR (HH8)
	Any new ancillary facility and spoil placement locations not identified as part of this EIS will require a non-Aboriginal heritage assessment, with a database search and site walkover to identify any potential heritage items. If items are found, HH4- HH7 will be followed.			Environment Manager/ Project Archaeologist	Submissions/PIR (HH9)
SITE-SPECIFIC NON-ABORIGINAL HERITAGE MANAGEMENT/MITIGATION MEASURES					
HH12	Prior to the commencement of construction in proximity to the following heritage items: 21; 23 (Roder's well and orchard); 26; 28; 29; and 43, the Applicant shall complete all archival recordings,			Environment Manager/ Project Archaeologist	MCoA B49

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>including photographic recording of these heritage items, unless otherwise agreed by the Secretary. These items are listed in Table 13-1 of the EIS Historic (non-Aboriginal) Heritage Assessment.</p> <p>The archival recording shall be undertaken by an experienced heritage consultant, in accordance with the Guidelines issued by the Heritage Council of NSW. The areas containing these items shall be clearly identified and/or fenced until the completion of the archival recordings. Within 6 months of completing the archival recording, the Applicant shall submit a report containing the archival and photographic recordings and the historical research, where required, to Department of Planning and Environment, the Heritage Council of NSW, and the local library and the local Historical Society in the relevant local government area(s).</p>				
HH13	<p>Prior to construction affecting the following heritage items: 7; 23 (Roder's well and orchard) and 28, the Applicant shall carry out further historical and physical archaeological investigations of these heritage items, in consultation with Department of Planning and Environment and the OEH (Heritage Division), to the satisfaction of the Secretary. These investigations shall:</p> <p>a) include archaeological investigations and excavation in accordance with the Heritage Council's Archaeological Assessments Guideline (1996) using a methodology prepared, in consultation with the OEH (Heritage Division), and to the satisfaction of the Secretary. The archaeological investigation shall be undertaken by an archaeological heritage consultant, whose</p>			Environment Manager/ Project Archaeologist	MCoA B50

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<p>appointment has been endorsed by the Secretary. The nomination for the Excavation Director shall demonstrate ability to comply with the Heritage Council's Criteria for the Assessment of Excavation Directors (July 2011);</p> <p>b) provide for the detailed analysis of any heritage items discovered during the investigations;</p> <p>c) include management options for these heritage items (including options for relocation and display); and</p> <p>d) if the findings of the investigations are significant, provide for the preparation and implementation of a heritage interpretation plan.</p> <p>Within 12 months of completing the above work, unless otherwise agreed by the Secretary, the Applicant shall prepare a report containing the findings of the excavations, including artefact analysis, and the identification of a final repository for finds, prepared in consultation with the OEH (Heritage Division) and to the satisfaction of the Secretary. The report shall be submitted to Department of Planning and Environment, the Heritage Council of NSW, and the local library and the local Historical Society in the relevant local government area(s).</p> <p><i>Note:</i> <i>Where archaeological testing has occurred as part of the environmental assessment for the SSI and the results are included in the documents referred to in condition A2, the sites tested shall still form part of the methodology and final report prepared</i></p>				

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<i>for the non-Aboriginal archaeological investigation program.</i>				
Impacts on item 11: Tyndale residence, Tyndale					
HH14 (Section 3 – initial upgrade)	Architectural noise treatment to the house will be investigated and provided where reasonable and feasible and in consultation with a qualified heritage consultant. Consideration will be given for the need to revise the Statement of Heritage Impact (SOHI) for this item when the specific architectural noise treatment options are identified.		Pre-construction	Environment Manager	Submissions/PIR (HH19)
HH15 (Section 3 – initial upgrade)	Prior to the start of construction, the location and condition of the mature bunya trees will be recorded by an arborist. In consultation with an arborist, protective fencing will be erected adjacent to the property boundary to control impacts on the trees.		Pre-construction / Construction	Environment Manager	Submissions/PIR (HH18)
Impacts on item 12: Cane barge and former Ashby ferry, Maclean					
HH16 (Section 4 – initial upgrade)	A photographic condition survey will be undertaken of the current condition of the heritage items with any damage to the item from construction to be repaired once construction is complete.		Pre-construction	Environment Manager / Project Archaeologist / Contractor's Rep	Submissions/PIR (HH20)
HH17 (Section 4 – initial upgrade)	Where appropriate, and before construction commences, any loose or unstable components of the heritage item will be secured to minimise vibration impacts and remain secured until the conclusion of construction, at which time the securing mechanism/s will be removed. Any methods to secure the heritage item will be reversible and not cause damage to the item.		Pre-construction / Construction	Environment Manager / Contractor's Rep	Submissions/PIR (HH21)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
Impacts on item 17: Harwood tram tracks, Harwood					
HH18 (Section 5 – initial upgrade)	The Petticoat Lane tram tracks section will have a protective covering placed over them, (eg a geotextile fabric and heavy duty metal sheeting or similar) to minimise impacts from construction in the area. The covering will be secured before construction and will remain in place until the end of construction.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH22)
Impacts to item 20: Harwood Bridge, Harwood					
HH19 (Section 5 – initial upgrade)	The design of the new bridge will be undertaken in accordance with Bridge Aesthetics: Design Guidelines to Improve the Appearance of Bridges in NSW (Roads and Maritime, 2012) with specific reference to section 6.1, New bridges next to existing bridges.		Pre-construction	Environment Manager/ Design Manager	Submissions/PIR (HH23)
Impacts on item 21: Convent, Harwood					
HH20	Prior to the commencement of construction affecting the Convent (12-14 Rivers Street), Harwood (item 21), the Applicant shall carry out further historical research and investigate the options for relocation of the convent building, in consultation with Department of Planning and Environment and the OEH (Heritage Division), to the satisfaction of the Secretary.			RMS Environment Manager/ Project Archaeologist	MCoA B48
HH21 (Section 5 – initial upgrade)	An archival photographic recording will be made of the convent building and its surrounds in accordance with the Heritage Branch guidelines How to Prepare Archival Records of Heritage Items (NSW Heritage Office, 1998) prior to its removal or relocation.		Pre-construction	RMS Environment Manager/ Project Archaeologist	Submissions/PIR (HH24)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
HH22 (Section 5 – initial upgrade)	The feasibility of relocating the building to an appropriate site within the Harwood Heritage Conservation Area will be investigated. The investigation will be undertaken in consultation with an appropriately qualified house removal contractor and an appropriately qualified heritage consultant.		Pre-construction	Environment Manager	Submissions/PIR (HH25)
Impacts on item 34 Townsend Residence, Townsend					
HH23 (Section 5 – initial upgrade)	Architectural noise treatment to the house will be investigated and provided where reasonable and feasible and in consultation with a qualified heritage consultant. Consideration will be given for the need to revise the SOHI for this item when the specific architectural noise treatment options are identified.		Pre-construction	Environment Manager	Submissions/PIR (HH26)
Impacts on New Italy Settlement (State Heritage Register 1648), New Italy Museum Complex (item 23: New Italy Settlement sites, New Italy)					
HH24 (Section 7 – initial upgrade)	A photographic condition survey will be undertaken of the current condition of the heritage items so that any damage to the items caused by construction can be repaired once construction is complete.		Pre-construction/ Construction	Environment Manager/ Project Archaeologist/ Contractor's Rep	Submissions/PIR (HH27)
HH25 (Section 7 – initial upgrade)	Monitoring of dust will be undertaken at this location in accordance with the project dust management plan.		Pre-construction/ Construction	Environment Manager	Submissions/PIR (HH28)
HH26 (Section 7 – initial and motorway upgrades)	A temporary fence will be erected between the State Heritage Register boundary and the construction works before work starts in the vicinity of the heritage item. The fence will remain in place until construction is completed at which time it would be removed.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH29)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
HH27 (Section 7 – motorway upgrade)	Appropriate directional signage to the New Italy Museum Complex will be installed at both the interchange at Woodburn and interchange at Illuka Road to divert visitors onto the service road in order to access the museum complex. Signage would comply with relevant Pacific Highway signage policy.		Operation	Environment Manager	Submissions/PIR (HH30)
Impacts on New Italy Memorial and Stone-lined well (item 23: New Italy Settlement sites, New Italy)					
HH28 (Section 7 – initial and motorway upgrades)	Monitoring of dust will be undertaken at this location in accordance with the project dust management plan.		Pre-construction/ Construction	Environment Manager	Submissions/PIR (HH31)
HH29 (Section 7 – initial and motorway upgrades)	A temporary fence will be erected between the new location of the memorial and flagpole and the construction works (within five metres from the heritage items) before work starts in the vicinity of the heritage item. The fence will remain in place until conclusion is completed at which time it will be removed.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH32)
Impacts on Roder's stone-lined well and orchard (item 23: New Italy Settlement sites, New Italy)					
HH30 (Section 7 – initial upgrade)	Salvage excavation will be undertaken to salvage any subsurface artefacts related to the well and adjacent wall. Excavations will be undertaken under the supervision of an appropriately qualified and experienced historical archaeologist and in accordance with the Heritage Branch guidelines, including an appropriate research design and methodology in order to best realise the research potential of this area of the site. Consideration will be given to providing salvaged artefacts to the New Italy Museum		Pre-construction/ Construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH33)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
HH31 (Section 7 – initial upgrade)	Before construction starts in the vicinity of the orchard, the location and condition of each of the mango trees will be recorded by an arborist.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH34)
HH32 (Section 7 – initial upgrade)	Protective barrier fencing to protect the mango orchard will be erected between the construction area and the trees with a buffer of at least five metres. This will be erected before construction starts in the vicinity of the items and will remain in place until the end of construction at which time it would be removed.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH35)
HH33 (Section 7 – motorway upgrade)	An archival photographic recording will be made of the mango orchard and its surrounds in accordance with the Heritage Branch guidelines How To Prepare Archival Records Of Heritage Items (NSW Heritage Office, 1998) prior to its demolition.		Pre-construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH36)
Impacts on Historic New Italy Village Area					
HH34 (Section 7 – motorway upgrade)	If any historical heritage remains are discovered at the New Italy Village Area during construction, management measure HH1 will be applied.		Pre-construction/ Construction	All personnel and works Contractor	Submissions/PIR (HH37)
Impacts on item 26: Maloney property, Broadwater					
HH35 (Section 9 – initial upgrade)	An archival photographic recording will be made of the buttery/creamery, the dairy and its surrounds in accordance with the Heritage Branch guidelines How To Prepare Archival Records Of Heritage Items (NSW Heritage Office, 1998) prior to demolition.		Pre-construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH38)
HH36	Architectural noise treatment to the house will be investigated and provided where reasonable and feasible and in consultation with a qualified		Pre-construction	Environment Manager	Submissions/PIR (HH39)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
(Section 9 – initial upgrade)	heritage consultant. Consideration will be given for the need to revise the SOHI for this item when the specific architectural noise treatment options are identified.				
HH37 (Section 9)	Further investigations for gold shafts within and adjacent to the project corridor will occur near item 26.		Pre-construction		Submissions/PIR (HH40)
Impacts on item 27: Meerschaum Vale brickworks, Wardell					
HH38 (Section 10 – initial upgrade)	If brick material or any other historical heritage remains are discovered during works, management measure HH1 will be applied.		Construction	All personnel and subcontractors	Submissions/PIR (HH41)
Impacts on item 28: Broadwater					
HH39 (Section 9 – initial upgrade)	An archival photographic recording will be made of the stone quarry and small clay pit in accordance with the Heritage Branch guidelines How To Prepare Archival Records Of Heritage Items (NSW Heritage Office, 1998) prior to construction.		Pre-construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH42)
HH40 (Section 9 – initial upgrade)	Salvage excavations to the south of the quarry (to salvage any artefacts relating to of the impact area of the site situated to the south of the quarry) will be undertaken under the supervision of an appropriately qualified and experienced historical archaeologist. Salvage excavation would be undertaken in accordance with the Heritage Branch guidelines including an appropriate research design and methodology in order to best realise the research potential of this area of the site.		Pre-construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH43)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
HH41 (Section 9 – initial upgrade)	A photographic condition survey and structural audit of the brick-lined well will be undertaken of the current condition of the heritage item with any damage to the item from construction to be repaired once construction is complete.		Pre-construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH44)
HH42 (Section 9 – initial upgrade)	<p>Should blasting be required in the vicinity of this item, a detailed assessment of the level of vibration at the brick-lined well will be undertaken based on factors including distance from the blast site and the quantity of the explosive, and modelling of the predicted vibration levels. This assessment may result in additional mitigation measures for the structure including, but not limited to:</p> <ul style="list-style-type: none"> • Construction of temporary or permanent supports or shoring within the brick-lined well. • Stabilisation of the brick-lined well. • Installation of vibration monitoring devices. 		Pre-construction/ Construction	Environment Manager	Submissions/PIR (HH45)
HH43 (Section 9 – initial upgrade)	Protective barrier fencing will be erected around the brick-lined well with a 15-metre buffer before the start of construction and will remain in place until the conclusion of the work, at which time it would be removed.		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH46)
HH44 (Section 9 – initial upgrade)	Due to the proximity of the well to the roadway, the well may be closed for safety reasons. Any measures to close the well will enable access in the future for heritage research or other purposes and that no detrimental physical impact on the well occurs.		Operation	Environment Manager	Submissions/PIR (HH47)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
Impacts on item 29: 'Stonehenge' Property, Wardell					
HH45 (Section 10 – initial upgrade)	An archival photographic recording will be made of the main residence and the drainage system and its surrounds in accordance with the Heritage Branch guidelines How To Prepare Archival Records Of Heritage Items (NSW Heritage Office, 1998) prior to its demolition. A detailed survey and recording of the location of the drainage system within the 'Stonehenge' property will also be undertaken.		Pre-construction	Environment Manager/ Project Archaeologist	Submissions/PIR (HH48)
HH46 (Section 10 – initial upgrade)	Architectural noise treatment to the house will be investigated and provided where reasonable and feasible and in consultation with a qualified heritage consultant. Consideration will be given for the need to revise the SOHI for this item when the specific architectural noise treatment options are identified.		Pre-construction	Environment Manager	Submissions/PIR (HH49)
Impacts on item 38: Cemetery reserve					
HH47 (Section 9 – initial upgrade)	To protect the heritage item from construction activities, the boundary of the reserve will be clearly identified on site/construction plans as an area of exclusion, and temporary barrier fencing will be constructed continuously along the project boundary: <ul style="list-style-type: none"> • Immediately south of the cemetery reserve. • Where it crosses the south east corner of the cemetery reserve. • Where it follows the east boundary of the cemetery reserve. 		Pre-construction/ Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH50)

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
Impacts on Item 33: High Conservation Value Old Growth Forest					
HH48 (Section 2, 6, and 7)	Detailed design will consider the extent to which clearing High Conservation Value Old Growth Forest within the project boundary may be minimised.		Pre-construction	Environment Manager/ Design Manager	Submissions/PIR (HH51)
HH49 (Section 2, 6, and 7)	The area to be cleared will be clearly identified on-site. High Conservation Value Old Growth Forest adjacent to areas to be cleared would be delineated to avoid accidental disturbance on further areas.		Construction	Environment Manager/ Contractor's Rep	Submissions/PIR (HH52)
Impacts on Item 43: Drainage channels, Broadwater					
HH50 (Section 10)	An archival photographic recording be made of the drainage channels and its surrounds in accordance with the Heritage Branch guidelines prior to its destruction.		Pre-construction		Submissions/PIR (HH53)

8 Compliance management

Pacific Complete will manage the environmental performance and compliance of the Contractor by ensuring training is undertaken and through independent inspections and audits and reviewing reports submitted by the Contractor.

8.1 Roles and responsibilities

The organisational structure and overall roles and responsibilities for Pacific Complete are outlined in Section 4.2 of the CEMP. Specific responsibilities for the implementation of environmental controls are detailed in Section 7 of this plan.

Suitable qualified specialist heritage consultants will be engaged by either Pacific Complete or the Contractor(s) as required to provide specialist heritage services for the project works.

8.2 Training

All employees, contractors and utility staff working on site will undergo site induction training relating to Aboriginal and non-Aboriginal heritage management issues. The induction training will address elements related to heritage management including:

- Relevant legislation
- Existence and requirements of this sub-plan
- Roles and responsibilities for heritage management
- Location of identified heritage sites
- Proposed heritage management and protection measures
- Protection of known areas of heritage significance
- Reporting and protection of objects of potential heritage significance found during construction
- Procedure to follow in the event of an unexpected heritage item find during construction works **RMS Standard Management Procedure – Unexpected Archaeological Finds** (November 2011) (refer Appendix B)
- Procedure to follow in the event of discovery of human remains during construction works **RMS Standard Management Procedure – Unexpected Archaeological Finds** (November 2011) (refer Appendix B).

Further details regarding staff induction and training are outlined in Section 5 of the CEMP.

The Aboriginal and non- Aboriginal Heritage Education and Training Package for the work is included in Appendix A.

8.2.1 Special briefings and toolbox talks

Regular Toolbox Talks will be conducted by the contractor to reinforce the information provided during induction. Toolbox talks will be reported as part of monthly reporting and will include heritage issues.

8.3 Monitoring and inspections

Inspections of sensitive areas and activities with the potential to impact Aboriginal and non-Aboriginal heritage will occur for the duration of the work. Some specific monitoring requirements in relation to some items have been documented in Table 8-1.

If this plan has not been followed or implemented appropriately, as found during an inspection of the site, a non-conformance will be raised. A program of works is to be submitted by the contractor prior to commencement of any works on site.

Table 8-1 Heritage inspections

Monitoring				
Item	Frequency	Applicable standards	Responsibility	Reporting
Installation of sensitive area/exclusion fencing near heritage items	At time of installation	G36, CH	Environment Manager	Weekly inspection report
General monitoring of sensitive area/exclusion fencing around heritage items	Weekly	CHMP	Environment Manager	Weekly inspection report

Requirements and responsibilities in relation to monitoring and inspections are documented in Sections 8.1 and 8.2 of the CEMP.

8.3.1 Incident planning and response

Response to incidents will be undertaken as described in Section 7 of the CEMP and in accordance with the Environmental Incident Management Plan (refer to Appendix A6 of the CEMP).

An unexpected archaeological finds procedure will be required by the contractor as part of their Contractor's EMP. The unexpected finds procedure will need to be in accordance with the RMS *Standard Management Procedure – Unexpected Archaeological Finds* (November 2011). The unexpected finds procedures will need to include appropriate management of Aboriginal and non-Aboriginal heritage items and human remains. Should unexpected finds be discovered, all work will stop in the vicinity and the Contractor will notify Pacific Complete Environment Manager who will notify the relevant agencies and stakeholders as required.

8.4 Auditing

Audits will be undertaken to assess the effectiveness of environmental controls, compliance with this plan, MCoA and other relevant approvals, licenses and guidelines.

An audit schedule will be developed for the project by the PC Environment Manager and will include internal and third party external audits which will include this CHMP.

Audit requirements are detailed in Section 8.3 of the CEMP.

8.5 Reporting

Reporting requirements and responsibilities are documented in Section 8.3 of the CEMP. Reporting requirements included in the RMS Standard Procedure – Unexpected Archaeological Finds reporting requirements will be met (refer to Appendix B).

9 Review and improvement

9.1 Continuous improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventive actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

9.2 CHMP update and amendment

The processes described in Chapter 8 and Chapter 9 of the CEMP may result in the need to update or revise this Plan. Additional circumstances where this plan will need to be updated include the identification of additional Aboriginal archaeological or cultural heritage sites and non-Aboriginal heritage sites identified after the approval of this plan. These updates will occur as needed.

Any revisions to the CHMP will be in accordance with the process outlined in Section 1.6 of the CEMP.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 10.2 of the CEMP

Appendix A

Aboriginal & non-Aboriginal heritage education and training package

The Aboriginal component of the heritage education and training package will be developed by a representative of the Aboriginal parties.

The non-Aboriginal heritage will be included in the project induction.

This will be developed prior to commencement of construction.



ABORIGINAL AND NON-ABORIGINAL HERITAGE EDUCATION AND TRAINING PACKAGE

Appendix A of the Pacific Complete Construction Heritage Management Plan Sections 3-11

Content

- Aboriginal heritage
- Registered Aboriginal Parties
- Non-Aboriginal heritage
- Relevant legislation
- Penalties
- Project approvals and relevant conditions of approval
- Pacific Complete Construction Heritage Management Plan (CEMP)
- Heritage on W2B
- Roadside memorials
- Unexpected finds procedure
- Unexpected finds of human remains

Aboriginal heritage

- Aboriginal people have lived in Australia for more than 40,000 years.
- The land and the environment play a large role in Aboriginal culture and links Aboriginal people with who they are and where they belong.
- Aboriginal sites can include:
 - Cultural sites
 - Burial sites
 - Artefact scatters
 - Oven or hearth sites
 - Rock art
 - Shell middens
 - Axe grinding grooves
 - Scarred trees

Stone artefacts



Oven or hearth sites



Rock art



Shell middens



Axe grinding grooves



Scarred and carved trees



Image source: Operational Guidelines for Aboriginal Cultural Heritage Management, Sept 2010, Forests NSW

Registered Aboriginal Parties (RAPs)

Location	Section(s)	Aboriginal parties
Wells Crossing to Illuka Road	3, 4 (Portion A) and 5 (Portion B)	<ul style="list-style-type: none"> • Birrigan-Gargle LALC • Grafton-Ngerrie LALC • Yaegl LALC • Yaegl Traditional Owners Aboriginal Corporation RNTBC • Yarrawarra Aboriginal Corporation (incorporating the Gaabi Elders Group- previously referred to as the Garby Elders Group)
Illuka Road to Woodburn	6 (Portion B), 7 and 8 (Portion C)	<ul style="list-style-type: none"> • Bandjalang Aboriginal Corporation Prescribed Body Corporation RNTBC • Birrigan-Gargle LALC • Bogal LALC • Jali LALC • Ngulingah LALC • Yaegl LALC • Yaegl Traditional Owners Aboriginal Corporation RNTBC
Woodburn to Ballina	8, 9 (Portion C), 10 and 11(Portion D)	<ul style="list-style-type: none"> • Bandjalang People #1 and #2 Native Title Claimants • Bogal LALC • Burabi Aboriginal Corporation • Bunjum Aboriginal Corporation • Cultural Concepts • Jali LALC • Numbahjing Native Title Claimants • Tweed, Byron and Ballina Community Transport Inc • Gubba Gunya Aboriginal Corporation

Non-Aboriginal heritage

- Non-Aboriginal heritage refers to the history of European settlement, including items from:
 - Industry
 - Towns and villages
 - Exploration
 - Transport
 - Government and administration.
- High Conservation Value Old Growth Forests are also included under non-Aboriginal heritage.
- Examples include;



Convent within Harwood village. Section 5 (Portion B)



Memorial and stone lined well, New Italy. Section 7 (Portion C)



Harwood Bridge, Harwood. Section 5 (Portion B)

Relevant Legislation

Aboriginal heritage

The National Parks and Wildlife Act 1974 (NSW) (NPW Act)

- Protects Aboriginal heritage and cultural sites in NSW
- Under the Act it is an offence to destroy, deface or damage an Aboriginal object or a declared Aboriginal place
- Also an offence to move an Aboriginal object from where it is located.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)

- Protects objects and areas that are of particular significance to Aboriginal people.

Native Title Act 1993 (Commonwealth)

- Provides a mechanism for the recognition and protection of native title.
- Under the act, the proponent proposing construction, operation, use, maintenance or repairs on native land must:
 - Notify traditional owners using the method set out in the act
 - Not prevent native title holders from having reasonable access to land and waters in the vicinity, except for health and safety reasons and during construction.

Non-Aboriginal Heritage

Heritage Act 1977 (Heritage Act)

- Protects the state's environmental heritage
- Provides for the identification and registration of items of state heritage significance.



Office of
Environment
& Heritage



Penalties

Under *The National Parks and Wildlife Act 1974*

Action

Harm or desecration of an Aboriginal object that the person knows is an Aboriginal object

Penalty

- *Individual – up to \$550,000 and/or 2 years imprisonment*
- *Corporation – up to \$1.1 million*

Harm or desecration of an Aboriginal object (strict liability)

- *Individual – up to \$110,000*
- *Corporation – up to \$220,000.*

Failure to notify Office of Environment and Heritage (OEH) of location

- *Individual – up to \$11,000*
- *Corporation – up to \$22,000.*

Contravention of condition of Aboriginal Heritage Impact Permit

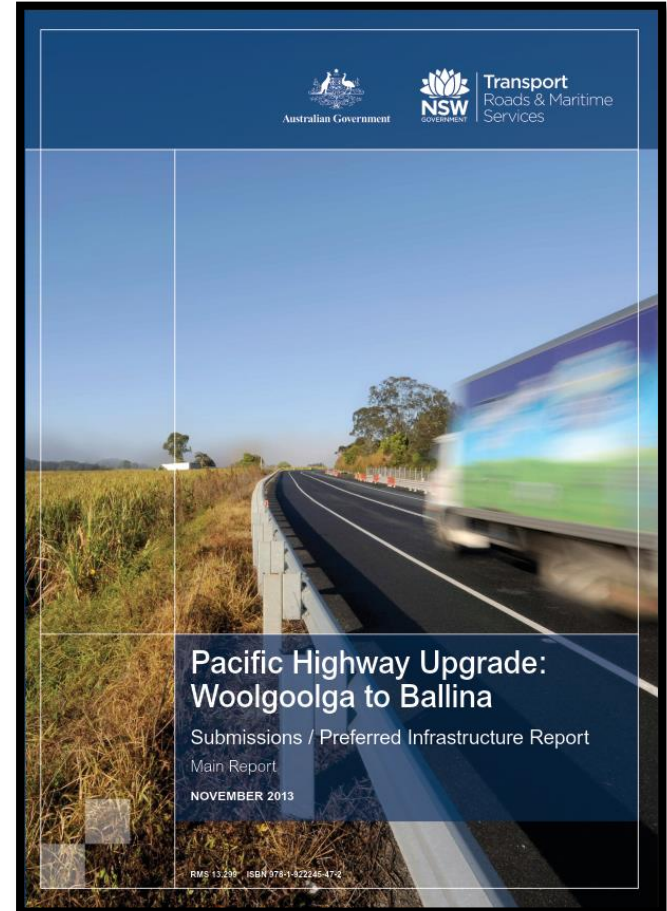
- *Individual – up to \$110,000 and/or 6 months imprisonment*
- *Corporation – up to 220,000*
- *Ongoing penalties until offence is ceased.*

Under the *Heritage Act 1977*

- Fines
- Imprisonment
- Confiscation of equipment

Project approvals and relevant MCoA

- **NSW Ministers Conditions of Approval (MCoA)**
 - Requires the preparation of a Construction Heritage Management Plan
 - Lists heritage sites that require investigation/ archival recordings/ consultation/ salvage prior to construction
 - Process for use of ancillary facilities including heritage assessment.
- **SPIR mitigation measures**
 - Specific requirements for exclusion zones
 - Lists heritage sites that required specific mitigation measures including:
 - Exclusion zones
 - Additional assessments
 - Mitigation measures
 - Monitoring
 - Ancillary facilities– requirements prior to use
 - Education and training requirements.



Pacific Complete Construction Heritage Management Plan (CHMP) (sections 3-11)

- Forms part of the Pacific Complete Construction Environmental Management Plan (CEMP) (sections 3 to 11) .
- Contractors will prepare their own management plan in accordance with Pacific Complete CHMP.

Main objectives

- Ensure impacts to Aboriginal and non-Aboriginal heritage are minimised
- Engage with the local Aboriginal communities
- Ensure appropriate controls and procedures are implemented during construction to avoid/minimise impacts
- Ensure measures implemented comply with legislation, conditions of approval and EIS/SPIR
- Provide staff with an increased level of understanding and awareness of heritage management.



APPENDIX B5

Construction Heritage Management Plan
Woolgoolga to Ballina
Pacific Highway Upgrade (sections 3 to
11)

OCTOBER 2015

Management of Heritage on W2B (Sections 3-11)

Aboriginal

- Cultural sites
- Burial sites
- Archaeological sites including artefact scatters, middens and scarred trees.

Non-Aboriginal

- Historic buildings and structures
- Farming equipment
- Historic settlements
- High Conservation Value Old Growth Forests.



Artefact scatter, sample of artefacts, at PAD 11 (AHIMS Site ID: 13-1-0189). Source: EIS. 2012.

Roles and responsibilities

- **All** staff members are responsible for the protection and management of heritage items.
- The Environment Advisor onsite is your point of contact for any heritage related issue.
- **If in doubt, always ask for advice.**

Go and no go areas

- Roads and Maritime Services have commenced an Aboriginal heritage salvage program to clear the project corridor of heritage items prior to construction.
- Exclusions zones will be set up where heritage items have remained in-situ.
- **Do not** enter exclusion zones.
- **Check** sensitive area plans.
- **Stay within** the project boundary.
- **Ask for advice if in doubt.**

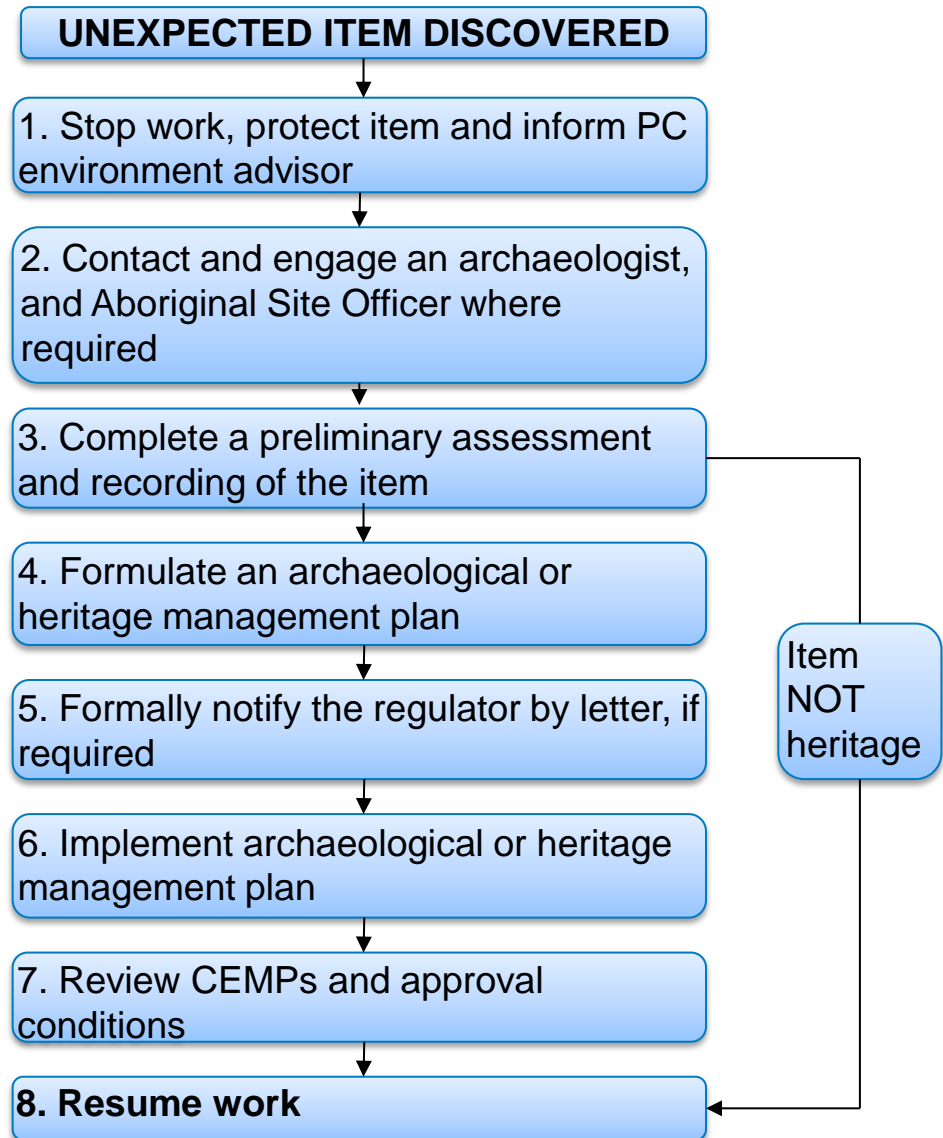
Roadside memorials

- RMS guidelines are in place to manage roadside memorials that are within the construction corridor.
- If you come across a roadside memorial, stop work and report it to environment advisor.
- **Do not relocate or remove a memorial without approval.**



Unexpected finds procedure

- Forms Appendix B Of the Pacific Complete Construction Heritage Management Plan (Sections 3-11)
- If you think you've come across a potential heritage item:
 - **STOP** work
 - Set up an **exclusion zone**
 - **Notify** Pacific Complete environment advisor
 - Only continue work when approval has been given
 - **Follow** unexpected finds procedure set out in the Construction Heritage Management Plan.



Unexpected finds of human remains

- Forms Appendix B Of the Pacific Complete Construction Heritage Management Plan (Sections 3-11).
- All bones must be treated as potential skeletal remains and protected and investigated urgently.
- Human remains are considered archaeological after 100 years post death.
- Notification pathway is dependent on age and whether the bones are Aboriginal or non-Aboriginal.
- If you uncover bones of any description
 - **Stop** all work
 - Set up an **exclusion zone**
 - **Notify** PC environment advisor
 - **Follow** procedure in the Construction Heritage Management Plan.

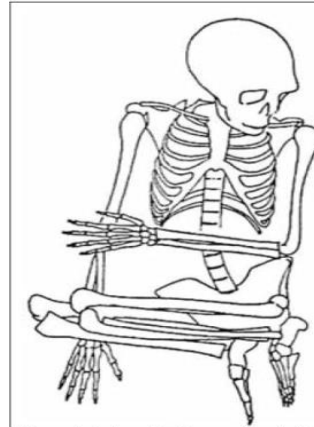
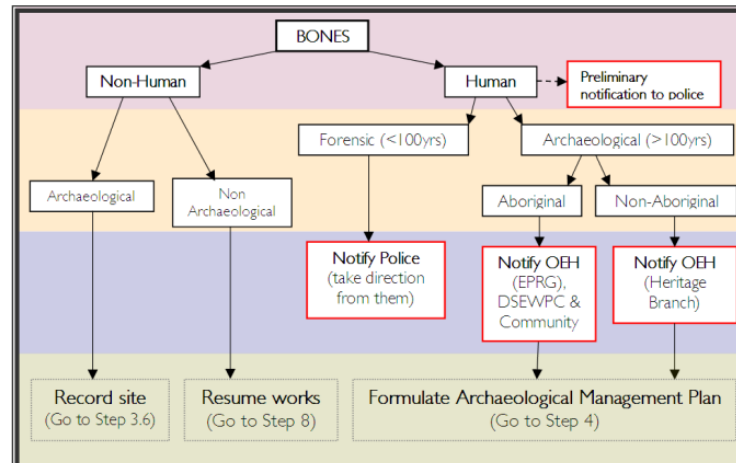


Figure 1: Schematic of a complete skeleton that is 'obviously' human¹².



Figure 2: Disarticulated bones that require assessment to determine species.



Source: Standard management procedure: Unexpected heritage items, RMS, 2015

Note: DSEWPC is now Department of Environment

Questions?

Appendix B

Roads and Maritime Standard Management Procedure – Unexpected Archaeological Finds

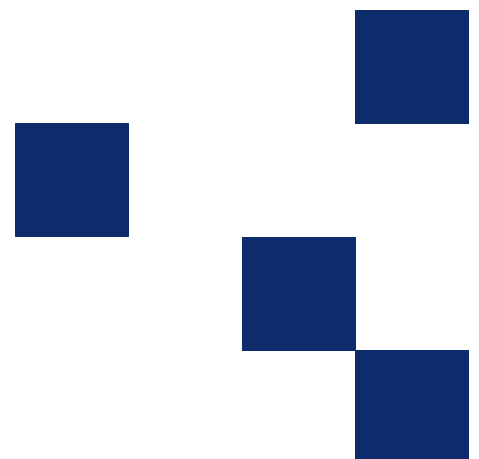


Transport
Roads & Maritime
Services

STANDARD MANAGEMENT PROCEDURE

Unexpected Heritage Items

March 2015



About this release

RMS/ISBN numbers	RMS 12.003 ISBN 9781922040305
Title	Unexpected Heritage Items Procedure

Approval and authorisation		Name
Prepared by	Environmental Officer (Heritage)	Gretta Logue
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Approved by	Manager Environmental Policy	Michael Crowley

File location	File name
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Document status	Date
Final	16 March 2015

Version	Date	Revision Description
Final	1 November 2011	First Draft
Revised	23 July 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Environment must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.
Revised	09 October 2013	Amended to clarify that the procedure applies to all types of unexpected heritage items, not just archaeological items. The procedure introduces the term 'Historic Items' to cover both 'archaeological relics' and 'other historic items' such as works, structures, buildings and movable objects. The title of the document has been amended to better reflect this clarification.
Revised	16 March 2015	The procedure was streamlined to address all project types including maintenance works. The separate maintenance procedure (formerly Appendix B) was removed. Names and titles updated throughout.

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Please note

This procedure applies to all development and activities concerning roads, road infrastructure and road related assets undertaken by Roads and Maritime.

For advice on how to manage unexpected heritage items as a result of activities related to maritime infrastructure projects, please contact the Senior Environmental Specialist (Heritage).

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Unexpected heritage items procedure

1. Purpose

This procedure has been developed to provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during Roads and Maritime activities. This procedure includes Roads and Maritime's heritage notification obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

This document provides relevant background information in Section 3, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices A-H.

2. Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal heritage assessment has been undertaken prior to on site project work commencing. In some case, such as exempt development, detailed heritage assessment may not be required.

Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.

This procedure applies to all Road and Maritime construction and maintenance activities

This procedure **applies to**:

- The discovery of any unexpected heritage item (usually during construction), where Roads and Maritime does not have approval to disturb the item or where safeguards for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.
- All Roads and Maritime projects that are approved or determined under Part 3A (including Transitional Part 3A Projects), Part 4, Part 5 or Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), or any development that is exempt under the Act.

This procedure must be followed by Roads and Maritime staff, alliance partners (including local council staff working under Road Maintenance Council Contracts, [RMCC]), developers under works authorisation deeds or any person undertaking Part 5 assessment for Roads and Maritime.

This procedure **does not apply** to:

- The legal discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with OEH's *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (2010); an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act*

1974; or an approval issued under the *Heritage Act 1977*¹.

- The legal discovery and disturbance of heritage items as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 3A (including Transitional Part 3A Projects) or Part 5.1 of the EP&A Act.
- The legal discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP²; an approval issued under the *Heritage Act 1977*; the Minister for Planning's conditions of project approval; or safeguards (apart from this procedure) that are contained in the relevant environmental impact assessment.

All construction environment management plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

3. Types of unexpected heritage items and their legal protection

The roles of project, field and environmental staff are critical to the early identification and protection of unexpected heritage items. **Appendix A** illustrates the wide range of heritage discoveries found on Roads and Maritime projects and provides a useful photographic guide. Subsequent confirmation of heritage discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Roads and Maritime does not have approval to disturb³ or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) Historic (non-Aboriginal) heritage items
- (c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

3.1 Aboriginal objects

The *National Park and Wildlife Act 1974* protects *Aboriginal objects* which are defined as:

¹ RMS' heritage obligations are incorporated into the conditions of heritage approvals.

² RMS *Procedure for Aboriginal cultural heritage consultation and investigation* (2011) recommends that Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.

³ Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains”⁴.

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

IMPORTANT!

All Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from the Office of Environment and Heritage (OEH)⁵. Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location⁶. Assistance on how to do this is provided in Section 7 (Step 5).

3.2 Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological ‘relics’
- Other historic items (i.e. works, structures, buildings or movable objects).

3.2.1 Archaeological relics

The *Heritage Act 1977* protects *relics* which are defined as:

“any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance”⁷.

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

⁴ Section 5(1) *National Park and Wildlife Act 1974*.

⁵ Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

⁶ This is required under s89(A) of the *National Park and Wildlife Act 1974* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

⁷ Section 4(1) *Heritage Act 1977*.

IMPORTANT!

All relics are subject to statutory controls and protections.

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council⁸. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location⁹. Advice on how to do this is provided in Section 7 (Step 5).

3.2.2 Other historic items

Some historic heritage items are not considered to be ‘relics’; but are instead referred to as works, buildings, structures or movable objects. Examples of these items that Roads and Maritime may encounter include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. Although an approval under the *Heritage Act 1977* may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under Section 140 of the *Heritage Act 1977* is required to do this. In contrast, ‘other historic items’ either exist above the ground’s surface (e.g. a shed), or they are designed to operate and exist beneath the ground’s surface (e.g. a culvert).

Despite this difference, it should be remembered that relics can often be associated with ‘other heritage items’, such as archaeological deposits within cisterns and underfloor deposits under buildings.

3.3 Human skeletal remains

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-contact archaeological Aboriginal burial would be protected under the *National Park and Wildlife Act 1974*, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the *Heritage Act 1977*. For these cases, the relevant heritage approval and notification requirements described in the above sections 3.1 and 3.2 would apply. In addition to the *National Park and Wildlife Act 1974*, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

⁸ Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

⁹ This is required under s146 of the *Heritage Act 1977* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

 **IMPORTANT!**

All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in s35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old¹⁰ regardless of ancestry (ie both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in **Appendix E**.

¹⁰ Under s19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

4. Responsibilities

The following roles and responsibilities are relevant to this procedure.

Role	Definition/responsibility
Aboriginal Cultural Heritage Advisor (ACHA)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the Roads and Maritime <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Aboriginal Sites Officer (ASO)	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal Sites Officers, refer to Roads and Maritime <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation</i> .
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation etc). Major projects with complex heritage issues often have an on call Project archaeologist.
Project Manager (PM)	Ensures all aspects of this procedure are implemented. The PM can delegate specific tasks to a construction environment manager, Roads and Maritime site representatives or regional environment staff, where appropriate.
Regional Environment Staff (RES)	Provides advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal Parties (RAPs)	RAPs are Aboriginal people who have registered with Roads and Maritime to be consulted about a proposed Roads and Maritime project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
Senior Environmental Specialist (Heritage) (SES(H))	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Team Leader - Regional Maintenance Delivery (TL-RMD)	Ensures Regional Maintenance Delivery staff stop work in the vicinity of an unexpected heritage item. Completes Unexpected Heritage Item Recording Form 418 and notifies WS-RMD.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of

	unexpected heritage find (eg a forensic or physical anthropologist who can identify and analyse human skeletal remains).
Works Supervisor - Regional Maintenance Delivery (WS-RMD)	Ensures Regional Maintenance Delivery staff are aware of this procedure. Supports the Team Leader - Regional Maintenance Delivery during the implementation of this procedure and ensures reporting of unexpected heritage items through environment management systems.

5. Acronyms

The following acronyms are relevant to this procedure.

Acronym	Meaning
A	Archaeologist
ACHA	Aboriginal Cultural Heritage Advisor
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
OEH	Office of Environment and Heritage.
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PM	Project Manager
RAP	Registered Aboriginal Parties
RES	Regional Environmental Staff
SES(H)	Senior Environmental Specialist (Heritage)
TL-RMD	Team Leader – Regional Maintenance Division
RMD	Regional Maintenance Delivery
RMS	Roads and Maritime
WS-RMD	Works Supervisor - Regional Maintenance Division

6. Overview of the procedure

On discovering something that could be an unexpected heritage item ('the item'), the following procedure must be followed. There are eight steps in the procedure. These steps are summarised in **Figure 1** below and explained in detail in Section 7.

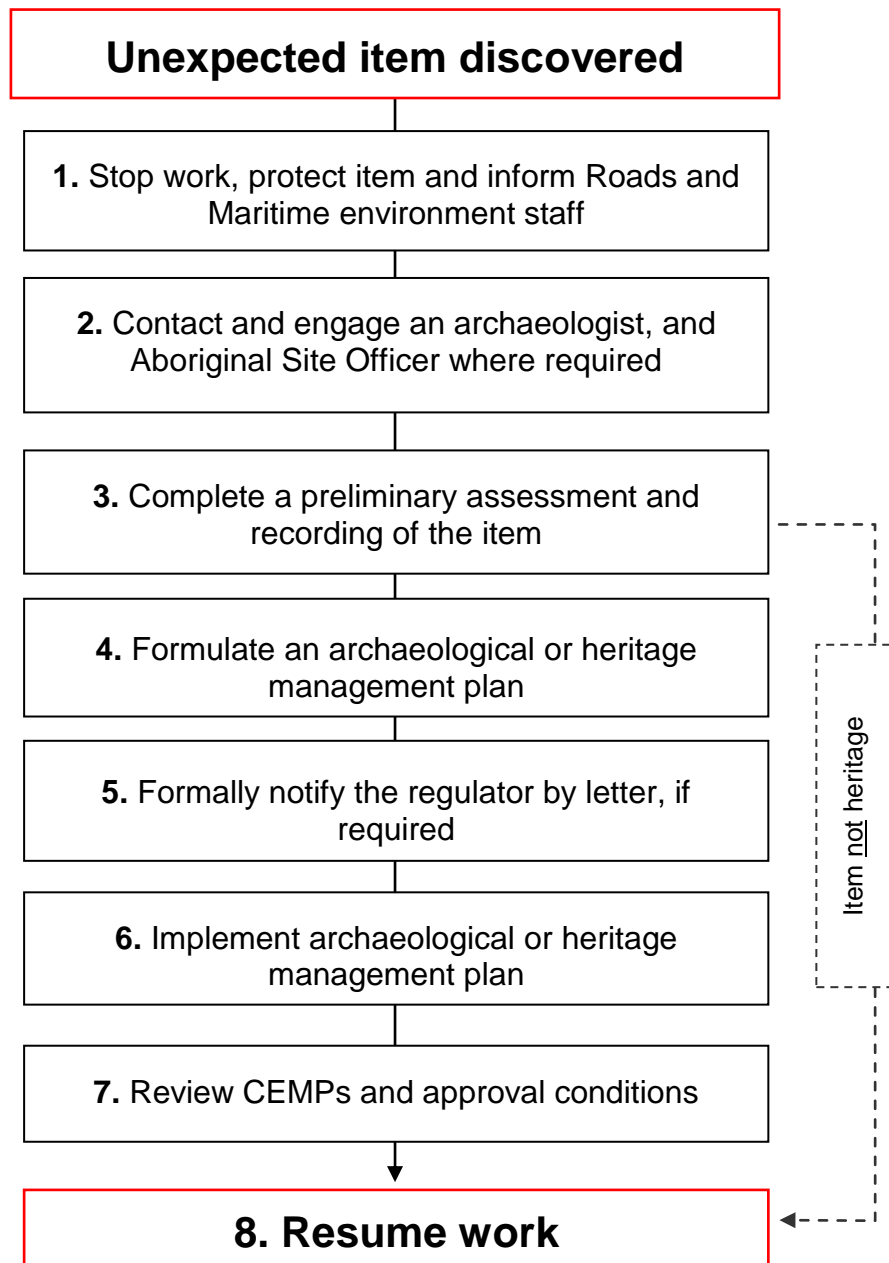


Figure 1: Overview of steps to be undertaken on the discovery of an unexpected heritage item.

IMPORTANT!

RMS may have approval or specific safeguards in place (apart from this procedure) to impact on certain heritage items during construction. If you discover a heritage item and you are unsure whether an approval or safeguard is in place, STOP works and follow this procedure.

7. Unexpected heritage items procedure

Table 1: Specific tasks to be implemented following the discovery of an unexpected heritage item.

Aboriginal Cultural Heritage Advisor (ACHA); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Regional Environment Staff (RES); Registered Aboriginal Parties (RAPs); Senior Environmental Specialist (Heritage) (SES(H)); Team leader – Roads and Maintenance Division (TL - RMD); Works supervisor – Roads and Maintenance Division (WS - RMD).

Step	Task	Responsibility	Guidance & Tools
1	Stop work, protect item and inform Roads and Maritime environment staff		
1.1	Stop all work in the immediate area of the item and notify the Project Manager or Team Leader-RMD. (For maintenance activities, the Team Leader is to also notify the Works Supervisor-RMD)	All	Appendix A (Identifying Unexpected Heritage items)
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical.	PM or TL-RMD	
1.3	Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.	PM or TL-RMD	
1.4	Inspect, document and photograph the item using 'Unexpected Heritage Item Recording Form 418'.	PM or TL-RMD	Appendix B (Unexpected Heritage Item Recording Form 418) Appendix C (Photographing Unexpected Heritage items)

Step	Task	Responsibility	Guidance & Tools
1.5	<p>Is the item likely to be bone?</p> <p>If yes, follow the steps in Appendix E – ‘Uncovering bones’. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site.</p> <p>If no, proceed to next step.</p>	PM or WS-RMD	Appendix E (Uncovering Bones)
1.6	<p>Is the item likely to be:</p> <p>a) A relic? (A relic is evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse) and/or</p> <p>b) An Aboriginal object? (An Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree).</p> <p>If yes, proceed directly to Step 1.8</p> <p>If no, proceed to next step.</p>	PM or WS-RMD	Appendix A (Identifying heritage items)
1.7	<p>Is the item likely to be a “work”, building or standing structure? (This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations).</p> <p>If yes, can works avoid further disturbance to the item? (E.g. if historic road base/tram tracks have been exposed, can they be left in place?) If yes, works may proceed without further disturbance to the item. Complete Step 1.8 within 24 hours.</p> <p>If works cannot avoid further disturbance to the item, works must not recommence at this time. Complete the remaining steps in this procedure.</p>	PM or WS-RMD	Appendix A (Identifying heritage items)

Step	Task	Responsibility	Guidance & Tools
1.8	Inform relevant Roads and Maritime Regional Environmental Staff of item by providing them with the completed 'Form 418'.	PM or WS-RMD (RES)	Appendix D (Key Environmental Contacts)
1.9	<p>Regional Environmental Staff to advise Project Manager or Works Supervisor whether RMS has an approval or safeguard in place (apart from this procedure) to impact on the 'item'. (An approval may include an approval under the <i>Heritage Act</i>, the <i>National Parks and Wildlife Act</i> or the <i>Planning and Assessment Act</i>).</p> <p>Does RMS have an approval, permit or appropriate safeguard in place to impact on the item?</p> <p>If yes, work may recommence in accordance with the approval, permit or safeguard. There is no further requirement to follow this procedure.</p> <p>If no, continue to next step.</p>		
1.10	Liaise with Traffic Management Centre where the delay is likely to affect traffic flow.	PM or WS-RMD	
1.11	Report the item as a 'Reportable Event' in accordance with the Roads and Maritime <i>Environmental Incident Classification and Reporting Procedure</i> . Implement any additional reporting requirements related to the project's approval and CEMP, where relevant.	PM or WS-RMD	RMS Environmental Incident Classification and Reporting Procedure
2	Contact and engage an archaeologist and, where required, an Aboriginal site officer		
2.1	<p>Contact the Project (on-call) Archaeologist to discuss the location and extent of the item and to arrange a site inspection, if required. The project CEMP may contain contact details of the Project Archaeologist.</p> <p>OR</p>	PM or WS-RMD (A; RES; SES(H))	Also see Appendix D (Key Environmental Contacts)

Step	Task	Responsibility	Guidance & Tools
	Where there is no project archaeologist engaged for the works, engage a suitably qualified and experienced archaeological consultant to assess the find. A list of heritage consultants is available on the RMS contractor panels on the Buyways homepage. Regional environment staff and Roads and Maritime heritage staff can also advise on appropriate consultants.		<u>Buyways</u>
2.2	Where the item is likely to be an Aboriginal object, speak with your Aboriginal Cultural Heritage Advisor to arrange for an Aboriginal Sites Officer to assess the find. Generally, an Aboriginal Sites Officer would be from the relevant local Aboriginal land council. If an alternative contact person (ie a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM or WS-RMD (ACHA; ASO)	
2.3	If requested, provide photographs of the item taken at Step 1.4 to the archaeologist, and Aboriginal Sites Officer if relevant.	PM or WS-RMD (RES)	Appendix C (Photographing Unexpected Heritage items)
3	Preliminary assessment and recording of the find		
3.1	In a minority of cases, the archaeologist (and Aboriginal Sites Officer, if relevant) may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (<i>eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i>). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.2	Arrange site access for the archaeologist (and Aboriginal Sites Officer, if relevant) to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	PM or WS-RMD	
3.3	Subject to the archaeologist's assessment (and the Aboriginal Sites Officer's assessment, if relevant), work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to	A/PM/ASO/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	reflect the extent of the newly assessed protective area. No works are to take place within this area once established.		
3.4	The archaeologist (and Aboriginal Sites Officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project (<i>eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'</i>). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Regional environment staff and/or Roads and Maritime heritage staff can provide contacts for such specialist consultants.	RES/SES(H)	Appendix D (Key Environmental Contacts)
3.6	Where the item has been identified as a 'relic', 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	A	
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist, Project Manager (or delegate) or Works Supervisor - RMD. Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A/WS-RMD	
4	Prepare an archaeological or heritage management plan		
4.1	The archaeologist must prepare an archaeological or heritage management plan (with input from the Aboriginal Sites Officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature, (b) historic context, if data is easily accessible, (c) likely significance, (d) heritage approval and regulatory notification requirements, (e) heritage reporting requirements, (f) stakeholder consultation requirements, (g) relevance to other project approvals and management plans etc.	A/ASO	Appendix F (Archaeological/ Heritage Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of regional environment staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (eg Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected item is consistent with previous heritage/project approval(s)	A/RES/PM	Appendix F (Archaeological/ Heritage Advice Checklist)

Step	Task	Responsibility	Guidance & Tools
	and/or previously agreed management strategies. The Project Manager and regional environment staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.		
4.3	The archaeologist must submit this plan as a letter, brief report or email to the Project Manager outlining all relevant archaeological or heritage issues. This plan should be submitted to the Project Manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the Project Manager.	A	
4.4	The Project Manager or Works Supervisor must review the archaeological or heritage management plan to ensure all requirements can reasonably be implemented. Seek additional advice from regional environment staff and Roads and Maritime heritage staff, if required.	PM/RES/SES(H)/ WS-RMD	
5	Notify the regulator, if required.		
5.1	Review the archaeological or heritage management plan to confirm if regulator notification is required. Is notification required? If no , proceed directly to Step 6 If yes , proceed to next step.	PM/RES/SES(H)/ WS-RMD	
5.2	If notification is required, complete the template notification letter.	PM or WS-RMD	Appendix G (Template Notification Letter)
5.3	Forward the draft notification letter, archaeological or heritage management plan and the site recording form to regional environment staff and Senior Environmental Specialist (Heritage) for review, and consider any suggested amendments.	PM/RES/SES(H)/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
5.4	Forward the signed notification letter to the relevant regulator (ie notification of relics must be given to the Heritage Division, Office of Environment and Heritage (OEH), while notification for Aboriginal objects must be given to the relevant Aboriginal section of OEH). Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Part 3A and Part 5.1 projects, the Department of Planning and Environment must also be notified.	PM or WS-RMD	Appendix D (Key Environmental Contacts)
5.5	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form should be kept on file by the Project Manager or Works Supervisor- RMD and a copy sent to the Senior Environmental Specialist (Heritage).	PM or WS-RMD	
6	Implement archaeological or heritage management plan		
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM or WS-RMD (RES)	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc, if required.	PM or WS-RMD (RAPs and RES)	PACHCI Stage 3
6.3	Where heritage approval is required contact regional environment staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/RES/WS-RMD	
6.4	For Part 3A/Part 5.1 projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. Seek advice from regional environment staff and Environment Branch specialist staff if unsure.	PM/RES	

Step	Task	Responsibility	Guidance & Tools
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM or WS-RMD	
6.6	Where statutory approval (or Part 3A/Part 5.1 project modification) is not required and where recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM or WS-RMD	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material is removed from site, where required. Interested third parties (eg museums or local councils) should be consulted on this issue. Contact regional environment staff and Senior Environmental Specialist (Heritage) for advice on this matter, if required.	PM or WS-RMD	
7	Review CEMPs and approval conditions		
7.1	Check whether written notification is required to be sent to the regulator before re-commencing work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator.	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (eg retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	
8	Resume work		
8.1	Seek written clearance to resume project work from regional environment staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and/or heritage recommendations (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	RES/A/PM/WS-RMD	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage	PM/A/WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.		
8.3	Forward all heritage/archaeological assessments, heritage location data and its ownership status to the Senior Environmental Specialist (Heritage). They will ensure all heritage items in Roads and Maritime ownership and/or control are considered for the Roads and Maritime S170 Heritage and Conservation Register.	PM/SES(H)/ WS-RMD	
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	PM/TL-RMD	

8. Seeking advice

Advice on this procedure should be sought from Roads and Maritime regional environment staff in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Regional environment staff can assist non-Roads and Maritime project environment managers with enquires concerning this procedure.

IMPORTANT!

Roads and Maritime Services staff and contractors are not to seek advice on this procedure directly from the Office of Environment and Heritage without first seeking advice from regional environment staff and heritage policy staff.

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage policy staff within Environment Branch to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

9. Related information

Contact details: Senior Environmental Specialist (Heritage), Environment Branch, 02 8588 5754

Effective date: 01 February 2015

Review date: 01 February 2016

This procedure should be read in conjunction with:

- Roads and Maritimes' *Heritage Guidelines 2015*.
- Roads and Maritime Services *Environmental Incident Classification and Reporting Procedure*
- Roads and Maritime's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*
- RTA *Environmental Impact Assessment Guidelines*.

This procedure replaces:

- Procedure 5.5 ("*unexpected discovery of an archaeological relic or Aboriginal object*") outlined in the RTA's *Heritage Guidelines 2004*.

Other relevant reading material:

- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains*.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains*.
- Department of Health (April 2008), *Policy Directive: Burials - exhumation of human remains*¹¹.

¹¹ http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008_022.pdf

10. List of appendices

The following appendices are included to support this procedure.

Appendix A	Identifying Unexpected Heritage items
Appendix B	Unexpected Heritage Item Recording Form 418
Appendix C	Photographing Unexpected Heritage Items
Appendix D	Key Environment Contacts
Appendix E	Uncovering Bones
Appendix F	Archaeological Advice Checklist
Appendix G	Template Notification Letter

Appendix A

Identifying unexpected heritage items

The following images can be used to assist in the preliminary identification of potential unexpected items (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.



Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).



Wood stave water pipe



Tram tracks



Retaining wall



Cistern

Top left hand picture continuing clockwise: Woodstave water pipe with tar and wire sealing (Horsley Drive); Tram tracks (Sydney); Brick lined cistern (Clyde); Retaining wall (Great Western Highway, Leura).



Top left hand picture continuing clockwise: Road pavement (Great Western Highway, Lawson); Sandstone kerbing and guttering (Parramatta Road, Mays Hill); Telford road (sandstone road base, Great Western Highway, Leura); Ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); Corduroy road (timber road base, Entrance Road, Wamberai).



Alignment pin



Survey tree



Alignment stone



Survey tree



Milestone



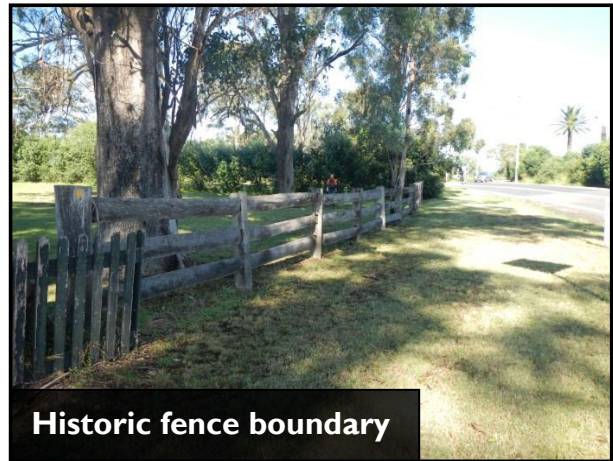
Top left hand corner continuing clockwise: Alignment Pin (Great Western Highway, Wentworth Falls); Survey tree (MR7, Albury); Survey tree (Kidman Way, Darlington Point, Murrumbidgee); Survey tree (Cobb Highway, Deniliquin); Milestone (Great Western Highway, Kingswood, Penrith); Alignment Stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.



Remnant Bridge Piers



Mine Shaft



Historic fence boundary



Dairy shed

Top left hand corner continuing clockwise: Remnant bridge piers (Putty Road, Bulga); Wooden boundary fence (Campbelltown Road, Denham Court); Dairy shed (Ballina); Golden Arrow Mine Shaft.



Top left hand corner: Culturally modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images show a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010.

Appendix B

Unexpected heritage item recording form 418



This form is to be filled in by a project manager (or their delegate) or a team leader – Road and Maintenance Division, on the discovery of an unexpected heritage item during construction or maintenance works.

Date:		Recorded by: (Include name and position)	
Project name:			
Description of works being undertaken (eg Removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).			
Description of exact location of item (eg Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney).			
Description of item found (What type of item is it likely to be? Tick the relevant boxes).			
A. A relic	<input type="checkbox"/>	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottles, utensils, plates, cups, household items, tools, implements, and similar items.	
B. A 'work, building or structure'	<input type="checkbox"/>	A 'work' can generally be defined as a form infrastructure such as tram tracks, a culvert, road base, a bridge pier, kerbing, and similar items.	
C. An Aboriginal object	<input type="checkbox"/>	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones.	
D. Bone	<input type="checkbox"/>	Bones can either be human or animal remains. Remember that you must contact the local police immediately by telephone if you are <u>certain</u> that the bone(s) are <u>human remains</u>.	
E. Other	<input type="checkbox"/>		

<p>Provide short description of item (eg Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).</p>	
<p>Sketch (Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken).</p>	
<p>Action taken (Tick either A or B)</p>	
<p>A. Unexpected item would not be further impacted on by works <input type="checkbox"/></p>	
<p>Describe how works would avoid impact on the item. (eg The tram tracks will be left <i>in situ</i>, and recovered with road paving).</p>	
<p>B. Unexpected item would be further impacted on by works <input type="checkbox"/></p>	
<p>Describe how works would impact on the item. (eg Milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Tram tracks will need to be removed).</p>	
<p>Important: It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought. Approvals may also be required to impact on certain works. Contact your regional environment staff for guidance.</p>	
<p>Project manager / works supervisor signature</p>	

Appendix C

Photographing unexpected heritage items

✋ Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.

Photographs of unexpected items in their current context (*in situ*) may assist heritage staff and archaeologists to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add much value to the subsequent detailed photographs also required (Figure 2).

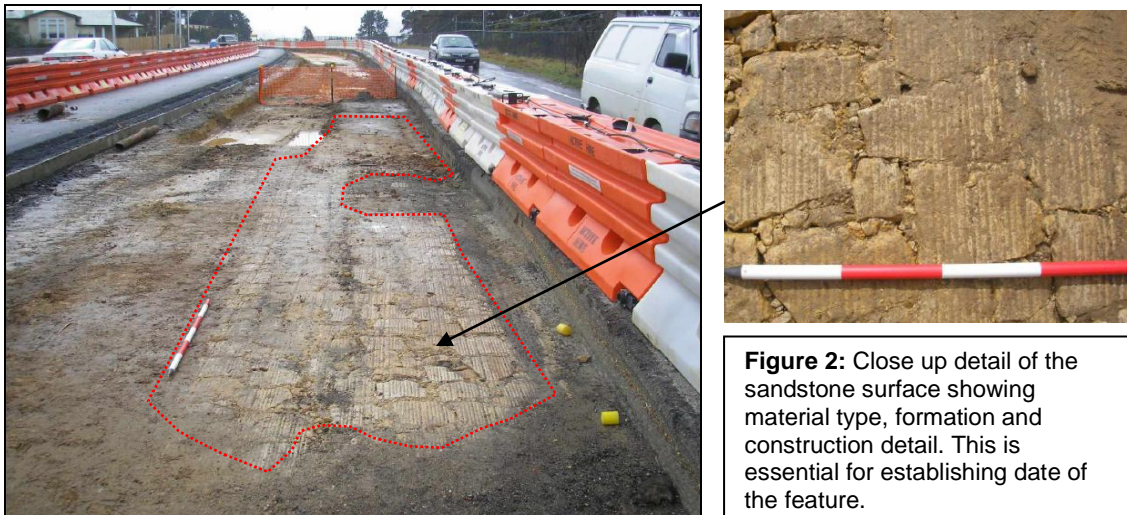


Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008.

Photographing distinguishing features

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of this, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 for examples.



Figure 3: Ceramic bottle artefact with stamp.

Figure 4: Detail of the stamp allows 'Tooth & Co Limited' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, Roads and Maritime must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment Branch can confirm if bones are human or non-human if provided with appropriate photographs. Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.



Figure 5: Bone concealed by foliage.



Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.



Figure 7: Photograph showing complete bone.



Figure 8: Close up of a long bone's epiphysis.

Appendix D

Key environmental contacts

Hunter region	Environmental Manager (Hunter)	4924 0440
	Aboriginal Cultural Heritage Advisor	4924 0383
Northern region	Environment Manager (North)	6640 1072
	Aboriginal Cultural Heritage Advisor	6604 9305
Southern region	Environmental Manager (South)	6492 9515
	Aboriginal Cultural Heritage Advisor	4221 2767
South West region	Environment Manager (South West)	6937 1634
	Aboriginal Cultural Heritage Advisor	6937 1647
Sydney region	Environment Manager (Sydney)	8849 2516
	Aboriginal Cultural Heritage Advisor	8849 2583
Western region	Environment Manager (West)	6861 1628
	Aboriginal Cultural Heritage Advisor	6861 1658
Pacific Highway Office	Environment Manager	6640 1375
Regional Maintenance Delivery	Environment Manager	9598 7721
Environment Branch	Senior Environmental Specialist (Heritage)	8588 5754

Heritage Regulators

Heritage Division Office of Environment and Heritage Locked Bag 5020 Parramatta NSW 2124 Phone: (02) 9873 8500	Department of the Environment (Clth) GPO Box 787 Canberra ACT 2601 Phone: (02) 6274 1111
Office of Environment and Heritage (Sydney Metropolitan) Planning and Aboriginal Heritage Section PO Box 668 Parramatta NSW 2124 Phone: (02) 9995 5000	Office of Environment and Heritage (North Eastern NSW) Planning and Aboriginal Heritage Section Locked Bag 914 Coffs Harbour NSW 2450 Phone: (02) 6651 5946
Office of Environment and Heritage (North Western NSW) Environment and Conservation Programs PO Box 2111 Dubbo NSW 2830 Phone: (02) 6883 5330	Office of Environment and Heritage (Southern NSW) Landscape and Aboriginal Heritage Protection Section PO Box 733 Queanbeyan NSW 2620 Phone: (02) 6229 7188

Project-Specific Contacts

Position	Name	Phone Number
Project Manager		
Site/Alliance Environment Manager		
Regional Environmental Officer		
Aboriginal Cultural Heritage Advisor		
Consultant Archaeologist		
Local Police Station		
OEH: Environment Line		131 555

Appendix E

Uncovering bones

Hand icon All matters relating to uncovering bones and RMS' human remains notification obligations should involve RMS regional environment and heritage staff. They will guide Project Managers through occurrences of uncovering bones.

This appendix provides Project Managers with advice (1) on what to do on first uncovering bones (2) the range of human skeletal notification pathways and (3) additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting regional environment staff and/or heritage staff at Environment Branch.

On the very rare occasion where it is *instantly obvious* from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.

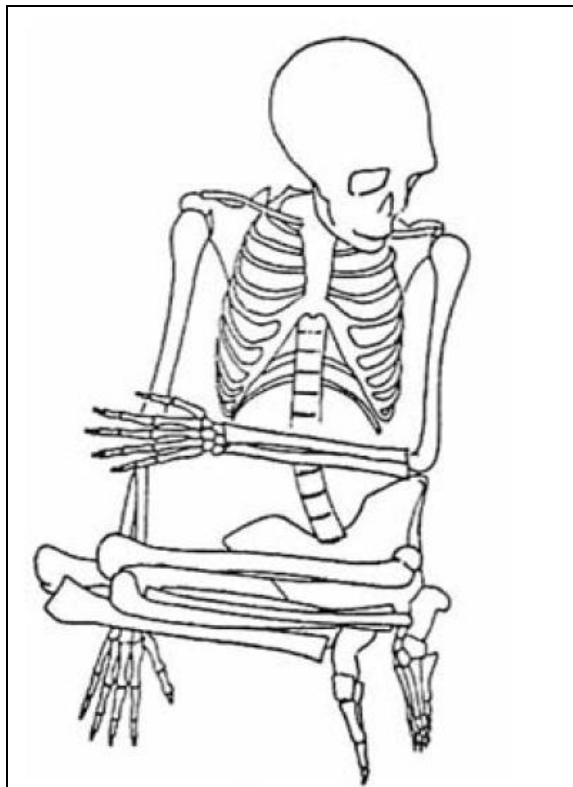


Figure 1: Schematic of a complete skeleton that is 'obviously' human¹².



Figure 2: Disarticulated bones that require assessment to determine species.

¹² After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains*: 17.

This preliminary phone call is to let the police know that Roads and Maritime is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix C. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the Project Manager or regional environment staff is considered appropriate. This must be followed up later by Roads and Maritime's formal letter notification as per Appendix G when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

A. Human bones are from a recently deceased person (*less than 100 years old*).

Action

A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed.

B. Human bones are archaeological in nature (*more than 100 years old*) and are likely to be **Aboriginal** remains.

Action

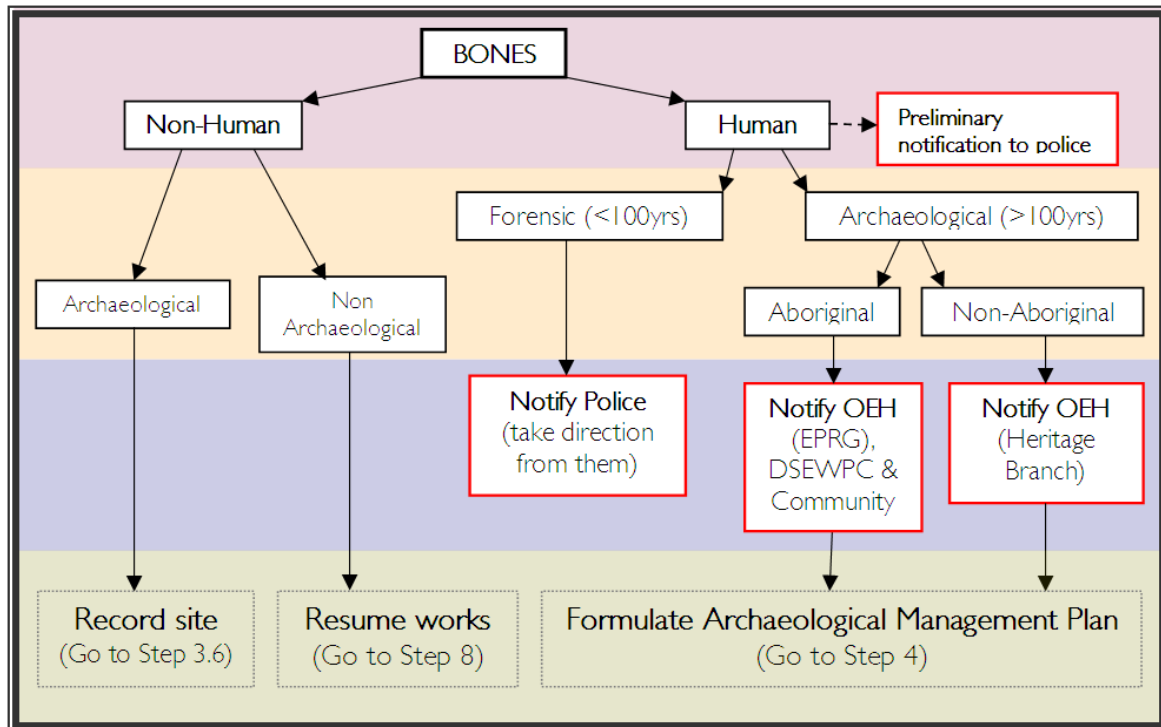
The OEH and the RMS Aboriginal Cultural Heritage Advisor (ACHA) must be notified immediately. The ACHA must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by the RTA's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.

C. Human bones are archaeological in nature (*more than 100 years old*) and likely to be **non-Aboriginal** remains.

Action

The OEH (Heritage Branch, Conservation Team) must be notified immediately.

The simple diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the Project Manager must proceed through the *Unexpected Heritage Items Procedure* to formulate an archaeological management plan (Step 4). Note no archaeological management plan is required for forensic cases (A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Roads and Maritime's ACHA can provide advice on this and how to engage with the relevant Aboriginal community. Project Managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Roads and Maritime is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)¹³. Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health [website](#).

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are

¹³ This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

Appendix F

Archaeological/heritage advice checklist

The archaeologist must advise the Project Manager of an appropriate archaeological or heritage management plan as soon as possible after site inspection (see Step 4). An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance. In discussions with the archaeologist the following checklist can be used by the Project Manager and the archaeologist as a prompt to ensure all relevant archaeological issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly and in the right direction. Archaeological and/or heritage advice on how to proceed can be received in a letter or email outlining all relevant archaeological and/or heritage issues.

	Required	Outcome/notes
Assessment and investigation		
• Assessment of significance	Yes/No	
• Assessment of heritage impact	Yes/No	
• Archaeological excavation	Yes/No	
• Archival photographic recording	Yes/No	
Heritage approvals and notifications		
• AHIPs, Section 140, S139 exceptions etc	Yes/No	
• Regulator relics/objects notification	Yes/No	
• Roads and Maritime's S170 Heritage and Conservation Register listing requirements	Yes/No	
• Compliance with CEMP or other project heritage approvals	Yes/No	
Stakeholder consultation		
• Aboriginal stakeholder consultation requirements and how it relates to RTA <i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI)</i> .	Yes/No	
• Advice from regional environmental staff, Aboriginal Cultural Heritage Advisor, Roads and Maritime heritage team.	Yes/No	
Artefact/ heritage item management		
• Retention or conservation strategy (eg items may be subject to long conservation and interpretation) • Disposal strategy (eg former road pavement) • Short term and permanent storage locations (interested third parties should be	Yes/No	

Roads & Maritime Services

consulted on this issue).		
• Control Agreement for Aboriginal objects.	Yes/No	
Program and budget		
• Time estimate associated with archaeological or heritage conservation work.		
• Total cost of archaeological/heritage work.		

Appendix G

Template notification letter

[Select and type date]

[Select and type reference number]

[Select and type file number]

[Insert recipient's name and address, see **Appendix D**]

[Select and type salutation and name],

Re: Unexpected heritage item discovered during Roads and Maritime Services project works.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Roads and Maritime Services construction works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: Section 146 of the *Heritage Act 1977* (NSW) or Section 89(A) of the *National Parks and Wildlife Act 1974* (NSW)] **NB:** There may be not be statutory requirement to notify of the discovery of a 'heritage Item that is not a relic or Aboriginal object].

NB: On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities (SEWPC) in accordance with notification requirements under Section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the item, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (eg Part 5). Also include any project approval number, if available].

Roads and Maritime Services [or contractor] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Roads and Maritime Services [or contractor] is proposing [provide a summary of the proposed archaeological/heritage approach (eg develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]

[Attach the archaeological/heritage management plan and site recording form].

Appendix C

Archaeological Salvage Status Register

Status of archaeological investigations

Name	Approximate Chainage	Management Measure	Investigation commenced (Y/N)	Salvage complete (Y/N)	Salvage Report received
Section 3					
Picaninny Creek	33000 - 35000	Survey	Y	N	Desktop study only at this stage. Methodology to survey the area has been developed.
WX2I Site 7 (09-4-0107): Site – Artefact scatter	58500	Inspection and Collection	Y	Y	Clearance letter received 16 October 2014 from RPS
WX2I Site 6 (09-4-0106): Site – Isolated artefact	58580	Inspection and Collection	Y	Y	Clearance letter received 16 October 2014 from RPS
WX2I Site 5 (09-4-0105): Site – Isolated artefact	60500	Inspection and Collection	Y	Y	Clearance letter received 16 October 2014 from RPS
WX2I Site 4 (09-4-0104): Site – Artefact scatter	61050	Salvage within road corridor but not outside	Y	Y	Clearance letter received 16 October 2014 from RPS
WX2I Site 8 (09-4-0108): Site – Artefact scatter	41500	Outside the road corridor – affects the use of ancillary site Section 3 Site 3b (19)	N	N	
Upper Coldstream 1 (13-4-0182): Site – Isolated artefacts	62000	Outside the road corridor	N	N	
Chaffin Creek 2	52500	Exclusion fencing	Y	Y	Clearance letter received 16 October 2014 from RPS
Section 4					
Ancillary Site 4-1	69250	Investigation	Y	Y	Report 12 June 2015 received identifying presence of bora ring and exclusion zone required around area. Consistency review required as area proposed for use does not match with areas identified as ancillary site Section 4 site 1 (29)

Name	Approximate Chainage	Management Measure	Investigation commenced (Y/N)	Salvage complete (Y/N)	Salvage Report received
Tyndale 2 (13-4-0177): Site – Artefact scatter	69600	Collection Salvage	Y	Y	Clearance letter received 27 July 2015 from RPS
Shark Creek Site 2 (13-4-0170): Site – Artefact scatter		Salvage	Y	Y	Clearance letter received 16 October 2014 from RPS
Hirst 1 (13-1-0206): Site – Isolated artefact	78200	Collection	Y	Y	Clearance letter received 6 July 2015 from RPS
Hirst 2 (13-1-0185): Site – Isolated artefact	77600	Collection	Y	Y	Clearance letter received 12 February 2015 from RPS
Hirst 3 (13-1-0192): Site – Artefact scatter	78250	Salvage	Y	Y	Clearance letter received 6 July 2015 from RPS
Section 6					
Mororo Road Design Change	98000	Inspection	Y	N	Survey Report received 6 August 2015. No significant scientific heritage issues or considerations which preclude construction.
Section 7					
IR2W1 (13-1-0114): Site – Isolated artefact	101500	Collection	N	N	
New Italy 1 (Dubaijeen Site) (Not registered): Site – Artefact scatter	121500	Salvage Exclusion zone	Y	Y	Clearance letter received 3 July 2015 from Navin Officer
The Gap 1 (13-1-0194): Site – Artefact scatter	125250	No action – outside project area	N	N	
Section 8					
IR2W2 (13-1-0112): Site – Artefact scatter	127700	Collection	Y	Y	Clearance letter received 3 July 2015 from Navin Officer
IR2W3 (13-1-0113): Site – Isolated artefact	128000	Collection	Y	Y	Clearance letter received 3 July 2015 from Navin Officer
IR2W4 (13-1-0115): Site – Artefact scatter	128500	Salvage	Y	Y	Clearance letter received 3 July 2015 from Navin Officer

Name	Approximate Chainage	Management Measure	Investigation commenced (Y/N)	Salvage complete (Y/N)	Salvage Report received	
Gittoes Jali (09-1-0204, 09-1-0205, 09-1-0203): Site – Artefact scatter, paint wells, ground stone, scarred tree	134900	Where possible, reduce or avoid Collection Salvage	Y	September 2015		
Gittoes Jali 3 (Not registered): Site – Isolated artefact		Remove				
Section 9						
Site 11 (13-1-0189): Site – Artefact scatter	Phase 1	143500 – 144000	Collection Salvage	Y Y	Y October 2015	December 2016 December 2016
	Phase 2					
E2/2 (13-1-0109): Site – Artefact scatter, shell midden	144000 – 145000	Collection Salvage	Y	November 2015	Will depend on access to Byrne property	
Cook Hill 1 (Not-registered): Site – Artefact scatter		Salvage Exclusion zone	N	N	No salvage action required – SOC relating to Aboriginal history package needed	
Section 10						
Gumi Site (04-4-0180): Site – Possible scarred tree	146100	Relocate	N	N	Site for relocation to be determined by PC	
Melino Site (04-4-0173): Site – Artefact scatter, shell midden	146400 - 146600	Collection Salvage Exclusion	Y	Y	Clearance letter received 3 July 2015 from Navin Officer	
Melino Artefact Collection (Not-registered): Site – Artefact scatter		Collection	Y	Y	Clearance letter received 3 July 2015 from Navin Officer	
Melino Artefact Scatter (Not registered): Site – Artefact scatter		Collection	Y	Y	Clearance letter received 3 July 2015 from Navin Officer	

Name	Approximate Chainage	Management Measure	Investigation commenced (Y/N)	Salvage complete (Y/N)	Salvage Report received
Site 2 (04-4-0178): Site – Artefact scatter	150400 – 150900	Collection Salvage	Y	November 2015	
Site 3 (04-4-0175): Site – Artefact scatter	150500	Collection Salvage	Y	November 2015	
Site 4 (04-4-0132): Site – Artefact scatter	152500	Salvage	Y	Y	Site Clearance letter required
Site 1 (04-4-0179): Site – Artefact scatter	156000	Collection Salvage	N	December 2015	
Rudgley Site 2 (04-4-0169): Site – Artefact scatter	157000 – 157200	Collection / Salvage	Y	October 2015	
Rudgley Site 1A and 1B (04-4-0167): Site – Artefact scatter	157300 - 157400	Collection	Y	Y	Clearance letter received for 1B 3 July 2015 from Navin Officer. Still need clearance letter for 1A
Section 11					
Saezza 1 (04-4-0171): Site – Artefact scatter	157700	Salvage/ fencing/ protection	Y	N	
Site 12 (04-4-0176): Site – Artefact scatter	158500	Salvage within the project boundary		December 2015	
Ancillary Site 11-1a	159500 – 159900	Investigation	Y	Y	Secretary approval to use site received on 20 July 2015

Status of non-aboriginal investigations

Name	Approximate Chainage	Management Measure	Investigation commenced (Y/N)	Salvage complete (Y/N)	Report received (Y/N)
Section 3					
Residence		Location and condition of mature bunya trees recorded by an arborist Fencing Architectural noise treatment developed in consultation with heritage specialist Detailed Statement of Heritage Impact prepared incorporating the Arborist Report in regards to the bunya tree.	Y	N	Arborist report undertaken but report not yet finalised. Fencing and architectural treatment to be undertaken by PC
Section 4					
Punt and former Ashby ferry		Photographic condition survey Loose or unstable components secured Directional signage			To be undertaken by PC
Residence		Architectural noise treatment developed in consultation with heritage specialist Detailed Statement of Heritage Impact prepared			To be undertaken by PC
Section 5					
Convent	80700	Archival photographic recording Investigate feasibility of relocation			Archival recording undertaken – report not yet received. Consultation with community about relocation still required.
Section 7					
New Italy Settlement Landscape (including	120000	Photographic condition survey Dust monitoring Fencing	August 2015		Archival recording undertaken but report not yet received.

Name	Approximate Chainage	Management Measure	Investigation commenced (Y/N)	Salvage complete (Y/N)	Report received (Y/N)
Historic New Italy Village Area)		Directional signage Archival photographic recording Dilapidation survey Salvage – Roder's Well Location and condition of each mango tree recorded by an arborist If remains found, follow unexpected finds procedure			Salvage of Roders Well not yet undertaken, planned for future. Arborists report received of orchard but not yet finalised. Fencing, signage, dilapidation survey to be undertaken by PC
Section 9					
Maloney property		Archival photographic recording Architectural noise treatment developed in consultation with heritage specialist and detailed Statement of Heritage Impact prepared			Archival recording undertaken but report not yet received. PC to undertake architectural noise treatment
Byrne property	144800	Archival photographic recording Salvage Brick-lined well retained in situ and protected Photographic condition survey Detailed assessment of vibration impacts Fencing	November 2015		Access not yet possible to Byrne Property for archival recording, salvage. Assessment of vibration impacts and fencing by PC
Section 10					
'Stonehenge' property		Archival photographic recording Architectural noise treatment developed in consultation with heritage specialist Detailed Statement of Heritage Impact prepared			Archival recording undertaken but report not yet received. PC to undertake architectural noise treatment